



Unit 7

Novel Study:
**The Science of
Breakable Things**



Grade 5

Unit 7

Novel Study: The Science of Breakable Things

Teacher Guide

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Welcome to Amplify CKLA

Dear Educator,

I am thrilled to welcome you to your Amplify CKLA 3rd Edition Teacher Guide.

At Amplify, we are dedicated to collaborating with educators like you to create learning experiences that support literacy development for all students. Amplify CKLA was designed to help you bring effective Science of Reading practices to life in your classroom, and we have been thrilled to see the impact it has had on students across the country.

The 3rd Edition builds on the robust principles and instruction of previous editions of Amplify CKLA to provide better-than-ever support for teaching and learning.

We've made significant improvements to Amplify CKLA in the areas you told us mattered most. In 3rd Edition, you will find more opportunities for differentiation to meet the needs of all learners—including multilingual/English learners—streamlined pacing, and bolstered writing instruction based on the science of reading and writing.

At its foundation, Amplify CKLA is built on the finding that word recognition and language comprehension are both critical to reading comprehension and writing composition.

In Grades 3–5, Amplify CKLA lessons combine skills and knowledge in content-driven units with increasingly complex texts, close reading, and a greater writing emphasis. Students start to use their skills to go on their own independent reading and writing adventures.

I know how overwhelming it can feel to start a new curriculum, but you are not alone! As you embark on this literacy journey with Amplify CKLA, we are here to support. We offer comprehensive professional development resources, including videos, podcasts, webinars, and virtual and in-person training, to help you make the shift to the Science of Reading.

We share the common belief that every child deserves to become a proficient, enthusiastic reader and writer, and I am confident that we can realize this goal together. Thank you for your unwavering commitment to your students' success and for your role in shaping the future of literacy instruction.

Sincerely,

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AmplifyCKLA

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Educators across the country who have provided essential feedback on previous editions of CKLA, helping us to make the program better for teachers and students.

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Introduction

NOVEL STUDY: THE SCIENCE OF BREAKABLE THINGS

This introduction provides information and context for teaching lessons based on the engaging, award-winning novel *The Science of Breakable Things*. The Teacher Guide contains sixteen daily lessons and two Pausing Point days. Each lesson will require a total of 90 minutes. Lesson 16 contains the Unit Assessment based on reading comprehension, literary understanding, and writing instruction.

As noted, two days are intended to be used as Pausing Point days. These Pausing Points are found at the end of the unit, after the Unit Assessment. Pausing Points can be used to focus on content understanding, writing, and reading.

TEACHER COMPONENTS

- Teacher Guide
- Copy of novel *The Science of Breakable Things* by Tae Keller (ISBN 978-1524715694)

DIGITAL TEACHER COMPONENTS

These resources can be found at learning.amplify.com:

- Teacher Presentation Screens
- Visual Supports for Teaching
- General English Learners
- Assessment Guide: Unit Assessments
- Caregiver Letter
- Fluency Supplement
- Decoding and Encoding Remediation Guide
- Intervention Toolkit

STUDENT COMPONENTS

- Copy of novel *The Science of Breakable Things* by Tae Keller (ISBN 978-1524715694) (one per student)
- Activity Book

Note: Students may need computer access if you choose to have them publish their narratives digitally.

In the back of this Teacher Guide there is a section titled Teacher Resources, where you will find the following:

- Activity Book Answer Key

WHY THIS UNIT IS IMPORTANT

The Science of Breakable Things by Tae Keller is a middle-grade novel about a seventh grader, Natalie, and her attempts to win an egg drop contest (and its prize money) to obtain a rare Cobalt Blue Orchid for her mother. Natalie navigates the challenges of family relationships, friendships, failure, and continuing to persevere through difficult times. Natalie learns that she can't always protect breakable things in her life, such as eggs and hearts, but that it is important not to give up and to continue asking questions. As students progress through this engaging novel, they will explore narrative writing with an emphasis on structural elements. Students will study the techniques authors use to create great works of literature. This novel study will prepare students to interpret and write their own fictional narratives. In addition, it offers numerous opportunities for exploring science content, such as botany and physics.

As the unit progresses, students will develop their reading, writing, and speaking and listening skills. Each lesson offers opportunities for students to practice standards-based skills with activities that are designed for engagement, differentiation, and collaboration.

Note: *The Science of Breakable Things* includes references to depression. Please work as needed with your school leaders to decide how to address this topic.

WHAT STUDENTS HAVE ALREADY LEARNED

The following domains, and the specific core content that was targeted in those domains, are particularly relevant to the novel *The Science of Breakable Things*. This background knowledge will greatly enhance students' understanding of the novel:

- Kindergarten, *See How They Grow: Plants*
- Kindergarten, *Underdogs and Heroes: Stories*
- Grade 1, *The Moral of the Story: Fables and Tales*
- Grade 1, *Common Threads: Different Lands, Similar Stories*
- Grade 1, *Once Upon a Time: Fairy Tales* (optional)
- Grade 1, *Adventure Stories: Tales from the Edge*
- Grade 2, *Fortunes and Feats: Fairy Tales and Tall Tales*
- Grade 2, *Legends and Heroes: Greek Myths*
- Grade 2, *Our Planet: Cycles in Nature*
- Grade 3, *Timeless Tales: Classic Tales*
- Grade 3, *Novel Study: Charlotte's Web* (optional)
- Grade 3, *Novel Study: Stella Díaz Has Something to Say* (optional)
- Grade 3, *From Glow to Echo: Light and Sound* (optional)
- Grade 4, *My Story, My Voice: Personal Narratives*
- Grade 4, *Eureka! Student Inventor*
- Grade 4, *Novel Study: From the Mixed-Up Files of Mrs. Basil E. Frankweiler* (optional)
- Grade 4, *Novel Study: The Season of Styx Malone* (optional)
- Grade 5, *In My Own Words: Personal Narratives*

CORE VOCABULARY

The following list contains core vocabulary words from the unit. They can be found in the Vocabulary section at the beginning of each lesson. Boldfaced words in the list have an associated Word Work activity. The inclusion of the words on this list does not mean that students are immediately expected to be able to use all these words on their own. However, through repeated exposure throughout the lessons, they should acquire a good understanding of most of these words and begin to use some of them in conversation.

Lesson 1 baffles valid grimaced pretense fatigue amicably	Lesson 2 gist homeostasis crumpled naive cobalt brink	Lesson 3 funding hybrid meiosis chromosomes
Lesson 4 bleary MIA velocity procedure	Lesson 5 haphazardly archnemesis indecipherable vaguely gaped perennial imposter	Lesson 6 gibberish siphon sarcastic analyst
Lesson 7 spontaneously flushed sued	Lesson 8 clutching averted arboretum Bollywood precise	Lesson 9 figurine oblivious depressed dduk toxins
Lesson 10 beaming impact enunciating ramble sappy morphed	Lesson 11 wilted giddy travesty lurching etched loomed rummaged	Lesson 12 anomaly utter properties graft incomprehensible
Lesson 13 indefinitely intrigued		

WRITING

In this unit, students will be planning, drafting, revising, editing, publishing, and presenting a fictional narrative (Lessons 10–15). Students will write an alternate ending to the novel that shows what would have happened if Natalie, Dari, and Twig had won the egg drop contest.

The following activities may be added to students' writing portfolios to showcase student writing within and across domains:

- draft of fictional narrative (Lesson 13)
- final copy of fictional narrative (Lesson 15)

UNIT ASSESSMENT



Digital Assessment

This unit includes a Unit Assessment for each student to complete digitally.

The digital assessment evaluates students in the skills and concepts covered in *Novel Study: The Science of Breakable Things*, including vocabulary, grammar and morphology, comprehension skills, and content knowledge. The assessment

will provide meaningful data and reports on students' progress, along with recommendations to support them based on their learning needs.

This assessment is a variation of the Unit Assessment found in the Teacher Guide. To access it, please log onto the Amplify platform and assign it to your students. If your students are unable to access the assessment digitally, you may wish to use the Unit Assessment provided in the Teacher Guide and direct them to complete the corresponding student assessment pages.

Print

The Unit Assessment in Lesson 16 evaluates each student's learning of the content, reading skills, and language skills taught throughout the unit. This assessment can be found in the Teacher Guide. The student pages are in the Assessment Guide: Unit Assessments booklet to print or make copies for each student.

Observe and Question

PRIMARY FOCUS OF LESSON

Reading

Students will describe characters and their relationships in the novel, noting their observations using a note-taking tool. [RL.5.1]

Students will analyze the structure, perspective, and point of view used in the novel. [RL.5.5, RL.5.6]

Students will demonstrate an understanding of the Tier 2 word *valid*. [L.5.4]

Writing

Students will write a short description of a character from the novel using their noted observations. [W.5.2]

FORMATIVE ASSESSMENT

Activity Page 1.1

Activity Page 1.2

Character Observations Chart Students will describe characters and their relationships. [RL.5.1]

Character Descriptions Students will write a short character description using their noted observations. [W.5.2]



Teacher Presentation Screens:
all lessons include slides

LESSON AT A GLANCE

	Grouping Recommendations	Time	Materials
Reading (70 min.)			
Core Connections: Introduce <i>The Science of Breakable Things</i>	Whole Group	10 min.	<input type="checkbox"/> <i>The Science of Breakable Things</i> <input type="checkbox"/> Activity Page 1.1 <input type="checkbox"/> Visual Support 1.1
Reading: Assignments 1–3	Whole Group/ Independent	50 min.	
Perspective and Point of View	Whole Group	5 min.	
Word Work: <i>Valid</i>	Whole Group	5 min.	
Writing (20 min.)			
Character Descriptions	Independent	20 min.	<input type="checkbox"/> Activity Page 1.2
Take-Home Material			
Caregiver Letter			<input type="checkbox"/> Caregiver Letter

ADVANCE PREPARATION

Reading

- Prepare to distribute and introduce the novel *The Science of Breakable Things* by Tae Keller. Ensure each student has a copy of the novel.
- Prepare loose leaf paper for students to use in responding to a prompt.
- Write the following questions on the board in preparation for the sentence summary activity:
 - Who or what?
 - Did what?
 - When?
 - Where?
 - Why?
 - How?

➤ Visual Support 1.1

- Draw or prepare to project Visual Support 1.1.

Universal Access

Reading

- To ensure all students have the opportunity to contribute during Think-Pair-Share exchanges, provide students with a signal such as folding their hands or raising a hand to indicate when both partners have added to the conversation.

Writing

- Prepare an example character description paragraph or use the example provided.

VOCABULARY

Core Vocabulary

- You may choose to preview the vocabulary words before reading the text.

baffles, v. completely confuses

valid, adj. justifiable or based on truth or fact

grimaced, v. twisted a face as in disgust or pain

pretense, n. a fiction or false show of something

fatigue, n. exhaustion or weariness

amicably, adv. kindly, agreeably, or with goodwill

Vocabulary Chart for “Assignments 1–3”

Type	Tier 3 Domain-Specific Words	Tier 2 General Academic Words	Tier 1 Everyday Speech Words
Vocabulary		baffles valid grimaced pretense fatigue amicably	
Spanish Cognates		válido/a pretensión fatiga	
Multiple-Meaning			
Sayings and Phrases			

Lesson 1: Observe and Question

Reading




Primary Focus

Students will describe characters and their relationships in the novel, noting their observations using a note-taking tool. [RL.5.1]

Students will analyze the structure, perspective, and point of view used in the novel. [RL.5.5, RL.5.6]

Students will demonstrate an understanding of the Tier 2 word *valid*. [L.5.4]

CORE CONNECTIONS: INTRODUCE *THE SCIENCE OF BREAKABLE THINGS* (10 MIN.)

- Distribute the novel *The Science of Breakable Things* by Tae Keller.
- Tell students that they will be reading a novel in this unit. Ask students to recall the characteristics of a novel and share the title of other novels they have read. You may remind students of novels they have read in previous grades.
- Ask students to look at the front cover of the book. Then give them a minute to read the short summary on the back cover.
-  **Think-Pair-Share:** Ask students to turn to a partner and discuss what they think the book will be about. Remind students to signal when both partners have contributed to the conversation.
 - » Answers may vary, but could include that the novel will be about a student entering an egg drop competition in order to win enough money to fly her mother to see a rare species of orchid.
- Ask for volunteers to share what they discussed with their partners.

READING: ASSIGNMENTS 1–3 (50 MIN.)

- Remind students that they studied poems earlier in the year. Ask them what words describe the parts that make up the structure of a poem.
 - » lines, stanzas
- Ask students what word describes the parts that make up the structure of a novel.
 - » chapters

- Have students flip through the novel and ask them what they notice about the chapter titles in this book.
 - » Answers may vary, but students should realize there are “steps” separating the book into sections and that the chapters are called “Assignments.”
- Ask students why they think this novel is separated into steps and assignments. Where else would they expect to see those labels?
 - » Answers may vary, but could include that the same labels may show up in a science experiment, school project, etc.
- Ask students to predict how the novel will relate to assignments.
 - » Answers may vary but may include that the title includes the word *science* and is about a student entering an egg drop competition, so the novel discusses assignments for science class or the competition.
- Tell students they will now begin the novel and that they should listen to find out if their predictions were right.
- Ask students to turn to “Assignment 1: Observe Your Surroundings,” the first chapter in the novel.
- Begin reading “Assignment 1: Observe Your Surroundings” aloud to the students. Have students follow along while you read.
- Pause at the end of the chapter. Have students turn to the page just before Assignment 1 that says “Step 1: Observe.”
- Ask students what they notice about the page and its illustrations. Why do they think the page is set up this way?
 - » Answers may vary, but they could include that the page is illustrated to look like a composition notebook page and it includes an illustration of empty flower pots at the bottom of the page. It might be set up this way because the novel is structured to be written like Natalie’s scientific observations journal.
- Have students turn to the page just before Assignment 2 that says “Step 2: Question.”
- Ask students what they notice about the page and its illustrations. What is different between the Step 1 and Step 2 pages?
 - » Answers may vary, but they could include that the page is also illustrated to look like a composition notebook page and also includes an illustration of flower pots, but that these flower pots have little sprouts beginning to grow in them.
- Have students turn to page 5 in the novel. Ask them what they notice at the bottom of the page.
 - » There is a line at the bottom of the page with a number 1 followed by a sentence.

- Tell students that this device is called a footnote. Footnotes can be used in many different ways, but in this novel, they are used to insert explanations or additional information to the narrative.
- Tell students that footnotes are often used in scientific or academic papers. Ask them why they think the author chose to use them in a novel.
 - » Answers may vary, but they could include that this novel is structured to be written like Natalie's scientific observations journal.
- Ask students who the narrator of the novel is and how they know her name.
 - » Natalie Napoli; they know her name because she titles her observations list "Natalie Napoli's Scientific Observations."
- Point to the questions you wrote on the board. Ask students to aid you in writing a one sentence summary of Assignment 1, using "Natalie" as the "Who or what." Answers may vary, but an example sentence summary follows:
 - Who or what?
 - » Natalie
 - Does what?
 - » begins her scientific observations journal
 - When?
 - » on the first day of school
 - Where?
 - » in class
 - Why?
 - » Mr. Neely assigned it as a year-long homework project.
 - How?
 - » working on her observations instead of paying attention to the lesson
 - Final sentence:
 - » On the first day of school, Natalie begins her scientific observations journal, which was assigned by Mr. Neely as a year-long homework project, in class instead of paying attention to the lesson.
- Ask students to name other characters mentioned in this chapter.
 - » Mr. Neely, Mikayla Menzer, Twig
- Have students turn to Activity Page 1.1. Explain that they will use this note-taking tool to observe and analyze the novel's characters and their relationships with Natalie, and that you will model filling out the chart for the first character listed, Mr. Neely.

Activity Page 1.1



- Note for students that they will not encounter all of the listed characters in today’s chapters. They will return to this activity page later to add more information as the novel progresses.

➤ Visual Support 1.1

- Display Visual Support 1.1. Ask volunteers to describe what they have observed so far about Mr. Neely using evidence from the text. As you model adding these observations to Visual Support 1.1, have students add that information to Activity Page 1.1.
 - » Answers may vary, but they could include that Mr. Neely is enthusiastic, new at teaching, and energetic. Natalie mentions that he is a “new teacher, so he’s still all optimistic and stuff,” that he waves his arms around when he talks, and that he gets excited about the scientific process and their Wonderings journals.
- Ask volunteers to describe what they have observed so far about Mr. Neely’s relationship with Natalie using evidence from the text. As you model adding these observations to Visual Support 1.1, have students add to Activity Page 1.1. Note for students that because this is early in the novel, readers of the novel will not have all the information about their relationship yet.
 - » Answers may vary, but they could include that Mr. Neely is Natalie’s teacher and that she does not always do what he asks her to do, as evidenced by one of the bullets in her observations journal. Mr. Neely says, “...making observations is supposed to be homework, Natalie. Please pay attention in class.”
- Have students independently fill out the chart with information they know about Mikayla Menzer.
- Have students read Assignments 2–3 silently. Tell students that as they read, they should use Activity Page 1.1 to note the characters’ behaviors and what their relationships with Natalie are like. As they do so, they should record evidence from the text that gives them that information.
- Tell students that it is helpful to record the page number where they find the detail, quotation, or idea in parentheses in the “Evidence” space as they add to their notes. This way they can easily go back to that page if they have questions or want more information.
- Ask volunteers to share their responses with the whole group.



Check for Understanding

Ask students if their predictions about why the novel is split into “Assignments” rather than “chapters” came true.

D Differentiation

Challenge

Have students fill out as much of Twig’s row in the chart as they can using the footnote at the end of the chapter.

Support

Ask students to reread Natalie’s bullet point observations of Mikayla. Do these descriptions sound like a teacher or another student?

D Differentiation

Support

Ask students where they would usually see hashtags. Why might Mr. Neely use one in his assignments?

Challenge

Have students brainstorm their own hashtags describing what they know about Natalie so far.

COMPREHENSION QUESTIONS

1. **Inferential.** Natalie says she doesn't know why Mr. Neely misspells the word *skills*. Why might he use a z instead of an s?
 - » Natalie observes that he is an optimistic, first year teacher, so he may be trying to be cool or relate to his students.
 2. **Evaluative.** How does Natalie feel about Mr. Neely's attitude?
 - » She thinks students will disappoint him and that his assignment is a "lost cause." But she also thinks he has patience.
 3. **Evaluative.** How has Natalie's relationship with Mikayla Menzer changed?
 - » They used to be friends, but are not any longer.
 4. **Literal.** What does Natalie think has happened to her mom?
 - » Answers may vary, but they could include that Natalie thinks she "...got bored with life" and with her family.
 5. **Inferential.** Why do you think Natalie describes going to Twig's house as "escaping"?
 - » Answers may vary, but they could include that school and her mom's sickness may be stressing her out, and Twig's house is a safe place for her to unwind.
- Ask students to respond to the following prompt:
 - Write three sentences using the following sentence stem and the conjunctions *because*, *but*, and *so*: *Natalie's dad hesitates to let her go to Twig's house . . .*
 - » Answers may vary, but they could include "Natalie's dad hesitates to let her go to Twig's house because he does not want her to run away from 'the situation,'" "Natalie's dad hesitates to let her go to Twig's house, but he eventually agrees," or "Natalie's dad hesitates to let her go to Twig's house, so she tells him it is for a school project."

PERSPECTIVE AND POINT OF VIEW (5 MIN.)

- Remind students that in Grade 3, they learned the terms *perspective* and *point of view*.
- Ask students to recall the definitions of perspective and point of view.
 - » Perspective is the way a character sees or experiences something in the text. Point of view is the narrator's position when telling a story: first person, second person, or third person.

- Ask students to name the differences between first person and third person point of view.
 - » First person point of view is a type of perspective used by authors in which the narrator includes themselves in the story. This is used when speakers or narrators describe stories or events that include them as characters. It often includes words such as *I, me, my, we, or us*. Third person point of view is used when speakers or narrators describe stories or events that do not include them as characters. It often uses words such as *he, she, it, or they*.
- Ask students which point of view is used in *The Science of Breakable Things*. How do they know?
 - » This story is told in first person point of view because it uses pronouns like *I* and *we*.
- Ask students from whose perspective this novel is narrated.
 - » The novel is narrated from Natalie's perspective.
- Tell students that they will discuss more about perspective and point of view as they continue reading in later lessons.

D Differentiation

Support

Post the definitions of perspective and point of view for students to use as a reference while working.

Challenge

Ask students to recall the definition of second person point of view.



MULTILINGUAL/ENGLISH LEARNERS

Reading

Reading/ Viewing Closely

Entering/Emerging

Ask questions about Mikayla such as “How does Mikayla participate in class?”

Transitioning/ Expanding

Provide students with specific lines in the text to re-read to support their understanding of Mikayla.

Bridging

Provide students with prompts they can use to find information to input into their charts, such as “How does Mikayla act in class?”

WORD WORK: VALID (5 MIN.)

1. In today's reading, you read “Keep searching the world around you for a valid question!”
2. Say the word *valid* with me.
3. *Valid* means “justifiable or based on truth or fact.”
4. Juan's doctor's appointment was a valid reason for being late to school.

5. What are some other examples of *valid*? Be sure to use the word *valid* in your response.
- » Answers will vary. If necessary, guide and/or rephrase students' responses to make complete sentences: "I think _____ is valid because . . ."
6. What part of speech is the word *valid*?
- » adjective
7. **Use an Antonyms activity for follow-up.** Ask, "What does the word *valid* mean? What are some antonyms, or words with an opposite meaning, of *valid*?" Prompt students to provide words such as *illogical*, *unprovable*, and *unreasonable*. Then have them turn to a partner and create sentences using the antonyms they provided.

Lesson 1: Observe and Question

Writing



Primary Focus: Students will write a short description of a character from the novel using their noted observations. [W.5.2]

CHARACTER DESCRIPTIONS (20 MIN.)

- Have students turn to Activity Page 1.2 and read the directions.
- Tell students that they will use the notes they took on Activity Page 1.1 to write short descriptions of one of the characters they observed.
- Tell students that you have written a short paragraph describing Mr. Neely using the observations you recorded on Activity Page 1.1.
- Share your model with students.
 - Example: *Mr. Neely is a teacher. He waves his arms around a lot when he talks, and he gets very excited about the topics he teaches, like the scientific method. Natalie does not always follow directions in his class, so he has to remind her to pay attention.*
- Ask students which of your sentences could use more detail.
 - » Mr. Neely is a teacher.
- Model adding details to the sentence.
 - » Mr. Neely is a new, enthusiastic teacher at Natalie's school.

Activity Page 1.2



- Tell students that they will now write their own short paragraph about a character of their choice from *The Science of Breakable Things*. They should use the observations they made on Activity Page 1.1 and their paragraph should be made up of three to five sentences. Remind students to check their paragraphs for where they can add details, such as *when*, *where*, and *why*.

D

Differentiation

Support

Work with students in a small group to write their paragraphs together using the same chosen character.

Challenge

Encourage students to use a footnote in their paragraphs using the footnotes in *The Science of Breakable Things* as a model.

<div> <div>ML/EL</div> <div>MULTILINGUAL/ENGLISH LEARNERS</div> <div>Writing</div> <div>Writing</div> </div>	
Entering/Emerging	Have students discuss their character's traits with a teacher. Provide sentence frames for students to discuss while planning their paragraphs. Example: "Twig is _____ because. . ."
Transitioning/Expanding	Have students discuss their character's traits with a peer. Provide sentence frames for students to discuss while planning their paragraphs. Example: "Twig is _____ because. . ."
Bridging	Have students brainstorm their character's traits independently. Provide sentence frames for students to discuss while planning their paragraphs. Example: "Twig is _____ because. . ."

End Lesson

Lesson 1: Observe and Question

Take-Home Material

CAREGIVER LETTER

- Caregiver Letter: this overview can be found in the program's online resources.

2

Generating Questions

PRIMARY FOCUS OF LESSON

Reading

Students will compare and contrast characters' differing perspectives regarding situations in the novel. [RL.5.3, SL.5.1]

Students will draft questions about the novel's events. [RL.5.1]

Students will demonstrate an understanding of the Tier 2 word *naive*. [L.5.4]

Writing

Students will write a narrative paragraph illustrating a different character's perspective on a scene from the novel. [W.5.3]

FORMATIVE ASSESSMENT

Activity Page 2.1

Character Perspectives Students will use a T-chart to note contrasting character perspectives. [RL.5.3]


Activity Page 2.2

Questions Students will write a narrative paragraph using their T-charts. [W.5.3]



Teacher Presentation Screens:
all lessons include slides

LESSON AT A GLANCE

	Grouping Recommendations	Time	Materials
Reading (75 min.)			
Reading: Assignments 4–6	Whole Group	30 min.	<input type="checkbox"/> <i>The Science of Breakable Things</i> <input type="checkbox"/> Activity Pages 1.1, 2.1, 2.2
Character Perspectives	 Small Group	25 min.	
Generating Questions	Partner/ Independent	15 min.	
Word Work: <i>Naive</i>	Whole Group	5 min.	
Writing (15 min.)			
Perspective Paragraphs	Independent	15 min.	<input type="checkbox"/> Activity Page 2.3

ADVANCE PREPARATION

Reading

- Distribute the novel *The Science of Breakable Things* by Tae Keller.
- Draw a T-chart on the board or chart paper. Label one side “Natalie” and the other side “Mr. Neely.”

Universal Access

Reading

- Write the following questions on the board in preparation for a sentence summary activity:
 - Who or what?
 - Did what?
 - When?
 - Where?
 - Why?
 - How?
- Divide students into small groups for the Character Perspectives activity.

VOCABULARY

Core Vocabulary

- You may choose to preview the vocabulary words before reading the text.

gist, n. the main point or part

homeostasis, n. balance or equilibrium; internal stability in an organism even when there are external changes

crumpled, adj. crushed to form creases and wrinkles

naive, adj. having a lack of experience, wisdom, or judgment

cobalt, adj. a deep blue

brink, n. an edge or threshold, usually over a steep drop

Vocabulary Chart for “Assignments 4–6”

Type	Tier 3 Domain-Specific Words	Tier 2 General Academic Words	Tier 1 Everyday Speech Words
Vocabulary	homeostasis	gist crumpled naive cobalt brink	
Spanish Cognates	homeostasis	cobalto	
Multiple-Meaning			
Sayings and Phrases			

Lesson 2: Generating Questions

Reading

**Primary Focus**

Students will compare and contrast characters' differing perspectives regarding situations in the novel. [RL.5.3, SL.5.1]

Students will draft questions about the novel's events. [RL.5.1]

Students will demonstrate an understanding of the Tier 2 word *naive*. [L.5.4]

READING: ASSIGNMENTS 4–6 (30 MIN.)

- Ask students to name the novel they are studying.
 - » *The Science of Breakable Things*
- Ask students to describe the key events of the chapters they read in the previous lesson.
 - » Answers may vary, but they could include that Natalie received an assignment to create a scientific observations journal, the class dissected frogs, and Natalie and Twig played games and finished their lab reports at Twig's house.
- Ask students to turn to "Assignment 4: Plants Are People, Too." Have students follow along while you read the chapter aloud.
- After reading, engage the class in discussion around the following questions:
 1. **Inferential.** Why do you think an assignment about plants upsets Natalie?
 - » Answers may vary, but they could include that plants remind her of how her mother was before.
 2. **Literal.** What is Natalie's mom's job? What does she say makes her job similar to Natalie's dad's job as a therapist?
 - » Her mom is a botanist, and she says she and Natalie's dad both work to analyze how things think and feel.
 3. **Inferential.** What does the chapter title "Plants Are People, Too," mean? Use evidence from the text to support your answer.
 - » Answers may vary, but they could include that Natalie's mom compares her work with plants to her husband's work with patients or that Natalie thinks her mother is experiencing her feelings and emotions too deeply inside herself instead of outwardly showing them, just as a plant's life systems are internal. Evidence may include that Natalie's mom says, "You work with people and analyze how they

think and feel, and I do the same—just with plants” or that Natalie states that maybe her mother “is doing all of those laughing, crying things on the inside, just like her beloved plants.”

- Have students silently read Assignment 5.
- After students have completed independent reading of Assignment 5, ask the following discussion questions:
 1. **Inferential.** Why does Natalie feel insulted when Mr. Neely says he usually only recommends the egg drop to his top students?
 - » His words imply that Natalie is not one of his top students.
 2. **Inferential.** Make a prediction: Do you think that Natalie will join the egg drop competition? Use details from the text to support your prediction.
 - » Answers may vary. Some students may say yes, because she is in need of a capital-Q Question, and others may say no, because she does not enjoy participating in schoolwork and she crumples the flyer at the bottom of her backpack.
 3. **Literal.** How does Natalie describe Dari?
 - » She calls him a “super-genius.”
- Have students turn to the Character Observations Chart on Activity Page 1.1. Ask students to use textual evidence from Assignment 5 to add information about Dari to their Character Observations Chart.
- Have students silently read Assignment 6.
- After students have completed independent reading of Assignment 6, ask the following discussion questions:
 1. **Literal.** What new information does this section reveal about Natalie’s mom and her relationship with Natalie?
 - » Answers may vary, but they could include that she was a botanist, she used to laugh, she wrote a book about plants, etc.
 - Ask students to use textual evidence from Assignment 6 to add this information about Natalie’s mom to their Character Observations Chart. When they are finished, continue discussing the chapter.
- 1. **Literal.** What are some feelings Natalie experiences in this section?
 - » Answers may vary, but they could include that she is sad, angry, scared, etc.
- 2. **Inferential.** How does the mood of this chapter differ from previous chapters?
 - » Answers may vary, but they could include that it is more angry, fearful, tense, etc.

D Differentiation

Challenge

Ask students how they think the illustrations in Assignments 4 and 5 add to the story.

Support

Choose specific moments in the chapter for students to use in filling out their Character Observation charts.

Activity Page 1.1



- Ask for several volunteers to share a quote or idea they recorded on their Character Observation sheets.



Check for Understanding

Ask students to choose an adjective they think best describes Natalie's mother.

- » Answers may vary but may include adjectives such as *sick*, *sad*, *quiet*, or *tired*.



MULTILINGUAL/ENGLISH LEARNERS

Reading

Synthesizing Information

Entering/Emerging	Ask students questions such as "Does Natalie seem sad about her mom? Do you think Natalie feels confused about the changes in her mom's behavior?"
Transitioning/Expanding	Prompt students to maintain conversation with <i>wh</i> - questions. "Which characters are we concentrating on in this section? What words would you use to describe how Natalie feels?"
Bridging	Ask students to include textual details in their responses.

CHARACTER PERSPECTIVES (25 MIN.)



Small Group

- Have students open their novels to Assignment 5.
- Point to the questions you wrote on the board. Ask students to aid you in writing a one-sentence summary of Assignment 5. Answers may vary, but an example sentence summary follows.
 - Who or what?
 - » Natalie
 - Did what?
 - » thinks about what it would have been like to work on the competition before her mom became sick
 - When?
 - » after Mr. Neely gives her the egg drop competition flyer

- Where?
 - » spends the rest of the day at home
- Why?
 - » because “old Mom” would have loved helping her
- How?
 - » wistfully
- Final sentence:
 - » After Mr. Neely gives her the egg drop competition flyer, Natalie spends the rest of the day at home wistfully thinking about what it would have been like to work on it before her mom became sick, because “old Mom” would have loved helping her.
- Ask students to recall the definition of *perspective*. Whose perspective is this chapter told from?
 - » *Perspective* is the way a character sees or experiences something in the text; the chapter is told from Natalie’s perspective.
- Have students turn to Activity Page 2.1. Tell them that in this activity, they will think of this scene from both characters’ perspectives.
- Divide students into the small groups you have chosen. Have students work in their small groups to answer these questions, writing their responses down on Activity Page 2.1. Circulate as students work, making suggestions as needed.
- First, have students think through this scene from Natalie’s perspective. How does she feel about Mr. Neely keeping her after class, giving her the egg drop flyer, and suggesting she work with Dari?
 - » Answers may vary, but they could include that she is embarrassed he held her after class, she thinks he is accidentally insulting her by not considering her a top student, and she does not think he knows her well if he thinks she would want to work with Dari.
- Next, have students think of the scene from Mr. Neely’s perspective. Why would he have chosen to keep Natalie after class, give her the egg drop flyer, and suggest she work with Dari?
 - » Answers may vary, but they could include that he wanted to talk with her without other students hearing to avoid embarrassing her in front of the class, he gives her the egg drop flyer because he knows she’s struggling to come up with a scientific question, and he may think that she could use Dari’s help with her project or that Dari could use a friend.
- Tell students that they will use these notes later to respond to a writing prompt.

Activity Page 2.1



D Differentiation

Challenge

Ask students to think from Dari's perspective. How do they think he would feel if he knew Mr. Neely was suggesting he work with Natalie?

Support

Have students consider how a teacher might feel knowing a student is having trouble. Does Mr. Neely mean to embarrass Natalie?

- If students need a review of dependent clauses prior to the prompt at the end of the activity page, remind them that dependent clauses are parts of sentences that contain a subject and a verb but are not complete sentences themselves because the subject and the verb are prefaced by a subordinating conjunction.
 - Present the dependent clause below (*When Mr. Neely gave Natalie the egg drop competition flyer*) without the word *when*. Explain that this is a complete sentence because it has a subject and a verb and forms a complete thought.
 - Then, add the word *when* and explain that while it has a subject and a verb, the sentence is no longer a complete thought.
- Write the following sentence on the board: When Mr. Neely gave Natalie the egg drop competition flyer, she stuffed it into her backpack.
- Ask students which part of the sentence is the dependent clause. Underline the dependent clause to emphasize the answer, then ask students how they knew this to be the dependent clause.
 - » When Mr. Neely gave Natalie the egg drop competition flyer, she stuffed it into her backpack. This is the dependent clause because it begins with a subordinating conjunction that starts the clause, includes a subject (Mr. Neely) and a verb (gave), but is not a complete sentence.
- At the bottom of Activity Page 2.1, have students write one sentence that starts with a dependent clause and compares and contrasts Natalie's perspective to Mr. Neely's.
 - » Answers may vary but may include sentences such as "Although Mr. Neely thinks he is helping Natalie, she feels embarrassed by his suggestions."

GENERATING QUESTIONS (15 MIN.)

- Ask students to turn to recall what they noticed about the "Step 1" page in the previous lesson.
 - » The page is illustrated to look like a composition notebook page, and it includes an illustration of empty flower pots at the bottom of the page.
- Have students turn to the page just before Assignment 2 that says "Step 2: Question." Note for students that this was part of the previous reading, but that the section applies to this lesson's chapters as well.
- Ask students what Natalie must do when she reaches the "Question" step in her scientific process.
 - » She must come up with a scientific question about her observations in step 1.

- Have students turn to Activity Page 2.2 and read the directions.
- Tell students that today they will practice writing questions based on their own observations. They can use their character observations from Activity Page 1.1 or consider other observations they have made as they have read.
- Have students consider what they have read so far in the novel. Then have them write down three questions they have about the future events of the novel based on their observations. For example, they may wonder about what Mr. Neely thinks of Natalie's lack of a project, or they may be curious if Natalie will decide to join the egg drop competition.
- Circulate as students work, offering suggestions and assistance as needed.
- **Write-Share-Write:** Have students turn to a partner and share the questions they have drafted. While sharing, the other student will write down their partner's questions. Partners will then work together to predict the answers to each others' questions based on information they already know from the novel. Students can expand on their own writing based on insights gained during sharing.

WORD WORK: NAIVE (5 MIN.)

1. In today's reading, you read "She told Dad once that she sounded young and naive."
2. Say the word *naive* with me.
3. *Naive* means "having a lack of experience, wisdom, or judgment."
4. The new worker felt naive when he had to ask a lot of questions on his first day.
5. What are some other examples of *naive*? Be sure to use the word *naive* in your response.
 - » Answers will vary. If necessary, guide and/or rephrase students' responses to make complete sentences: "_____ was naive when . . ."
6. What part of speech is the word *naive*?
 - » adjective
7. **Use a Discussion activity for follow-up.** Say, "Talk with your partner about a time when you felt naive. Be sure to use the word *naive* in complete sentences as you discuss this with your partner."

Activity Page 2.2



D Differentiation

Support

Ask students if there is something more they would like to learn about a character.

Challenge

Have students brainstorm one to two more questions.

Lesson 2: Generating Questions

Writing



Primary Focus: Students will write a narrative paragraph illustrating a different character's perspective on a scene from the novel. [W.5.3]

PERSPECTIVE PARAGRAPHS (15 MIN.)

- Have students turn to Activity Page 2.3 and read the directions.
- Tell students that they will use the notes they took on Activity Page 2.1 to rewrite the scene in Assignment 5 where Mr. Neely keeps Natalie after class. They should rewrite the scene from Mr. Neely's perspective.
- When students complete their writing, have them check their paragraphs for where they can add details, such as *when*, *where*, and *why*. Tell students to include adjectives and/or adverbs in their writing.

Activity Page 2.3



MULTILINGUAL/ENGLISH LEARNERS

Writing Writing

Entering/Emerging

Have students discuss Mr. Neely's perspective with a teacher. Provide sentence frames for students to discuss while planning their paragraphs. Example: "Mr. Neely feels ____ because. . ."

Transitioning/ Expanding

Have students discuss Mr. Neely's perspective with a peer. Provide sentence frames for students to discuss while planning their paragraphs. Example: "Mr. Neely feels ____ because. . ."

Bridging

Provide sentence frames for students to consider while planning their paragraphs. Example: "Mr. Neely feels ____ because. . ."

End Lesson

Investigative Research

PRIMARY FOCUS OF LESSON

Reading

Students will summarize the text while maintaining meaning and logical order. [RL.5.2]

Students will analyze interactions between characters and how the narrator's point of view impacts how events are described. [RL.5.6]

Students will demonstrate an understanding of the Tier 2 word *hybrid*. [L.5.4]

Writing

Students will write a narrative paragraph using first person point of view. [W.5.3]

FORMATIVE ASSESSMENT

Activity Page 3.1

Summarizing the Text Students will complete a sentence expansion activity to summarize the text. [RL.5.1, RL.5.2]

Activity Page 3.2

Practicing Point of View Students will write a paragraph using first person point of view. [W.5.3]



Teacher Presentation Screens:
all lessons include slides

LESSON AT A GLANCE

	Grouping Recommendations	Time	Materials
Reading (70 min.)			
Reading: Assignments 7–10	Whole Group/ Independent	40 min.	<input type="checkbox"/> <i>The Science of Breakable Things</i> <input type="checkbox"/> Activity Pages 1.1, 3.1
Point of View	Whole Group	25 min.	
Word Work: <i>Hybrid</i>	Whole Group	5 min.	
Writing (20 min.)			
Practicing Point of View	Partner/ Independent	20 min.	<input type="checkbox"/> Activity Page 3.2

ADVANCE PREPARATION

Reading

- Distribute the novel *The Science of Breakable Things* by Tae Keller.
- Write the following sentences on the board or chart paper in preparation for the summarizing activity.
 - Assignment 7: Natalie and Twig play games.
 - Assignment 8: Natalie makes lists.
 - Assignment 9: Natalie reads.
 - Assignment 10: Natalie talks to Dari.

Universal Access

Reading

- To ensure all students have the opportunity to contribute during Turn and Talk exchanges, provide students with a signal such as folding their hands or raising a hand to indicate when both partners have added to the conversation.

VOCABULARY

Core Vocabulary

- You may choose to preview the vocabulary words before reading the text.

funding, n. a sum of money set aside for a specific purpose

hybrid, n. something created by combining two different elements

meiosis, n. a type of cell division

chromosomes, n. one of the rod-shaped or threadlike structures of a cell nucleus that contain genes and divide when the cell divides

Vocabulary Chart for “Assignments 7–10”

Type	Tier 3 Domain-Specific Words	Tier 2 General Academic Words	Tier 1 Everyday Speech Words
Vocabulary	meiosis chromosomes	funding hybrid	
Spanish Cognates	meiosis cromosomas	fondos híbrido	
Multiple-Meaning			
Sayings and Phrases			

Lesson 3: Investigative Research

Reading



Primary Focus

Students will summarize the text while maintaining meaning and logical order.

[RL.5.2]

Students will analyze interactions between characters and how the narrator's point of view impacts how events are described. [RL.5.6]

Students will demonstrate an understanding of the Tier 2 word *hybrid*. [L.5.4]

READING: ASSIGNMENTS 7–10 (40 MIN.)

- Ask students to name the novel they are studying.
 - » *The Science of Breakable Things*
- Ask students to describe the key events of the chapters they read in the previous lesson.
 - » Answers may vary, but they could include that Mr. Neely gives Natalie a flyer for an egg drop competition and that she sneaks into her parents' room to find a book her mother published many years ago.
- Ask students to turn to "Assignment 7: Educational Adventures in Board Game Land." Have students follow along while you read Assignments 7 and 8 aloud.
- As you read or after reading, engage the class in discussion around the following questions:
 1. **Inferential.** Natalie says that when she was younger, she "would have told Twig everything... but then we got older." Why do you think Natalie and Twig no longer speak about everything?
 - » Answers may vary, but they could include that when they were younger, their problems were less difficult to talk about than the problems they are facing now.
 2. **Literal.** Natalie describes how one of her mom's techniques is to list what you know and do not know. In Assignment 8, Natalie makes her own list. What does she say that she does not know?
 - » Natalie says she does not know which "betrayal" is worse, Mrs. Menzer not believing in the Cobalt Blue Orchids or not believing in Natalie's mother; and she does not know "how to fix" her mom.

- Have students silently read Assignments 9 and 10.
- After students have completed the reading, ask the following discussion questions:
 3. **Inferential.** Why does Natalie say that the Cobalt Blue Orchid field is “full of miracles and hope”?
 - » The orchid lived despite a toxic environment, which Natalie believes is miraculous.
 4. **Literal.** What does Dari think about Mr. Neely?
 - » Dari thinks he is smart and caring.
 5. **Literal/Inferential.** What new information does Dari give about Mr. Neely? Why would readers not know this information before?
 - » Dari tells Natalie that Mr. Neely is more excited about teaching than he was about his old job. Readers would not know about this information yet because Natalie is also learning about it for the first time, and this story is told from her perspective.
 6. **Turn and Talk:** How do Dari’s thoughts about Mr. Neely compare or contrast to what Natalie thinks of him? Remind students to signal when both partners have contributed to the conversation.
 - » In comparison to what Dari thinks, Natalie thinks he is silly and overly enthusiastic, so she does not always take him seriously.
- Have students turn to the Character Observations Chart on Activity Page 1.1. Ask students to use textual evidence from Assignment 5 to add information about Dari or other characters in the novel to their Character Observations Chart.
- Point to the sentences you have written on the board. Ask students if these sentences do a good job of summarizing what happens in Assignments 7–10. Why or why not?
 - » Students should respond that the example sentences are not doing a good job of summarizing the chapters because they do not answer questions such as when, where, or why these actions are happening.
- Have students turn to Activity Page 3.1. Tell them they are going to help you to better summarize the text using the first sentence stem you created.
- Tell students that the *who* and the *what* have already been answered for you in the sentence stem.

Activity Page 1.1



Activity Page 3.1



- Remind the class that sentence elaboration starts with adding details that describe *when*. Ask students to think of how the author described *when* for the sentence stem. Remind students that there will be several ways to describe *when* for this sentence, but some ways will be better than others. Brainstorm some options and write them on the board. As a class, choose the best option from the list, and have students write that option on their activity pages. Start writing the sentence with the phrase the class chose to describe *when*, placing a comma after it, and then write the sentence stem.
 - » Answers may vary, but they could include after school.
- Tell the students that it is time to add details that describe *where* the sentence stem occurred. Brainstorm some phrases that describe *where* for the sentence stem, and write them on the board. As a class, choose the best option from the list, and have students write that option on their activity pages. Explain the best place within the sentence to place the phrase that describes *where* and add it to the sentence.
 - » Answers may vary, but they could include at Twig's house.
- Ask the class to think of some reasons that describe *why* the events in the sentence stem happened. Brainstorm some phrases that describe *why* for the sentence stem and write them on the board. As a class, choose the best option from the list, and have students write that option on their activity pages. Explain the best place within the sentence to place the phrase that describes *why* and add it to the sentence.
 - » Answers may vary, but they could include to distract themselves or for Twig to distract Natalie.
- Tell the class that it is time to add the last detail to the sentence, which describes *how*. This word can be an adverb that is placed next to the verb, or it can be a phrase. Discuss some possibilities, then as a class, choose the best option from the list and have students write that option on their activity pages. As a class, choose the best way to add the part to the sentence.
 - » Answers may vary but they could include without talking about what is bothering them.
- Reread the sentence aloud, underlining and labeling the parts that describe *when*, *where*, *why*, and *how*.
 - » After school, Natalie and Twig play games at Twig's house to distract themselves instead of talking about what is bothering them.
- Have students work independently to expand the other sentence stems on Activity Page 3.1.

D Differentiation

Challenge

Have students write a summary of one of the previous lesson's chapters using their own sentence stem.

Support

Have students reread pertinent sections of the chapters to aid them with answering *when*, *where*, *why*, and *how*.



Check for Understanding

Ask students what details are included in a strong, detailed summary.

- » *who, what, when, where, why, and how*

POINT OF VIEW (25 MIN.)

- Ask students to recall the definition of *perspective*. Whose perspective is this novel told from?
 - » Perspective is the way a character sees or experiences something in the text; the novel is told from Natalie's perspective.
- Ask students to recall the definition of *point of view*. Which point of view is used in the novel?
 - » *Point of view* is the narrator's position when telling a story; this novel is told in first person.
- Ask students how they know this story is told using a first person point of view.
 - » Natalie, the narrator, describes stories or events that include her as a character. The narration includes words such as *I, me, my, we, or us*.
- Have students turn to Assignment 10 in their novels and read the following sentences from the conversations Natalie has with Mr. Neely and Dari:
 - Mr. Neely: "He smiled at me, one of those *you're not in trouble yet but you will be soon* smiles that teachers love to give."
 - Dari: "He didn't sound defensive or self-conscious. He sounded like he was asking a scientific question and wanted to investigate."
- Ask students if Natalie can tell exactly what Mr. Neely and Dari are really thinking or feeling from the text.
 - » No, because the story is not told from their perspective or in a third person point of view. If students answer yes, ask them if Natalie could actually know what Mr. Neely or Dari thinks or feels or if she assumes what they think and feel based on their actions.
- Remind students that, like Natalie, readers can make deductions about characters based on their dialogue but may not know every detail about their thoughts and feelings because the book is not written from their perspective.

D Differentiation

Challenge

Ask students to choose one sentence from Assignment 10 and rewrite it using a third person point of view.

Support

If students are struggling to understand the author's use of first person, ask students if they know every thought that Dari had during his conversation with Natalie.

- Ask students how these scenes might be different if they were written using a third person point of view.
 - » Answers may vary, but they could include that the narrator would have more insight into Mr. Neely and Dari's thoughts and the reasons behind their actions.
- Ask students why they think the author would choose a point of view where the reader may not know exactly what other characters are thinking or feeling.
 - » Answers may vary, but they could include that the author may have wanted to show where Natalie might be wrong in her assumptions about other characters' internal thoughts and motivations or that since the novel is about investigating and learning answers to questions, the author may be choosing to have readers learn at the same pace as Natalie is learning.
- Have students write three sentences using the following sentence stem and the conjunctions *because*, *but*, and *so*: Tae Keller uses first person point of view . . .
 - » Answers may vary, but they could include "Tae Keller uses first person point of view because she wants to show Natalie's inner thoughts," "Tae Keller uses first person point of view, but that means the reader does not always know what other characters are thinking," or "Tae Keller uses first person point of view, so the reader will know the same amount of information as Natalie."



MULTILINGUAL/ENGLISH LEARNERS

Reading

Synthesizing Information

Entering/Emerging	Ask students simple questions, such as "Does the story describe what Mr. Neely and Dari are thinking?"
Transitioning/Expanding	Prompt students to maintain conversation with <i>wh</i> - questions. "Whose thoughts would we know if this chapter was told in third person?"
Bridging	Ask students to find textual details to include in their responses.

WORD WORK: *HYBRID* (5 MIN.)

1. In today's reading, you read "I read on, past Mom's... talk of hybrids and fungus and moss."
2. Say the word *hybrid* with me.
3. *Hybrid* means "something created by combining two different elements."
4. Our new car is a hybrid because it runs on both gasoline and electricity.
5. What are some other examples of things that are a *hybrid*? Be sure to use the word *hybrid* in your response.
 - » Answers will vary. If necessary, guide and/or rephrase students' responses to make complete sentences: "_____ is a hybrid because it is a combination of _____ and _____."
6. What part of speech is the word *hybrid*?
 - » noun
7. **Use a Making Choices activity for follow-up.** I am going to describe several situations. If the situation I describe is a combination of two different elements, say, "hybrid." If the situation I describe is not a combination of two different elements, say, "not a hybrid."
 - a job that involves working from home and going into a corporate office
 - » hybrid
 - a pure-bred labrador dog
 - » not a hybrid
 - a flower that was created from a mix of two other flowers
 - » hybrid

Lesson 3: Investigative Research

Writing



Primary Focus: Students will write a narrative paragraph using first person point of view. [W.5.3]

PRACTICING POINT OF VIEW (20 MIN.)

- Have students turn to Activity Page 3.2 and read the directions.
- Tell students that they will write a paragraph from Dari's perspective using first person point of view.
- Note for students that this paragraph should be a retelling of the scene from the novel when Dari and Natalie talk after class.
- When students complete their writing, have them exchange their activity pages with a partner. Each student should check their partners' paragraphs for where they can add details such as *when*, *where*, and *why*.
- When students are done with their discussions, have them revise their paragraphs to reflect their partners' feedback.

Activity Page 3.2



D Differentiation

Challenge

Ask students to expand a sentence using an appositive.

Support

Ask students which words are used in first person writing.

» *I, me, my, we, or us*



MULTILINGUAL/ENGLISH LEARNERS

Writing Writing

Entering/Emerging

Have students add a *when* detail to one sentence.

Transitioning/ Expanding

Have students add one *when* and one *where* detail to one sentence.

Bridging

Have students add *when*, *where*, and *how* details to one sentence.

End Lesson

4

Generating Hypotheses

PRIMARY FOCUS OF LESSON

Reading

Students will discuss how the series of steps in the novel relates to the overall structure of the story and make a hypothesis about the outcome of the novel. [RL.5.1, RL.5.5]

Students will discuss the novel's use of dialogue. [RL.5.1]

Students will demonstrate an understanding of the Tier 2 word *procedure*. [L.5.4]

Writing

Students will write a narrative paragraph about two characters meeting, using dialogue to demonstrate their perspectives. [W.5.3b]

FORMATIVE ASSESSMENT

Activity Page 4.1

Causes, Effects, and Hypotheses Students will complete cause and effect sentences and make a hypothesis about the outcome of the novel. [RL.5.1]

Activity Page 4.2

Practicing Dialogue Students will practice writing with dialogue, including adding quotation marks. [W.5.3b]



Teacher Presentation Screens:
all lessons include slides

LESSON AT A GLANCE

	Grouping Recommendations	Time	Materials
Reading (75 min.)			
Reading: Assignments 11–14	Whole Group/ Independent	40 min.	❑ <i>The Science of Breakable Things</i> ❑ Activity Pages 4.1, 4.2
Dialogue	Whole Group/ Partner/ Independent	30 min.	
Word Work: <i>Procedure</i>	Whole Group	5 min.	
Writing (15 min.)			
Practicing Dialogue	Partner/ Independent	15 min.	❑ Activity Page 4.2

ADVANCE PREPARATION

Reading

- Distribute the novel *The Science of Breakable Things* by Tae Keller.

VOCABULARY

Core Vocabulary

- You may choose to preview the vocabulary words before reading the text.

bleary, adj. unfocused or filmy from sleep or tiredness

MIA, adj. an initialism that stands for “missing in action”

velocity, n. quickness of motion in a certain direction

procedure, n. a course of action or series of steps to attain a goal

Vocabulary Chart for “Assignments 11–14”

Type	Tier 3 Domain-Specific Words	Tier 2 General Academic Words	Tier 1 Everyday Speech Words
Vocabulary	velocity	bleary MIA procedure	
Spanish Cognates	velocidad	procedimiento	
Multiple-Meaning			
Sayings and Phrases			

Lesson 4: Generating Hypotheses

Reading



Primary Focus

Students will discuss how the series of steps in the novel relates to the overall structure of the story and make a hypothesis about the outcome of the novel. [RL.5.1, RL.5.5]

Students will discuss the novel's use of dialogue. [RL.5.1]

Students will demonstrate an understanding of the Tier 2 word *procedure*. [L.5.4]

READING: ASSIGNMENTS 11–14 (40 MIN.)

- Ask students to name the novel they are studying.
 - » *The Science of Breakable Things*
- Ask students to describe the key events of the chapters they read in the previous lesson.
 - » Answers may vary, but they could include that Twig and Natalie play board games but do not discuss the difficulties in their personal lives; Natalie makes a list of things she does and does not know about “the situation”; Natalie sneaks out to the greenhouse to read her mother’s book; Mr. Neely keeps her after class to discuss her scientific observation question, after which she ends up having a conversation with Dari.
- Ask students to turn to “Assignment 11: Decisions.” Have students follow along while you read Assignments 11 and 12 aloud.
- As you read or after reading, engage the class in discussion around the following questions:
 1. **Literal.** How did Natalie’s mom respond when Natalie was sick?
 - » Her mom stayed with her for a very long time, they slept a lot, and eventually Natalie’s condition improved.
 2. **Literal.** How does Natalie’s mom respond when Natalie mentions their orchid?
 - » She does not understand what Natalie is saying; Natalie realizes her mom does not know the orchid has died.

3. **Evaluative.** Using context clues, what do you think *aerodynamic* means?
 - » Answers may vary, but students should realize that in the context of the egg drop competition rules, “aerodynamic design” implies the design of an object that helps it move in the air.
- Have students silently read Assignments 13 and 14.
 - After students have completed the reading, ask the following discussion questions:
 1. **Literal.** Describe Twig’s mother. How does Twig act around her?
 - » Answers may vary, but they could include that she expects Natalie to call her by her first name, she walks as if she were floating, and she is very sophisticated. Natalie says that Twig acts differently around her mom than she does at school; Natalie says she acts “almost normal” around her mom.
 2. **Literal/Inferential.** What words does Natalie use to describe Twig’s house? What do these words reveal about how she feels about it?
 - » She calls it “a mansion” and “giant.” Because her family is worried about money, she might be more aware of Twig’s big house.
 3. **Evaluative.** How does Natalie’s conversation with her mom about the egg drop competition make her feel compared to her memories of past conversations?
 - » Answers may vary, but they could include that Natalie felt uncomfortable, as if the person she was talking to was not her mom, because her mom’s presence makes Natalie uncomfortable, and she calls her “Not-Mom.”
 - Allow a couple minutes for students to add any new information or textual evidence they may have read about characters to their Character Observations Chart.
 - Have students turn to Activity Page 4.1.
 - Remind students that a cause statement provides the reason *why* something happened. An effect statement describes *what happened as the result* of the cause.
 - Explain that the class will practice writing two cause or effect statements about something in today’s reading. If they are given a cause statement, they will need to write an effect statement that describes *what happened as the result* of the cause. If they are given an effect statement, they will need to write a cause statement that explains *the reason why it happened*.
 - Write/project the first prompt on the board and read it as a class: The egg drop competition begins to feel important to Natalie. Explain that this is an effect statement, because it describes what happened as a result of the cause.

Activity Page 4.1



- Ask the class to think about some possible causes for Natalie's feelings.
 - » Answers may vary, but they could include that a cause would be that Twig named their project "Operation Egg" or that Natalie decided to use the prize money to bring her mother to see the Cobalt Blue Orchid field, so she has a bigger reason to win.
- Call on students to share their ideas and provide assistance in modifying any sentences that may not be correct. Have students share a complete sentence that includes both the cause and effect statements. Sample sentences may include:
 - Natalie decides to use the prize money to bring her mother to see the Cobalt Blue Orchid field, so the egg drop competition feels more important to Natalie.
 - Twig names their project "Operation Egg," which makes the egg drop competition feel more important to Natalie.
- As a class, choose one idea as a cause statement from the reading, but do not write it on the board.
- Ask students to write that cause statement on their paper, then add an effect of that cause. Have students write one sentence that includes both the cause and the effect.
- Call on students to share their ideas.
- When students have finished sharing, ask them what observations they have already made about the novel's structure.
 - » Answers will vary, but they could include that the chapters are titled "Assignments," the text includes footnotes, and that the assignments are divided into sections that are illustrated like a composition notebook.
- Ask students what they have noticed about the names of the four steps they have encountered so far (Observe, Question, Investigative Research, Hypothesis).
 - » Answers may vary, but they could include that they reflect the steps of the scientific process that Natalie is learning in class.
- Have students turn to the page before Assignment 10, "Step 4: Hypothesis."
- Ask students the following questions about the page:
 - What do you see?

- What do you think about it?
- What does it make you wonder?
 - » Answers may vary, but they could include that the illustration of the flower pots shows that the plants inside have grown more or that the point of view in the written text seems to have changed from first to second person. Student opinions about the page will vary, but they may wonder what purpose the flower pots serve or what a hypothesis is.
- Ask students which character they think wrote the text on the page. What evidence from the text supports their answer?
 - » Answers may vary, but they should include that Natalie is writing her school assignments in her notebook. Students may use evidence such as the spelling of the word *brainz* or the use of the hashtag to show that Mr. Neely may have written this prompt originally.
- Ask students what the definition of *hypothesis* is based on the text.
 - » The text states “A hypothesis is an educated guess.”
- Tell students that an “educated guess” means a guess that someone makes based on evidence they have observed.
- Ask students what hypotheses Natalie makes at the end of Assignment 12. What evidence has she observed that leads her to this hypothesis?
 - » Answers may vary, but they could include that she says adults do not want to know what their children are feeling because if they think their children are okay, it makes their job as parents easier. Her evidence is that she and her father talk a lot about the egg drop competition but not about what is really bothering her.
- Remind students that Natalie also makes a hypothesis about what will happen if she wins the egg drop competition. What is her hypothesis? What evidence has she observed to back up this educated guess?
 - » She says that if she wins the competition, she can bring her mother to New Mexico to see the Cobalt Blue Orchid field, and then “everything will go back to normal.” Her evidence for why this plan will work is that the orchid is a “miracle” and will remind her mother about her passions for botany.
- Ask students to make a hypothesis about what they think the results of the egg drop competition will be. Remind them that their hypotheses should be educated guesses, which means they should use evidence from their observations to make their guesses. As students write their hypotheses, have them note at least one direct quotation from the text that they believe is evidence for their guesses.

Differentiation

Challenge

Have students find one to two more direct quotes as evidence for their hypothesis.

Support

Have students consider what they know about Natalie as a student and as a daughter as they draft their hypotheses.



Check for Understanding

What is the definition of a hypothesis?

- » A hypothesis is an educated guess.

DIALOGUE (30 MIN.)

- Remind students that in the Grade 4 *Meaning and Metaphor: Poetry* unit, they learned about dialogue.
- Ask students to recall the definition of *dialogue*.
 - » Dialogue consists of words spoken by a character in a poem, play, or story.
- Ask students to recall what type of punctuation is used to indicate dialogue.
 - » Dialogue is indicated using quotation marks around the spoken words.
- Remind students that in these examples, punctuation such as commas and periods goes inside of quotation marks.
- Ask a volunteer to share an example of dialogue from this lesson's reading, including the page number on which they found the dialogue.
 - » Answers may vary, but they should include an example of speech using quotation marks.
- With a partner, have students turn to Assignment 14. Have one student read aloud Natalie's mother's dialogue and the other student read aloud Natalie's dialogue.
- Ask students to share with their partner their observations about the conversation. How is this conversation different from how Natalie's mom helped her with schoolwork in the past? If students need support with this question, have them reread Natalie's descriptions of her mother helping her with schoolwork at the end of Assignment 2.
 - » Answers may vary, but they should include that Natalie's mother just gave her the answer to the assignment instead of helping her use an experiment to learn the answer.

- Ask students what Natalie’s dialogue says about how she is feeling, or her perspective. Do her words match what she feels inside? Have students use evidence from the novel to explain their responses.
 - » Answers may vary, but they should include that Natalie speaks in short sentences and not telling her mother about her plans for the orchids and the prize money, perhaps because she feels uncomfortable. Her dialogue does not reflect her real perspective because inside she wants to scream out different thoughts and feelings than what she is actually saying. Evidence may be the thoughts she has, written in italics, such as “Why did you stop?” or “Give her back! Give her back to me!”
- Have students turn to Activity Page 4.2 and read the directions silently.
- Explain that first, students will add quotation marks around dialogue and then they will complete the given sentence stem using the words *because*, *but*, and *so*. Explain that students should place the conjunctions outside of the quotation marks since they are not part of the dialogue. Have them complete questions 1–6 on the activity page, circling as students work to ensure they are properly adding quotation marks to the dialogue.
- When students have completed questions 4–6, have them share their work with a partner. While one student shares, the other student will write down their partner’s thoughts. Students can expand their own writing based on insights gained during sharing.
- Tell students they will complete the rest of Activity Page 4.2 later in the lesson.

Activity Page 4.2



Check for Understanding

Where does punctuation such as commas or periods go when writing dialogue?

- » within quotation marks



MULTILINGUAL/ENGLISH LEARNERS

Reading

Synthesizing Information

Entering/Emerging

Have students work with a teacher to include dialogue in their Because But So sentences.

Transitioning/ Expanding

Have students work with a peer to include dialogue in their Because But So sentences.

Bridging

Have students practice with different types of dialogue, such as exclamations, in their Because But So sentences.

WORD WORK: PROCEDURE (5 MIN.)

1. In today's reading, you encountered the title of the next step in the scientific process: "Step 5: Procedure."
2. Say the word *procedure* with me.
3. *Procedure* means "a course of action or series of steps to attain a goal."
4. When the alarm began to ring, the class followed the fire drill procedure.
5. What are some other examples of *procedure*? Be sure to use the word *procedure* in your response.
 - » Answers will vary. If necessary, guide and/or rephrase students' responses to make complete sentences: "The procedure to do _____ is _____."
6. What part of speech is the word *procedure*?
 - » noun
7. **Use a Synonyms activity for follow-up.** "What does the word *procedure* mean? What are some synonyms of, or words with a similar meaning to, *procedure*?" Prompt students to provide words such as *process*, *plan*, or *method*. Then have them turn to a partner and create sentences using the synonyms they provided.

Lesson 4: Generating Hypotheses

Writing



Primary Focus: Students will write a narrative paragraph about two characters meeting, using dialogue to demonstrate their perspectives. [W.5.3b]

PRACTICING DIALOGUE (15 MIN.)

- Have students return to Activity Page 4.2 and read the directions for the final activity.
- Tell students that they will write a paragraph describing the scene where Twig and Natalie are talking about Natalie's shopping list. Their paragraph should include at least two examples of dialogue that expresses Twig or Natalie's perspective, or what they may see or experience during the scene.
- When students complete their writing, have them exchange their activity pages with a partner. Each student should check their partners' paragraphs for where they can add details such as *when*, *where*, and *why*.
- When students are done with their discussions, have them revise their paragraphs to reflect their partners' feedback.

ML/EL

MULTILINGUAL/ENGLISH LEARNERS

Writing

Analyzing Text Structure

Entering/Emerging

Explain that *conversation* and *dialogue* both describe people speaking with each other.

Transitioning/ Expanding

Provide students with synonyms of *says*, such as *exclaims*, *states*, or *explains*.

Bridging

Remind students that dialogue between characters could sound more casual than text in other parts of a narrative.

End Lesson

D

Differentiation

Challenge

Ask students to revise their paragraphs to include at least one more line of dialogue.

Support

Ask students what punctuation marks should be used in dialogue.

» quotation marks

Comparing and Contrasting

PRIMARY FOCUS OF LESSON

Reading

Students will identify and determine the meaning of figurative language in the text. [RL.5.4]

Students will compare and contrast Natalie and Twig using a Venn diagram. [RL.5.3]

Students will demonstrate an understanding of the Tier 2 word *vaguely*. [L.5.4]

Writing

Students will write a narrative paragraph using figurative language to illustrate a character's feelings. [W.5.3b]

FORMATIVE ASSESSMENT

Activity Page 5.1

Natalie's Figurative Language Students will interpret the meaning of figurative language. [RL.5.4]

Activity Page 5.2

Venn Diagram Students will compare and contrast Natalie and Twig. [RL.5.3]

Activity Page 5.3

Practicing Figurative Language Students will practice writing with figurative language. [W.5.3b]



Teacher Presentation Screens:
all lessons include slides

LESSON AT A GLANCE

	Grouping Recommendations	Time	Materials
Reading (70 min.)			
Reading: Assignments 15–18	Whole Group/ Partner	40 min.	<input type="checkbox"/> <i>The Science of Breakable Things</i> <input type="checkbox"/> Activity Pages 5.1, 5.2 <input type="checkbox"/> Visual Support 5.1
Comparing and Contrasting	Whole Group/ Partner	25 min.	
Word Work: <i>Vaguely</i>	Whole Group	5 min.	
Writing (20 min.)			
Practicing Figurative Language	Partner/ Independent	20 min.	<input type="checkbox"/> Activity Page 5.3

ADVANCE PREPARATION

Reading

- Distribute the novel *The Science of Breakable Things* by Tae Keller.
- Write the following questions on the board in preparation for the comparing and contrasting activity:
 - *What are the similarities and differences between the characters, or how are these characters alike and different?*
 - *Which similarities do you think are the most important?*
 - *Which differences do you think are the most important?*

Universal Access

- To ensure all students have the opportunity to contribute during Turn and Talk exchanges, provide students with a signal such as folding their hands or raising a hand to indicate when both partners have added to the conversation.

VOCABULARY

Core Vocabulary

- You may choose to preview the vocabulary words before reading the text.

haphazardly, adv. without a plan, order, or direction

archnemesis, n. the main enemy of someone

indecipherable, adj. impossible to read or understand

vaguely, adv. not clearly stated or expressed

gaped, v. stared with a mouth open in surprise or wonder

perennial, adj. returning year after year

imposter, n. a person who deceives others by pretending to be someone else

Vocabulary Chart for “Assignments 15–18”

Type	Tier 3 Domain-Specific Words	Tier 2 General Academic Words	Tier 1 Everyday Speech Words
Vocabulary	archnemesis perennial imposter	haphazardly indecipherable vaguely gaped	
Spanish Cognates	impostor	indescifrable	
Multiple-Meaning			
Sayings and Phrases			

Lesson 5: Comparing and Contrasting

Reading



Primary Focus

Students will identify and determine the meaning of figurative language in the text.

[RL.5.4]

Students will compare and contrast Natalie and Twig using a Venn diagram. [RL.5.3]

Students will demonstrate an understanding of the Tier 2 word *vaguely*. [L.5.4]

READING: ASSIGNMENTS 15–18 (40 MIN.)

- Ask students to name the novel they are studying.
 - » *The Science of Breakable Things*
- **Turn and Talk:** Ask students to describe with a partner the key events of the chapters they read in the previous lesson. Remind students to signal when both partners have contributed to the conversation.
 - » Answers may vary, but they could include that Natalie decides to use the egg drop competition money to bring her mother to New Mexico, she gives her father a shopping list for the egg drop competition and they have discuss her going to a therapist, Natalie recruits Twig to help her with the competition, and Natalie and her mom have a brief conversation about the way her mother won a similar competition.
- Ask students to turn to “Assignment 15: Battle Plans and Beetles.” Have students follow along while you read Assignments 15 and 16 aloud.
- As you read or after reading, engage the class in discussion around the following questions:
 1. **Evaluative.** Look at Twig’s diagrams of egg drop ideas and evaluate each suggestion. Which idea do you believe would work the best? Why?
 - » Answers may vary, but students should give evidence for their answers.
 2. **Literal.** Why does Natalie choose not to share her mom’s suggestion for the egg drop technique?
 - » She says she wants to keep it to herself for a while.

3. **Inferential.** Natalie says that when her mom greets her in the kitchen, it sounds like “a recording of her.” What does this suggest about how she is speaking?
 - » Answers may vary, but they could include that she sounds a little different or distant, maybe a bit forced or stiff.
 4. **Evaluative.** How does Natalie’s mom react differently to her mother-in-law’s visit than she reacted to her previous visits?
 - » She is not worried about things going well and has not been preparing and cleaning for a long time before the visit like she usually would.
 5. **Literal.** How does Natalie’s father react to Natalie speaking Korean words? How does he feel about his Korean culture?
 - » Answers may vary, but they could include that Natalie’s dad corrects her words to English and says he had enough Korean culture as a child to last his whole life. While Natalie seems interested in her Korean heritage, her father does not share this interest.
- Have students silently read Assignments 17 and 18.
 - After students have completed independent reading of Assignments 17 and 18, ask the following discussion questions:
1. **Inferential.** Why might Natalie be happy to be back at school?
 - » Answers may vary, but students should understand that she is likely glad to have a distraction from her mother’s condition.
 2. **Literal.** What is Twig’s relationship with her parents like?
 - » Answers may vary, but students should recall that she claims to like her father more than her mother. However, her mother is more present in her life.
 3. **Literal.** Natalie has a lot of complicated feelings about her mom in Assignment 18. How does she feel, and why does she feel that way?
 - » She feels angry about her mother, and even says she hates her, because her mother “tried” for Natalie’s grandmother but not for her.
 4. **Evaluative.** Do you think Natalie truly hates her mother? Why or why not?
 - » Answers may vary but could include that Natalie does not actually hate her mother; she’s angry because she is feeling hurt and neglected.
 5. **Inferential.** Reread the title of Assignment 18. Why do you think Natalie has crossed part of the title out?
 - » Answers may vary, but could include that Natalie feels like she can’t count on her mother to be there for her.

- Allow a couple minutes for students to add any new information or textual evidence they may have read about characters to their Character Observations Chart.
- Have students expand the following sentence to answer when, where, and why: Natalie is happy to be back.
 - » when: after winter break
 - » where: at school
 - » why: because it is a distraction from her mother's condition
 - » expanded sentence: *After winter break, Natalie is happy to be back at school because it is a distraction from her mother's condition.*
- This sentence can also be written as *Natalie is happy to be back at school after winter break because it is a distraction from her mother's condition.*
- Ask volunteers to share their final sentences.
- Remind students that in the *Poetry* unit, they learned about figurative language. Ask students to recall the definition of *figurative language*.
 - » words or phrases that mean more than their dictionary definition; similes and metaphors are two examples of figurative language
- Ask students to turn to page 102 and silently reread the paragraph starting with "It's funny how the cold magnets..."
- Ask students to define the word *perennial*.
 - » returning year after year
- Tell students that perennial plants seem to die off at the end of a growing season, but underneath the ground, the plants are conserving energy. When warmer weather arrives, the perennial plants emerge again into the sunlight.
- Ask students what they think Natalie means when she says "there's strength in the cold."
 - » Answers may vary, but they could include that perennial plants do not lose their life when it gets cold; instead, they use the cold temperatures of the winter season to gain more energy for the next spring.
- Ask students what two objects are being compared in the figurative language in this paragraph.
 - » This paragraph is comparing cold magnets with perennial flowers.

- Ask students what else Natalie has compared to flowers. How does her figurative language about the flowers here continue that comparison?
 - » She has also compared her mother and her condition to flowers not always outwardly showing signs of life. This figurative language continues that comparison by saying that even if Natalie’s mother is staying in bed as a plant stays under ground in the winter, she will be “all right again” and “come out into the sun” someday.
- Have students turn to Activity Page 5.1. Ask students to read the quote at the top of the page.
- Remind students that this quote is from Assignment 18, when Natalie tries to tell her mother about her complicated feelings about Twig and Dari.
- **Think-Write-Share:** Have students independently complete Activity Page 5.1. When they are done, have them share their new sentence with a partner. Remind students to signal when both students have contributed to the conversation.



Check for Understanding

Why does Natalie compare her mother to a perennial plant?

- » Answers may vary, but they could include that just as a perennial plant has to hibernate under the ground before it can bloom again, Natalie’s mother is constantly resting, which Natalie hopes means she will emerge again.

D Differentiation

Support

If students struggle with remembering what else Natalie has compared to a flower, have them reread the end of Assignment 4.

Support

Have students reread the sentence at the top of Activity Page 5.1 in context.

Challenge

Have students write a sentence about how Natalie feels about Twig and Dari becoming friends that incorporates a simile.

Activity Page 5.1



COMPARING AND CONTRASTING (25 MIN.)

Activity Page 5.2



D Differentiation

Support

Have students use different color markers to complete each section of the Venn diagram.

Challenge

Ask students to record information using words that indicate similarities and differences, such as *also*, *similar*, *however*, *instead*, etc.

> Visual Support 5.1

- Direct students' attention to Visual Support 5.1 and have students turn to Activity Page 5.2.
- Explain that students will use a Venn diagram to compare and contrast Natalie and Twig.
- Tell students that authors create relationships between characters in a text by developing their interactions. Sometimes, by comparing and contrasting characters' traits, readers can learn more about the characters and their relationships.
- Explain that the overlapping portion of the circles represents traits and details that are similar or alike between the two characters. Explain that the part of the circle that does not overlap represents details about the characters that are different or not alike.
- Write *Natalie* on the line above the left circle and *Twig* on the line above the right circle on Visual Support 5.1 and have the students do the same on their activity pages.
- Tell students that they can use evidence from today's reading or evidence from previous Assignments to complete the Venn diagram. They may consult Activity Page 1.1 to help them find page numbers relevant to information about Twig.
- Model identifying a detail about Natalie and Twig that is similar or alike and recording it on the Venn diagram. For example, "Natalie and Twig have certain subjects that they do not share with each other. Natalie does not talk about her mother and Twig does not talk about her father." Record this on the class copy and ask students to do the same on their copies.
- Ask a student volunteer to share a trait or detail about Natalie that is different from Twig. Record relevant answers on Visual Support 5.1 and have students do the same on their activity pages.
- Instruct students to complete the remainder of the Venn diagram with at least three more details for each section with a partner.
- Facilitate, monitor, and assist students as needed while they are completing the activity page.
- Review the activity page as a whole group. Ask volunteers to share some of the differences and similarities between Natalie and Twig. Provide immediate feedback and clarification as needed.



MULTILINGUAL/ENGLISH LEARNERS

Reading

Synthesizing Information

Entering/Emerging	Have students orally explain a similarity and difference of Natalie and Twig.
Transitioning/ Expanding	Have students work with a partner to complete the Venn diagram.
Bridging	Provide students with sentence starters to help them focus their thinking, such as "Natalie is different from Twig because _____," or "Natalie and Twig both _____," etc.



Check for Understanding

Based on the observations you made on your Venn diagram, are Twig and Natalie more alike or different?

WORD WORK: VAGUELY (5 MIN.)

1. In today's reading, you read "I was vaguely listening, and vaguely following instructions."
2. Say the word *vaguely* with me.
3. *Vaguely* means "not clearly stated or expressed."
4. The instructions were worded so vaguely that she had trouble putting together the furniture.
5. What are some other examples of *vaguely*? Be sure to use the word *vaguely* in your response.
 - » Answers will vary. If necessary, guide and/or rephrase students' responses to make complete sentences: "I vaguely _____ when I . . ."
6. What part of speech is the word *vaguely*?
 - » adverb
7. **Use an Antonyms activity for follow-up.** "What does the word *vaguely* mean? What are some antonyms, or words with an opposite meaning, of *vaguely*?" Prompt students to provide words such as *clearly*, *definitely*, and *plainly*. Then have them turn to a partner and create sentences using the antonyms they provided.

Lesson 5: Comparing and Contrasting

Writing



Primary Focus: Students will write a narrative paragraph using figurative language to illustrate a character's feelings. [W.5.3b]

PRACTICING FIGURATIVE LANGUAGE (20 MIN.)

- Have students turn to Activity Page 5.3 and read the directions.
- Tell students that they will write a paragraph from Natalie's perspective illustrating how she feels about Twig and Dari becoming friends. They should use at least one type of figurative language, such as a simile or metaphor, and one appositive in their writing.
- Ask students to recall what an appositive is.
 - » a noun or noun phrase placed next to a different noun to provide more information about it
- When students complete their writing, have them exchange their activity pages with a partner. Each student should check their partners' paragraphs to identify where they have added figurative language and an appositive.



MULTILINGUAL/ENGLISH LEARNERS

Writing

Writing

Entering/Emerging	Work with students in a small group to draft an example of figurative language. Provide additional one-on-one support as needed.
Transitioning/ Expanding	Pair students and encourage them to draft an example of figurative language.
Bridging	Provide feedback on students' examples of figurative language prior to them including it in their paragraphs.

End Lesson

D Differentiation

Challenge

Ask students to revise their paragraphs to include at least one more appositive.

Support

Ask students what words are used in a simile.

» *like* or *as*

6

Transitional Words, Phrases, and Clauses

PRIMARY FOCUS OF LESSON

Reading

Students will analyze and draw conclusions about the novel's overall structure, including the author's use of visuals. [RL.5.5, RL.5.7]

Students will demonstrate an understanding of the Tier 2 word *siphon*. [L.5.4]

Writing

Students will review, discuss, and practice writing transitional words, phrases, and clauses. [L.5.2b, W.5.3c]

FORMATIVE ASSESSMENT

Activity Page 6.1

Adding Visuals Students will create their own visual for an event in the novel. [RL.5.7]

Activity Page 6.2

Transitional Words, Phrases, and Clauses

Students use transitional words, phrases, and clauses in sentences and a narrative paragraph. [L.5.2b, W.5.3c]



Teacher Presentation Screens:
all lessons include slides

LESSON AT A GLANCE

	Grouping Recommendations	Time	Materials
Reading (40 min.)			
Reading: Assignments 19–21	Whole Group/ Independent	35 min.	<input type="checkbox"/> <i>The Science of Breakable Things</i> <input type="checkbox"/> Activity Page 6.1
Word Work: <i>Siphon</i>	Whole Group	5 min.	
Writing (50 min.)			
Transitional Words, Phrases, and Clauses	Whole Group/ Independent	50 min.	<input type="checkbox"/> Activity Page 6.2

ADVANCE PREPARATION

Reading

- Distribute the novel *The Science of Breakable Things* by Tae Keller.
- Divide students into three groups for the character analysis activity and assign each group one of the following relationships: Natalie and Twig, Natalie and Dari, and Natalie and her mother.

Universal Access

- To ensure all students have the opportunity to contribute during Turn and Talk exchanges, provide students with a signal such as folding their hands or raising a hand to indicate when both partners have added to the conversation.

VOCABULARY

Core Vocabulary

- You may choose to preview the vocabulary words before reading the text.

gibberish, n. confused, meaningless talk

siphon, v. withdraw from and move somewhere else

sarcastic, adj. harsh or ironic

analyst, n. a person who studies something to find out its qualities

Vocabulary Chart for “Assignments 19–21”

Type	Tier 3 Domain-Specific Words	Tier 2 General Academic Words	Tier 1 Everyday Speech Words
Vocabulary		gibberish siphon sarcastic analyst	
Spanish Cognates		sarcástico/a analista	
Multiple-Meaning			
Sayings and Phrases			

Lesson 6: Transitional Words, Phrases, and Clauses

Reading



Primary Focus

Students will analyze and draw conclusions about the novel's overall structure, including the author's use of visuals. [RL.5.5, RL.5.7]

Students will demonstrate an understanding of the Tier 2 word *siphon*. [L.5.4]

READING: ASSIGNMENTS 19–21 (35 MIN.)

- Ask students to name the novel they are studying.
 - » *The Science of Breakable Things*
- **Turn and Talk:** Ask students to describe with a partner the key events of the chapters they read in the previous lesson. Remind students to signal when both partners have contributed to the conversation.
 - » Answers may vary, but they could include that Twig and Natalie begin to plan Operation Egg, Natalie's grandmother comes to visit and Natalie's mother socializes with her, Dari joins Twig and Natalie at their lab table, and Natalie gets angry with her mother for not "trying" for her the way she "tried" for Natalie's grandmother.
- Ask students to turn to "Assignment 19: 2+1, AKA Not-So-Advanced Algebra." Have students follow along while you read Assignments 19 and 20.
- Explain that algebra is an upper-level form of math.
- As you read or after reading, engage the class in discussion around the following questions:
 1. **Evaluative.** Natalie says that in some ways she and Twig are "from totally different galaxies." What makes her say this?
 - » Twig does not care about the prize money, while Natalie is focused on it.
 2. **Evaluative.** What are some ways in which Natalie acts just like her mother?
 - » Answers may vary, but they could include that Natalie pretends to be happy and does not talk about her feelings or that she goes to her room and shuts the door.
 3. **Literal.** What is the "natural magic" that students practice in Mr. Neely's lab?
 - » They use magnets to turn a needle into a compass.

4. **Inferential.** Once Dari officially joins Twig and Natalie's lab group, they assign each other titles. Name those titles and any details that explain why each character's title might be a good fit for them.
 - » Twig is the Head Sheriff, Dari is the Mission Analyst, and Natalie is the Captain; character details may vary, but students should provide logical evidence connecting the character to their title, such as "Dari's title as Mission Analyst is a good fit for him because he likes to study things to find out their qualities."
- Have students silently read Assignment 21. After students have completed their independent reading, ask the following discussion questions. Before asking the first question, review the purpose of a compass, helping them recall that its needle points north and helps people find their way.
 1. **Inferential.** Natalie says she and her dad are like compass needles, pointing at Natalie's mom. What might she mean by this comparison?
 - » Answers may vary, but students should understand that Natalie and her dad have been focused on her mom; her mom's illness has affected their whole family.
 2. **Inferential.** Why do you think Natalie does not want to talk to Dr. Doris about her mother?
 - » Answers may vary, but they could include that she is embarrassed to share her feelings or that she does not want to include a stranger in her family's problems.
- Allow a couple minutes for students to add any new information or textual evidence they may have read about characters to their Character Observations Chart.
- Have students write an effect sentence based on the following cause: Natalie's father brings her to a therapy appointment.
 - » Answers may vary, but they could include effects such as "Natalie gets angry with her father."
- When students are done, ask for volunteers to share their effects. Then have students write a new sentence, explaining the cause for the first sentence you provided: *Natalie's father brings her to a therapy appointment.*
- Remind students that in Lesson 1, they learned about footnotes. Ask students to describe the purpose of footnotes in this novel.
 - » They are used to insert explanations or additional information into the narrative.
- Ask students why they think Natalie would use footnotes instead of writing the information directly into the narrative.
 - » Answers may vary, but they could include that sometimes the information is off topic and would disrupt the flow of the story, so she includes the info in footnotes to keep the flow of the writing moving.

D Differentiation

Support

If students struggle with the illustrations' importance, ask what they have learned about the characters from reading the text on this page.

Challenge

Have students write a note by Natalie in response to Twig and Dari's notes in her journal.

- Ask students what else they have discussed about the structure of the novel.
 - » The sections of the novel are named after the steps in the scientific process that Natalie and her classmates are learning about at school.
- Have students turn to the illustrated page before Assignment 21.
- Ask students the following questions about the page:
 - What do you see?
 - What do you think about it?
 - What does it make you wonder?
 - » Answers may vary, but they could include that the illustration shows the steps for completing the compass project as well as an image of a compass. The page also includes two separated lines of text.
- Ask students what they notice about the lines of text.
 - » Answers may vary, but they could include that the text is written in two types of font and appears to be two characters communicating with each other.
- Ask students which characters they think wrote this text in Natalie's notebook.
 - » Answers may vary, but they could include that Twig wrote the first message because the message says "Head Sheriff reporting for duty" and Dari wrote the second message because he signed it as "Mission Analyst."
- Ask students why they think the author includes illustrations like this in the novel. What does this illustration add to the text?
 - » Answers may vary, but they could include that, like the footnotes, the illustrations and notes from the characters to each other make the text seem more like Natalie's journal assignment and make the characters seem more realistic.
- Remind students that in Lesson 4, they learned the word *procedure*. Ask students to define *procedure*.
 - » a course of action or series of steps to attain a goal
- Have students turn to the page before Assignment 15 titled "Step 5: Procedure." Remind students that this lesson's reading falls under this step.
- Have students read the description on the page. Ask students what plans of action Natalie has made in these chapters.
 - » Answers may vary, but they could include that she has a plan to win the egg drop competition and bring her mother to New Mexico and she, Twig, and Dari decide the first step in their project procedure is to give themselves titles.

- What plans of action have other characters made?
 - » Answers may vary, but they could include Mr. Neely's plan of action to have Natalie and Dari work on the egg drop competition together and Twig's plan of action to "adopt" Dari.
- What plan of action does Natalie's father have to help her process her feelings about her mother's condition?
 - » He wants her to speak with a therapist.
- Ask students where they have seen a visual illustrate a character's procedure or plan of action.
 - » In Assignment 15, Twig creates several diagrams to plan their designs for the egg drop competition.
- Have students turn to Activity Page 6.1. Tell them that, like Twig, they will create a visual to show Natalie's father's procedure for helping Natalie. When they are done illustrating their visual, they will write three sentences using the words *because*, *but*, and *so* to complete the sentence stem "Natalie's father brings her to therapy . . ."
 - Sample sentences include:
 - Natalie's father brings her to therapy because he thinks she will benefit from talking through her feelings about her mother.
 - Natalie's father brings her to therapy, but Natalie does not want to go and will not talk to the therapist about her feelings.
 - Natalie's father brings her to therapy so she can open up about her feelings towards her mother.
- Circulate as students work, offering help when needed.

D Differentiation

Support

If students struggle to think of other examples of procedures or plans of action, have them turn to the bottom of page 114, where Dari states that they need a "plan of action" for the competition.

Activity Page 6.1



ML/EL

MULTILINGUAL/ENGLISH LEARNERS

Reading

Synthesizing Information

Entering/Emerging	Have students explain the definition and purpose of a procedure to a teacher.
Transitioning/ Expanding	Have students discuss the definition and purpose of a procedure with a peer.
Bridging	Have students explain the procedure they will illustrate to a peer.



Check for Understanding

What is a procedure?

- » a course of action or series of steps to attain a goal

WORD WORK: SIPHON (5 MIN.)

1. In today's reading, you read "I wish I could siphon some of it off and give it to Mom."
2. Say the word *siphon* with me.
3. *Siphon* means "draw off or move somewhere else."
4. The tornado siphoned the car completely off the road and into a nearby field.
5. What are some other examples of *siphon*? Be sure to use the word *siphon* in your response.
 - » Answers will vary. If necessary, guide and/or rephrase students' responses to make complete sentences: "I siphoned _____ when I ..."
6. What part of speech is the word *siphon*?
 - » verb
7. **Use a Making Choices activity for follow-up.** I am going to describe several situations. If the situation I describe is drawing something off and moving it somewhere else, say, "siphoning." If the situation I describe is not drawing something off and moving it somewhere else, say, "not siphoning."
 - pumping water from large tanks to people's homes
 - » siphoning
 - mixing together cookie dough
 - » not siphoning
 - building a tower of building blocks
 - » not siphoning
 - machines drawing oil out of the ground
 - » siphoning

Lesson 6: Transitional Words, Phrases, and Clauses

Writing



Primary Focus: Students will review, discuss, and practice writing transitional words, phrases, and clauses. [L.5.2b, W.5.3c]

TRANSITIONAL WORDS, PHRASES, AND CLAUSES (50 MIN.)

- Remind students that in Grade 4, they learned about transitional words and phrases. Ask students to recall the definition of transitional words and phrases.
 - » Transitional words and phrases are words and phrases you use to connect one idea to the next.
- Remind students that in a text, the ideas that are connected might be events or moments. For example, in *The Science of Breakable Things*, words and phrases like “Later,” or “A few months earlier” are transitional words and phrases that help the story move smoothly from event to event. Sometimes transition words or phrases relate to time (e.g., *the next day*, *afterwards*).
- Explain that in addition to transitional words and phrases, they can also use another tool, transitional clauses, in use in their writing.
- Ask students to recall the definition of dependent clauses.
 - » parts of sentences that contain a subject and a verb but are not complete sentences themselves
- Tell students that, just like transitional words and phrases, when a dependent clause begins a sentence and sets up what the rest of the sentence will be about, it is called a transitional clause. For example, in *The Science of Breakable Things*, the dependent clause “When I got home” is a transitional clause that helps the story move smoothly from event to event.
- Write the sentence *After they worked on their compass, Dari suggested the group make a plan of action for their egg drop project.* on the board or chart paper.
- Ask students what the transitional clause of this sentence is. Underline the transitional clause, and point out to students that a comma always follows transitional clauses.
 - » After they worked on their compass,

Activity Page 6.2



D Differentiation

Support

Display a list of transitional words, phrases, and clauses for your classroom.

Challenge

Have students reread one previous Assignment from the novel and list the transitional words, phrases, and clauses they find.

Challenge

Have students practice inserting transitional words, phrases, or clauses in the middle of a sentence.

Support

If students struggle to think of transitional words or phrases, have them use the words the class brainstormed on Activity Page 6.2.

- Note for students that the word *after* is an indicator that the clause is transitioning the text from one event or thought to another.
- Direct students to turn to Activity Page 6.2 and review the instructions. Have students complete the first item independently.
- After students have completed the first item, review the paragraph. Then, as a whole class, brainstorm a list of transitional words and phrases. Note that transitional clauses will vary depending on the text, but that they will include some of the words and phrases the class is brainstorming. Write appropriate suggestions on the board and have students copy them onto Activity Page 6.2.
- Have students complete the third part of the activity page, writing one sentence about a typical day at school that begins with a transitional dependent clause. Remind students to underline their transitional clauses and to remember to use a comma.



Check for Understanding

Have students describe their day so far using several transitional words, phrases, or clauses.

- Tell students that now that they have practiced with transitional words, phrases, and clauses, they will write a narrative paragraph that uses those writing tools.
- Ask students what punctuation they should use if they are including an introductory element, such as a transitional word, at the beginning of a sentence.
 - » a comma
- Tell students they will now write a paragraph describing what they would imagine a typical day at school would be like for Natalie. They should use at least one example each of a transitional word, phrase, and clause.



MULTILINGUAL/ENGLISH LEARNERS

Writing

Writing

Entering/Emerging	Have students brainstorm a transitional word, phrase, and clause with a partner.
Transitioning/ Expanding	Have students brainstorm a transitional phrase and clause with a partner.
Bridging	Have students brainstorm a transitional clause with a partner.

~~~~~ **End Lesson** ~~~~~



# Analyzing Character Relationships

## PRIMARY FOCUS OF LESSON

### Reading

Students will analyze and make conclusions about the overall structure of the novel, including the author's use of visuals. [RL.5.5, RL.5.7]

Students will analyze character relationships in the novel. [RL.5.1, RL.5.3]

Students will demonstrate an understanding of the Tier 2 word *spontaneously*. [L.5.4]

### Writing

Students will write a narrative paragraph describing a fun day at school using sensory details and concrete words and phrases. [W.5.3d]

## FORMATIVE ASSESSMENT

### Activity Page 7.1

**Analyzing Character Relationships** Students will analyze a relationship between Natalie and another character. [RL.5.1, RL.5.3]

### Activity Page 7.2

**A Fun Day at School** Students will write a narrative paragraph using sensory details and concrete words and phrases. [W.5.3d]



Teacher Presentation Screens:  
all lessons include slides

## LESSON AT A GLANCE

|                                   | Grouping Recommendations                                                                             | Time    | Materials                                                                                                                                                          |
|-----------------------------------|------------------------------------------------------------------------------------------------------|---------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Reading (65 min.)                 |                                                                                                      |         |                                                                                                                                                                    |
| Reading: Assignments 22–23        | Whole Group                                                                                          | 35 min. | <input type="checkbox"/> <i>The Science of Breakable Things</i><br><input type="checkbox"/> Activity Pages 1.1, 7.1<br><input type="checkbox"/> Visual Support 7.1 |
| Analyzing Character Relationships |  <b>Small Group</b> | 25 min. |                                                                                                                                                                    |
| Word Work: <i>Spontaneously</i>   | Whole Group                                                                                          | 5 min.  |                                                                                                                                                                    |
| Writing (25 min.)                 |                                                                                                      |         |                                                                                                                                                                    |
| Writing with Detail               | Whole Group/<br>Independent                                                                          | 25 min. | <input type="checkbox"/> Activity Page 7.2                                                                                                                         |

## ADVANCE PREPARATION

### Reading

- Distribute the novel *The Science of Breakable Things* by Tae Keller.
- Write the following questions on the board in preparation for a sentence summary activity:
  - Who or what?
  - Did what?
  - When?
  - Where?
  - Why?
  - How?
- Divide students into three groups for the character analysis activity and assign each group one of the following relationships: Natalie and Twig, Natalie and Dari, and Natalie and her mother.

### Writing

- Write the following sentences on the board in preparation for the sensory details and concrete words and phrases discussion:
  - *Dari's cheeks were red.*
  - *Dari's cheeks were flushed with the cold.*
  - *I gaped at my best friend.*
  - *I gaped at my reckless, illogical best friend.*
  - *I heard the sound.*
  - *I jumped at the shrieking, high-pitched sound.*

### Universal Access

- To ensure all students have the opportunity to contribute during Turn and Talk exchanges, provide students with a signal such as folding their hands or raising a hand to indicate when both partners have added to the conversation.

## VOCABULARY

### Core Vocabulary

- You may choose to preview the vocabulary words before reading the text.

**spontaneously, adv.** impulsively; acting or taking place without outside force or cause

**flushed, adj.** having a red appearance, especially in the face (as from cold or embarrassment)

**sued, v.** brought to court for legal matters

Vocabulary Chart for “Assignments 22–23”

| Type                | Tier 3<br>Domain-Specific Words | Tier 2<br>General Academic Words | Tier 1<br>Everyday Speech Words |
|---------------------|---------------------------------|----------------------------------|---------------------------------|
| Vocabulary          |                                 | spontaneously<br>flushed<br>sued |                                 |
| Spanish Cognates    |                                 | espontáneamente                  |                                 |
| Multiple-Meaning    |                                 |                                  |                                 |
| Sayings and Phrases |                                 |                                  |                                 |

## Lesson 7: Analyzing Character Relationships

## Reading

**Primary Focus**

Students will analyze and make conclusions about the overall structure of the novel, including the author's use of visuals. [RL.5.5, RL.5.7]

Students will analyze character relationships in the novel. [RL.5.1, RL.5.3]

Students will demonstrate an understanding of the Tier 2 word *spontaneously*. [L.5.4]

**READING: ASSIGNMENTS 22–23 (35 MIN.)**

- Ask students to name the novel they are studying.
  - » *The Science of Breakable Things*
- **Turn and Talk:** Ask students to describe with a partner the key events of the chapters they read in the previous lesson. Remind students to signal when both partners have contributed to the conversation.
  - » Answers may vary, but they could include that Dari joins the Operation Egg team and joins Natalie and Twig in class, the three of them choose job titles for each other, and Natalie goes to her first therapy session.
- Have students open their novels to Assignment 21, the last chapter they read in the previous lesson.
- Point to the questions you wrote on the board. Ask students to aid you in writing a one-sentence summary of Assignment 21. Answers may vary, but an example sentence summary follows.
  - Who or what?
    - » Natalie
  - Did what?
    - » tries to talk about things that do not really matter in therapy
  - When?
    - » after her father picks her up from school and drives her
  - Where?
    - » to Dr. Doris's office

- Why?
  - » because she is not ready to talk about her mother
- How?
  - » stubbornly
- Final sentence:
  - » After her father picks her up from school and drives her to Dr. Doris's office, Natalie stubbornly tries to talk about things that do not really matter in therapy because she is not ready to talk about her mother.
- Have students turn to the illustrated page in Assignment 22 on page 133.
- Ask students the following questions about the page:
  - What do you see?
  - What do you think about it?
  - What does it make you wonder?
    - » Answers may vary but may include that the illustration shows a plan of some kind. Students may also note details such as figures playing volleyball or parachutes being thrown.
- Ask students to turn to the first page of "Assignment 22: The First Test." Have students follow along while you read Assignment 22 aloud.
- As you read or after reading, engage the class in discussion around the following questions:
  1. **Literal.** What is the Operation Egg team's plan for testing their egg drop ideas?
    - » They will go to the volleyball game at school on a weekend, then slip upstairs to drop their eggs from the top of the building.
  2. **Literal.** How does the egg testing go?
    - » Their prototypes fail; all the eggs break.
  3. **Evaluative.** Why does Natalie call Twig "reckless" and "illogical"?
    - » Answers may vary, but they could include that Twig pushes all the eggs out the window at one time.
- Have students silently read Assignment 23. After students have completed their independent reading, ask the following discussion questions.
  1. **Literal.** Why does Mr. Neely decide to let the class play outside in the snow?
    - » It is the last week of school before winter break and it snows for the first time that season.

2. **Inferential.** Why do you think Natalie says she felt like if she didn't laugh she would cry?

- » Answers may vary, but they could include that she was overwhelmed with emotions or felt sad that this day was one of the few days when she actually should be happy.
- Allow a couple minutes for students to add any new information or textual evidence they may have read about characters to their Character Observations Chart.
- Have students write an effect sentence based on the following cause: Mr. Neely gives the class a snow day.
  - » Answers may vary, but they could include effects such as "The class has a snowball fight" or "Natalie thanks him."
- When students are done, ask for volunteers to share their effects.
- Remind students that in the previous lesson, they discussed the author's use of visuals. Ask students to turn back to the illustration on page 133. Now that they have read the chapter, ask students what the image depicts.
  - » It is an illustration of the plan to test Operation Egg.
- Ask students how this visual supports their understanding of the characters' plan.
  - » Answers may vary, but students may state that they can better understand the school's setup.
- Ask students why they think the author included this illustration. What does it add to the story that the characters' list on the previous pages does not?
  - » Answers may vary, but they could include that it may make the plan easier to visualize; students may also note that the plan seems a little less serious in the image than in the list because of the smiley faces and doodles throughout the map. Like the visual they studied in the previous lesson, this illustration makes the text seem more like Natalie's journal assignment and makes the characters seem more realistic.
- Have students turn to page 130 in the novel. Ask what they notice about the plan to sneak into the school.
  - » Answers may vary, but they could include that the steps they use to outline the plan are named after the steps of the scientific process.
- Ask students to recall where else they have seen these steps listed.
  - » Students should recall that the novel is separated into sections named after the scientific process.

- Remind students that in the previous lesson, they discussed the ways in which the “Procedure” section included plans of action created by different characters. Ask students to use textual evidence to determine the next step in the scientific process.
  - » The next step is “Experiment.”
- If students have not already turned to the “Step 6: Experiment” page, have them do so. Note the flower pot illustration at the bottom of the page. Ask students what they believe the flower pots will look like at the end of the novel. What plant(s) do they think are growing in the flower pots?
  - » Answers may vary, but they could include that by the end of the novel, the plants will be fully grown. Students may remember the importance of the Cobalt Blue Orchid and infer that the plants growing in the pots are orchids.
- Ask students what happens in the “Experiment” step based on the text on the page.
  - » The Experiment step is when hypotheses are tested.
- What experiment happens in this reading? What are the results of the experiment?
  - » Natalie, Twig, and Dari experiment with their egg drop designs, and the results are that none of the eggs survived.
- Ask, “If the purpose of the Experiment step is to test a hypothesis, what do you think happens next if the experiment fails?”
  - » Answers may vary, but they could include that the next step would be to rethink the hypothesis and test it again.
- Have students turn to the first page of Assignment 22. Ask them what they notice about the text above the chapter title.
  - » It says December 16.
- Ask students why they think a date appears at the top of each chapter.
  - » Because this novel is structured to be like Natalie’s assignment, the chapters are dated as though she’s writing the dates for a school assignment.
- Ask students how much time has passed since the beginning of the novel.
  - » The novel begins on September 5th, so a little over three months has passed.
- Ask students why they think the author set the novel up to take place over several months.
  - » Answers may vary, but they could include that it would be more realistic for the events of the novel to happen over a longer period of time instead of all at once.

## **D** Differentiation

### Support

If students struggle with inferring the next step after failing an experiment, ask them if they think scientists give up on their work or keep trying.

### Challenge

Ask students what they think the characters’ new hypothesis about their egg drop designs will be.





### Check for Understanding

What happens during the Experiment step?

- » the hypothesis is tested

## ANALYZING CHARACTER RELATIONSHIPS (25 MIN.)



### Small Group



### Visual Support 7.1

- Direct students' attention to Visual Support 7.1 and have students turn to Activity Page 7.1.
- Explain that they will use a relationship chart graphic organizer to analyze Natalie's relationship with another character.
- Explain that it is important to examine relationships between characters when reading. Evaluating the features or details of a relationship helps readers to connect with characters, understand the plot, and predict what will happen later in the story.
- Tell students that they will think about the relationships Natalie has with other characters in the novel, including her mom, Twig, and Dari. Each relationship can be examined to learn more about the story and its characters.
- Tell students that they will use their copies of the novel and observations they recorded on Activity Page 1.1 to fill out the graphic organizer.
- Model how to examine Natalie's relationship with her father by answering the questions on the Analyzing Character Relationships chart. Use the text evidence in the Answer Key for Activity Page 1.1 to model citing textual evidence for your answers.
  - Who is this relationship between?
    - » Natalie and her father
  - How are the characters alike and different?
    - » Answers may vary, but they could include that they are both worried about Natalie's mom. Natalie feels that he should be doing more to try and make her mom better, and her dad thinks they should just give her mom "space."

### Activity Page 7.1



- How do the characters feel about each other?
  - » Answers may vary, but they could include that Natalie's dad thinks she should talk about how she is feeling, but he has a hard time finding the right words. Natalie is frustrated with her dad because she feels he could be doing more to help her mom.
- Why do the characters need each other?
  - » Answers may vary, but they could include that Natalie needs her dad because he is the only one taking care of the family while her mom is sick. Natalie's dad needs her because he may also feel the effects of Natalie's mother's absence.
- How has this relationship changed since the beginning of the novel?
  - » Natalie and her dad still love each other like they did at the beginning of the novel, but Natalie is becoming increasingly frustrated with her father's plan to have her attend therapy.
- Tell students that they will now practice analyzing another relationship from the novel. Direct students to their small groups and assign each group one of the following relationships: Natalie and Twig, Natalie and Dari, and Natalie and her mother. If necessary to regulate group sizes, divide students into more than three groups and assign a relationship to more than one group.
- Direct students to answer the questions on their Analyzing Character Relationships charts using text evidence they recorded on Activity Page 1.1 and any other part of the novel they have read so far.
- Facilitate, monitor, and assist students as needed while they complete the activity page.
- After they have completed their activity pages, gather students to share information about the relationship they analyzed.
- Ask student volunteers to read aloud their answers to the questions and discuss the relationships in the novel so far. Discuss the following questions: Why is this relationship important to the story? Will this relationship change in the future? What evidence from the text makes you think so?

## Differentiation

### Support

Have students consider the procedures the class brainstormed earlier to consider why characters may need each other.

### Challenge

Ask students to analyze Natalie's relationship with Mikayla Menzer using the questions from the chart.



## MULTILINGUAL/ENGLISH LEARNERS

### Reading

#### Synthesizing Information

#### Entering/Emerging

Have students orally explain how their character and Natalie feel about each other to a teacher.

#### Transitioning/ Expanding

Have students work with a partner to complete the chart.

#### Bridging

Provide students with sentence starters to help them focus their thinking, such as "Natalie is different from Twig because \_\_\_\_\_," or "Natalie and Twig both \_\_\_\_\_," etc.



### Check for Understanding

Why is it important to examine relationships between characters?

### WORD WORK: *SPONTANEOUSLY* (5 MIN.)

1. In today's reading, you read "We weren't going to start spontaneously running around and playing tag."
2. Say the word *spontaneously* with me.
3. *Spontaneously* means impulsively; acting or taking place without outside force or cause.
4. My grandmother decided to spontaneously visit for dinner.
5. What are some other examples of *spontaneously*? Be sure to use the word *spontaneously* in your response.
  - » Answers will vary. If necessary, guide and/or rephrase students' responses to make complete sentences: "\_\_\_\_\_ did something spontaneously when . . ."
6. What part of speech is the word *spontaneously*?
  - » adverb
7. **Use a Discussion activity for follow-up.** Say, "Talk with your partner about a time you did something spontaneously. Be sure to use the word *spontaneously* in complete sentences as you discuss this with your partner."

## Lesson 7: Analyzing Character Relationships

# Writing



**Primary Focus:** Students will write a narrative paragraph describing a fun day at school using sensory details and concrete words and phrases. [W.5.3d]

### WRITING WITH DETAIL (25 MIN.)

- Tell students that today they will practice adding details to their writing. Ask students how they have previously added details to their writing.
  - » Students have added *when*, *where*, *why*, and *how* details to their writing.
- Point to the first set of sentences you have written on the board:
  - Dari's cheeks were red.
  - Dari's cheeks were flushed with the cold.
- Ask students which sentence is stronger. Why?
  - » The second sentence is stronger because it includes more details.
- Ask students which of the five senses connects to the description "flushed with the cold."
  - » Answers may vary, but they could include sight, because Natalie sees his red cheeks, or touch, because they can relate to the feeling of the cold air on their own faces.
- Tell students that details like this, which use words that evoke one of the five senses, are called sensory details.
- Point to the second set of sentences you have written on the board:
  - I gaped at my best friend.
  - I gaped at my reckless, illogical best friend.
- Ask students which sentence is stronger. Why?
  - » The second sentence is stronger because it includes descriptions of the best friend and why the speaker is gaping at her.
- Point to the third set of sentences you have written on the board:
  - I heard the sound.
  - I jumped at the shrieking, high-pitched sound.

## D Differentiation

### Challenge

Ask students to revise their paragraphs to include at least one more concrete word.

### Support

Ask students what sensory details do for readers.

- » They make readers use at least one of their five senses.

### Activity Page 7.2



- Ask students which sentence is stronger and why.
  - » The second sentence is stronger because it includes concrete words that describe the sound and what specifically you did when you heard it.
- Tell students that specific nouns and adjectives like *jumped*, *shrieking*, and *high-pitched* are called concrete words. Concrete words are specific and better show a reader what is happening. Like sensory details, they are words that the reader can see, hear, touch, taste, or smell.
- Tell students that using sensory details and concrete words and phrases in their writing will create an even better picture for a reader.
- Have students turn to Activity Page 7.2 and read the instructions. Tell students that they will write a narrative paragraph about a fun day they had at school just like Natalie had a fun snow day in the novel. In their paragraph, students will use at least one sensory detail, one concrete word or phrase, and one appositive.
- If time allows, when students complete their writing, have them exchange their activity pages with a partner. Each student should check their partners' paragraphs to identify where they have added their sensory details, concrete words or phrases, and appositives.

**ML/EL**

#### MULTILINGUAL/ENGLISH LEARNERS

#### Writing

#### Writing

##### Entering/Emerging

Work with students in a small group to draft an example of a concrete word. Provide additional one-on-one support to struggling students.

##### Transitioning/ Expanding

Pair students and encourage them to draft an example of a concrete word.

##### Bridging

Have students share their examples of concrete words and sensory details with a partner and adjust their writing based on partner feedback.

End Lesson



## 8

# Making Inferences

## PRIMARY FOCUS OF LESSON

### Reading

Students will analyze and make conclusions about the overall structure of the novel. [RL.5.5]

Students will make inferences about characters using evidence from the text. [RL.5.1]

Students will demonstrate an understanding of the Tier 2 word *precise*. [L.5.4]

### Writing

Students will write a narrative paragraph about an experiment using dialogue and descriptive language. [W.5.3b, W.5.3d]

## FORMATIVE ASSESSMENT

### Activity Page 8.1

**Scientific Steps and Key Details** Students will analyze and make conclusions about the novel's structure. [RL.5.5]

### Activity Page 8.2

**Making Inferences** Students will make inferences based on textual evidence. [RL.5.1]

### Activity Page 8.3

**The First Experiment** Students will write a narrative paragraph with sensory details, concrete words and phrases, and dialogue. [W.5.3b, W.5.3d]



**Teacher Presentation Screens:**  
all lessons include slides

## LESSON AT A GLANCE

|                            | Grouping Recommendations                                                                             | Time    | Materials                                                                                                                                                          |
|----------------------------|------------------------------------------------------------------------------------------------------|---------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Reading (70 min.)          |                                                                                                      |         |                                                                                                                                                                    |
| Reading: Assignments 24–26 | Whole Group/<br>Partner                                                                              | 45 min. | <input type="checkbox"/> <i>The Science of Breakable Things</i><br><input type="checkbox"/> Activity Pages 8.1, 8.2<br><input type="checkbox"/> Visual Support 8.1 |
| Making Inferences          |  <b>Small Group</b> | 20 min. |                                                                                                                                                                    |
| Word Work: <i>Precise</i>  | Whole Group                                                                                          | 5 min.  |                                                                                                                                                                    |
| Writing (20 min.)          |                                                                                                      |         |                                                                                                                                                                    |
| Writing with Detail        | Partner/<br>Independent                                                                              | 20 min. | <input type="checkbox"/> Activity Page 8.3                                                                                                                         |



## ADVANCE PREPARATION

### Reading

- Distribute the novel *The Science of Breakable Things* by Tae Keller.
- Write the following questions on the board in preparation for a sentence summary activity:
  - Who or what?
  - Did what?
  - When?
  - Where?
  - Why?
  - How?

### ➤ Visual Support 8.1

- Prepare to display Visual Support 8.1, which can be accessed in the Visual Supports for Teaching.
- Divide students into small groups for the making inferences activity.

## VOCABULARY

### Core Vocabulary

- You may choose to preview the vocabulary words before reading the text.

**clutching, v.** grasping or holding tightly

**averted, v.** kept from happening or occurring

**arboretum, n.** a place where trees and plants are grown to be studied

**Bollywood, n.** the movie industry in India

**precise, adj.** specific or exact

Vocabulary Chart for “Assignments 24–26”

| Type                | Tier 3<br>Domain-Specific Words | Tier 2<br>General Academic Words             | Tier 1<br>Everyday Speech Words |
|---------------------|---------------------------------|----------------------------------------------|---------------------------------|
| Vocabulary          | Bollywood                       | clutching<br>averted<br>arboretum<br>precise |                                 |
| Spanish Cognates    |                                 | arboreto<br>preciso/a                        |                                 |
| Multiple-Meaning    |                                 |                                              |                                 |
|                     |                                 |                                              |                                 |
| Sayings and Phrases |                                 |                                              |                                 |

## Lesson 8: Making Inferences

## Reading

**Primary Focus**

Students will analyze and make conclusions about the overall structure of the novel. [RL.5.5]

Students will make inferences about characters using evidence from the text. [RL.5.1]

Students will demonstrate an understanding of the Tier 2 word *precise*. [L.5.4]

**READING: ASSIGNMENTS 24–26 (45 MIN.)**

- Ask students to name the novel they are studying.
  - » *The Science of Breakable Things*
- Ask students to describe the key events of the chapters they read in the previous lesson.
  - » Answers may vary, but they could include that the Operation Egg team tests their designs and Mr. Neely gives the class a snow day.
- Have students open their novels to Assignment 22, which you read aloud in the previous lesson.
- Point to the questions you wrote on the board. Ask students to write a one-sentence summary of Assignment 22 with a partner. Answers may vary, but an example sentence summary follows.
  - Who or what?
    - » Natalie, Twig, and Dari
  - Did what?
    - » sneak into the school
  - When?
    - » during the volleyball game
  - Where?
    - » at school
  - Why?
    - » because they need to test their egg drop designs

- How?
  - » stealthily
- Final sentence:
  - » During the volleyball game, Natalie, Twig, and Dari stealthily sneak into the school because they need to test their egg drop designs.
- Ask students to turn to the first page of “Assignment 24: Dad’s Mission.” Have students follow along while you read Assignments 24 and 25 aloud.
- As you read or after reading, engage the class in discussion around the following questions:
  1. **Inferential.** Why does Natalie leave her father at the mall?
    - » Answers may vary, but they could include that she doesn’t want to hear him talk to Mikayla’s mom.
  2. **Literal.** Why does Natalie pick the *camellia japonica* for her mom?
    - » She likes the idea that it can live through almost anything. She likes the idea of “a plant that keeps going.”
  3. **Literal.** What is the common name and description Natalie reads about the *camellia japonica*?
    - » Answers may vary, but they could include that it is called Korean Fire and can tolerate many different conditions.
  4. **Inferential.** How is the *camellia japonica* connected to Natalie’s life and family?
    - » Answers may vary, but they could include that it relates to her family because of her father’s Korean heritage. The description states that it can survive through any conditions, which Natalie relates to her life and what her family is going through.
  5. **Inferential.** Why is Natalie making so many observations during her visit with Dr. Doris?
    - » Answers may vary, but they could include that they are a distraction that helps keep her from talking to Dr. Doris.
- Have students silently read Assignment 26. After students have completed their independent reading, ask the following discussion questions.
  1. **Literal.** How do Dari’s parents differ from Natalie’s and Twig’s?
    - » They are more involved in what Dari is doing; they are affectionate with each other in a way Natalie’s parents have not been in a long time.

2. **Evaluative.** How and why does Natalie start to feel different when they are going to test their eggs?

» Answers may vary, but they could include that she feels much more nervous, because this is the last chance they have for testing their designs.

3. **Literal.** What happens when the team tests Cotton Ball Heaven and S'meggs?

» The egg in Cotton Ball Heaven breaks. The egg in S'meggs does not break.

- Allow a couple minutes for students to add any new information or textual evidence they may have read about characters to their Character Observations Chart.
- Have students write a sentence about the egg drop test based on the four sentence types (declarative, imperative, interrogative, and exclamatory).
  - » Answers may vary, but they could include *declarative*: Natalie, Twig, and Dari test their designs for the egg drop contest; *imperative*: Test both of the egg drop designs to see which one will work better; *interrogative*: Did Cotton Ball Heaven or S'meggs survive the fall?; *exclamatory*: The egg in S'meggs survived!
- When students are done, ask for volunteers to share one of their sentences.

### ➤ Visual Support 8.1

- Project Visual Support 8.1 and have students turn to Activity Page 8.1.
- Explain that in this segment, students will continue analyzing the text structure of the novel. Tell them that identifying and recognizing the structure of a text is important because it helps readers organize information and details from the text as they read, make connections between details, and summarize the important details.
- Ask students to recall how the author organizes this novel.
  - » The chapters are called Assignments, and the book is separated into the eight scientific steps.
- Ask students what effect the text being divided into the eight scientific steps has on their understanding of the novel.
  - » Answers may vary, but students should understand that the eight steps slowly reveal information about the characters, topics and themes, conflicts or problems, and the plot of the novel. For example, Natalie follows the first few steps to better understand the situation with her mother.
- Explain that students will use Activity Page 8.1 to analyze how the steps of the scientific method relate to the events they have read about so far in the novel. Students will complete Steps 1–6 today and complete the remainder later in the unit.

## Activity Page 8.1



## D Differentiation

### Support

To help students understand text structure, ask them to think about the ways Natalie has begun to understand her world better using the steps. How have they as readers better understood Natalie and her actions through these steps?

### Challenge

Ask students to compare the steps of the team's egg drop test plan in Assignment 22 with the scientific steps on Visual Support 8.1. How are they similar and how are they different?

- Remind students that in Step 1: Observe, Mr. Neely asked his students to observe, or take note of the world around them. Ask students to name some key events they have observed from the novel so far, and write their responses under Step 1: Observe on Visual Support 8.1. Have students do the same on Activity Page 8.1.
  - » Answers may vary, but they could include that Natalie's mother is struggling with an illness, Natalie's best friend is Twig, Natalie wants to win the egg drop competition so that she can use the money to help her mother, etc.
- Then ask students to find quotes or evidence from the text that supports the notes they have taken under Step 1. Have students write the quotes and the page numbers under Key Details. Suggested textual evidence can be found in the Answer Key for this activity page.
- Ask students what the next step, Question, means.
  - » Answers may vary, but they could include that in this step they should find something that intrigues or confuses them about the novel.
- Have students write a couple of questions under Step 2 and include quotes and details relevant to their questions under Key Details.
- Tell students that for the rest of this activity, they will focus on the question "Will Operation Egg win the egg drop competition?"
- Remind students that Step 3 in the scientific process is Investigative Research. Tell students that for this step, they will take notes under Step 3 about information relevant to the team's chances at winning the egg drop competition. Have them include quotes and details relevant to their notes under Key Details.
- Ask students what Step 4 in the scientific process is.
  - » hypothesis
- Tell students that now they will use the information they gathered during their investigative research to form a hypothesis. Their hypothesis will be about the outcome of the egg drop competition and whether or not Operation Egg will win.
- Have students write their hypothesis under Step 4. Then, under Key Details, have them note quotes from the text that supports their hypothesis.
- Ask students what Step 5, Procedure, means. What procedure might they use to find out if their hypothesis is correct? Have them write the procedure under Step 5.
  - » Answers may vary, but they could include that their procedures will be to continue reading the novel, gathering textual evidence as they do, in order to find out who wins the egg drop competition.

- Finally, tell students that it is time for Step 6, Experiment. Tell students that in the next couple of lessons, they will continue reading the novel to find out what the outcome of the egg drop competition is. As they read, they should note any additional information relevant to their hypothesis under Step 6 and include any relevant quotes under Key Details.
- Tell students that later in the unit, they will return to Activity Page 8.1 to complete the scientific process.



### Check for Understanding

Which two steps in the scientific process are left to complete?

- » Results and Analyze Your Results

## MAKING INFERENCES (20 MIN.)



### Small Group

- Divide students into their preplanned groups and have students turn to Activity Page 8.2.
- Ask students what an inference is.
  - » a conclusion based off of found evidence
- Explain that students will work in small groups to infer the answers to a series of questions. They should use evidence from the text to support their inferences. Then as a group, they will fill out the Somebody Wanted But So Then chart about the Operation Egg team's attempt at testing their designs.
- After students have filled out the chart, have them write a summary of the information in the chart in two or three sentences.
- Facilitate, monitor, and assist students as needed while they complete the activity page.



### Check for Understanding

What is an inference?

- » a conclusion or opinion based off of found evidence

## Activity Page 8.2



## D Differentiation

### Challenge

On the extra space on Activity Page 8.2, have students fill out an additional Somebody Wanted But So Then chart about Natalie's most recent trip to therapy.



## MULTILINGUAL/ENGLISH LEARNERS

### Reading

#### Synthesizing Information

|                                     |                                                                                                                                      |
|-------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------|
| <b>Entering/Emerging</b>            | Have students read aloud the evidence they have found to support their inferences to a teacher.                                      |
| <b>Transitioning/<br/>Expanding</b> | Have students read aloud the evidence they have found to support their inferences to a peer.                                         |
| <b>Bridging</b>                     | Provide students with sentence starters to focus their thinking, such as “Natalie feels _____ about going to therapy because _____.” |

### WORD WORK: *PRECISE* (5 MIN.)

1. In today's reading, you read “I looked around the yard, with Dari's thoughtful, precise setup.”
2. Say the word *precise* with me.
3. *Precise* means “specific or exact.”
4. He had to use precise measurements to bake his souffle exactly right.
5. What are some other examples of *precise*? Be sure to use the word *precise* in your response.
  - » Answers will vary. If necessary, guide and/or rephrase students' responses to make complete sentences: “You should be precise when . . .”
6. What part of speech is the word *precise*?
  - » adjective
7. **Use an Antonyms activity for follow-up.** “What does the word *precise* mean? What are some antonyms, or words with an opposite meaning, of *precise*?” Prompt students to provide words such as *approximate*, *general*, and *loose*. Then have them turn to a partner and create sentences using the antonyms they provided.



## Lesson 8: Making Inferences

# Writing



**Primary Focus:** Students will write a narrative paragraph about an experiment using dialogue and descriptive language. [W.5.3b, W.5.3d]

### WRITING WITH DETAIL (20 MIN.)

#### Activity Page 8.3



#### **D** Differentiation

##### Challenge

Have students include one additional character to their narrative.

##### Support

Remind students that Natalie's mother used cereal in her egg drop design.

- Tell students that today they will continue adding sensory details and concrete words to their writing. Ask students what sensory details and concrete words do.
  - » They make readers use at least one of their five senses.
- Have students turn to Activity Page 8.3 and read the instructions. Tell students that they will write a narrative paragraph imagining what it was like when Natalie's mother tested her own egg drop experiment in school. Remind students that she told Natalie about her experiment in Assignment 14.
- Tell students that in addition to Natalie's mother, they will include at least one other character in the narrative. Students should use dialogue to convey conversation between the two characters. Ask students which punctuation marks they should use with dialogue.
  - » quotation marks and a comma
- **Write-Share-Write:** Have students write for a few minutes, then pause and discuss their writing and ideas with a partner. Have students discuss their sensory details, concrete words or phrases, and ideas for dialogue. Then have students continue writing, improving their narrative paragraphs using the information they discussed with their partner.



## MULTILINGUAL/ENGLISH LEARNERS

### Writing

#### Writing

|                                     |                                                                                                                                              |
|-------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Entering/Emerging</b>            | Work with students in a small group to brainstorm examples of a concrete word. Provide additional one-on-one support to struggling students. |
| <b>Transitioning/<br/>Expanding</b> | Pair students and encourage them to brainstorm examples of a concrete word.                                                                  |
| <b>Bridging</b>                     | Have students exchange feedback on their sensory details and concrete words or phrases.                                                      |

End Lesson

# Practicing Figurative Language

## PRIMARY FOCUS OF LESSON

### Reading

Students will describe how characters and their relationships have evolved. [RL.5.1, RL.5.3]

Students will interpret the meaning of figurative language in the text. [RL.5.4]

Students will demonstrate an understanding of the Tier 2 word *oblivious*. [L.5.4]

### Writing

Students will write a narrative paragraph depicting their predicted results of the egg drop competition and including transitional words, phrases, or clauses. [W.5.3c]

## FORMATIVE ASSESSMENT

### Activity Page 9.1

**Practicing Figurative Language** Students will interpret the meaning of figurative language. [RL.5.4]

### Activity Page 9.2

**Egg Drop Hypotheses** Students will use transitional words, phrases, and clauses in a narrative paragraph. [W.5.3c]



**Teacher Presentation Screens:**  
all lessons include slides

## LESSON AT A GLANCE

|                                                       | Grouping Recommendations    | Time    | Materials                                                                                                     |
|-------------------------------------------------------|-----------------------------|---------|---------------------------------------------------------------------------------------------------------------|
| Reading (70 min.)                                     |                             |         |                                                                                                               |
| Reading: Assignments 27–30                            | Whole Group                 | 45 min. | <input type="checkbox"/> <i>The Science of Breakable Things</i><br><input type="checkbox"/> Activity Page 9.1 |
| Practicing Figurative Language                        | Whole Group/<br>Independent | 20 min. |                                                                                                               |
| Word Work: <i>Oblivious</i>                           | Whole Group                 | 5 min.  |                                                                                                               |
| Writing (20 min.)                                     |                             |         |                                                                                                               |
| Writing with Transitional Words, Phrases, and Clauses | Independent                 | 20 min. | <input type="checkbox"/> Activity Page 9.2                                                                    |

## ADVANCE PREPARATION

### Reading

- Distribute the novel *The Science of Breakable Things* by Tae Keller.
- Write the following questions on the board in preparation for a sentence summary activity:
  - Who or what?
  - Did what?
  - When?
  - Where?
  - Why?
  - How?

### Universal Access

- To ensure all students have the opportunity to contribute during Think-Pair-Share exchanges, provide students with a signal such as folding their hands or raising a hand to indicate when both partners have added to the conversation.

## VOCABULARY

### Core Vocabulary

- You may choose to preview the vocabulary words before reading the text.

**figurine, n.** a small model of a person or creature

**oblivious, adj.** not being conscious or aware

**depressed, adj.** living with a mood disorder that affects how a person thinks, feels, and acts

**dduk, n.** a traditional Korean rice cake soup eaten on New Year's Day

**toxins, n.** poison usually produced by a living thing

**Vocabulary Chart for "Assignments 27–30"**

| Type                | Tier 3<br>Domain-Specific Words | Tier 2<br>General Academic Words             | Tier 1<br>Everyday Speech Words |
|---------------------|---------------------------------|----------------------------------------------|---------------------------------|
| Vocabulary          | dduk                            | figurine<br>oblivious<br>depressed<br>toxins |                                 |
| Spanish Cognates    |                                 | figurilla<br>deprimido/a<br>toxinas          |                                 |
| Multiple-Meaning    |                                 |                                              |                                 |
| Sayings and Phrases |                                 |                                              |                                 |

## Lesson 9: Practicing Figurative Language

## Reading



## Primary Focus

Students will describe how characters and their relationships have evolved.

[RL.5.1, RL.5.3]

Students will interpret the meaning of figurative language in the text. [RL.5.4]

Students will demonstrate an understanding of the Tier 2 word *oblivious*. [L.5.4]

## READING: ASSIGNMENTS 27–30 (45 MIN.)

- Ask students to name the novel they are studying.
  - » *The Science of Breakable Things*
- Ask students to describe the key events of the chapters they read in the previous lesson.
  - » Answers may vary, but they could include that Natalie and her father go to the mall and run into Mikayla Menzer and her mother, Natalie makes observations and counts questions in her therapy session, and the Operation Egg team tests two designs at Dari's house.
- Have students open their novels to Assignment 24, which you read aloud in the previous lesson.
- Point to the questions you wrote on the board. Ask students to write a one-sentence summary of Assignment 24. Then have them share their final sentences with a partner. Answers may vary, but an example sentence summary follows.
  - Who or what?
    - » Natalie
  - Did what?
    - » leaves her dad in conversation with Mikayla and Mrs. Menzer and heads to the plant nursery to look for her mother's Christmas present
  - When?
    - » after running into Mikayla and Mrs. Menzer
  - Where?
    - » at the mall

- Why?
  - » because she hates thinking about what Mrs. Menzer has done to her mother and their family
- How?
  - » upset
- Final sentence:
  - » After running into Mikayla and Mrs. Menzer at the mall, Natalie leaves her dad in conversation with them and heads to the plant nursery for her mother's Christmas present, upset because she hates thinking about what Mrs. Menzer has done to her mother and their family.
- Ask students to turn to the first page of "Assignment 27: Christmas, Cracked." Have students follow along while you read Assignments 27 and 28 aloud.
- As you read or after reading, engage the class in discussion around the following questions:
  1. **Literal.** What does Natalie's dad do with the egg she hands him on Christmas?
    - » He puts it back in the carton.
  2. **Inferential.** Why does Natalie say that him doing this is worse than if he had thrown it?
    - » Answers may vary, but they could include that he has not shown Natalie much of his frustration about the situation and she wanted him to express that frustration.
  3. **Literal.** What event left Twig without knowing what to say?
    - » Twig is speechless when she visits Natalie on Christmas and sees her cry.
  4. **Inferential.** Why might Natalie crying leave Twig speechless?
    - » Answers may vary, but they could include that up until this point in the novel, Natalie and Twig have avoided speaking about the larger problems each of them has in her life.
  5. **Literal.** What does Twig imagine is upsetting Natalie?
    - » She thinks Natalie is tired of her or of playing board games together.
- Have students silently read Assignments 29 and 30. After students have completed their independent reading, ask the following discussion questions.
  1. **Literal.** How does Natalie's mother act on New Year's Eve?
    - » She comes and joins the family; she smiles, though it is not quite her old smile.



2. **Literal.** Name the ways that Natalie starts to show her interest in her Korean background.
- » Answers may vary, but they could include her interest in cooking *dduk*, calling her grandmother *Halmoni* (the Korean name for grandmother), or asking her grandmother questions about Korea and the Koran Fire flower.
3. **Literal.** What is Natalie's favorite memory of her mother?
- » Her favorite memory is of the day they spent at the arboretum, during which her mother told her the story of the Cobalt Blue Orchid.
4. **Inferential.** 👤👤 *Think-Pair-Share:* Have students turn to a partner and discuss why Natalie might have such good feelings about this memory. Remind students to signal when both partners have contributed to the conversation.
- » Answers may vary, but they could include that her mother made what would have been a bad day special and that her mother's passion about the Cobalt Blue Orchid made the flower feel magical in Natalie's eyes.
- Allow a couple minutes for students to add any new information or textual evidence they may have read about characters to their Character Observations Chart.
  - Remind students that in previous lessons, they compared and contrasted Twig and Natalie and analyzed their relationship.
  - Ask students how Natalie and Twig typically interact. Do they talk about the problems in their lives?
    - » Answers may vary, but they should include that they keep their discussions at surface level and do not discuss Natalie's problems with her mother.
  - Remind students that Natalie is not the only character having difficulties in her life. What problems is Twig having with her own parents?
    - » Her parents are "amicably separated," which means Twig does not get to see her father very often, and she often butts heads with her mother.
  - Have students turn to Assignment 28. Ask how Natalie and Twig's interaction in this chapter is similar to and different from their earlier interactions in the novel. Have students use textual evidence to support their answer.
    - » In this chapter, Natalie finally talks to Twig about her issues at home and shows the emotions she has been keeping inside, which is different from how they have interacted before. However, after their serious conversation, Twig attempts to make Natalie laugh to help her feel better, and Natalie must calm her down from getting too excited and hyper about a new idea, which are similar moments to interactions they have had earlier in the novel. Textual evidence may include her telling Twig her mother is depressed or "hearing her say it cracked something open inside me and I started to cry."

- Ask students how the changes in Natalie and Twig’s relationship show their growth as characters.
  - » Answers may vary, but they could include that Natalie and Twig can help each other more now that they have learned to communicate their feelings.
- Have students write an effect sentence based on the following cause: Twig tells Natalie she is not sure if she has done something to make her mad.
  - » Answers may vary, but they could include effects such as: *Natalie tells Twig that her mother is depressed so that Twig does not think Natalie’s feelings are her fault, and it helps them become closer friends.*



### Check for Understanding

How does Natalie feel after she tells Twig about her mother’s depression?

- » She feels better and begins to laugh again.

## PRACTICING FIGURATIVE LANGUAGE (20 MIN.)

- Remind students that in Lesson 5, they discussed figurative language. Ask students to recall the definition of *figurative language*.
  - » words or phrases that mean more than their dictionary definition; similes and metaphors are two examples of figurative language
- Ask students to turn to page 179 and silently reread the sentence starting with “The way Dad speaks . . .”
- Ask students to define the word *rhythmic*.
  - » having a rhythm or beat
- Ask students what two objects are being compared in the figurative language in this paragraph.
  - » This paragraph compares Natalie’s father’s voice with the rhythm of a waltz.
- Ask students to imagine they were listening to a rhythmic song and a different, jarring note suddenly played. How would they feel in that scenario?
  - » Answers may vary, but they could include that it would feel confusing or even uncomfortable to listen to that song.

## D Differentiation

### Support

Have students turn to relevant moments in the text that describe Natalie and Twig avoiding difficult discussions, such as their conversation in Assignment 7 or the end of Assignment 12, when Twig can tell something is going on with Natalie but does not ask questions.

### Challenge

Ask students how they think this conversation will change the relationship between Natalie and Twig. Will they still keep their feelings to themselves?

## D Differentiation

### Support

Tap out a rhythmic beat for students. Once you have established a pattern in the beats, make a clap. Ask students if the clap felt natural in the pattern or if it felt like something was off.

### Challenge

Have students describe how Natalie feels on Christmas Day in a written sentence that incorporates a simile.

## Activity Page 9.1



- Ask students how the anger in her father's voice might be similar to that scenario. How does Natalie feel when she hears his anger?
  - » Answers may vary, but they could include that the anger in his voice is unnatural to him, just as a jarring note would be unnatural in a rhythmic song, and that Natalie gets a little scared when she hears it.
- Tell students that they will continue examining figurative language independently.
- Have students turn to Activity Page 9.1. Ask students to read the quote at the top of the page.
- Remind students that this quote is from Assignment 28, when Twig finds out about Natalie's plan to go to New Mexico with her mother.
- **Write-Share-Write:** Have students independently complete the questions on Activity Page 9.1. When students are done, have them share their work with a partner. While one student shares, the other student will write down their partner's thoughts. Students can expand their own writing based on insights gained during sharing.



### Check for Understanding

How does figurative language improve writing?

- » It makes the writing more interesting and helps readers gain insight into characters' personalities.



#### MULTILINGUAL/ENGLISH LEARNERS

##### Reading

##### Synthesizing Information

|                                     |                                                                                                                                                                   |
|-------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Entering/Emerging</b>            | Have students discuss the comparison of Twig and the bear with a teacher.                                                                                         |
| <b>Transitioning/<br/>Expanding</b> | Have students discuss the comparison of Twig and the bear with a peer.                                                                                            |
| <b>Bridging</b>                     | Provide students with sentence starters to help them focus their thinking, such as "Twig's energy when she gets excited is similar to a wild bear because _____." |

## WORD WORK: *OBLIVIOUS* (5 MIN.)

1. In today's reading, you read "I'd just assumed she was *Twig*, oblivious to the rest of the world."
2. Say the word *oblivious* with me.
3. *Oblivious* means "not being conscious or aware."
4. The movie was so good, she was oblivious to the fact that her dog was eating her popcorn.
5. What are some other examples of *oblivious*? Be sure to use the word *oblivious* in your response.
  - » Answers will vary. If necessary, guide and/or rephrase students' responses to make complete sentences: "\_\_\_\_\_ was oblivious when . . ."
6. What part of speech is the word *oblivious*?
  - » adjective
7. **Use a Synonyms activity for follow-up.** "What does the word *oblivious* mean? What are some synonyms of, or words with a similar meaning to, *oblivious*?" Prompt students to provide words such as *unknowing*, *unaware*, or *inattentive*. Then have them turn to a partner and create sentences using the synonyms they provided.

## Lesson 9: Practicing Figurative Language

# Writing



**Primary Focus:** Students will write a narrative paragraph depicting their predicted results of the egg drop competition and including transitional words, phrases, or clauses. [W.5.3c]

### WRITING WITH TRANSITIONAL WORDS, PHRASES, AND CLAUSES (20 MIN.)

#### Activity Page 9.2



#### D Differentiation

##### Challenge

Have students include one example of figurative language in their paragraph.

##### Support

If students struggle to think of transitional words or phrases, have them use the words the class brainstormed on Activity Page 6.2.

- Have students turn to Activity Page 9.2 and read the directions.
- Tell students that they will write a paragraph about what they think will happen during the egg drop competition. Remind students that in the last lesson they made hypotheses, or predictions, about what would happen in the egg drop competition. Their paragraphs should show how they think their predictions will come true, and they should use at least two examples of transitional words, phrases, or clauses.
- Ask students to define a transitional word or phrase.
  - » words and phrases you use to connect one idea to the next
- Ask students to define a transitional dependent clause.
  - » when a dependent clause begins a sentence and sets up what the rest of the sentence will be about
- Tell them their paragraph should begin with a transitional dependent clause. Remind students to use a comma after the dependent clause.
- When students complete their writing, have them exchange their activity pages with a partner. Each student should check their partners' paragraphs to identify where they have added transitional words or phrases.



## MULTILINGUAL/ENGLISH LEARNERS

### Writing

#### Writing

|                                     |                                                                                  |
|-------------------------------------|----------------------------------------------------------------------------------|
| <b>Entering/Emerging</b>            | Have students brainstorm a transitional word, phrase, and clause with a partner. |
| <b>Transitioning/<br/>Expanding</b> | Have students brainstorm a transitional phrase and clause with a partner.        |
| <b>Bridging</b>                     | Have students brainstorm a transitional clause with a partner.                   |

~~~~~ **End Lesson** ~~~~~

Brainstorming a Narrative

PRIMARY FOCUS OF LESSON

Reading

Students will summarize a passage, orally and in writing, while maintaining meaning and logical order. [RL.5.2, SL.5.2, L.5.3a]

Students will analyze and draw conclusions about the overall structure of the novel. [RL.5.5]

Students will demonstrate an understanding of the Tier 2 word *impact*. [L.5.4]

Writing

Students will brainstorm ideas for narrative writing using a graphic organizer. [W.5.3, W.5.5]

FORMATIVE ASSESSMENT

Activity Page 10.2

One Sentence Summary Students will write a one-sentence summary. [RL.5.2]

Activity Page 10.3

Brainstorming Students will brainstorm ideas for their narrative using a graphic organizer. [W.5.3]



Teacher Presentation Screens:
all lessons include slides

LESSON AT A GLANCE

| | Grouping Recommendations | Time | Materials |
|----------------------------|-----------------------------|---------|---|
| Reading (70 min.) | | | |
| Reading: Assignments 31–32 | Whole Group/
Independent | 55 min. | <input type="checkbox"/> <i>The Science of Breakable Things</i>
<input type="checkbox"/> Activity Pages 10.1, 10.2
<input type="checkbox"/> board/chart paper |
| Summarizing | Independent | 10 min. | |
| Word Work: <i>Impact</i> | Whole Group | 5 min. | |
| Writing (20 min.) | | | |
| Brainstorming | Whole Group/
Independent | 20 min. | <input type="checkbox"/> Visual Supports 10.1, 10.2
<input type="checkbox"/> Activity Page 10.3
<input type="checkbox"/> board/chart paper |

ADVANCE PREPARATION

Reading

- Distribute the novel *The Science of Breakable Things* by Tae Keller.
- Prepare to write the following sentence on the board/chart paper: *Natalie, Dari, and Twig lost the egg drop competition.*

Writing

> Visual Support 10.1

- Prepare to display Visual Support 10.1.

> Visual Support 10.2

- Prepare to display Visual Support 10.2, or create the following chart on the board/chart paper:

| Main Events
(What happens?) | Narrator | Secondary
Characters | Setting |
|--------------------------------|----------|-------------------------|---------|
| | | | |

Universal Access

Reading

- To ensure all students have the opportunity to contribute during Turn and Talk and Think-Pair-Share exchanges, provide students with a signal such as folding their hands or raising a hand to indicate when both partners have added to the conversation.
- Prepare to support students with the meaning of unknown words as they read.

VOCABULARY

Core Vocabulary

- You may choose to preview the vocabulary words before reading the text.

beaming, v. smiling joyfully

impact, n. a collision; the action of one object crashing into another

enunciating, v. articulating or speaking with clear pronunciation

ramble, v. to speak in a lengthy manner without a clear point

sappy, adj. overly emotional or sentimental

morphed, v. transformed or changed

Vocabulary Chart for “Assignments 31–32”

| Type | Tier 3
Domain-Specific Words | Tier 2
General Academic Words | Tier 1
Everyday Speech Words |
|---------------------|---------------------------------|--|---------------------------------|
| Vocabulary | | beaming
enunciating
ramble
sappy
morphed | |
| Spanish Cognates | | enunciando | |
| Multiple-Meaning | | impact | |
| | | | |
| Sayings and Phrases | | | |

Lesson 10: Brainstorming a Narrative

Reading



Primary Focus

Students will summarize a passage, orally and in writing, while maintaining meaning and logical order. [RL.5.2, SL.5.2, L.5.3a]

Students will analyze and draw conclusions about the overall structure of the novel. [RL.5.5]

Students will demonstrate an understanding of the Tier 2 word *impact*. [L.5.4]

READING: ASSIGNMENTS 31–32 (55 MIN.)

- Ask students to describe the key events of the chapters they read in the previous lesson.
 - » Answers may vary, but could include that Natalie's mom doesn't come out of her room for Christmas, which makes Natalie upset and causes her to throw the eggs; Natalie's dad calls Twig to come make Natalie feel better and Natalie opens up to Twig about what is going on with her mom; Natalie makes duk to bring them good luck; Natalie begins to open up to Dr. Doris.
- Ask students to turn to "Assignment 31: Objects in Motion."
- Tell students that they will come across the phrase "in theory" in the novel. Explain that this means what should happen, or be true, if an idea is correct.
- Have students silently read Assignment 31.
- After students have completed their independent reading, have them review the materials and procedure listed on the first page of Assignment 31, and the diagram on the second page of Assignment 31 titled "Pendulum Experiment".
 - Ask: "How does the diagram enhance your understanding of Natalie, Twig, and Dari's experiment?"
 - » Answers may vary, but could include that the diagram helps us visualize how they completed the experiment and what they were thinking while completing certain steps (e.g., "the hold-your breath moment where anything is possible.")
- **Think-Pair-Write.** Tell students they will orally summarize the pendulum experiment with a partner. They may use more than one sentence to describe the experiment, and use both the text and diagram for support. Explain that their summaries should be made up of imperative sentences that provide directions or commands (they are not summarizing what

D Differentiation

Support

Explain that Isaac Newton was a mathematician and physicist who formulated scientific laws, such as the laws of motion.

Natalie, Twig, and Dari do, they are summarizing the procedure itself). After students have shared in pairs, have them write down their summaries on paper in two to three complete sentences.

- Explain that students will now combine their sentences to create one complex sentence. Remind students that this should be an imperative sentence. Provide students with the following steps:
 - Read the sentences.
 - Use conjunctions and appositives to write one sentence that states the same information as the original sentences without being repetitive or changing the meaning.
 - Remember to use pronouns when a noun appears more than once in the sentence.
 - Reread the sentence to make sure the word order makes sense, and that proper capitalization and punctuation have been used.

- Have students write their sentences below their original summary.

» Answers may vary, but sample sentences could include:

- *Drop three pendulums of different lengths, made of strings with washers attached to them, off a desk you've taped them to and record the number of swings.*
- *Tape three pendulums, made of different length strings attached to washers, to a table and drop them off of it to record the number of swings.*

- Then, ask the following discussion questions:

1. **Literal.** How does Natalie feel when she sees her friends as she walks into Mr. Neely's classroom? Why does she feel this way?

» She is feeling half embarrassed and half proud; she thinks that she has the weirdest friends in seventh grade because they are playing air guitar and air piano along with Mr. Neely's nerdy music.

2. **Inferential.** How do Mr. Neely's actions in this part of the novel contribute to what you already know about him as a character?

» Answers may vary, but could include that he plays nerdy music to go along with the day's experiment and writes the hashtag "NewtonInMotion," which supports the idea that he is excited and over-eager to get students interested in science; over-the-top or nerdy.

3. **Inferential.** How does Natalie feel when she thinks about the egg competition? Why does she feel this way? Use evidence from the text to support your response.

Differentiation

Support

Provide students with a list of appositives and conjunctions they can use to combine their sentences and an example of imperative sentences as needed.

Challenge

Challenge students to write another sentence combining the same information, but in a new way.

- » Answers may vary, but they could include that Natalie feels nervous or anxious because she understands how important it is to win, in order to afford to bring her mom a Cobalt Blue Orchid and make her excited again. In the text it says “then I thought about the egg drop in a few days, and how important it was, and I started feeling a little head-spinny.”

4. **Evaluative.** What do you think Natalie means when she says “nothing works as well in real life as it does in theory?”


- » Answers may vary, but they could include that this means that you can have ideas about something, but it doesn’t always happen the same way you planned in person- other things get in the way.
- **Inferential.** How does this phrase connect to the pendulum experiment?
 - » Answers may vary, but they could include that, in theory, when objects are in motion, they could keep moving forever. In practice, objects will not move forever because they may collide with other objects or outside forces may slow them down.
- **Inferential.** How does this phrase connect to the events in Natalie’s life?
 - » Answers may vary, but they could include that when Natalie has a theory or idea in her life, it doesn’t always turn out as she imagined. For example, Natalie imagined her mom would be excited to open her Christmas present, but her mom didn’t even come out of her room on Christmas morning.
- Have students turn to “Step 7: Results” in the novel and read the description on the page.
- **Turn and Talk.** Ask what students notice about this step, and have them predict what information will be revealed in its assignments. Remind students to signal when both partners have contributed to the conversation.
 - » Answers may vary, but they could include that this step will reveal the results of the egg drop competition.

- Have students turn to Activity Page 10.1.
- Explain that just as Natalie notes the results of her own experiment in the novel, we will take notes on the results we learn while reading. Explain that results are the consequences of something, or what happens after an event. Explain that as students read Assignment 32, they will write down notes about what happens as a result of the egg drop competition, including events, character actions, thoughts and feelings. Show students where they can find this prompt on the activity page, next to Assignment 32. Explain that students will return to this activity page to take notes about other results later in the novel.

Activity Page 10.1



- Have students read “Assignment 32: Fly, S’meggs!” and complete Activity Page 10.1 as they read independently.

| <div>  MULTILINGUAL/ENGLISH LEARNERS
 Reading
 Synthesizing Information </div> | |
|--|--|
| Entering/Emerging | Read Assignments 31 and 32 aloud to a small group of students. |
| Transitioning/Expanding | Allow students to read Assignments 31 and 32 in strategic partners. |
| Bridging | Have students read independently and encourage them to highlight or write down any unfamiliar words. Support students during their reading with defining unfamiliar words. |

- **Write-Share-Write.** After students have completed their independent reading, have them turn to a partner and share the results of the egg drop competition that they noted in Activity Page 10.1. Encourage students to share how each character reacted or felt as a part of their results. Tell students to add any new ideas to their activity page that they gained from speaking with their partner.
 - » Answers may vary, but they could include that Natalie, Dari and Twig lost the egg drop competition; After they lost, Natalie felt extremely sad and wanted to give up on finding a way to get the orchid for her mother; Dari was worried they wouldn't all be friends anymore; Twig was hopeful and wanted to convince Natalie that there was still another way to get the orchid.
- After students have finished sharing and recording their results, ask “Think of the different ways that Natalie, Twig and Dari react to losing the egg drop competition. What do their reactions show about their character and why the competition was important to them?”
 - » Answers may vary, but they could include that Natalie's reaction shows how much weight she placed on the egg drop competition and how invested she was in winning in order to help her mother; Twig's reaction shows that she was really in the competition to be a good friend to Natalie; Dari's reaction shows how much he valued the friendship he developed with Twig and Natalie while preparing for the competition.
- Tell students they will return to this activity page as they identify other results in the novel.
- Write the following sentence on the board/chart paper: *Natalie, Dari and Twig lost the egg drop competition.* Tell students they will write three statements using *because*, *but* and *so* to expand the sentence. Tell students they can write these sentences on the back of Activity Page 10.1.

- If needed, provide students with the following sentence stems:
 - Natalie, Dari, and Twig lost the egg drop competition *because* _____
 - Natalie, Dari, and Twig lost the egg drop competition, *but* _____
 - Natalie, Dari, and Twig lost the egg drop competition, *so* _____
- » Answers may vary, but they could include the following example sentences:
 - *Natalie, Dari, and Twig lost the egg drop competition because Dari's last minute tweaks caused the egg to break on impact.*
 - *Natalie, Dari, and Twig lost the egg drop competition, but Twig still thinks there's another way to get the Cobalt Blue Orchid.*
 - *Natalie, Dari, and Twig lost the egg drop competition, so Natalie feels defeated and has given up on getting her mother the orchid.*
- Remind the students to reread each sentence to make sure that the wording is correct and that it cites specific examples from the text. Students should check each sentence to make sure they capitalized all proper nouns.
- Provide students time to share their sentences with a partner.
- Ask the following discussion questions:
 1. **Inferential.** How does Natalie feel when she sees Mr. Neely talk to the other science teachers? What does this show about their relationship and how it has changed?
 - » Answers may vary, but they could include that she feels upset and possessive over Mr. Neely, because she thinks that he should just be their teacher instead of someone with a life outside of the classroom. This shows that she has warmed up to him and he has become important to her.
 2. **Evaluative.** Why do you think Twig comments on the other teams' egg drops during the competition?
 - » Answers may vary, but they could include that she is trying to make Dari and Natalie less anxious as they watch the competition and wait for their turn.
 3. **Inferential.** How do Natalie's feelings change throughout this chapter and why?
 - » Answers may vary, but they could include that before the egg drop competition starts, Natalie is hopeful because she believes that winning is inevitable and she thinks that if she wins, her mom will be happy again. However, after their egg breaks, she feels extremely sad and hopeless about her future.

4. **Evaluative.** What do you think Natalie means in footnote 52 when she says she thinks that Twig may be “not-twig from now on, like mom was not-mom”?
- » Answers may vary, but they could include that her mom stopped acting like herself when she became depressed, and Natalie is worried that Twig will stop acting like herself after they lose the competition.
5. **Evaluative.** Why do you think Natalie wants to wait to see the results of the competition?
- » Answers may vary, but they could include that she wants to see if the cereal would protect the egg, as her mom said it would.
 - **Evaluative.** Why do you think Natalie says that it was worse that the egg surrounded by cereal broke?
 - » Answers may vary, but they could include that this shows Natalie another reason that she shouldn’t trust or have faith in her mother, who was wrong about using the cereal; she lost even more hope in her mom.
6. **Evaluative.** 🧑🧑 *Think-Pair-Share:* Why do you think this section of text is called “Results”? How does this contribute to what you understand about the structure of the novel? Remind students to signal when both partners have contributed to the conversation.
- » Answers may vary, but they could include that this section explains the results of the egg competition. “Results” is part of the scientific process, just like the other parts of the novel, but it also explains the results of what is happening in Natalie’s life.
 - **Turn and Talk.** Were your predictions about the egg competition in the previous lesson correct? Why or why not? Remind students to signal when both partners have contributed to the conversation.



Check for Understanding

🧑🧑 **Think-Pair-Share:** Ask, “Using your knowledge of the structure of the novel, what do you think the next section of text will be titled?” Remind students to signal when both partners have contributed to the conversation.

- » Answers may vary, but they could include: “Interpreting the Results,” Drawing Conclusions,” or “Analyzing the Results.”

Activity Page 10.2



SUMMARIZING (10 MIN.)

- Tell students they will write one sentence to summarize the results of the egg drop competition and the characters' reactions.
- Have students turn to Activity Page 10.2 and read the directions aloud. You can also find the directions below.
 1. Read the prompt carefully.
 2. Write short responses to each question using concise wording.
 - Who or what? _____
 - Did what? _____
 - When? _____
 - Where? _____
 - Why? _____
 - How? _____
 3. Pair the parts that describe *who* and *did what* together.
 4. Decide if the sentence should start with the part that describes *when* or the part that describes *why*.
 5. Think about how to order the remaining sentence parts to make the strongest sentence.
 6. Reread the sentence to make sure the parts are ordered in a way that makes the most sense, checking for proper capitalization and punctuation.
- Tell students they may use their notes in Activity Page 10.1 to complete their summary sentence.
- **Write-Share-Write.** Have students write their one sentence summaries with a partner. Tell students to provide feedback on their peer's summaries, and write down their partner's feedback on their activity pages. Provide students with time to revise their summaries based on the feedback they received.
 - Model providing feedback using the following sentence starters:
 - "You incorporated the important details of *who*, *does what*, *when*, *where*, *why* and *how* by _____."
 - "The information in your summary is ordered in a way that makes the most sense because _____."
 - "You can improve your summary by _____."

- Tell students they will draw a diagram or picture to support their summary. Have students think about ways in which diagrams/pictures supported their understanding of the text throughout the novel.
- Provide students time to create their drawings and then share with a partner.



MULTILINGUAL/ENGLISH LEARNERS

Reading

Synthesizing Information

| | |
|--------------------------------|---|
| Entering/Emerging | Guide students through each step in writing a one sentence summary. |
| Transitioning/Expanding | Allow students to work in partners to follow each of the steps to write a one sentence summary. |
| Bridging | Have students work independently, providing feedback after each step. |

WORD WORK: *IMPACT* (5 MIN.)

1. In today's reading, you read "I reasoned that tightening the inner angles would allow the egg to handle a bigger impact."
2. Say the word *impact* with me.
3. *Impact* means "a collision; the action of one object crashing into another."
4. The glass bowl shattered on impact when it hit the floor.
5. What are some other examples of things that create an *impact*? Be sure to use the word *impact* in your response.
 - » Answers will vary. If necessary, guide and/or rephrase students' responses to make complete sentences:
6. What part of speech is the word *impact*?
 - » noun
7. **Use a Multiple-Meaning Word activity for follow-up.** Tell students the word *impact* has multiple meanings. Share the following with students.
 - Meaning 1: **impact, n.** a collision; the action of one object crashing into another

- Meaning 2: **impact, n.** a significant effect

I am going to read several sentences. Listen to the context, or the text surrounding *impact* in the sentence, for clues as to which meaning is being used. When you think a sentence is an example of Meaning 1, hold up one finger. When you think a sentence is an example of Meaning 2, hold up two fingers.

1. The egg broke on impact.

» Meaning 1

2. Her older brother made an impact on her life.

» Meaning 2

3. The amount of cars on the road made an impact on the level of pollution in the air.

» Meaning 2

4. We wrapped the fragile objects in bubble wrap so they could withstand an impact.

» Meaning 1

5. Her cold had an impact on her ability to breathe through her nose.

» Meaning 2

6. The boy cried wolf so many times that it lost its impact on his neighbors.

» Meaning 2

Lesson 10: Brainstorming a Narrative

Writing



Primary Focus: Students will brainstorm ideas for narrative writing using a graphic organizer. [W.5.3, W.5.5]

BRAINSTORMING (20 MIN.)

- Tell students that they are going to begin working on a writing piece that they will continue to work on throughout the rest of the unit.
- Explain that students will write a narrative involving the characters from *The Science of Unbreakable Things*. Remind students that they have written extended narratives in previous grades and units.
- Have students turn to Activity Page 10.3 and read the prompt aloud as students follow along.
 - Narrative Writing Prompt: Imagine that Natalie, Dari and Twig win the egg drop competition. Write an alternate ending for *The Science of Breakable Things* that demonstrates what happens after they win.

➤ Visual Support 10.1

- Display Visual Support 10.1.
- Explain that this Writing Rubric will be used to evaluate the strength of students' narratives. Read through the rubric with students and ask whether they have any questions. Explain that they will work on each component of the rubric, one step at a time, over the rest of the unit.
- Direct students to the brainstorming graphic organizer on Activity Page 10.3 and explain that they will use it to brainstorm ideas about endings they could write. Remind students that their ideas must follow the prompt.
- Ask, "Which point of view is used in *The Science of Breakable Things*?"
 - » first person point of view
- Ask, "Who is the narrator?"
 - » Natalie
- Explain that students will write their narratives using first person point of view, but they may choose the narrator. Tell students they can write from Natalie's perspective or from the perspective of a different character.

Activity Page 10.3



➤ Visual Support 10.2

- Display Visual Support 10.2, or the Brainstorming graphic organizer that you have prepared in advance on the board/chart paper.
- Model how to brainstorm an idea responding to the prompt. You may use the following model below.
 - First I am going to re-read the prompt to make sure I understand what I'm writing about (re-read the prompt aloud). Okay, so I know I need to write a narrative about what happened after Natalie, Twig, and Dari won the egg drop competition.
 - Now I'm going to think about a main event I could write about. I know! What if after they win the contest, they receive the prize money but instead of using it to take a trip to look for the Cobalt Blue Orchid, they decide to donate it to science research? Natalie decides to put the money towards something her mother used to love, and what brought her friends together.
 - In the "Main Events" column, record: They won the prize money and decided to donate it to science research, instead of going on Natalie's trip.
 - Next, I need to think about who I want the narrator to be. I think this time, I want the narrator to be Twig.
 - In the "Narrator" column, record: Twig
 - Next, I need to think about the other characters I want to have in my ending. Besides Twig, I think I want to include: Natalie and Dari, and Natalie's parents.
 - Record these characters in the "Secondary characters" column.
 - Last, I want to think about the setting: I think I want this to take place at the end of the competition in the parking lot, and in Natalie's kitchen.
 - Record these two settings in the "Settings" column.
- Explain that students should come up with their own original ideas when they are brainstorming.

- **Think-Share-Write:** Have students turn to a partner and share one idea about an alternate ending before they complete their graphic organizers. Tell students to provide feedback on whether their partner's idea responded to the prompt. You may provide the following sentence starters if needed:
 - "Your idea followed the prompt because _____."
 - "You can adjust your idea to follow the prompt by _____."
- Have students complete their Brainstorming page.
- Tell students that they will select an idea to plan in the next lesson.

~~~~~ **End Lesson** ~~~~~

## **D** Differentiation

### Challenge

Encourage students to come up with more than three ideas.

### Support

Help students come up with ideas by asking guiding questions:

- What do you think could have happened after they won the competition?
- What do you think they do with the money?
- What do you think happens to Natalie and her mom?
- What happens to the other characters?
- Who do you want to tell this part of the story?
- Where does this part of the story take place?

## 11

# Planning a Narrative

**PRIMARY FOCUS OF LESSON****Reading**

Students will describe and make inferences about characters in the novel using evidence from the text. [RL.5.1, SL.5.1a]

Students will demonstrate an understanding of the Tier 2 word *wilted*. [L.5.4]

**Writing**

Students will plan their narratives using a graphic organizer. [W.5.3, W.5.5]

**FORMATIVE ASSESSMENT****Activity Page 11.1**

**Narrative Planning** Students will plan ideas for their narrative using a graphic organizer. [W.5.5]



**Teacher Presentation Screens:**  
all lessons include slides

## LESSON AT A GLANCE

|                            | Grouping Recommendations    | Time    | Materials                                                                                                                                                                                  |
|----------------------------|-----------------------------|---------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Reading (60 min.)          |                             |         |                                                                                                                                                                                            |
| Reading: Assignments 33–36 | Whole Group/<br>Independent | 55 min. | <input type="checkbox"/> <i>The Science of Breakable Things</i><br><input type="checkbox"/> chart paper<br><input type="checkbox"/> markers<br><input type="checkbox"/> Activity Page 10.1 |
| Word Work: <i>Wilted</i>   | Whole Group                 | 5 min.  |                                                                                                                                                                                            |
| Writing (30 min.)          |                             |         |                                                                                                                                                                                            |
| Narrative Planning         | Whole Group/<br>Independent | 30 min. | <input type="checkbox"/> Visual Support 11.1<br><input type="checkbox"/> Activity Pages 10.3, 11.1                                                                                         |



## ADVANCE PREPARATION

### Reading

- Distribute the novel *The Science of Breakable Things* by Tae Keller.
- Note: This chapter includes a homeless man drinking out of a paper bag on a bus and swearing. Please work as needed with your school leaders to decide how to address this topic.

### Writing

#### ➤ Visual Support 11.1

- Prepare to display Visual Support 11.1 and model planning your narrative. Cover up the “What (Key Events)” section on the second page of Visual Support 11.1 to reveal one key event at a time during this part of the lesson.

### Universal Access

#### Reading

- To ensure all students have the opportunity to contribute during Turn and Talk and Think-Pair-Share exchanges, provide students with a signal such as folding their hands or raising a hand to indicate when both partners have added to the conversation.

## VOCABULARY

### Core Vocabulary

- You may choose to preview the vocabulary words before reading the text.

**wilted, v.** became limp or weak; drooped

**giddy, adj.** joyful in a silly manner; dizzy

**travesty, n.** an exaggerated or false representation of something

**lurching, v.** moving or tilting suddenly

**etched, v.** engraved or inscribed

**loomed, v.** appeared in a large, exaggerated or frightening manner

**rummaged, v.** searched thoroughly by moving objects around

Vocabulary Chart for “Assignments 33–36”

| Type                | Tier 3<br>Domain-Specific Words | Tier 2<br>General Academic Words                                        | Tier 1<br>Everyday Speech Words |
|---------------------|---------------------------------|-------------------------------------------------------------------------|---------------------------------|
| Core Vocabulary     |                                 | wilted<br>giddy<br>travesty<br>lurching<br>etched<br>loomed<br>rummaged |                                 |
| Spanish Cognates    |                                 |                                                                         |                                 |
| Multiple-Meaning    |                                 |                                                                         |                                 |
|                     |                                 |                                                                         |                                 |
| Sayings and Phrases |                                 |                                                                         |                                 |

## Lesson 11: Planning a Narrative

## Reading




## Primary Focus

Students will describe and make inferences about characters in the novel using evidence from the text. [RL.5.1, SL.5.1a]

Students will demonstrate an understanding of the Tier 2 word *wilted*. [L.5.4]

## READING: ASSIGNMENTS 33–36 (55 MIN.)

-  **Think-Pair-Share:** Ask students to turn to a partner and describe the results of the egg drop competition. Encourage students to include how the characters felt as a part of the results. Remind students to signal when both partners have contributed to the conversation. When both students have shared, have a few students share their partner's idea aloud with the class.
  - » Answers may vary, but they may include that Natalie, Dari, and Twig lost the egg drop competition. Natalie was devastated because she was convinced that they would win. Twig was hopeful that they'd be able to get the orchid another way, and Dari was worried they wouldn't be friends anymore after the competition.
- Ask students to turn to "Assignment 33: Operation Orchid."
- Ask students to make predictions about what might happen based on the title of this chapter.
  - » Answers may vary, but they could include that Natalie will make a different plan to get the orchid.
- Read Assignment 33 aloud and have students follow along as you read.
- Ask the following discussion questions:

1. **Literal.** What is Twig's plan?

- » Twig steals her mom's credit card so that they can buy tickets to fly to New Mexico to get the Cobalt Blue Orchid.

2. **Literal.** What is Natalie's new plan?

- » Answers may vary, but they could include that in the middle of the night, Natalie will catch the 1:23 am bus to Garden Springs and break into her mom's old lab on campus to steal an orchid seed.

3. **Evaluative.** Why do you think Natalie writes down the procedure for her plan?


- » Answers may vary, but they could include that it helps her feel organized or in control; she has gotten used to writing down procedures and observations about her life in the form of a scientific experiment.

4. **Inferential.** What do Twig's actions and reactions show you about the type of person she is?

- » Answers may vary, but they could include that Twig is a loyal friend to Natalie because she risks getting in trouble to help her; Twig is persistent and doesn't give up easily.

5. **Evaluative.** Have students turn to the fourth paragraph on page 234. Ask, "What do you think Natalie means when she says 'Dad holding her [mom] gently, even in sleep, as if she were breakable. As if she weren't already broken'?"

- » Answers may vary, but they could include that Natalie's Dad was holding onto her mom as if she were fragile and could fall apart, but she already had fallen apart; she wasn't her true or whole self anymore but her dad was worried she would lose more of herself.

6. **Evaluative.**  *Think Pair Share:* What do you think Natalie means when she says "I hadn't just silenced my bad alarm. I'd broken it"? What predictions do you have about what may happen later in the story based on this line? Remind students to signal when both partners have contributed to the conversation. When both students have shared, have a few students share their partner's idea aloud with the class.

- » Answers may vary, but they could include that the idea to break into her mom's lab will be a bad one, meaning that something will go wrong or they will get caught; Natalie should've realized that it wasn't a good idea and something bad would happen.

- Explain that this is an example of foreshadowing in the text, a hint that is given by the author before something happens.

- **Turn and Talk.** Explain that students will now make another prediction about what will happen in the novel. Have students turn to a partner and discuss who they think clears their throat behind Natalie at the end of the chapter and why? Remind students to signal when both partners have contributed to the conversation.

- » Answers may vary, but they could include Twig, because she is a loyal friend to Natalie, or Natalie's dad, because it's the beginning of the night and she shouldn't be up.

## D Differentiation

### Support

Have students write a so statement using their one sentence summary they wrote earlier for support.

### Challenge

Challenge students to use at least one appositive in each statement.

## Activity Page 10.1



### Check for Understanding

**Think-Pair-Write:** Provide students with the following sentence: Natalie makes a new plan. Tell students they will write three statements using *because*, *but*, and *so* to expand the sentence. Have students turn to a partner and share an idea for one of the statements before they write.

- » Answers may vary, but they could include:
  - *Natalie makes a new plan because they lost the egg drop competition; Natalie makes a new plan because Twig helped her realize there was an easier way to find an orchid than traveling to New Mexico.*
  - *Natalie makes a new plan, but it is dangerous and risky.*
  - *Natalie makes a new plan, so she is going to break into her mother's lab to steal an orchid seed.*

- Have students turn to Activity Page 10.1. Remind students they previously recorded the results of the egg drop competition on this page.
- Remind students that this section of the novel is still called “Results.” Explain that they will continue to record notes on results that they learn about in the story.
  - Ask, “What happened as a result of them losing the egg drop competition?”
    - » Answers may vary, but they could include that as a result of losing the egg drop competition, Natalie came up with a new plan to get the Cobalt Blue Orchid: to break into her mom's old lab and steal a seed.
  - Provide students with time to add notes to Activity Page 10.1, explaining what happened as a result of them losing the egg drop competition.
- Have students turn to Assignment 34.
- Read Assignment 34 aloud and have students follow along as you read.
- After you've finished reading, ask: Were your predictions correct? Have students show a signal such as a thumbs-up or thumbs-down to reveal their response.
- Ask the following discussion questions.
  1. **Literal.** Who else showed up on the way to the lab?
    - » Dari

2. **Inferential.** How does Natalie feel when Dari shows up and why?

- » Answers may vary, but they could include that she is feeling upset, betrayed, or jealous; she is upset that Twig told Dari her secret and brought him into what was supposed to be their private business between best friends; conflicted because she doesn't want Dari to be there but she knows that he's trying to help her.

3. **Inferential.** Why does Dari show up outside of Natalie's house? Use evidence from the text to support your response.

- » Answers may vary, but they could include that he feels guilty about making tweaks to the egg before the competition and thinks it's his fault they lost; he wants to help Natalie to make it up to her to show that he's a good friend; he wants to prove that he is a loyal friend because their friendship is important to him; "I know I let you down with the egg drop. I made those tweaks and...it was my fault we lost. But I want to make it up to you."

4. **Evaluative.** Describe the mood of the scene where Natalie, Twig and Dari are on the bus. Use evidence from the text to support your response.

- » Answers may vary, but they could include fearful, nervous, anxious, antsy, excited, or impatient; evidence may include "Twig relaxed beside me, so I guess she had been nervous, too;"; "I hadn't even realized my legs were shaking."; "I couldn't tell if she was asking out of excitement or impatience or fear;"; "My palms got all sweaty and my heart beat fast, and I told myself I was just excited."

5. **Evaluative.** What more did you learn about Twig and Dari as characters and why? Describe any similarities you identify between the two characters.

- » Answers may vary, but they could include that Twig and Dari are both loyal, dedicated and compassionate friends because they both show up to help Natalie retrieve the seed from her mother's old lab, even if it means risking getting into trouble.
- Have students turn to Assignment 35. Explain that they will read Assignments 35 and 36 independently. Tell students that as they read, they will take notes on the results of Natalie, Twig, and Dari breaking into the lab on Activity Page 10.1.
- **Write-Share-Write:** After students have finished reading Assignments 35 and 36 independently, have students turn to a partner and share one event, character thought or feeling that occurred as a result of the kids breaking into the lab that they noted on Activity Page 10.1. Remind students to signal when both partners have contributed to the conversation. Have students add any new ideas they learned from the discussion with their partners to Activity Page 10.1.
- Ask the following discussion questions:

1. **Inferential.** What problem did Dari, Twig, and Natalie encounter when they arrived at Natalie's mom's old lab, and how did they overcome it?
  - » Answers may vary, but they could include that there was an alarm system they weren't accounting for; Natalie guessed by trying 111, 222, then 333, and the alarm system turned off.
2. **Inferential.** How does Natalie feel when she finds the bag with the seed, and why does she feel this way?
  - » Answers may vary, but they could include that she is confused or puzzled because the bag wasn't labeled with the orchid's name, even though Natalie was positive it was the same bag Mrs. Menzer got the Cobalt Blue Orchid seed from.
3. **Inferential.** What was Natalie thinking when she saw her mother's office? How does this connect to what Natalie already believes about her mother?
  - » Answers may vary, but they could include that Natalie is confused why her mother's office would still be in the lab, intact, if she was fired. She thought her mother became depressed because she was fired, so now Natalie is second guessing what she believes to be true or understands about her mother.
4. **Evaluative.** Why do you think her mother's office is still in the lab?
  - » Answers may vary, but they could include that she wasn't actually fired; they are waiting for her to come back.
5. **Literal.** What happens at the end of Assignment 36?
  - » A security guard finds Natalie in her mom's office.
6. **Evaluative.** Why do you think these Assignments are included in the "Results" section of the novel?
  - » Answers may vary, but they could include that we are finding out the results of the group's second plan to recover the orchid.



## MULTILINGUAL/ENGLISH LEARNERS

### Reading

#### Synthesizing Information

|                                |                                                                                                                                                                                           |
|--------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Entering/Emerging</b>       | Ask students literal questions to support their understanding such as, "What does Natalie see in her mother's office?" and "What questions does Natalie ask in this chapter?"             |
| <b>Transitioning/Expanding</b> | Ask students inferential questions based on specific evidence in the text, such as, "How does this line show what Natalie is thinking?"                                                   |
| <b>Bridging</b>                | Encourage students to include reasons in their responses by asking questions such as, "Why do you think that?" and "What do the characters do or say in the text that support your idea?" |



## Check for Understanding

**Think-Pair-Write:** Provide students with the following cause statement: Natalie sees her mother's office still intact. Have students brainstorm potential effects with a partner, then write a statement that explains the effect of this cause.

## WORD WORK: *WILTED* (5 MIN.)

1. In today's reading, you read "And just like that, my hope *wilted*."
2. Say the word *wilted* with me.
3. *Wilted* means "became limp or weak; drooped."
4. My excitement wilted when I realized the party was canceled.
5. What are some other examples of things that may have wilted? Be sure to use the word *wilted* in your response.
  - » Answers will vary. If necessary, guide and/or rephrase students' responses to make complete sentences: "\_\_\_\_\_ *wilted* when/because \_\_\_\_\_."
6. What part of speech is the word *wilted*?
  - » verb
7. **Use an Antonyms activity for follow-up.** "What does the word *wilted* mean? What are some antonyms, or words with an opposite meaning, of *wilted*?" Prompt students to provide words such as *blossomed*, *straightened*, *rose*, and *grew*. Then have them turn to a partner and create sentences using the antonyms they provided.



## Lesson 11: Planning a Narrative

# Writing



**Primary Focus:** Students will plan their narratives using a graphic organizer.  
[W.5.3, W.5.5]

### NARRATIVE PLANNING (30 MIN.)

- Remind students they brainstormed ideas for their narratives in the previous lesson.
- Have students turn to Activity Page 10.3.
- Remind students of the narrative writing prompt:
  - Imagine that Natalie, Dari, and Twig win the egg drop competition. Write an alternate ending for “The Science of Breakable Things” that demonstrates what happens after they win.
- Explain that students will be selecting one of the ideas they brainstormed to expand for their narratives.

#### ➤ Visual Support 11.1

- Display the first page of Visual Support 11.1.
- Remind students of the idea you brainstormed yesterday. Explain that since you only brainstormed one idea, you will expand this one. However, students will have multiple ideas to choose from.
- Display the second page of Visual Support 11.1 with the “What (Key Events)” section covered.
- Explain that students will use this Narrative Planner to expand their idea and plan for their alternate endings.
- Tell students that you used your brainstorming sheet to fill out the “Who” and “What and Where” sections in your planner.
- Have students look at the “What (Key Events)” section of the Narrative Planner. Explain that you will model how to take your initial idea and expand the events. You may use the model below.
  - Ask, “What was the main event I brainstormed?”
    - » They won the prize money and decided to donate it to science research, instead of going on Natalie’s trip.

### Activity Page 10.3



- I want to keep this idea, but add more detail by thinking about what will happen in the beginning, middle, and end.
- First, I'm going to think about what happens in the beginning of the scene. I know first, Natalie, Twig, and Dari need to receive the prize money.
  - Reveal the "beginning" event: Natalie, Dari, and Twig receive the prize money. Natalie's Dad drives Twig and Natalie home.
- Now, I want to think about what happens in the middle of my narrative. After they win the prize money, I know Natalie needs to change her mind about what to do with the money based on the main event I brainstormed. It is likely that your main event will occur in the middle of your narrative.
  - Reveal the "middle" event: In Natalie's Kitchen, Natalie tells Twig and her dad that she wants to donate the money to scientific research, instead of using it to buy flights to New Mexico. Twig is shocked.
  - Ask, "What dependent clauses did I use in my middle event?"
    - » "In Natalie's kitchen" "instead of using it to buy flights to New Mexico."
  - Ask, "What details about my characters did I include?"
    - » how Twig was feeling
- The more details I add, the more ideas I will have to write my narrative when I begin my draft. Planning this out now will help me later.
- Now I want to think, how do I want my narrative to end? I want my ending to involve Natalie's mom (yours doesn't have to).
  - Reveal the "end" event: Natalie's mom comes out of her room to be with her family. Twig leaves to go home.
- Explain that the last thing you want to plan is *why* the characters complete the main event. Explain that in this section, students should think about the character's motivation or perspective.
  - Have students read the "Why" section in your planner.
  - Ask, "How did I use the main event I brainstormed to come up with my *why*?"
    - » Answers may vary, but they could include that the *why* section explains why Natalie decided not to use the money to fly to New Mexico, because she realized the orchid wasn't going to make her mom happy. Rather, she needed to find something on the inside to make her happy.

## Activity Page 11.1

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## D Differentiation

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### Challenge

Challenge students to use at least one appositive and dependent clause in each of the events they plan.

### Support

Support students in expanding their idea by asking guiding questions such as:

- What could the characters do before this main event occurs?
- When the main event occurs, how are the characters feeling?
- Why do the characters decide to do this?
- What can happen after the main event that concludes the story?

- Explain that students will complete their own Narrative Planners, using one of the ideas they brainstormed.
- Have students review the ideas they brainstormed previously on Activity Page 10.3. Tell students to select their favorite idea they brainstormed.
- **Think-Pair-Write.** Have students share the idea they selected with a partner and share how they might expand their idea by thinking about what could happen in the beginning, middle and end of their narrative. Remind students they are using one of the ideas they already brainstormed that answers the prompt. Encourage students to provide their partners with feedback on the expansion of their ideas.
- Have students complete Activity Page 11.1.

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**End Lesson**

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# Drafting a Narrative: Introduction

## PRIMARY FOCUS OF LESSON

### Reading

Students will make inferences about characters and how they have changed in the novel. [RL.5.1, RL.5.3]

Students will discuss how the narrator's perspective influences how events are described in the novel. [RL.5.6]

Students will demonstrate an understanding of the Tier 2 word *utter*. [L.5.4]

### Writing

Students will write an introduction for their narratives. [W.5.3a]

## FORMATIVE ASSESSMENT

### Activity Page 12.1

**Character Changes** Describe how Natalie and her mother have changed throughout the text. [RL.5.3]

### Activity Page 12.3

**Narrative Draft** Students will write an introduction for their narrative. [W.5.3a]



**Teacher Presentation Screens:**  
all lessons include slides

## LESSON AT A GLANCE

|                            | Grouping Recommendations | Time    | Materials                                                                                                             |
|----------------------------|--------------------------|---------|-----------------------------------------------------------------------------------------------------------------------|
| Reading (65 min.)          |                          |         |                                                                                                                       |
| Reading: Assignments 37–40 | Whole Group/Independent  | 45 min. | <input type="checkbox"/> <i>The Science of Breakable Things</i><br><input type="checkbox"/> Activity Pages 10.1, 12.1 |
| Character Changes          | Partner/Independent      | 15 min  |                                                                                                                       |
| Word Work: <i>Utter</i>    | Whole Group              | 5 min.  |                                                                                                                       |
| Writing (25 min.)          |                          |         |                                                                                                                       |
| Writing an Introduction    | Whole Group/Independent  | 25 min. | <input type="checkbox"/> Visual Supports 11.1, 12.1<br><input type="checkbox"/> Activity Pages 12.2, 12.3             |

## ADVANCE PREPARATION

### Reading

- Distribute the novel *The Science of Breakable Things* by Tae Keller.

### Writing

#### ➤ Visual Support 11.1

- Prepare to display Visual Support 11.1 and your Narrative Planner from the previous lesson to show how you used this planner to write your introduction.

#### ➤ Visual Support 12.1

- Prepare to display Visual Support 12.1.
- Prepare to make a list on the board/chart paper titled “Characteristics of a Strong Introduction,” which you will complete with students during the lesson.

### Universal Access

#### Reading

- To ensure all students have the opportunity to contribute during Turn and Talk and Think-Pair-Share exchanges, provide students with a signal such as folding their hands or raising a hand to indicate when both partners have added to the conversation.

## VOCABULARY

### Core Vocabulary

- You may choose to preview the vocabulary words before reading the text.

**anomaly, n.** something that is out of the ordinary, or different from what is expected

**utter, adj.** absolute or total

**properties, n.** characteristics or qualities

**graft, v.** to insert a part of one plant into another plant, so that they grow together

**incomprehensible, adj.** impossible to understand

Vocabulary Chart for “Assignments 37–40”

| Type                | Tier 3<br>Domain-Specific Words | Tier 2<br>General Academic Words          | Tier 1<br>Everyday Speech Words |
|---------------------|---------------------------------|-------------------------------------------|---------------------------------|
| Core Vocabulary     | graft                           | anomaly<br>properties<br>incomprehensible |                                 |
| Spanish Cognates    |                                 | anomalía<br>incomprensible                |                                 |
| Multiple-Meaning    |                                 | utter                                     |                                 |
|                     |                                 |                                           |                                 |
| Sayings and Phrases |                                 |                                           |                                 |



## Lesson 12: Drafting a Narrative: Introduction

## Reading




## Primary Focus

Students will make inferences about characters and how they have changed in the novel. [RL.5.1, RL.5.3]

Students will discuss how the narrator's perspective influences how events are described in the novel. [RL.5.6]

Students will demonstrate an understanding of the Tier 2 word *utter*. [L.5.4]

## READING: ASSIGNMENTS 37–40 (45 MIN.)

-  **Think-Pair-Share:** Ask students to turn to a partner and describe the key events of the chapters they read in the previous lesson. Remind students to signal when both partners have contributed to the conversation. Once both students have shared, have a few students share their partner's ideas.
  - As needed, ask the follow-up prompts below:
    - "What was Natalie's new plan to obtain the orchid?"
      - » to break into her mom's old lab and steal the orchid seed
    - "Who came with her?"
      - » Dari and Twig showed up on their own.
    - "What challenges did she face along the way?"
      - » Answers may vary, but they could include that they didn't know the alarm code but Natalie guessed it; the bag with the seed was labeled with a different flower name.
    - "What new questions did Natalie have after being in the lab?"
      - » Answers may vary, but they could include that she wonders why her mother's office is still intact if she was fired; she wonders why the bag of seeds she was convinced were orchids were labeled with a different name.
    - "How does Assignment 36 end?"
      - » The security guard catches Natalie in her mom's old office.

## D Differentiation

### Challenge

Have students write a one sentence summary about the main idea in Assignments 33–36.

### Support

Direct students to specific parts of the text to support them in answering the follow-up prompts.

## Activity Page 10.1



- Ask, “What do you predict will happen next?” Have a few students share their responses aloud with the class.
  - Explain that students should think about whether any of Natalie’s new questions are answered as they read today.
  - Have students turn to Activity Page 10.1. Explain that the assignments students will read today are still located under the “Results” section of the book. Explain that as students read, they will continue to take notes on Activity Page 10.1 about what happened as a result of Natalie, Twig, and Dari breaking into the lab.
  - Ask students to turn to “Assignment 37: Criminals.”
  - Ask, “Why do you think this Assignment is titled ‘Criminals?’”
    - » Answers may vary, but they could include that Natalie, Twig, and Dari are criminals for breaking into the lab and are going to get in trouble.
  - Read Assignment 37 aloud and have students follow along as you read.
  - Ask the following discussion questions:
1. **Inferential.** 👤👤 *Think-Pair-Share:* After Natalie breaks into the lab, how and why do her feelings about her mom change? Compare and contrast her perspective before and after going to the lab. Remind students to signal when both partners have contributed to the conversation.
    - » Answers may vary, but they could include the following ideas:
      - Before Natalie went to the lab, she was sad about her mom but hopeful that she’d be able to help her mom and make her happy.
      - After Natalie went to the lab, she felt like everything she had believed about her mom was a lie and felt betrayed by her.
        - She believed her mom was fired but this turned out not to be true.
        - She thought she grew a Cobalt Blue Orchid with her mom, but this turned out not to be true.
        - Her mom has told her to use cereal to protect the egg, but this turned out to be incorrect.
      - Before she went to the lab, Natalie believed her mom was sad because she was fired from the lab. However, after Natalie visited the lab and saw her mom’s office, she believed her mom stopped caring about work, just as Natalie believed that she had stopped caring about her.
      - Before going to the lab, Natalie felt determined to help her mom, but now felt confused.

- As needed, ask the following prompts:
  - What does Natalie think about her mom before breaking into the lab?
  - What does Natalie realize at the lab?
  - Why does Natalie feel like everything she believed about her mom was a lie?
  - How does Natalie feel about her mom when she returns home?

2. **Inferential.** How does Dana Menzer react when she learns why Natalie, Twig, and Dari broke into the lab? Why do you think she reacts this way? Use evidence from the text to support your response.

- » Answers may vary, but they could include that at first she is surprised (not angry), but then she is sad once Natalie tells her why they broke in; she's sad because she realizes that Natalie doesn't understand the whole truth about her mother and feels for her; "Mrs. Menzer gave me a sad smile."; Mrs. Menzer's expression softened; "Oh Natalie, I'm sorry. That flower- it wasn't magic."; "You have to talk to your mother Natalie."; "she tilted my chin up to her face and kissed my forehead."

- **Write-Share-Write.** Provide students with time to add notes to Activity Page 10.1 about the results of Natalie, Twig, and Dari breaking into the lab.



### Check for Understanding

**Think-Pair-Write:** *Cause and Effect Statement:* Provide students with the following cause statement: Natalie, Twig, and Dari break into Natalie's mom's old lab. Have students brainstorm potential effects with a partner, then write a statement that explains the effect of this cause.

- » Sample effect statements may include:
  - Natalie learns that her mother wasn't fired and that they never grew a Cobalt Blue Orchid in their home.
  - Natalie questions everything she has believed about her mother.
  - Natalie, Twig, and Dari are caught.

- Ask, "Were your predictions about the title of Assignment 37 correct? Why or why not?" Have a few students share their responses aloud.
- Have students turn to Assignment 38.
- Read Assignment 38 aloud to students and have them follow along as you read.
- Ask the following discussion questions:

1. **Literal.** What does Natalie learn about the flower she planted with her mother?
  - » It was never a magic Cobalt Blue Orchid. It was a different flower, a Blue Bearded iris.
2. **Literal.** Why did Natalie’s mom stop studying the Cobalt Blue Orchid?
  - » They had to end the project because they didn’t get the results they were looking for and funding was cut.
3. **Inferential.** What does Natalie mean when she says that horror was “the first true emotion to shatter her wall of pleasant, half-true smiles, and utter, utter, blankness”?
  - » Answers may vary, but they could include that her mom has not been herself and hasn’t shown any emotion in a long time; she’s in horror when she realizes that Natalie broke into her old lab to steal a flower based on a lie she had let her believe.
4. **Evaluative.** Natalie states that her and her parents are both different now. Explain why she thinks this.
  - » Answers may vary, but they could include that her parents are not “magic” to her anymore, but they are real; now that they are being honest with each other, Natalie understands how her mother is feeling; Natalie is different because she isn’t sure how their family will proceed from here.



## MULTILINGUAL/ENGLISH LEARNERS

### Reading

#### Synthesizing Information

|                                     |                                                                                                                                                                                                                                                                                                                                        |
|-------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Entering/Emerging</b>            | Provide students with certain pages or passages to return to in order to help them find the answers and make inferences.                                                                                                                                                                                                               |
| <b>Transitioning/<br/>Expanding</b> | Ask students follow-up questions to direct them to the right part of the text to help them make inferences, such as “Where does Natalie say this in the text?”; “What happened right before this in the text?”; “What happened right after in the story?”; and “What does Natalie say before and after she says that he is different?” |
| <b>Bridging</b>                     | Ask students follow-up questions to help them make inferences, such as: “What do you think it means to show blankness?”; “How did Natalie’s mom show blankness earlier in the novel?”; “What happened right before Natalie said her mom showed horror?”; and “Why would this make her upset?”                                          |

- Have students add results they have observed in this Assignment on Activity Page 10.1. Ask the following questions to prompt students' thinking: "What did Natalie breaking into the lab result in?"
  - Have students turn to Assignment 39 and read Assignment 39 and 40 independently. Tell students to continue taking notes on results they learn on Activity Page 10.1.
  - Ask the following discussion questions:
1. **Evaluative.** Why do you think Natalie asked her father if her mother had been depressed before?
    - » Answers may vary, but they could include that deep down, she felt like this had happened before; maybe she had a memory of this when she was young.
  2. **Evaluative.** Why do you think Natalie's dad says that her mom's depression isn't her fault?
    - » Answers may vary, but they could include that it is not something she can control; she is trying just like he is to help her; depression is no one's fault.
  3. **Inferential.** How does Natalie feel when she sees her mother in the greenhouse and why? Use evidence from the text to support your response.
    - » Answers may vary, but they could include that Natalie is feeling conflicting emotions: she is still angry at her mother for abandoning her and not being there for her, but she is starting to realize that her mother is trying her best and truly loves her; she feels confused and unsure of what to think of this version of her mother who is "hope and hopeless" and "failure and "fight" all at the same time; "I hadn't really known the sad version of her, but I didn't know this version either."
  4. **Inferential.** Why does Natalie's mom plant the iris seed? Use evidence from the text to support your response
    - » Answers may vary, but they could include that she wanted Natalie to give her a second chance at being there for her, just like she was giving the iris seed another chance to bloom in their greenhouse; "Because we deserve a second chance."
  5. **Evaluative.** How does planting the Korean Fire and the Blue iris connect to what is happening to Natalie and her family in the story?
    - » Answers may vary, but they could include that Natalie's mom is trying to help the flowers blossom and grow after they were dying/had died, just like she is trying to nurture her relationship with Natalie and help their happiness blossom after hard times.



## Check for Understanding

**Because and So Statements:** Provide students with the following sentence: “Natalie’s mom planted the iris seed in the greenhouse.”

Have students expand the sentence by writing two statements using *because* and *so*.

Sample sentences:

- Natalie’s mom planted the iris seed in the greenhouse because she wanted Natalie to give her another chance.
- Natalie’s mom planted the iris seed in the greenhouse, so that she could show Natalie that she was trying to prioritize their relationship.

- Explain that students will analyze how the narrator’s perspective influences the reader’s understanding of events in the novel.
- Ask, “What point of view is the novel told in?”
  - » first-person point of view
- Ask students to recall whose perspective the story is told from.
  - » Natalie’s
- Ask, “How do we know about what Natalie’s mom is experiencing throughout the novel?”
  - » Answers may vary, but they could include that we know this based on what Natalie says about her, or what Natalie thinks that her mom is experiencing.
- Ask, “Has Natalie’s mom shared directly how she is feeling up until this point in the novel?”
  - » No, because she hasn’t spoken to Natalie about how she is feeling, so we as a reader don’t know her perspective.
- Ask, “How do we learn about Natalie’s mom’s perspective in this part of the novel? How is this different?”
  - » Answers may vary, but they could include that we learn about Natalie’s mom’s perspective through her dialogue and conversation with Natalie. This is the first time in the novel that we can learn about her experiences directly from her.

- **👤👤 Think-Pair-Share:** How does the narrator's (Natalie's) perspective impact how events are described in the novel? Use examples from the text to support your thinking. Remind students to signal when both partners have contributed to the conversation. Once both students have shared, have a few students share their partner's ideas.
  - » Answers may vary, but they could include that we, as the reader, learn about events that occurred based on Natalie's perspective, such as her mother being fired from the lab, Natalie's belief that her mom has stopped caring about her, or that they planted and killed the magic Cobalt Blue Orchid in their greenhouse. We only learn another character's perspective, such as her mother's, through dialogue.
- As a follow-up question, ask, "How do you think our understanding of the events of the novel would have changed if it was told from another's character's perspective?"
  - » Answers may vary, but could include that if the novel was written from Natalie's mom's perspective, we would have known that she was not fired; if the novel was written from Natalie's mom's perspective, we would have known how she was feeling and why earlier in the novel.

### CHARACTER CHANGES (15 MIN.)

#### Activity Page 12.1



- Have students turn to Activity Page 12.1.
- Explain that students will use a graphic organizer to analyze how the characters have changed throughout the novel. Review the directions on Activity Page 12.1 with students, and ask if they have any questions.
- Have students complete Activity Page 12.1 with a partner.
- Once students have completed their activity page, have a few students share aloud how one character changed in the novel.



## MULTILINGUAL/ENGLISH LEARNERS

### Reading

#### Synthesizing Information

|                                |                                                                                                                                                                                                                                                                                                                               |
|--------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Entering/Emerging</b>       | Have students select one character for their graphic organizers, and ask guiding questions to help identify how the character has changed (e.g., “How did the character behave in the beginning of the novel?”; “Are they behaving in the same way now?”; and “What is different in their behavior, thoughts, or feelings?”). |
| <b>Transitioning/Expanding</b> | Ask students guiding questions to help them identify why a character changed (e.g., “What happened that could have caused this character to act/think/feel differently?”).                                                                                                                                                    |
| <b>Bridging</b>                | Encourage students to use events from the text to support their explanation of how and why a character changed.                                                                                                                                                                                                               |



### Check for Understanding

Write one declarative sentence about one way that Natalie changed in this part of the novel (Assignments 37-40) that starts with a dependent clause, includes at least three nouns, two verbs, and at least one conjunction.

Sample sentence: *After Dana Menzer brought Natalie home from breaking into the lab, Natalie confronted her mom and was honest about her feelings.*

### WORD WORK: UTTER (5 MIN.)

1. In today’s reading, you read “Horror pierced Mom’s face, the first true emotion to shatter her wall of pleasant, half-true smiles and utter, utter blankness.”
2. Say the word *utter* with me.
3. *Utter* means absolute or total.
4. Without the stars, the sky was utter darkness.
5. What are some other examples of things you can describe with the word *utter*? Be sure to use the word *utter* in your response.
  - » Answers will vary. If necessary, guide and/or rephrase students’ responses to make complete sentences: “ \_\_\_\_\_ was *utter* \_\_\_\_\_.”



6. What part of speech is the word *utter*?

» adjective

7. **Use a Multiple-Meaning Word activity for follow-up.** Tell students the word *utter* has multiple meanings. Share the following with students:

Meaning 1: **utter, adj.** absolute or total

Meaning 2: **utter, v.** to speak

Say, “I am going to read several sentences. Listen to the context, or the text surrounding *utter* in the sentence, for clues as to which meaning is being used. When you think a sentence is an example of meaning 1, hold up one finger. When you think a sentence is an example of meaning 2, hold up two fingers.”

1. Her face showed utter excitement.

» 1

2. I’m going to utter the secret in a whisper.

» 2

3. I could hear him utter under his breath.

» 2

4. I was in utter disbelief when she walked into the room.

» 1

5. The house was in utter disarray.

» 1

6. Don’t utter those words behind my back!

» 2

---

## Lesson 12: Drafting a Narrative: Introduction

# Writing



**Primary Focus:** Students will write an introduction for their narratives. [W.5.3a]

### WRITING AN INTRODUCTION (25 MIN.)

- Remind students that they have been working on planning their narrative writing projects.

- Tell students that they will begin writing their narratives and they will start with an introduction. Before doing so, they will read your introduction and identify the characteristics of a strong introduction.
- Ask, “What is the purpose of an introduction?” Remind students that they have written introductions and explored the purpose of introductions in previous writing projects.
  - » Answers may vary, but they could include that the purpose is to introduce the writing or plot, to hook the reader, and to introduce the characters and the setting.
- Tell students that you wanted to introduce the reader to the setting, the characters in the scene (including the narrator), and the first event, all of which you planned previously in your narrative planner.

### ➤ **Visual Support 11.1**

- Display Visual Support 11.1 to remind students of your narrative planner.

### ➤ **Visual Support 12.1**

- Display Visual Support 12.1 and have students turn to Activity Page 12.2. Tell students that they can follow along on the top of Activity Page 12.2 as you read your introduction aloud. Read your model introduction aloud to students displayed on Visual Support 12.1.
- Then, ask the following questions:
  - How do I introduce the characters in my introduction?
    - » Answers may vary, but they could include that the characters’ names are included in the first few lines.
  - How do I introduce the narrator in my introduction?
    - » Answers may vary, but they could include that you use words such as *I’m*, *I*, and *my*; We learn Twig is the narrator when Natalie’s dad tells her and Natalie to go.
  - How do I introduce the setting in my introduction?
    - » Answers may vary, but they could include that you describe the parking lot and the weather.
  - How do I introduce the first event that I planned?
    - » Answers may vary, but they could include that the first event you planned was for Natalie, Twig, and Dari to receive the prize money in the parking lot, which you describe in your introduction.

### Activity Page 12.2



- What examples of different sentence types did I include in my introduction? (Have students label a few examples of sentence types directly on the introduction at the top of Activity Page 12.2.)
  - » exclamatory: “And here it is! The grand prize of five hundred dollars!”; interrogative: “Twig, Nats - you ready?”; declarative: “Due to the cold, the expansive parking lot had mostly cleared out, but there were a few lingering kids and parents watching as if they wanted proof of the prize money.”
- What examples of figurative or descriptive language and sensory details do you notice that helped bring the introduction to life?
  - » Answers may vary, but they could include: “We shivered in the brisk January air, but Charlaïne didn’t seem to notice, drawing out each of her words as if she had nowhere to be.”; “Charlaïne’s voice sounded as if it were floating on a hot air balloon, like it was so high it could pop at any moment.”
- Have students look at the “Characteristics of a Strong Introduction” section on Activity Page 12.2.
- Using your model introduction, have students come up with a list of characteristics that make up strong introductions. Explain that they have a copy of your model introduction on this activity page.
- Record students’ responses on the Characteristics of a Strong Introduction list that you prepared in advance on the board/chart paper. Have them record the characteristics on Activity Page 12.2.
- Examples of characteristics of a strong introduction may include:
  - uses figurative language, descriptive language and sensory details
  - introduces the characters and narrator
  - introduces the setting
  - describes the first event
  - intrigues or hooks the reader
  - includes a variety of sentence types
- Explain that students will use this list of characteristics when writing their introductions today.
- Have students turn to Activity Page 12.3.
- Explain that they will write the introductions to the narrative pieces they have been planning on this activity page. Explain that students will return to this activity page later to write the rest of their narrative. Remind students they will use their plans on Activity Page 11.1.

### Activity Page 12.3



- Tell students to use the Characteristics of a Strong Introduction list they just made as a class to support them in writing.
- Tell them they should use a variety of sentence types: *declarative*, *imperative*, *interrogative*, and *exclamatory*. Also encourage students to incorporate figurative language and descriptive and sensory details into their introductions to engage the reader.
- Have students write their introductions on Activity Page 12.3 independently.
- If time allows, have students share their introductions with a partner. Instruct them to provide feedback to one another using the list they came up with on Activity Page 12.2. Model how to give feedback using the sentence starters below, which you wrote on the board/chart paper in advance. You may wish to have students record one of the sentences on the back of their partner's Activity Page 12.3 to provide feedback.
  - You effectively introduced the narrator/characters/setting when you . . .
  - Your use of sensory details/descriptive language/figurative language helped me visualize . . .
  - You effectively used a variety of sentence types by . . .
  - I think you can improve your introduction by . . .
- Collect Activity Page 12.3 at the end of the lesson to determine students' ability to write strong introductions and provide feedback for students to implement during the Writing segment in the next lesson.

## D Differentiation

### Challenge

Challenge students to use at least one instance of figurative language, descriptive language, and sensory details in their writing.

### Support

Support students in writing their introductions by asking guiding questions and prompting students to first say their ideas aloud (e.g., "Where is your setting? How can you describe this using detail in an engaging way? Now let's write it in a sentence.").

**ML/EL**

#### MULTILINGUAL/ENGLISH LEARNERS

##### Writing Producing

|                                     |                                                                                                                                          |
|-------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Entering/Emerging</b>            | Have students write simple sentences that include the characters and setting.                                                            |
| <b>Transitioning/<br/>Expanding</b> | Have students write more complex sentences. Encourage them to introduce the characters, setting, narrator, and first event they planned. |
| <b>Bridging</b>                     | Encourage students to use descriptive and figurative language and sensory details in their introductions.                                |

End Lesson

# Drafting a Narrative: Body

## PRIMARY FOCUS OF LESSON

### Reading

Students will analyze and make conclusions about the overall structure of the novel, including the title. [RL.5.5]

Students will make inferences about characters and events in the novel using evidence from the text. [RL.5.1]

Students will demonstrate an understanding of the Tier 2 word *indefinitely*. [L.5.4]

### Writing

Students will draft their narratives, including dialogue, description, and sensory details. [W.5.3b, W.5.3d]

## FORMATIVE ASSESSMENT

### Activity Page 8.1

**Scientific Steps and Key Details** Students will write a short paragraph explaining the overall structure of the novel. [RL.5.5]

### Activity Page 12.3

**Narrative Drafts** Students will write the body of their narrative. [W.5.3a]



**Teacher Presentation Screens:**  
all lessons include slides

## LESSON AT A GLANCE

|                                | Grouping Recommendations    | Time    | Materials                                                                                                                                                         |
|--------------------------------|-----------------------------|---------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Reading (55 min.)              |                             |         |                                                                                                                                                                   |
| Reading: Assignments 41–42     | Whole Group/<br>Independent | 30 min. | <input type="checkbox"/> <i>The Science of Breakable Things</i><br><input type="checkbox"/> Activity Pages 2.2, 8.1, 13.1<br><input type="checkbox"/> blank paper |
| Analyzing Structure            | Whole Group/<br>Independent | 20 min. |                                                                                                                                                                   |
| Word Work: <i>Indefinitely</i> | Whole Group                 | 5 min.  |                                                                                                                                                                   |
| Writing (35 min.)              |                             |         |                                                                                                                                                                   |
| Narrative Drafts               | Whole Group/<br>Independent | 35 min. | <input type="checkbox"/> Visual Supports 10.1, 11.1, 12.1, 13.1<br><input type="checkbox"/> Activity Pages 11.1, 12.3                                             |

## ADVANCE PREPARATION

### Reading

- Distribute the novel *The Science of Breakable Things* by Tae Keller.
- Prepare to have students use Activity Page 2.2 to remind them of the interrogative sentences they wrote during Lesson 2. They will attempt to answer the questions they previously asked about the novel during this lesson.
- Prepare for students to finish completing Activity Page 8.1, that they started in previous lessons. Prepare a space for students to answer a question about the structure of the novel on the back of Activity Page 8.1 or on a piece of paper.

### Writing

#### ➤ Visual Support 10.1

- Prepare to display Visual Support 10.1 to discuss with students during the lesson.

#### ➤ Visual Supports 11.1, 12.1, 13.1

- Prepare to display Visual Supports 11.1, 12.1, and 13.1 to model for students how you created a narrative draft using your narrative planner and introduction.

#### ➤ Visual Support 13.1

- Prepare to write student sentences on Visual Support 13.1 or the board/chart paper during the shared writing portion of the writing model.

### Universal Access

#### Reading

- To ensure all students have the opportunity to contribute during Turn and Talk and Think-Pair-Share exchanges, provide students with a signal such as folding their hands or raising a hand to indicate when both partners have added to the conversation.

#### Writing

- Prepare to provide students with paper in the form of a storyboard for those that may need support writing their events in order.

## VOCABULARY

### Core Vocabulary

- You may choose to preview the vocabulary words before reading the text.

**indefinitely, adv.** without clear limits; endless

**intrigued, v.** interested

Vocabulary Chart for “Assignments 41–42”

| Type                | Tier 3<br>Domain-Specific Words | Tier 2<br>General Academic Words | Tier 1<br>Everyday Speech Words |
|---------------------|---------------------------------|----------------------------------|---------------------------------|
| Core Vocabulary     |                                 | indefinitely<br>intrigued        |                                 |
| Spanish Cognates    |                                 | indefinidamente<br>intrigado/a   |                                 |
| Multiple-Meaning    |                                 |                                  |                                 |
|                     |                                 |                                  |                                 |
| Sayings and Phrases |                                 |                                  |                                 |



## Lesson 13: Drafting a Narrative: Body

## Reading




## Primary Focus

Students will analyze and make conclusions about the overall structure of the novel, including the title. [RL.5.5]

Students will make inferences about characters and events in the novel using evidence from the text. [RL.5.1]

Students will demonstrate an understanding of the Tier 2 word *indefinitely*. [L.5.4]

## READING: ASSIGNMENTS 41–42 (30 MIN.)

- Explain that students will finish reading the novel “The Science of Breakable Things” today.
-  **Think-Pair-Share:** Ask students to turn to a partner and describe the key events of the chapters they read in the previous lesson. Tell students they can use Activity Page 10.1 to help remember. Remind students to signal when both partners have contributed to the conversation. Once both students have shared, have a few students share their partner’s ideas.
  - As needed, ask the follow-up prompts below:
    - What happened as a result of Natalie and her friends breaking into the lab?
      - » Answers may vary, but they could include that they were caught and reported to Mrs. Menzer, who told their parents. Natalie learned that her mom wasn’t fired, and that Mrs. Menzer had given Natalie and her mom a blue iris, not a Cobalt Blue Orchid to plant in their greenhouse.
    - How did Natalie and her mom behave differently as a result of Natalie’s break-in?
      - » Answers may vary, but they could include that Natalie and her mom spoke about their feelings for the first time. Natalie confronted her mom about the questions she had, and they discussed her mom’s depression.
    - How did Assignment 40 end?
      - » Natalie’s mom planted the two flowers, the Korean Fire and the blue iris seed, in their greenhouse because she wanted her and Natalie to have a second chance.



- Have students turn to Activity Page 2.2.
  - Ask, “What types of sentences did you write on this activity page?”
    - » interrogative (If students say “questions,” you may provide them with the following four options to choose from: *declarative*, *imperative*, *interrogative*, and *exclamatory*.)
  - Have students review the questions they wrote on this activity page. Explain that after finishing the novel today, students will write the answers to their own questions.
  - Tell students to keep their questions in mind as they finish the novel.
- Have students turn to Assignment 41 and read this assignment with a partner. Explain that as students read, they should think about how relationships between characters in the story develop. Tell students they will take turns reading aloud to one another.

| <div> <div>ML/EL</div> <div>MULTILINGUAL/ENGLISH LEARNERS</div> </div> <div>Reading</div> |                                                                                                                                  |
|-------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------|
| <b>Entering/Emerging</b>                                                                  | Read the text aloud to a small group or students are partners.                                                                   |
| <b>Transitioning/<br/>Expanding</b>                                                       | Have students read a few lines of text at a time, taking turns reading with the teacher.                                         |
| <b>Bridging</b>                                                                           | Have students pause after the bottom of every page to retell the key events on that page to their partner using their own words. |

- Once students have finished reading, ask the following questions:
1. **Evaluative.** 👤👤 *Think-Pair-Share*: How does Mikayla and Natalie’s relationship develop in this part of the novel, and why? Use examples from the text to support your thinking. Remind students to signal when both partners have contributed to the conversation. Once both students have shared, have a few students share their partner’s ideas.
    - » Answers may vary, but they could include that Natalie and Mikayla come to an understanding that while they won’t be best friends again, they can be cordial to each other; Natalie realizes that she hurt Mikayla when she became friends with Twig, which was different from what she had previously believed; Mikayla understands that Natalie is going through a hard time and doesn’t feel the need to tell anyone.

- Ask these follow-up questions to guide the conversation:
  - **Inferential.** Why do you think Natalie approached Mikayla?
    - » Answers may vary, but they could include that Mikayla’s mom told Natalie that Mikayla misses her when they were driving home from the lab and Natalie wanted to see if this was true.
  - **Inferential.** What do you think Natalie means when she says that Mikayla has been living in a totally different universe?
    - » Answers may vary, but they could include that Natalie thought Mikayla had stopped being friends with her and was hurt by Mikayla, but the entire time Mikayla had perceived things differently. Mikayla was hurt because she thought that Natalie had stopped being friends with her when she became friends with Twig.
  - **Evaluative.** Why do you think Natalie surprises herself by reflecting on Mikayla’s project?
    - » Answers may vary, but they could include that previously, Natalie wouldn’t have chosen to pay attention to Mikayla or her project. But after their conversation, Natalie is showing her more respect or thinks more highly of her; Natalie may feel guilty about hurting Mikayla’s feelings a long time ago and wants to make it up to her.
  - **Evaluative.** How do characters’ perspectives impact how readers understand events?
    - » Answers may vary, but they could include that we often understand events the way that the narrator sees or has experienced things. We do not always understand the full story or how characters other than the narrator feel..

## **D** Differentiation

### Challenge

Have students write a one sentence summary comparing and contrasting the new and the old Natalie.

### Support

Re-read the bottom of page 280 and page 281 to support students in explaining how Natalie’s actions demonstrate her change.

2. **Evaluative.** Natalie describes herself as the “old Natalie” versus the “new Natalie” when she approaches Mikayla and her mom. What do you think characterizes the “old” and “new” Natalies, and how do they fall under each category? Use evidence from the text to support your response.
  - » Answers may vary, but they could include that the old Natalie didn’t share her feelings or have difficult conversations with others and the new Natalie says what she is feeling; the old Natalie would have ignored Mikayla getting out of the car, and would have pretended that she didn’t learn that Mikayla missed her as a friends; the new Natalie confronts Mikayla about why they stopped being friends, because she can have difficult conversations and be honest about her thoughts and feelings with others; “And the old me wouldn’t have said anything, but this whole say-what-you’re-feeling thing? It’s pretty nice”; “There were two sides of me. . . the old Natalie, who would have tucked her head down and walked into the classroom, and the new Natalie, who walked right up to the car.”

3. **Literal.** What question does Natalie decide to explore for her science project?

» how to protect breakable things

• **Evaluative.** What do you notice about the question she chose?

» Answers may vary, but they could include that this is similar to the title of the novel “The Science of Breakable Things.”



### Check for Understanding

**Think-Write-Share:** Provide students with the following sentence: “Natalie confronts Mikayla about why she stopped being her friend.” Tell students they will write three statements using *because*, *but*, and *so* to expand the sentence. Have students turn to a partner and share an idea for one of the statements before they write.

» Answers may vary, but they could include:

- *Natalie confronts Mikayla about why she stopped being her friend because the new Natalie tells others how she is feeling; Natalie confronts Mikayla about why she stopped being her friend because Mrs. Menzer told her that Mikayla misses her.*
- *Natalie confronts Mikayla about why she stopped being her friend, but Mikayla thinks that Natalie was the one that ended their friendship; Natalie confronts Mikayla about why she stopped being her friend, but they still aren't going to be best friends again.*
- *Natalie confronts Mikayla about why she stopped being her friend, so they came to an understanding; Natalie confronts Mikayla about why she stopped being her friend, so they show respect to one another.*

• Have students turn to “Step 8: Analyzing Your Results” and read the Step 8 description aloud.

◦ Ask, “What do you think will happen in this last and final section based on the title?”

» Answers may vary, but they could include that we’ll find out how the results of the egg drop competition impact Natalie and her family.

• Have students turn to Assignment 42. Read this final Assignment aloud and have students follow along as you read.

## D Differentiation

### Support

Define Perennial plants as plants that grow and bloom in the spring, die in the winter, and then bloom again the following spring.

- Then, ask the following discussion questions:

1. **Evaluative.** How does Natalie's view on perennial plants relate to her own life? Use evidence from the text to support your response.
  - » Answers may vary, but they could include that perennial plants go underground before they bloom again to survive, just like Natalie had some low times in her life, such as not seeing her mom often when she was sad, before things improved and they began to grow their relationship again; "I've been thinking about perennial plants. About how sometimes life needs to go underground, bury itself deep to survive, and how maybe that's not a bad thing. It's just necessary. And that's okay."
2. **Evaluative.** Why do you think the Wonderings Journal for Mr. Neely's class is the most important assignment Natalie has ever had?
  - » Answers may vary, but they could include that it helped her to open up, be able to communicate, and share her feelings; it helped her to eventually communicate with her mom
3. **Inferential.** Why do you think Natalie stopped writing in the journal after the day in the greenhouse with her mom? Use evidence from the text to support your response.
  - » Answers may vary, but they could include that Natalie was able to talk about her observations and feelings with her friends and family, so she no longer needed to write about them; "I didn't need it anymore. Because now I can speak. Mom and Dad and I are being honest with each other."
4. **Evaluative.** Why do you think Natalie's mom didn't want to give up on the iris seed? How does this connect to her own experiences?
  - » Answers may vary, but they could include that Natalie's mom planted the iris seed because she believed that her and Natalie deserved a second chance. To give up on the iris seed when it didn't grow, would mean to give up on their second chance at an honest relationship. So when the iris seed didn't grow, she planted tons more to try another way, just like they may need to keep trying different ways to grow their relationship and trust.

- Have students turn to Activity Page 2.2.
- Explain that students will write one declarative statement to respond to the questions they wrote earlier in the novel. If students know the answer to the question, tell them to answer it. If students are not able to answer the question, instruct them to write a declarative statement saying so (e.g., "I did not find \_\_\_\_"). Explain that students can write their statements on the bottom or back of Activity Page 2.2.
  - Have a few students share one of their questions and responses.

## ANALYZING STRUCTURE (20 MIN.)

- Have students turn to Activity Page 13.1 and read the directions for Part 1.
- **Think-Pair-Write.** Have students turn to a partner and discuss their ideas before completing Activity Page 13.1. Tell students to provide feedback on whether their partner responded to the prompt. Then, have students complete Activity Page 13.1, Part 1 independently.

### Activity Page 13.1



**ML/EL**

#### MULTILINGUAL/ENGLISH LEARNERS

##### Reading

##### Synthesizing Information

#### Entering/Emerging

Re-read the last two paragraphs of the novel aloud to students. Ask literal questions (e.g., “What does Natalie say about breakable things?”; “What does she say will break?”; “What does she say that you do when things break?”).

#### Transitioning/ Expanding

Direct students to re-read the last two paragraphs of the novel, and support them to make inferences by asking follow-up questions (e.g., “What does Natalie think about breakable things?”; “How does this connect to what happens in Natalie’s life?”; “What breaks? What happens after that?”).

#### Bridging

Have students complete Activity Page 13.1 with a strategic partner.



### Check for Understanding


Turn to Activity Page 13.1, Part 2. Rearrange this set of words and write a complete sentence: “protect things always breakable can’t you”

» You can’t always protect breakable things.

### Activity Page 8.1



- Remind students that they have been exploring the structure of the novel.
- Have students turn to Activity Page 8.1.
- Remind students that earlier in the unit, they started this graphic organizer to analyze the structure of the text. Remind them that identifying and recognizing the structure of a text is important because it helps readers organize the information and details they are learning in their minds while reading, and make connections between the details being presented in a text.

- Have students complete the rest of the activity page for the “Results” and “Analyze Your Results” sections. Remind students to note key details for each section that relates to the section’s title.
- When students have completed Activity Page 8.1, ask, “Looking at sections of the novel, how does Tae Keller structure *The Science of Breakable Things*?”
  - » She structures the sections of the book in the steps of the scientific method, and titles the chapters “assignments.”
  - As a follow-up question, ask, “How do the events of the novel connect to the scientific method?”
    - » Answers may vary, but they could include that key events in the novel connect to the title of that section. For example, Natalie makes observations about Mr. Neely and science class in the “observations” section of the book; Natalie learns the results of the egg drop competition in the “results” section of the novel.
- **Think-Write-Share.** On the back of Activity Page 8.1, or on a blank piece of paper, have students respond to the following question: Why do you think Tae Keller chose to structure her novel and divide the text in the way that she did? Encourage students to use their notes on Activity Page 8.1 to think about the structure of the novel and how it relates to the plot.
  - » Answers may vary, but they should include an explanation of the structure and how it relates to key ideas in the novel. Answers may include that the reader learns what Natalie is figuring out about her own life through the steps of the scientific method, as she is also going through the steps of the scientific method with the egg drop experiment/competition.
- After students write, have a few share their ideas aloud with the class.
- Remind students that the title is part of the structure of a text.
-  **Think-Pair-Share:** Why do you think the author, Tae Keller, titled this novel *The Science of Breakable Things*? Remind students to signal when both partners have contributed to the conversation. Once both students have shared, have students find another partner to share their response with and follow the same protocol. Set a timer or play a song quietly in the background for students to continue sharing their ideas with new partners until time is up. Have a few students share a partner’s idea aloud with the class.



## Check for Understanding

Write three sentences using the following sentence stem and the conjunctions *because*, *but*, and *so*: “Tae Keller used the scientific method format to organize her novel *The Science of Breakable Things*.”

» Answers may vary, but see sample sentences below:

- Tae Keller used the scientific method format to organize her novel, *The Science of Breakable Things*, because she wanted the reader to go through these steps as they are uncovering information about Natalie’s life.
- Tae Keller used the scientific method format to organize her novel, *The Science of Breakable Things*, but it still includes aspects of a typical novel such as characters and dialogue.
- Tae Keller used the scientific method format to organize her novel, *The Science of Breakable Things*, so that she could mirror the steps Natalie is taking in science class to conduct experiments with what Natalie is figuring out in other parts of her life.

## WORD WORK: INDEFINITELY (5 MIN.)

1. In today’s reading, you read “Dari was still grounded, pretty much *indefinitely*.”
2. Say the word *indefinitely* with me.
3. *Indefinitely* means without clear limits; endless.
4. I canceled my flight home, because I decided to stay *indefinitely*.
5. What are some other examples of things one might do? Be sure to use the word *indefinitely* in your response.
  - » Answers will vary. If necessary, guide and/or rephrase students’ responses to make complete sentences.
6. What part of speech is the word *indefinitely*?
  - » adverb



## 7. Use a Word Parts activity for follow-up.

- Ask students to identify the root word and the prefix in the word *indefinitely*.
  - » The root word is *definitely*. The prefix is *in-*.
- Ask what the root word *definitely* means.
  - » certainly
- Ask students to recall the meaning of the prefix *in-*.
  - » into or not
- Explain that, in this word, the prefix *in-* means *not*.
- Give students the following directions: “I will say several words with the prefix *in-*. Listen carefully to the word that you hear after the prefix *in-* to help you discover the meaning of the word. For example, if I say, ‘inseparable,’ then you would say, ‘That means not separate or separated.’”
  - Independent
    - » That means not dependent.
  - Invalid
    - » That means not valid.
  - Indestructible
    - » That means not destructible.
  - Insecure
    - » That means not secure.
  - Invisible
    - » That means not visible.
- Prompt students to come up with additional words that have the prefix *in-* meaning not.

## Lesson 13: Drafting a Narrative: Body

# Writing



**Primary Focus:** Students will draft their narratives, including dialogue, description, and sensory details. [W.5.3b, W.5.3d]

### NARRATIVE DRAFTS (35 MIN.)

- Have students turn to Activity Page 11.1. Provide them with a few moments to review their plan.
- Ask, “What steps have you completed so far in your narrative writing process?”
  - » planning for the setting, events, and characters; drafting an introduction
- Explain that students will work on the body, or the main events in their narrative.
- Explain that students will use the plans they have made to develop the body of their narratives. They will think about the events that will happen in order and how the characters behave, think, and feel during the events.

#### ➤ Visual Support 10.1

- Display Visual Support 10.1. Remind students that this is the narrative rubric for writing they have looked at previously. Tell students they will look at the “proficient” section of the rubric.
  - Direct students to the “Ideas” section. Explain that they have already introduced the narrator, characters, and situation in their introduction.
  - Direct students to the “Organization” section of the rubric. Ask, “How can we ensure our narratives are well organized based on this rubric?”
    - » our event sequence unfolds naturally; use narrative techniques to develop experiences and events or show the responses of characters to situations; provides a conclusion connected to the narrative sequence
  - Explain that students will write a conclusion in the following lesson.
  - Direct students to the “Conventions” section. Explain that this section provides more details on the techniques we can use to develop character experiences and events.
  - Ask, “What conventions should we include in our narratives?”
    - » use a variety of transitional words, phrases, and clauses; use details, including sensory details

### Activity Page 11.1



- Ask, “What other narrative techniques have we learned about and practiced that we can use to convey character actions, thoughts or feelings?”

» Answers may vary, but they could include dialogue and figurative language.

- Explain that you will model how you drafted the body of your narrative using your planner and the narrative techniques you discussed. Then, students will support you in expanding your narrative. You may use the model below.
  - “First, I’m going to review my narrative planning documents to help me remember the main events and characters in my scene.”

### ➤ **Visual Support 11.1**

- Display Visual Support 11.1.
- “Here we can see the Narrative Planner that I created previously. Can someone remind us of the main events in my scene?” Have a volunteer respond using Visual Support 11.1.
- “Now, I want to review the introduction I wrote so I can continue writing my scene where I left off.”

### ➤ **Visual Support 12.1**

- Display Visual Support 12.1. Re-read the introduction aloud.
- “Now, I want to continue my scene, keeping in mind the events I already planned. However, I’m going to expand on the events and include characters’ feelings and perspectives using dialogue, descriptive language and sensory details.”

### ➤ **Visual Support 13.1**

- Display Visual Support 13.1. Have student volunteer read your narrative draft aloud. See the draft below.

*The silence in the car ride back to Natalie’s was deafening. It was strange that we weren’t whooping and hollering in excitement after our win. But every time I looked over at Natalie, I saw that pondering face again. So I swallowed my words and turned my attention to light flurries of snow outside that disappeared like invisible ink the moment they hit the glass.*

*“Home, my little scientists!” Natalie’s dad bellowed in an overly cheery voice when we pulled into the gravel driveway, breaking the silence. I followed Natalie out of the car and into the kitchen. We pulled ourselves onto the kitchen stools at the counter, our usual spots. I turned to Natalie. “Alright, spill. What’s going on in that brain of yours?”*

- Ask, “How did I use sensory details and descriptive language to convey events, character feelings, or perspectives?”
  - » Answers may vary, but they could include the following examples: “Natalie’s dad bellowed in an overly cheery voice.” and “The silence in the car was deafening.” This helped the events come to life and explain what Twig is thinking.
- Ask: How did I use dialogue to convey events and characters’ thoughts and feelings?
  - » Answers may vary, but they could include, “Alright, spill. What’s going on in that brain of yours?” This shows what Twig is thinking and asks Natalie.
  - Remind students that using dialogue is an example of “showing, not telling” the events of the story, and how the characters are thinking and feeling.
- Ask, “What examples of figurative language can you identify in my narrative? How do these examples help convey the events in an interesting way?”
  - » Answers may vary, but could include “light flurries of snow that disappeared like invisible ink the moment they hit the glass.” and “The silence was deafening” These help the reader imagine or picture what is happening and make the narrative more engaging.
- Tell students they are going to help you write the next part of this scene. Remind students of the next event in the sequence you planned:

*In Natalie’s Kitchen, Natalie tells Twig and her dad that she wants to donate the money to scientific research, instead of using it to buy flights to New Mexico. Twig is shocked.*

- Ask: What dialogue can I write next to convey this event in my narrative?
  - Have a few students share their responses and record them on the board/chart paper. Remind students to use dialogue tags as needed.
- Ask students to identify the type of sentence they shared (*declarative, interrogative, exclamatory, or imperative*).
- Ask, “What statement can I write next to convey Twig’s shock, using sensory details, descriptive language, or figurative language?”
  - Have a few students share their responses and record them on the board/chart paper. Have students identify what type of language they used in their statement.

## Activity Page 12.3



### D Differentiation

#### Support

Support students with transferring ideas from their plan to their narrative by asking questions, such as, “What did you plan to happen next in your scene? What are the characters thinking and feeling in this event? How can you show that in your writing?”

#### Challenge

Encourage students to vary the types of sentences in their dialogue.

- Explain that students will now write their own narrative drafts.
- Have students review their Narrative Planners on Activity Page 11.1 and their introductions on Activity Page 12.3.
- Explain that they will write where they left off in their introductions to create the body of their narratives.
- **Think-Pair-Write.** Before students write, have them share one example of sensory details and one example of dialogue they can include in their next event. Have students record their examples on the bottom of their planner on Activity Page 11.1.
- Explain that students should use at least three exclamatory sentences, two imperative sentences, and two interrogative sentences in their dialogue. You may wish to write this instruction on the board as a reminder.
- Explain that students will write the body of their drafts on Activity Page 12.3 below the introduction they already wrote. Remind students that they will work on the conclusion in the next lesson.
- After students have finished, have them exchange their writing with a partner and give each other feedback on the use of dialogue to demonstrate what characters are thinking and feeling. Model how to give feedback using the following sentence starters:
  - When the character says, . . . I can infer that they are feeling . . .
  - When the character says, . . . I can infer that they are thinking . . .
  - Your use of dialogue is effective because . . .
  - You can improve your use of dialogue by . . .
- Give students time to revise their use of dialogue in their writing.



## MULTILINGUAL/ENGLISH LEARNERS

### Writing Producing

|                                     |                                                                                                                                                                                                               |
|-------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Entering/Emerging</b>            | Have students write about the events and characters in their scenes in a storyboard format, using simple words and phrases.                                                                                   |
| <b>Transitioning/<br/>Expanding</b> | Have students write simple sentences to describe the main events in their scene. Encourage them to include one or two sentences that demonstrate what the characters are saying.                              |
| <b>Bridging</b>                     | Provide students with prompts to add dialogue in their writing, such as: “What can the character say to show what is happening?”; “What can the character say here to show what they want or how they feel?”. |

~~~~~ End Lesson ~~~~~

Drafting a Narrative: Conclusion and Revision

PRIMARY FOCUS OF LESSON

Writing

Students will write a conclusion for their narratives. [W.5.3e]

Students will revise their narratives, including using a variety of transitional words, phrases, and clauses to manage the sequence of events.

[W.5.3c, W.5.5, L.5.3a]

FORMATIVE ASSESSMENT

Activity Page 12.3

Narrative Draft Students will write a conclusion for their narratives. [W.5.3e]

Activity Page 14.2

Revision Checklist Students will revise their narratives based using a revision checklist. [W.5.5]



Teacher Presentation Screens:
all lessons include slides

LESSON AT A GLANCE

| | Grouping Recommendations | Time | Materials |
|--------------------------|-----------------------------|---------|--|
| Writing (90 min.) | | | |
| Writing a Conclusion | Whole Group/
Independent | 30 min. | <input type="checkbox"/> Activity Pages 6.2, 12.3, 14.1, 14.2, 14.3
<input type="checkbox"/> Visual Supports 10.1, 11.1
<input type="checkbox"/> board/chart paper |
| Writing with Transitions | Whole Group/
Independent | 20 min. | |
| Revising | Whole Group/
Independent | 40 min. | |

ADVANCE PREPARATION

Writing

➤ Visual Support 11.1

- Prepare to display Visual Support 11.1 if students have difficulty remembering the key events in your narrative model.
- Prepare a blank list on chart paper or the board titled “Characteristics of a Strong Conclusion” to be completed with students during the lesson.
 - Answers may vary, but they may include the following characteristics:
 - ends the story
 - explains how problems are resolved or what happens to the characters at the end
 - answers questions the reader might have
 - leaves the reader wondering what might happen next
 - connects the ending to events that happened or how the characters felt earlier in the narrative
 - includes a variety of sentence types
 - includes dialogue
 - includes sensory and descriptive details and figurative language
 - includes transitional words and phrases
- Write the following sentences on the board/chart paper:
 - Sentence 1: *Natalie’s dad nudged her and cleared his throat.*
 - Sentence 2: *Natalie jumped, snapping out of it for a bit.*
- Prepare for students to use Activity Page 6.2 to review transitional words, phrases, and clauses.

Universal Access

Writing

- To ensure all students have the opportunity to contribute during Turn and Talk and Think-Pair-Share exchanges, provide students with a signal such as folding their hands or raising a hand to indicate when both partners have added to the conversation.

Lesson 14: Drafting a Narrative: Conclusion and Revision

Writing




Primary Focus

Students will write a conclusion for their narratives. [W.5.3e]

Students will revise their narratives, including using a variety of transitional words, phrases, and clauses to manage the sequence of events. [W.5.3c, W.5.5, L.5.3a]

WRITING A CONCLUSION (30 MIN.)

- Ask students to recall the steps they have taken so far in writing their narratives.
 - » They planned for their events, characters, and setting, and wrote their introduction and body.
- Ask students to recall the final part of a narrative that ends the story.
 - » a conclusion
- Explain that today, students will write a conclusion that ends their narrative, and they will revise their writing.
- Ask students to share the purpose of a conclusion.
 - » Answers may vary, but they could include to end the story; to answer questions the reader may have; to tell what happens last in the plot.
- Have students turn to Activity Page 14.1. Explain that students will read your conclusion to come up with a list of characteristics that make a strong conclusion.
-  **Think-Pair-Share.** Ask students to name what was particularly meaningful or effective about how *The Science of Breakable Things* ended. Remind students to signal when both partners have contributed to the conversation.
 - » Answers may vary, but they could include that we learned how Natalie and her relationship with her family has changed; we discover what Natalie has learned as a result of the events in the novel; we learn the answer to some of Natalie's questions.
- Tell students to keep this in mind as they create their list of characteristics that make up a strong conclusion.

Activity Page 14.1



- Direct students to the conclusion written at the top of Activity Page 14.1. Explain that students will read your narrative conclusion in partners, and identify characteristics of a strong conclusion.
 - Ask students to recall the narrator in your narrative.
 - » Twig
 - Ask students to recall the main events in your narrative.
 - » Natalie, Dari, and Twig win the prize money. Natalie decides to donate the money to scientific research instead of using it to fly to New Mexico. Natalie's mom comes out of her room to be with her family and Twig leaves to go home.

➤ Visual Support 11.1

- Display Visual Support 11.1 if students need support remembering the key events.
- Have students read your conclusion on Activity Page 14.1 and record strong characteristics on the activity page in partners. See the model conclusion below:

"Let's go fund those scientists!" I cheered, pumping my fist in the air like I was performing a cheerleading routine. Then again, I was a cheerleader, Natalie's cheerleader. Because ultimately, that's what best friends are for right?

Natalie nodded, a small but appreciative nod. "Thank you," she silently mouthed when her father wasn't looking. Then, we heard the sound. At that moment, the quiet creak of the door opening sounded as loud as an elephant's sneeze. We all swiveled our heads towards the bedroom door. I could feel Natalie holding her breath beside me.

"Good afternoon," Natalie's mom's voice floated through the air as she stepped into the kitchen hallway. "It sounds like I've got some catching up to do." While Natalie's expression shifted into a state of surprise, her eyes smiled from ear to ear. I knew that was my cue, so I slid off the stool gesturing for Natalie's mom to take my place. "So tell me, who won this egg drop competition?" she asked as she rested her elbows on the cool kitchen countertop. Then she placed her chin in her hands, and waited patiently for Natalie's response. I didn't wait, however. I looked over at my best friend, who was beaming, as she recounted the competition in detail. I turned towards the exit and silently slipped away, knowing that things were going to turn around for the Napolis.

- Once students have completed Activity Page 14.1, have student volunteers share the characteristics of a strong conclusion they identified. Record

D Differentiation

Support

Read aloud your conclusion one time in full. Then read the conclusion aloud a second time, pausing after each paragraph to ask:

- What did this part of the conclusion make you think or how did it make you feel?
- What does it make you think or wonder about the characters?
- How does it connect to earlier parts of the narrative?
- What makes it exciting or effective as a conclusion?

student responses on the class “Characteristics of a Strong Conclusion” chart you prepared in advance.

- Answers may vary, but they may include the following characteristics:
 - ends the story
 - explains how problems are resolved or what happens to the characters at the end
 - answers questions the reader might have
 - leaves the reader wondering what might happen next
 - the characters are feeling happy or at peace at the end
 - connects the ending to events that happened or how the characters felt earlier in the narrative
 - includes a variety of sentence types
 - includes dialogue
 - includes sensory and descriptive details and figurative language
 - includes transitional words and phrases
- As needed, ask the following prompts:
- Re-read the last paragraph of the conclusion. How did this make you feel?
 - » *Answers may vary, but they could include happy that things are turning around for Natalie’s family and that her mom came out of her room to hear about Natalie’s life.*
 - What characteristics of strong conclusions can you identify based on how this made you feel?
- How does the last paragraph in the conclusion connect to earlier parts of the narrative or novel?
 - » *Answers may vary, but they could include that Natalie’s mom came out of her room to talk to Natalie, when we know earlier in the novel Natalie’s mom had mostly stayed in her room because she was sad.*
 - What characteristics of strong conclusions can you identify based on this connection?
- How did the conclusion help answer earlier questions you had about the characters or what new information did you learn in the conclusion?

- » *Answers may vary, but they could include that we learned that Natalie's mom wanted to be with her and hear about what was happening in her life, when earlier we wondered if Natalie and her would repair their relationship.*
- What characteristics of strong conclusions can you identify based on the information you learned about the characters?
- What made the conclusion exciting or interesting? What questions do you have after reading the conclusion?
 - » *Answers may vary, but they could include that it left the reader thinking, or wishing they could find out more, such as how things continue to turn around for Natalie and her mom.*
- What characteristics of strong conclusions can you identify based on your questions or wonderings at the end?
- What examples of narrative techniques did I include in my conclusion?
 - » *Answers may vary, but they could include: "At that moment, the quiet creak of the door opening sounded as loud as an elephant's sneeze" (figurative language); "Natalie's mom's voice floated through the air as she stepped into the kitchen hallway" (sensory details); "It sounds like I've got some catching up to do" (dialogue).*
- What characteristics of strong conclusions can you identify based on these narrative techniques?
- What examples of different sentence types did I include in my conclusion?
 - » *Answers may vary, but they could include:*
 declarative: "It sounds like I've got some catching up to do."
 interrogative: "So tell me, who won this egg drop competition?"
 exclamatory: "Let's go fund those scientists!"
 imperative: "Start from the beginning."
- What characteristics of strong conclusions can you identify based on these sentences?
- What examples of transitional words and phrases can you identify in my conclusion?
 - » *Answers may vary, but they could include *however, then again, and so.**
- What characteristics of strong conclusions can you identify based on these words and phrases?
- Explain that students will explore transitional words and phrases further soon.



Check for Understanding

Think-Pair-Share: What characteristics of a strong conclusion will you include in the conclusion of your narrative? Remind students to signal when both partners have contributed to the conversation.

➤ Visual Support 10.1

- Display Visual Support 10.1. Remind students they reviewed this rubric previously.
 - Ask, “What part(s) of this rubric will you use to work on your conclusion?”
 - » Answers may vary, but see examples of responses below:
 - organization: provides a conclusion connected to the narrative sequence
 - conventions:
 - uses a variety of transitional words and phrases to manage the sequence of events
 - uses concrete words and phrases and sensory details to convey experiences and events precisely
- Have students turn to Activity Page 12.3. Tell students they will write their conclusions on this activity page below the body of their Narrative they have previously written.
- Tell students to include three out of four sentence types in their conclusion: *declarative*, *interrogative*, *exclamatory*, and *imperative*.
- Provide students with time to write their conclusions.
- Have students share their conclusions with a partner. Model providing feedback with the following sentence stems:
 - Your conclusion effectively _____ by _____.
 - Your conclusion left me wondering _____ when you wrote _____.
 - Your conclusion answered my questions by _____.
 - You effectively used a variety of sentence types including _____.
 - You can improve your conclusion by _____.

Activity Page 12.3



D Differentiation

Support

Support students with transferring ideas from their plan to their narrative by asking questions such as, “What is the final event that you planned in your scene? What are the characters thinking and feeling in this event? How can you show that in your writing?”

Challenge

Encourage students to include all four sentence types in their conclusion.



MULTILINGUAL/ENGLISH LEARNERS

Writing Writing

| | |
|-------------------------------------|--|
| Entering/Emerging | Have students copy the last event in their narrative planner. Support students in adding dialogue by asking, "What can the characters say to show what happens in this final event?" |
| Transitioning/
Expanding | Ask students guiding questions to help them add sensory details and descriptive language to their conclusions (e.g., "What did the characters see/hear/smell/touch/taste in this event?"; "What details can we include to help the reader picture what is happening?") |
| Bridging | Encourage students to add different types of sentences in their conclusion. |

WRITING WITH TRANSITIONS (20 MIN.)

- Tell students they will revise and improve their writing for the duration of the lesson.
- Ask, "Why is making revisions an important part of the writing process?"
 - » Answers may vary, but they could include that it makes our writing better.
- Tell students that they will reread their work to ensure they've included a variety of transitional words, phrases, and clauses to show the sequence of events in their scenes.
- Remind students they learned about transitional words, phrases and clauses earlier in the unit. Have students turn to Activity Page 6.2.
 - Ask them to recall the purpose of transitional words.
 - » Answers may vary, but they could include that they are words and phrases we use in writing to connect one idea to the next.
 - Ask, "What are some examples of transitional words, phrases, and transitional clauses?" Encourage students to use their word bank on Activity Page 6.2 for support.
 - » Answers may vary, but should be from their activity page.
 - Have students add any additional words, phrases and clauses they hear from their classmates to their bank on Activity Page 6.2.
 - Explain that students may use this word bank of transitional words and phrases to help connect their ideas when they write.

Activity Page 6.2



- Have students turn back to your model conclusion on Activity Page 14.1. Have students follow along as you read specific sentences and ask the questions below.
 - Read the first two sentences aloud: “‘Let’s go fund those scientists!’ I cheered, pumping my fist in the air like I was performing a cheerleading routine. Then again, I was a cheerleader, Natalie’s cheerleader.”
 - Do I have a transitional word or phrase already in this sentence?
 - » yes
 - What transitional word or phrase do you see and what information does this reveal?
 - » The transitional word is *then again*. It reveals a connection or comparison between two statements.
 - As I read the next sentence aloud, I want you to think about transitional words, phrases, or clauses I can add to connect this idea to the previous statement: “That’s what best friends are for right?”
 - What transitional words or phrases can I use to connect these ideas?
 - » Answers may vary, but they could include *because* or *ultimately* in the beginning of the sentence.
 - Model showing students how to insert these words by drawing a caret to insert the word/s in the sentence.
 - How does this transitional word connect these ideas?
 - » Answers may vary, but they could include that it shows how the statement “that’s what best friends are for right?” is connected to the previous idea of being a cheerleader for Natalie.
 - As I read two more sentences, I want you to think about what transitional words, phrases, or clauses you can add to connect the ideas.

“‘Thank you’ she silently mouthed when her father wasn’t looking. We heard the sound.”
 - What transitional words or phrases can I use to connect this sentence to the previous ones? (Record students’ responses on the board/chart paper by drawing a caret to insert the word/s.)
 - » Answers may vary, but they could include *then*, *next*, and *that was right before*.
 - How does this transitional word connect these ideas?
 - » Answers may vary, but they could include that it explains the timing of this event in relation to the others; they heard the sound after Natalie mouthed “thank you.”

- Write the following sentences from your model introduction on the board or chart paper. Have students combine the following two sentences into one sentence with the same meaning, and write their new sentence on paper.
 - Sentence 1: Natalie’s dad nudged her and cleared his throat.
 - Sentence 2: Natalie jumped, snapping out of it for a bit.
 - » Answers may vary, but see sample sentences below:
 - Natalie’s dad nudged her and cleared his throat, which made Natalie jump, snapping out of it for a bit.
 - Natalie’s dad nudged her and cleared his throat, causing Natalie to jump, snapping out of it for a bit.
 - Natalie’s dad nudged her and cleared his throat, leading Natalie to jump, snapping out of it for a bit.
- Explain that students will now revise their work by adding in transitional words, phrases, or clauses. Remind them that the purpose is to help the reader understand the order in which events occur, or the relationship between events.
- **Think-Pair-Write.** Have students turn to a partner and practice adding a transitional word or phrase between two sentences in their drafts. Have students provide feedback on their partner’s transitions. Model providing feedback with the following sentence stems:
 - “Your transition explained the timing of events by ____.”
 - “Your transition explained how two ideas are connected because ____.”
 - “I think you can improve your use of transitions by ____.”
- Give students time to revise their drafts by adding transitional words and phrases. Tell them they may use a caret to insert words and phrases. Model this on the board/chart paper as needed.
- If students need additional time to complete the body of their drafts, give them time to do so now.

D Differentiation

Support

Ask the following guiding questions:

- Can you use a transitional word here to signify the time or order of events?
- What word or phrase would connect this idea to others before or after it?
- Is there another word or phrase you could use here as well?



Check for Understanding

Think-Pair-Write: Ask students to provide three examples of transitional words and phrases that can be used to organize events in writing. Have students share with a partner and then write their responses on paper.

REVISING (40 MIN.)

- Explain that students will spend the remainder of their time today revising their narratives using a revision checklist.
- Explain that students can make their revisions by drawing carets (as they did for their transitions), or by crossing out sentences/words and writing new ones above or in the margins.
- Have students turn to Activity Page 14.2 and review the Revisions Checklist. Explain that students will use this checklist to revise their own work first, then will use it when reviewing a peer's work in the next lesson.
- Direct students to look at the fourth row of the checklist: Use words and phrases, including sensory details, to convey events precisely.
- Explain that before students revise their writing, they will practice revising specific verbs and adverbs to describe events.
- Have students turn to Activity Page 14.3. Explain that these sentences are from your narrative draft that students have already read.
- Have students read the first sentence.
 1. "We shivered in the brisk January air, but Charlaine didn't seem to notice, drawing out each of her words as if she had nowhere to be."
- Ask what verbs are used in this sentence.
 - » *shivered, drawing, seem, had*
- Ask, "Why do these verbs provide a more precise description than the words *stood* or *said*?"
 - » Answers may vary, but they could include that it gives a more clear description of the events in the story.
- Ask what words in the text add more description to these sentences.
 - » shivered in the **brisk** January air, drawing out each of her words **as if she had nowhere to be**.
- Ask, "What word form is *brisk*?"
 - » adjective
- Ask, "What type of clause is 'as if she had nowhere to be'?"
 - » dependent clause
- Explain that these are examples of strong description. Strong descriptions use precise verbs, adverbs, and adjectives, and often include dependent clauses that explain more about what is happening.

Activity Page 14.2



Activity Page 14.3



- Explain that choosing a particular word, such as *shivering* instead of *standing*, is a strategy students can use when revising. They can also add adjectives, adverbs, dependent clauses, and appositives.
- Have students read the second sentence on Activity Page 14.3.
 2. “Natalie’s dad nudged her and cleared his throat.”
- Ask, “What verbs are used in this sentence?”
 - » *nudged, cleared*
- Ask, “What adverbs can we add to this sentence to make it more descriptive?”
 - » Answers may vary, but could include *gently* or *quietly*.
 - Have students practice revising this sentence on their activity page by using a caret to add the adverbs to the sentence.
- Have students read the third sentence.
 3. “‘All yours,’ he said with a smile, and turned and walked towards his parents’ car before anyone could protest.”
- Ask, “What descriptive verbs can we use instead of *said* and *walked*?”
 - » Answers may vary, but they could include *whispered, cheered, bellowed, shuffled, raced, and skipped*.
 - Have students practice revising this sentence on their activity page by crossing out the verbs and writing a new one above it.
- Ask, “What adjectives or adverbs can we add to these sentences to make it more descriptive?”
 - » Answers may vary, but they could include *shy smile, walked slowly, turned quickly, and walked nonchalantly*.
 - Have students practice revising this sentence on their activity page by using a caret to add the adverbs and adjectives to the sentence.
- Have students read the fourth sentence.
 4. “Natalie’s dad motioned over to the car.”
- **Think-Pair-Write.** Have students turn to a neighbor and discuss possible revisions for the sentence. Once students have discussed, have them revise the sentence on their activity page.
- Ask a few students to share their revision ideas and how it improved the description in the sentence.

- Explain that students may also use figurative language as a way to add description to their writing.
 - Have students read the fifth sentence.
5. “Charlaine’s voice sounded as if it were floating on a hot air balloon, like it was so high it could pop at any moment.”
- Have students underline the figurative language in the sentence.
 - Ask, “What type of figurative language is used in this sentence, and how does it enhance the description?”
 - » simile; it helps the reader to imagine exactly what the voice would sound like and paints a picture/comparison in their head
 - Direct students to the second part of Activity Page 14.3.
 - Have students read the steps to improving description in their writing by revising word choice and expanding sentences. See the steps below:
 - Improve your description by revising your word choice and expanding sentences.
 - Add concrete and sensory details by:
 - replacing a verb with a more specific, concrete verb,
 - adding an adverb to describe a verb,
 - and adding an adjective to describe a noun.
 - Add an appositive to describe a noun.
 - Add a dependent clause.
 - Add figurative language.
 - Tell students they will use this list to help them revise their narratives.
 - Have students read the directions on the second page of Activity Page 14.3.
 - **Think-Write-Share.** Have students select one sentence from their drafts they would like to practice revising. Direct students to write the sentence on the blank lines on Activity Page 14.3. Then, have students practice implementing revisions. Remind students they should revise the sentence using at least two of the steps listed.
 - Remind students they can find their narrative drafts on Activity Page 12.3.

D Differentiation

Support

Have students focus on replacing verbs and adding adjectives and adverbs.

Challenge

Encourage students to add different types of figurative language to improve their descriptions.

- After students have revised their sentence, have them share their revision with a partner. Encourage students to provide feedback on their partner's revisions. You may model providing feedback using the following sentence stems:
 - "You improved the description in your sentence by ____."
 - "You made your description stronger by adding ____."
 - "You made your description stronger by replacing ____ with ____."
 - "You can further improve your description by ____."
- Provide students with time to revise their sentences further based on their partner's feedback.
- Provide students with the rest of the time to revise their narratives.
 - Explain that students should revise their narratives directly on their draft on Activity Page 12.3.
 - Remind students to use the revision checklist on Activity Page 14.2 to help with their revisions.

| <div> <div>ML/EL</div> <div>MULTILINGUAL/ENGLISH LEARNERS</div> </div> <div> <div>Writing</div> <div>Writing</div> </div> | |
|---|--|
| Entering/Emerging | Circle verbs and nouns that could be revised or expanded upon in students' drafts. |
| Transitioning/Expanding | Pair students with a partner to identify verbs and nouns that could be revised or expanded upon in student's drafts. |
| Bridging | Prompt students to independently revise their writing by asking questions (e.g., "What verb could you use instead to make this a more precise description?; What adverb, adjective, or appositive can you add to improve this description?") |

~~~~~ End Lesson ~~~~~



# Peer Review and Editing

## PRIMARY FOCUS OF LESSON

### Writing

Students will revise their narrative based on peer feedback and edit their narrative using a checklist. [W.5.5, L.5.2]

## FORMATIVE ASSESSMENT

Activity Page 14.2

**Revision Checklist** Students will revise their narratives based on peer feedback. [W.5.5]

Activity Page 15.1

**Editing Checklist** Students will edit their narratives using a checklist. [W.5.5]



**Teacher Presentation Screens:**  
all lessons include slides

## LESSON AT A GLANCE

|                          | Grouping Recommendations    | Time    | Materials                               |
|--------------------------|-----------------------------|---------|-----------------------------------------|
| <b>Writing (90 min.)</b> |                             |         |                                         |
| Peer Review              | Partner                     | 30 min. | □ Activity Pages 12.3, 14.2, 15.1, 15.2 |
| Editing                  | Whole Group/<br>Independent | 30 min. |                                         |
| Publishing               | Independent                 | 30 min. |                                         |



## ADVANCE PREPARATION

### Writing

- Write the following sentence on the board/chart paper: *My partner provided feedback on my narrative.*

### Universal Access

#### Writing

- To ensure all students have the opportunity to contribute during Turn and Talk and Think-Pair-Share exchanges, provide students with a signal such as folding their hands or raising a hand to indicate when both partners have added to the conversation.
- Prepare strategic partners for students to review each other's narrative writing.

## Lesson 15: Peer Review and Editing

## Writing



**Primary Focus:** Students will revise their narrative based on peer feedback and edit their narrative using a checklist. [W.5.5, L.5.2]

### PEER REVIEW (30 MIN.)

- Ask students to recall what steps they have taken so far in the narrative writing process.
  - » brainstorming, planning, drafting, revising for transitions, and word choice
- Explain that they will peer-review each other's narrative scenes to provide feedback.
- Ask students why it is important to revise their work.
  - » Answers may vary, but they could include that it's important to improve their writing.
- Ask students why it is important to get feedback from others.
  - » Answers may vary, but they could include that other people can often come up with additional ideas we didn't think of.
- Tell students they will exchange their narrative writing with a partner, read each other's writing, and then complete the Revisions Checklist on Activity Page 14.2 in their partner's activity book. Remind students they used this checklist when they were revising their own work in the previous lesson.
- Have students turn to Activity Page 14.2 and walk them through the rubric sections. Explain that students will write positive feedback or suggestions they have for each rubric section in the last column on the right.
  - Ask students for examples of positive feedback they could write.
    - » Answers may vary, but they could include: Excellent job introducing the narrator!; Strong use of sensory details!
  - Ask students for examples of respectful suggestions they could write.
    - » Answers may vary, but they could include: You can add more transition words to show the order of events; Introduce the setting in your first paragraph.
- Remind them to be respectful when providing feedback. Ask whether they have any questions about the rubric.
- Remind students that they will find their partner's draft on Activity Page 12.3.

### Activity Page 14.2




### Activity Page 12.3



## D Differentiation

### Support

Provide students with a model of how to use the Revisions Checklist (Activity Page 14.2).

- Have students exchange their activity books with a partner.
- Give students fifteen minutes to read each other's work and provide feedback on Activity Page 14.2 in their partner's activity book.
- Have students return their partner's activity book. Give them a few minutes to orally explain their feedback to their partner. Model providing feedback using the following sentence stems:
  - "I think . . . was a strength in your writing because . . ."
  - "You effectively . . . in your draft by . . ."
  - "I think you can improve your writing by . . ."
- Explain that students will have some time to implement their partner's feedback. Tell them they may prioritize at least two areas to improve their work. Direct them to revise their work directly on their drafts.
- Give students time to revise their work based on their partner's feedback.
- Remind students they may revisit Activity Page 10.1 to measure their writing against the Narrative Writing Rubric.
-  **Think-Pair-Share:** Describe one way in which you improved their writing using peer feedback. Remind students to signal when both partners have contributed to the conversation. Then, have a few students share their partner's idea with the class.



### MULTILINGUAL/ENGLISH LEARNERS

#### Writing

#### Writing

|                                |                                                                                                                                                                 |
|--------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Entering/Emerging</b>       | Model using the Revisions Checklist in a teacher-led small group, then rotate to review each other's work collaboratively.                                      |
| <b>Transitioning/Expanding</b> | Instead of having students write feedback to their partners, have them place a check next to completed items and circle areas for improvement on the checklist. |
| <b>Bridging</b>                | Have students provide oral feedback to their partner using the Revision Checklist.                                                                              |



## Check for Understanding

Write the following sentence on the board/chart paper: *My partner provided feedback on my narrative.* Tell students they will write three statements using *because*, *but*, and *so* to expand the sentence. Tell students they can write these sentences on the back of their Revision Checklist. If needed, provide students with sentence stems. See sample sentence below.

- My partner provided feedback on my narrative because I want to improve my writing.
- My partner provided feedback on my narrative, but I may not implement every suggestion.
- My partner provided feedback on my narrative, so I realized that I forgot to include the setting in my introduction.

## EDITING (30 MIN.)

- Explain that students will now engage in the next step of the writing process: editing.
- Have students turn to Activity Page 15.1.
- Explain that they will edit their drafts using an editing rubric. Ask students why it is important to edit our writing.
  - » Answers may vary, but they could include that editing improves their writing.
- Ask how editing is different from revising.
  - » Answers may vary, but they could include that editing improves the mechanics of writing such as punctuation and spelling, while revising improves the ideas in writing and how they are conveyed.
- Explain that students will first use the editing checklist to review and improve the grammar and sentence structure in their writing.
- Review the editing rubric on Activity Page 15.1 with students and ask whether they have any questions.
- Tell students they can make edits directly on their drafts on Activity Page 12.3. Explain that later, they will rewrite and publish their drafts with the changes they have made.
- Have students reread and edit their drafts independently using the rubric.
- If students finish early, challenge them by having them exchange their drafts with a partner and use the editing checklist to provide each other feedback.

## Activity Page 15.1



## D Differentiation

### Support

Work with a small group of students to guide them through editing their work using the checklist.

### Challenge

Have students exchange their drafts with a partner and use the editing checklist to give each other feedback.



## MULTILINGUAL/ENGLISH LEARNERS

### Writing

#### Writing

|                                     |                                                                                                                                               |
|-------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Entering/Emerging</b>            | Provide students with feedback on mechanics to edit in their draft (e.g., circle incorrect punctuation, capitalization, or misspelled words). |
| <b>Transitioning/<br/>Expanding</b> | Have students edit their work with a strategic partner.                                                                                       |
| <b>Bridging</b>                     | Provide students with a dictionary to look up misspelled words.                                                                               |



### Check for Understanding

**Think-Write-Share:** Have students select two neighboring sentences from their drafts that they can combine to improve their sentence structure. Have students combine the sentences into one complex sentence using an appositive or conjunction. Tell students to cross out these sentences on their draft and write the new sentence above. Have students share their sentences with a partner when they are finished.

## PUBLISHING (30 MIN.)

- Ask students what the final step in the writing process is.
  - » publishing
- Tell students that they will spend the rest of their time publishing a final copy of their narrative writing piece. Explain that this means they will re-write their draft from beginning to end, incorporating all of the revisions and edits they made.
- Ask, “Why do you think it’s important to rewrite or publish your work?”
  - » Answers may vary, but they could include that it provides the opportunity to re-read or share a final copy of your work.
- Ask, “What types of changes will you incorporate into your final draft?”
  - » Answers may vary, but they could include new words or phrases they added with carets; removing words or phrases they crossed out or replaced; changes they made to punctuation, capitalization, or spelling.
- Have students turn to Activity Page 15.2.
- Explain that students will re-write their draft on this activity page from start to finish. Remind students they can find their narrative drafts on Activity Page 12.3.
- Provide students with time to write their final published narratives.
- If time allows, have students exchange their final drafts with a partner.
- At the end of the lesson, collect students’ published narratives and use the Narrative Writing Rubric to assess students’ writing.

End Lesson

## Activity Page 15.2



# Unit Assessment

## LESSON AT A GLANCE

|                                  | Grouping Recommendations | Time    | Materials                      |
|----------------------------------|--------------------------|---------|--------------------------------|
| <b>Unit Assessment (90 min.)</b> |                          |         |                                |
| Reading and Language             | Independent              | 40 min. | □ Student Assessments 7.1, 7.2 |
| Writing                          | Independent              | 50 min. |                                |



### Digital Assessment

To access the digital assessment, please log on to Amplify and assign the assessment to your students.



## ADVANCE PREPARATION

### Unit Assessment

**Note:** The time provided for this assessment is 90 minutes, but if students finish early, you may wish to ask them to use the additional time to reread excerpts or draw accompanying illustrations for their unit writing project once they have completed the assessment.

- Ensure each student has a copy of Student Assessments 7.1 and 7.2.



## Lesson 16: Unit Assessment

## Unit Assessment

Student  
Assessment 7.1Student  
Assessment 7.2**READING AND LANGUAGE (40 MIN.)**

- Inform students that they will work independently to answer questions about *The Science of Breakable Things*.
- Distribute Student Assessment 7.1.
- Inform them that they will have 40 minutes to work on this task. Write the time on the board.
- Once students have finished the assessment, encourage them to review their papers quietly, rereading and checking their answers carefully.
- Circulate around the room as students complete the assessment to ensure that everyone is working individually. Assist students as needed, but do not provide them with answers.

**WRITING (50 MIN.)**

- Distribute Student Assessment 7.2.
- Inform students that they will use Student Assessment 7.2 to respond independently to a writing prompt about *The Science of Breakable Things*.
- Inform them that they will have 50 minutes to work on this task. Write the time on the board.
- Once students have finished their writing task, encourage them to review their papers quietly, rereading and checking their writing carefully.
- Circulate around the room as students complete the assessment to ensure that everyone is working individually.

## ASSESSMENT ANALYSIS

### Correct Answers and Rationales—Reading and Language

| Items | Correct Answers                                                                                                                                                                                                                                                                   | Points   | Standard(s) |
|-------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|-------------|
| 1     | c. The class must apply the scientific process to answer a “capital-Q Question.”                                                                                                                                                                                                  | 1 point  | [RL.5.2]    |
| 2     | Her mom is a botanist, and she says she and Natalie’s dad both work to analyze how things think and feel.                                                                                                                                                                         | 2 points | [RL.5.3]    |
| 3     | d. She wants to win the prize money so she can bring her mother to New Mexico.                                                                                                                                                                                                    | 1 point  | [RL.5.2]    |
| 4     | Answers may vary, but may include that Natalie and her mother both love plants, they are both interested in learning more about Korean culture, and they both value their family. Differences may include that Natalie does not enjoy school or projects the way her mother does. | 2 points | [RL.5.3]    |
| 5     | Answers may vary, but could include that the book is structured as though it is Natalie’s lab notebook; the eight sections are named after the steps in the scientific process.                                                                                                   | 2 points | [RL.5.5]    |
| 6     | c. They want to test their egg drop design.                                                                                                                                                                                                                                       | 1 point  | [RL.5.2]    |
| 7     | Answers may vary, but could include that the visuals help add a deeper layer of understanding and help to better flesh out the characters’ personalities.                                                                                                                         | 1 point  | [RL.5.7]    |
| 8     | c. Mrs. Menzer catches them and Natalie learns her mother was not fired.                                                                                                                                                                                                          | 1 point  | [RL.5.2]    |
| 9     | Answers may vary, but could include that even though they do not rekindle their childhood friendship by the end of the novel, the two characters reach a better level of understanding about each other.                                                                          | 1 point  | [RL.5.2]    |
| 10    | Answers may vary, but could include that Natalie’s mom plants the Korean Fire flower and the Blue Iris seed in their greenhouse (or that she and Natalie both plant many iris and orchid seeds) because she wanted her and Natalie to have a second chance.                       | 2 points | [RL.5.2]    |
| 11    | “a few months earlier”                                                                                                                                                                                                                                                            | 1 point  | [W.5.3c]    |
| 12    | c. having a lack of experience, wisdom, or judgment                                                                                                                                                                                                                               | 1 point  | [L.5.4]     |
| 13    | simile; answers may vary, but could include that Natalie is anticipating that the small talk (the rain drizzling) is just a portent of the topic of her mother (the rain pouring).                                                                                                | 2 points | [RL.5.4]    |
| 14    | definition 2                                                                                                                                                                                                                                                                      | 1 point  | [L.5.4]     |
| 15    | b. The plant is drooped, limp, or weak.                                                                                                                                                                                                                                           | 1 point  | [L.5.4]     |

Total: \_\_\_\_\_/20 points

## Writing Scoring

### Fifth Grade Writing Rubric: Narrative Writing

Write narratives to develop real or imagined experiences or events using effective technique, descriptive details, and clear event sequences. **[W.5.3]**

- a) Orient the reader by establishing a situation and introducing a narrator and/or characters; organize an event sequence that unfolds naturally. **[W.5.3a]**
- b) Use narrative techniques, such as dialogue, description, and pacing to develop experiences and events or show the responses of characters to situations. **[W.5.3b]**
- c) Use a variety of transitional words, phrases, and clauses to manage the sequence of events. **[W.5.3c]**
- d) Use concrete words and phrases and sensory details to convey experiences and events precisely. **[W.5.3d]**
- e) Provide a conclusion that follows from the narrated experiences or events. **[W.5.3e]**

|                     | <b>Advanced (2 points)</b>                                                                                                                                                                                                                                                                                                                          | <b>Proficient (1 point)</b>                                                                                                                                                                                                                                                                                              | <b>Basic (0 points)</b>                                                                                                                                                                                                                                                                                                                                         |
|---------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Ideas</b>        | <p>The composition</p> <ul style="list-style-type: none"> <li>•orients the reader and establishes a situation</li> <li>•introduces a narrator and/or characters</li> <li>•demonstrates awareness of audience and purpose</li> </ul>                                                                                                                 | <p>The composition</p> <ul style="list-style-type: none"> <li>•orients the reader and establishes a situation</li> <li>•introduces a narrator and/or characters</li> </ul>                                                                                                                                               | <p>The composition does not do one or more of the following:</p> <ul style="list-style-type: none"> <li>•orient the reader and establish a situation</li> <li>•introduce a narrator and/or characters</li> </ul>                                                                                                                                                |
| <b>Organization</b> | <p>The composition</p> <ul style="list-style-type: none"> <li>•organizes an event sequence that unfolds naturally</li> <li>•uses narrative techniques to develop experiences and events or show the responses of characters to situations</li> <li>•provides a conclusion connected to the narrative sequence</li> </ul>                            | <p>The composition</p> <ul style="list-style-type: none"> <li>•organizes an event sequence that unfolds naturally</li> <li>•uses narrative techniques to develop experiences and events or show the responses of characters to situations</li> <li>•provides a conclusion connected to the narrative sequence</li> </ul> | <p>The composition does not do one or more of the following:</p> <ul style="list-style-type: none"> <li>•organize an event sequence that unfolds naturally</li> <li>•use narrative techniques to develop experiences and events or show the responses of characters to situations</li> <li>•provide a conclusion connected to the narrative sequence</li> </ul> |
| <b>Conventions</b>  | <p>The composition</p> <ul style="list-style-type: none"> <li>•uses a variety of transitional words, phrases, and clauses to manage the sequence of events</li> <li>•uses concrete words and phrases and sensory details to convey experiences and events precisely</li> <li>•uses language to add subtlety through connotative meanings</li> </ul> | <p>The composition</p> <ul style="list-style-type: none"> <li>•uses a variety of transitional words, phrases, and clauses to manage the sequence of events</li> <li>•uses concrete words and phrases and sensory details to convey experiences and events precisely</li> </ul>                                           | <p>The composition does not do one or more of the following:</p> <ul style="list-style-type: none"> <li>•use a variety of transitional words, phrases, and clauses to manage the sequence of events</li> <li>•use concrete words and phrases and sensory details to convey experiences and events precisely</li> </ul>                                          |

Total: \_\_\_\_\_/6 points



# Pausing Point

## Note to Teacher

You may use the final two days to address students' performance in this unit. Use your observations of students' performance in class and the completion of the narrative writing project pages to informally evaluate their strengths and weaknesses. It is recommended that you spend a day reviewing, reinforcing, or extending the materials taught. If students have not mastered the skills taught in *Novel Study: The Science of Breakable Things*, you may use the extra days to review or re-teach these skills. You may do the activities in any order or combination, either as a class or in small groups, to meet the needs of your students.

## ACTIVITIES

If students have mastered the skills taught in *Novel Study: The Science of Breakable Things*, you may use the following enrichment activities.

### Dialogue and Performance

- Students may work in small groups to perform a scene from *The Science of Breakable Things*. They may choose a scene from the novel and incorporate dialogue from the text. Invite students to perform for other groups, using props and gestures to support the performance.

### Scientific Journal

- In *The Science of Breakable Things*, Natalie keeps a scientific journal for class, in which she records steps of the Scientific Method to answer her question: how do you protect breakable things? Have students select a scientific question of their choosing, and set up their own scientific journal with the following sections:

Step 1: Observe

Step 2: Question

Step 3: Investigative Research

Step 4: Hypothesis

Step 5: Procedure

Step 6: Experiment

Step 7: Results

Step 8: Analyze Your Results

- Have students complete research or conduct their own experiment to answer their question and complete as many of the steps above as possible, taking notes in their journal.

### Graphic Novel

- In *The Science of Breakable Things*, the author, Tae Keller, uses images and diagrams to help tell the story. Have students create a graphic novel or picture book that retells the main events from *The Science of Breakable Things* in images.
- You may also choose to divy up the main events among the class and put the images together to make a class book at the end.

### Movie Poster

- Students may create a movie poster advertising *The Science of Breakable Things* and write a hook, or tagline, to engage an audience using characters and ideas from the text.

### Narrative Revisions

- Students may use this time to revise, edit, or complete their narrative writing as needed. If possible, meet briefly with each of them to review their revision plans and provide additional guidance. Students could consider the following:
  - Adding more details to their work
  - Adding figurative language and descriptive language
  - Having a partner review their work and give feedback
  - Reviewing the use of dialogue
  - Editing their work for correct grammar and spelling

### Gallery Walk/Publishing Party

- Hang students' published versions of their narrative writing pieces around the perimeter of the classroom. Have students do a gallery walk, walking around the classroom to read their classmates' works. Celebrate their work with a publishing party.

- Have students taking turns presenting their narrative writing to the class.

### **Digital Slideshow**

- Have students create a digital slideshow, with a partner or in small groups, to summarize the main characters and plot of the story. Encourage students to add images to their stories.

### **Character Analysis**

- Have students participate in a carousel activity. Hang chart paper around the classroom with a different character's name written at the top of each piece of paper. Organize students in small groups and assign each group their own chart paper. Have students write ideas about how the character changed or developed throughout the novel. Then, give an audible signal when it's time for students to move clockwise to the next piece of chart paper. In their small groups, have students read the previous group's ideas and add new ideas about the character's development to the chart paper. Continue having groups rotate to new charts until time is up.

### **Researching**

- Have students come up with a scientific question based on topics they learned about in the novel. Tell students they will research the answer to their question using resources found in the classroom, school library, or (with proper supervision) the Internet. Students may share their research in different ways: writing reports, delivering an oral presentation, poster presentations, a blog post or newspaper article.
- See some examples of questions below:
  1. What are the best conditions for growing house plants?
  2. What type of outdoor plants grow in my area?
  3. How can you protect an egg from breaking if you drop it off a three story building?
  4. Where in the world do orchids and irises grow?
  5. Does a shorter or longer pendulum swing for a longer amount of time?

## Egg Drop Competition

- Have students participate in their own egg drop competition. In partners or small groups, have students plan designs that will protect an egg from cracking when dropped from a high distance. Provide students with various materials and eggs to design their protection. Then, provide students with the opportunity to drop their eggs to observe the results.

## Extended Writing Prompts

### Writing a Narrative Using the Structure of The Scientific Method

- The novel *The Science of Breakable Things* is formatted in the structure of a lab report, following the 8 steps of the Scientific Method. Have students write a short fictional narrative using the structure of the steps of the Scientific Method below:

Step 1: Observe

Step 2: Question

Step 3: Investigative Research

Step 4: Hypothesis

Step 5: Procedure

Step 6: Experiment

Step 7: Results

Step 8: Analyze Your Results

### Rewriting a Scene

- Have students rewrite a scene of their choosing from *The Science of Breakable Things*, using first-person point of view, from the perspective of a character other than Natalie. Some examples may include:
  - Natalie and Dari's interaction in the hallways, when he is wearing the potato costume, from Dari's perspective.
  - When Natalie, Dari, and Twig sneak upstairs in school to test their eggs, from Dari or Twig's perspective.
  - When Mrs. Menzer finds out that Natalie, Dari, and Twig broke into her lab, from Mrs. Menzer's perspective.



### Formative Writing Prompt

- Have students choose a character from *The Science of Breakable Things* and write a paragraph conveying ideas drawn from the text about the character's development throughout the novel.
- Remind students to include textual evidence, such as specific events, responses to a problem, or a conflict that affected the character's development.
- Allow students to orally share their writing with a partner once they are done.

### Additional Writing Prompts

- Students may respond to the following writing prompts:
  - Who is your favorite character in the novel? Why?
  - What scene or quotation from the novel do you find the most memorable or meaningful? Why?
  - Would you recommend *The Science of Breakable Things*? Why?
  - Write about the next adventure Dari, Natalie, and Twig have together, or the next science experiment they conduct.

Grade 5 | Unit 7

# Teacher Resources

**In this section you will find:**

- Activity Book Answer Key

# ANSWER KEY

NAME: \_\_\_\_\_  
DATE: \_\_\_\_\_

1.1 Activity Page

## Character Observations Chart

Use the following chart to write down your observations of characters Natalie encounters and her relationship with them.

| Character's name | Description of character                         | Evidence from text that supports your description                                                                                                                                                    | Describe their relationship with Natalie                                                                                    | Evidence from text that supports your description                                                 |
|------------------|--------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------|
| Mr. Neely        | enthusiastic, new at teaching, energetic         | He is a "new teacher, so he's still all optimistic and stuff," (pg. 4) he waves his arms around when he talks, and he gets excited about the scientific process and the Wonderings journals. (pg. 5) | He is Natalie's teacher; she does not always follow his directions.                                                         | "making observations is supposed to be homework, Natalie. Please pay attention in class." (pg. 6) |
| Mikayla Menzer   | smells like sunscreen student in Natalie's class | "Mikayla Menzer smells like sunscreen" (pg. 5)                                                                                                                                                       | They used to be friends but are not any longer. They eventually come to an understanding about the end of their friendship. | "I used to let her braid my hair, but not anymore" (pg. 10)                                       |

Unit 7 Novel Study: The Science of Breakable Things

3

|                                |                                                                              |                                                                                                                                   |                                                                                                              |                                                                                                                                                                                                                                                                                                                                                  |
|--------------------------------|------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Twig                           | loves board games; parents are "amicably separated" but make a lot of money  | "That's the thing about Twig: she's obsessed with games." (pg. 16)<br>"Twig and her mom live in this mansion of a house" (pg. 20) | Natalie's best friend; they do not always talk about what is really bothering them.                          | "Twig: best friend in the entire galaxy. (Her words.)" (pg. 6)<br>"Back then, I would have told Twig everything [...] but then we got older [...] and we learned which topics to avoid." (pg. 42)                                                                                                                                                |
| Yeong-jin/John (Natalie's dad) | works as a therapist uncomfortable with his Korean heritage                  | "Dad's a therapist" (pg. 11)<br>"He could go on forever pretending the Korean half of him didn't exist." (pg. 91)                 | He is trying to help Natalie cope with her mother's illness, but she does not always appreciate his efforts. | "As much as I love my dad and know he's trying his best, when I came out of that office, I wanted to punish him." (pg. 125)                                                                                                                                                                                                                      |
| Alice (Natalie's mom)          | is "sick" (depressed); works with plants in a lab; wrote a book about plants | "Mom is a botanist." (pg. 25)                                                                                                     | Relationship is fraught, but Natalie wants to help her mother recover.                                       | "She just got bored with life—bored with us"<br>"I'm not leaving Mom alone. I will win the money, and Mom and I will fly to New Mexico. We'll pick one of those magical blue flowers, and Mom and I will study it, and everything will go back to normal." (pg. 67)<br>"If she doesn't care about me, I'm not going to care about her" (pg. 106) |

4

Unit 7 Novel Study: The Science of Breakable Things

NAME: \_\_\_\_\_  
DATE: \_\_\_\_\_

1.1 Activity Page  
CONTINUED

|                             |                                                                               |                                                                                                                                                                                                                                      |                                                                             |                                                                                                                                                                                                                         |
|-----------------------------|-------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Dari                        | extremely smart, close with his family does not care what people think of him | Natalie calls him "Genius Dari" Dresses up in a costume to make his parents happy (pg. 61)<br>"He didn't seem to care when people looked at him funny... he just shrugged and smiled and kept looking you right in the eye" (pg. 99) | Starts to become friends with Natalie and Twig; might have a crush on Twig. | "Dari smiled big and stuck out his hand for Twig to shake. Then he stuck out his hand for me, and as we shook on it, I could tell he got us." (pg. 101)<br>"Twig, I said, 'I think Dari has a crush on you.'" (pg. 190) |
| Mrs. Menzer (Mikayla's mom) | Alice's boss at the lab                                                       | "[Alice] worked for Mikayla's mom in a lab at Lancaster University" (pg. 25)                                                                                                                                                         | Natalie resents her for firing her mother.                                  | "Basically, Mrs. Menzer ruined our lives, because it was like she broke Mom." (pg. 45)                                                                                                                                  |

Unit 7 Novel Study: The Science of Breakable Things

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NAME: \_\_\_\_\_  
DATE: \_\_\_\_\_

2.1 Activity Page

## Character Perspectives

| Natalie                                                                                                                                                                                                                                                                                                         | Mr. Neely                                                                                                                                                                                                                                                                                                                                                                                         |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <ul style="list-style-type: none"> <li>She is embarrassed that Mr. Neely held her after class.</li> <li>She thinks Mr. Neely is accidentally insulting her by not considering her a top student.</li> <li>She does not think Mr. Neely knows her well if he thinks she would want to work with Dari.</li> </ul> | <ul style="list-style-type: none"> <li>He wanted to talk with Natalie without other students hearing to avoid embarrassing her in front of the class.</li> <li>He gives Natalie the egg drop flyer because he knows she's struggling to come up with a scientific question.</li> <li>He may think that Natalie could use Dari's help with her project or that Dari could use a friend.</li> </ul> |

Write one sentence that starts with a dependent clause and compares and contrasts Natalie's perspective to Mr. Neely's.

Although Mr. Neely thinks he is helping Natalie, she feels embarrassed by his suggestions.

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2.3

Activity Page

### Perspective Paragraph

Using your notes on Activity Page 2.1, write a paragraph illustrating the scene in Assignment 5 from Mr. Neely's perspective.

As we were completing our latest experiment, I asked Natalie if I could speak to her after class. I didn't want the other students to overhear our conversation because I didn't want to embarrass her about not having a scientific question. I figured a little nudge in the right direction would be the fix—and maybe I could help another student out in the process! I told her about the egg drop competition and Dari's interest. When I did, I told her that I usually just saved this for my top students, thinking she would be pleased to be grouped with them, but she didn't react the way I thought she would. I hope she does decide to join the competition!

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3.1

Activity Page

### Summarizing the Text

Expand the following summaries of Assignments 7–10. Your teacher will model the first sentence for you.

Example: Assignment 7: Natalie and Twig play games.

Who: Natalie and Twig

What: play games

When: after school

Where: at Twig's house

Why: to distract themselves

How: without talking about what is bothering them

Expanded sentence: After school, Natalie and Twig play games at Twig's house to distract themselves instead of talking about what is bothering them.

1. Assignment 8: Natalie makes lists.

Who: Natalie

What: makes lists

When: before she can understand what she "does not know"

Where: in her scientific observations journal

Why: to understand what is going on with her mother

How: like her mother

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Expanded sentence: Before she can understand what she "does not know," Natalie makes lists in her scientific observations journal like her mother would so she can better understand what is going on with her mother.

2. Assignment 9: Natalie reads.

Who: Natalie

What: reads her mother's book

When: after talking to her dad

Where: in the greenhouse

Why: to distract herself from the situation with her mother

How: sneakily

Expanded sentence: After talking to her dad, Natalie sneakily reads her mother's book in the greenhouse to distract herself from the situation with her mother.

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3.1

CONTINUED

Activity Page

3. Assignment 10: Natalie talks to Dari.

Who: Natalie

What: talks to Dari

When: after class

Where: in the hallway

Why: because he asks about her conversation with Mr. Neely

How: while he is wearing a potato costume

Expanded sentence: Natalie talks to Dari while he's wearing a potato costume in the hallway after class when he asks about her conversation with Mr. Neely.

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## 4.2 Activity Page

### Practicing Dialogue

Add quotation marks where dialogue begins and ends in the following sentences.

1. "How was your day?" my father asked me.
2. "My grandparents gave me a trampoline for my birthday!" Maya exclaimed.
3. "I have terrible news," said the wizard.

Write three sentences using the words because, but, and so to complete the following sentence stem. Remember to use quotation marks when closing dialogue.

Natalie said, "I want to win the egg drop competition . . ."

Answers may vary, but they could include answers such as:

4. Because: Natalie said, "I want to win the egg drop competition because there is a cash prize."
5. But: Natalie said, "I want to win the egg drop competition, but I don't know what kind of design to use."
6. So: Natalie said, "I want to win the egg drop competition so I can bring my mom to New Mexico to see the Cobalt Blue Orchids."

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Write a paragraph illustrating Natalie and Twig's perspectives when they are reviewing the shopping list for the egg drop competition. Use at least two lines of dialogue and remember to include quotation marks.

After Natalie told me about the egg drop competition, I was all in. "Come to my house after school and we'll figure out a plan," I told her. Once we were settled in and she handed me the list, though, my heart sank. There were so many random objects on the list! "Why did you decide on a basketball?" I asked her, laughing. Natalie shrugged. "I just thought it might be helpful," she said. I immediately felt guilty for laughing and decided to make her feel better. "I think a basketball is a great addition to the list," I said. "Let's keep brainstorming."

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## 5.1 Activity Page

### Natalie's Figurative Language

Read the following quote from *The Science of Breakable Things* and answer the questions that follow.

"Looking into her eyes was like peering over the edge of a well and not being able to see the bottom."

1. Is this figurative language an example of a simile or a metaphor? How do you know?  
It is a simile because it uses the word like.
2. What two things are being compared in this sentence?  
Natalie's mother's eyes are being compared to the inside of a well.
3. What feelings does the image of peering into a well give you? What would it feel like not to see the bottom?  
Answers may vary, but they could include that it would be scary or difficult to see what was happening at the bottom of a well.

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4. Why might Natalie feel like looking into her mother's eyes is like looking into a well?

Answers may vary, but they could include that Natalie feels like she cannot see what her mother is thinking or feeling, just as she could not see the bottom of a well.

5. Write one sentence that describes Natalie's thoughts about her mother's condition and incorporates a new simile.

Answers may vary, but they should include a comparison using like or as.

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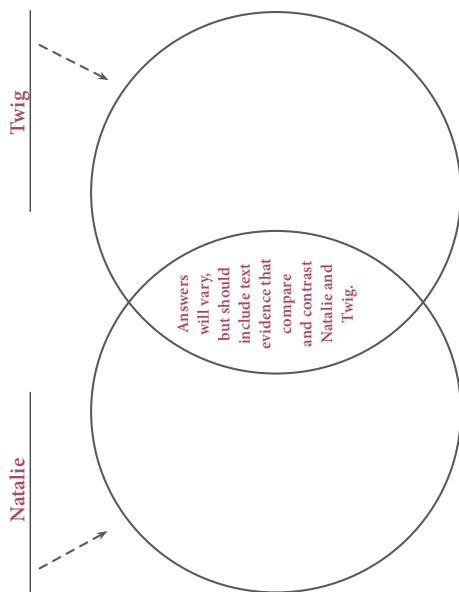
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5.2

Activity Page

Venn Diagram



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6.1

Activity Page

Adding Visuals

In the space below, create an image that helps illustrate Natalie's father's procedure for helping Natalie feel better.

Images will vary, but students should consider Natalie's father bringing her to see Dr. Doris.

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Write three sentences using the words because, but, and so to complete the following sentence stem. Remember to use quotation marks when closing dialogue.

Natalie's father brings her to therapy . . .

Answers may vary, but they could include answers such as:

1. Because: Natalie's father brings her to therapy because Natalie told him if he helped her pick up items on her egg drop list, she would let him schedule an appointment.

2. But: Natalie's father brings her to therapy, but she gets angry at him and tells Dr. Doris she does not want to talk about her mother.

3. So: Natalie's father brings her to therapy so she can begin to feel better.

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6.2

Activity Page

Transitional Words, Phrases, and Clauses

1. Read the following paragraph and underline the transitional words, phrases, and clauses. Look for text that creates a sequence or connects the ideas in a sentence to the previous sentence.

My family and I went to the state park yesterday. When we first arrived, we stopped to see the farm animals, such as pigs, cows, and ducks, and then sat on the teacup ride. After the ride stopped, I felt really sick! Once the world stopped spinning, we went to a food truck and ordered lunch. We ordered a lot of food. For example, my sister and I ate corn dogs, cotton candy, and funnel cake. We ended our day by watching fireworks while riding on the Ferris wheel. Looking back, it was a wonderful day I had a wonderful time at the state fair!

2. Transitional Word Bank

a. Transitional Words and Phrases Related to Time

first/at first/in the first place (also works for second, third, etc.); to begin with; secondly, thirdly; before/after; eventually; next; then; finally; in the end; at last; earlier/later; when; once

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b. Transitional Words and Phrases Not Related to Time

and; such as; for example; but; however; since; as long as; so; therefore;  
in conclusion

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3. On the following lines, write one sentence about a typical day at school that begins with a transitional dependent clause. Underline your transitional clause, and remember to use a comma.

Answers may vary, but they could include sentences such as: When class  
begins, everyone should be sitting in their chairs with a pencil out.

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6.2  
CONTINUED

Activity Page

Write a paragraph describing what you would imagine a typical day at school would be like for Natalie. Use at least one example each of transitional words, phrases, and clauses.

When the day begins, Natalie rides her bicycle to school or gets dropped  
off by her father. Next, she sits down at her desk. After, she begins her  
schoolwork, which may involve an experiment. For example, one day she  
and Twig must dissect a frog. Eventually, science class concludes and  
Natalie goes to her other classes. Finally, when the school day is done, she  
and Twig ride their bicycles to Twig's house.

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7.1

Activity Page

### Analyzing Character Relationships

With your group, answer the following questions based on the character relationship you have been assigned.

Who is this relationship between?

Answers will vary.

How are these characters alike and different?

Answers will vary.

How do the characters feel about each other?

Answers will vary.

Why do the characters need each other?

Answers will vary.

How has this relationship changed since the beginning of the novel?

Answers will vary.

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7.2

Activity Page

### A Fun Day at School

In the space below, write a narrative paragraph about a fun day you had at school. In your paragraph, use at least one sensory detail, one concrete word or phrase, and one appositive.

A fun day I had at school was when my teacher brought her puppy to  
play with the class. The puppy, whose name is Cheddar, ran around  
the classroom and sniffed all of our hands. The puppy was as soft as a  
cotton ball and had a chilly, wet nose. When he sniffed my hand, his  
breath tickled my palm. After a few minutes, he was so tired that he  
opened his mouth wide in a big yawn. Then he fell asleep in my teacher's  
lap and snored the afternoon away.

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8.1

Activity Page

### Scientific Steps and Key Details

| Scientific Steps                                                                                                                                                                                                                      | Key Details                                                                                                                                                                                                                                                                                    |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Step 1: Observe</b><br>Answers may vary, but they could include:<br>Natalie's mother has depression, Natalie's best friend is Twig. Natalie wants to win the egg drop competition so that she can use the money to help her mother | "Now that Mom's 'ick'" (pg. 6), "Twig: best friend in the entire galaxy" (pg. 6), "I will win the money, and Mom and I will fly to New Mexico. We'll pick one of those magical blue flowers, and Mom and I will study it, and everything will go back to normal!" (pg. 67)                     |
| <b>Step 2: Question</b><br>Answers may vary, but they could include:<br>Will Operation Egg win the egg drop competition?                                                                                                              | "I took the flyer and I decided, right then and there: I'm not leaving Mom alone. I will win the money" (pg. 67).                                                                                                                                                                              |
| <b>Step 3: Investigative Research</b><br>Answers may vary, but they could include:<br>Natalie and Twig struggle at first, but with Dari's help and by following the scientific process, they start to see progress.                   | "The diagram looked pretty ridiculous, to be honest." (pg. 84)<br>"I didn't tell Twig about Mom's cereal idea." (pg. 87)                                                                                                                                                                       |
| <b>Step 4: Hypothesis</b><br>Answers may vary, but should be about Operation Egg's team either winning or losing the egg drop competition.                                                                                            | "Most of Twig's egg drop designs ended up being impossible to create" (pg. 129)<br>"All the eggs broke," he informed us" (pg. 143)<br>"These were my friends, and this was my team. And in that moment, I knew we had a chance." (pg. 147)<br>"This is the one! This is our winner!" (pg. 178) |

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|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Step 5: Procedure</b><br>Answers may vary, but they could include:<br>• Continue reading the novel, taking note of any relevant quotations regarding the egg drop competition.<br>• When the date above the chapter matches the date of the egg drop competition, take notes during the reading.<br>• Observe the outcome of the egg drop competition.                                                                                                                                                                                                                                                                                | Egg drop competition is on January 13 (flyer on pg. 30)<br>"Current" date (most recent reading) is December 23                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| <b>Step 6: Experiment</b><br>Egg drop competition occurs in Assignment 32 (Lesson 10)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Additional notes on Operation Egg's progress:<br>"We'll do it... we are going to win this thing!" (pg. 188)<br>"I was working on S'meggs a little more and I added just a few tweaks. We didn't test it from the height it'll actually be dropped from, so I adjusted the angles a bit" (pg. 208)                                                                                                                                                                                                                                                                                                                                                                                                                   |
| <b>Step 7: Results</b><br>Answers may vary, but they could include:<br>• Dari, Natalie and Twig lost the egg drop competition (Lesson 10)<br>• Natalie, Twig and Dari break into Natalie's mom's old lab to get the orchid seed, but are caught by the security guard. (Lesson 11)<br>• As a result of breaking into the lab, Natalie finds out that her mom wasn't actually fired, and they hadn't planted a Cobalt Blue Orchid Seed in their home<br>• Natalie and her mom have an honest conversation about their feelings after she breaks into the lab.                                                                             | The egg broke when it was dropped by the judges off the three story building.<br>"That cracking, crunching noise was the loudest sound I've ever heard in my whole life!" (pg. 223)<br>Natalie writes down the procedure to get the Cobalt Blue Orchid Seed from her mom's old lab (pg. 223).<br>"Behind her a security guard appeared with Dari trailing behind him, and the guard stood right there in mom's doorway." (pg. 254)                                                                                                                                                                                                                                                                                  |
| <b>Step 8: Analyze Your Results</b><br>Answers may vary, but they could include:<br>• Natalie concludes that things will break such as eggs and hearts, you can't always protect breakable things. However, when they break, we don't give up - we keep trying and keep asking questions. Just like Natalie and her mom aren't giving up on their relationship.<br>• Natalie realizes that sometimes things in life need to go underground, or bury itself to survive, like perennial plants before they grow again the next year<br>• Natalie realizes she doesn't need her journal anymore because she can be honest with her parents. | "As it turns out, you can't always protect breakable things. Hearts and eggs will break, and everything changes, but you keep going anyway." (pg. 292)<br>"Because science is asking questions. And living is not being afraid of the answer." (pg. 292)<br>"I've been thinking more about perennial plants. About how sometimes life needs to go underground, bury itself deep to survive, and how maybe that's not a bad thing. It's just necessary. And that's okay" (pg. 289)<br>"[...] all of a sudden, I didn't need it anymore. Because now I can speak. Mom and Dad and I are being honest with each other." (pg. 290)<br>"We don't give up, Natalie! [...] We keep going and try something new." (pg. 291) |

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8.2

Activity Page

### Making Inferences

With your group, make inferences to answer the following questions using evidence from the text.

Answers may vary, but they could include:

1. Why does Natalie buy the Korean Fire flower for her mother?

Inference: It catches her eye because the plant is Korean, like her grandmother, and it is a perennial, so it will survive the winter—Natalie has compared her mother to perennial plants before.

Evidence: It "blooms through winter, even in the snow" and it "can survive in nearly any condition" (pg. 159).

2. How does Natalie feel about going to therapy?

Inference: She does not want to participate; she is only going to therapy because of her father.

Evidence: "Somehow I still had to see Dr. Doris" (pg. 161) "in Dad's mind, nothing can stop him from pursuing Mental Health" (pg. 161), "Natalie, I know you aren't happy about the sessions. But I would like you to open up a little" (pg. 166).

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3. Why does Natalie make observations and count Doris's questions in her therapy session instead of engaging in the conversation?

Inference: She is still not completely comfortable talking to Dr. Doris about her mother.

Evidence: "I repeated twenty-five... because I didn't want to think about anything else," (pg. 165),

4. Why isn't Natalie the happiest when the second egg survives the fall?

Inference: She has put so much pressure on herself to win the competition, and she's starting to worry about whether or not winning will actually help her mother.

Evidence: "I felt a flash of annoyance at Twig... for not understanding that the time for jokes was over. This moment was dead serious" (pg. 177), "Mom and I would go to New Mexico and soak in the miracle of blue flowers and then—and then everything would be okay again. Right? Because if it wasn't—then what?" (pg. 178)

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8.2  
CONTINUED

Activity Page

5. Complete the following Somebody Wanted But So Then chart about the Operation Egg team's experiment at Dari's house.

|          |                                                     |
|----------|-----------------------------------------------------|
| Somebody | Natalie, Twig, and Dari                             |
| Wanted   | to test their egg drop designs                      |
| But      | the first test attempt, Cotton Ball Heaven, failed. |
| So       | They tested their second design, S'meggs.           |
| Then     | S'meggs did not break and they celebrated.          |

Two or three sentence summary: Natalie, Twig, and Dari wanted to test their egg drop designs. Their first attempt, Cotton Ball Heaven, failed, but their second design, S'meggs, did not break and they celebrated.

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9.1

Activity Page

### Practicing Figurative Language

Read the following quotation from *The Science of Breakable Things* and answer the questions that follow.

"Approaching Twig when she got stuck on an idea was like approaching a wild bear. You have to move slowly and speak in a soft, soothing voice."

1. Is this figurative language an example of a simile or a metaphor? How do you know?

It is a simile because it uses the word like.

2. What two things are being compared in this sentence?

Twig is being compared to a wild bear.

3. What feelings does the image of approaching Twig like she's a wild bear give you? Is Natalie's simile meant to be serious or funny?

Answers may vary, but they could include that the comparison is meant to be humorous because Natalie is not actually scared of Twig.

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4. Why might Natalie feel like Twig's energy when she has an idea is similar to a wild bear?

Answers may vary, but they could include that Natalie has described

Twig as "reckless and illogical" before because Twig sometimes acts without thinking. Acting without thinking can sometimes be dangerous, just as approaching a wild bear would be.

5. Write one sentence that describes Natalie's thoughts about Twig's personality and incorporates a new simile.

Answers may vary, but they should include a comparison using like or as.

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9.2

Activity Page

### Egg Drop Hypotheses

Write a paragraph illustrating what you think will happen at the egg drop competition. Begin your paragraph with a transitional dependent clause and use at least two more examples of transitional words, phrases, or clauses.

When Natalie, Twig, and Dari arrive at the competition, they will be very nervous. They might get the opportunity to see other students' contraptions and may get anxious about how S'meggs will hold up against the competition. Eventually, it will come time to drop the eggs. Because of the number of changes the team has made and since they did not test their eggs using the right height, I don't think their egg drop design will work. However, I believe that Natalie, Twig, and Dari will become stronger friends after their loss.

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10.1

Activity Page

### Results

Just as Natalie notes the results of her own experiment in *The Science of Breakable Things*, you will take notes on the results you learn while reading the novel. Results are the consequences of something, or what happens after an event. As you read, take notes about the results you learn about in the novel. You may paraphrase or write quotations from the text.

Assignment 32: What happens as a result of the egg drop competition? Include events, character actions, thoughts and feelings.

#### Results

Answers may vary, but they could include:

##### Lesson 10

- Natalie, Dari, and Twig lose the egg drop competition because their egg breaks.
- Natalie is sad and hopeless; she feels like she will be sad forever.
- Twig tries to make Natalie hopeful and tells her there is another way to find the orchid.
- Natalie doesn't want to find another way to get the orchid.
- Dari is worried that they won't be friends anymore.
- Mr. Neely tries to make them feel better by telling them he's proud.

##### Lesson 11

- Twig comes up with a plan to steal her mother's credit card to buy a plane ticket to New Mexico, but Natalie thinks this is a bad idea.
- Natalie comes up with a new plan to break into her mom's old lab to get the Cobalt Blue Orchid seed, and she's hopeful again that she can help make her mom happy.
- Twig and Dari put themselves at risk to help Natalie because they are loyal friends.

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#### Results

- Natalie, Twig, and Dari take the bus to her mom's old lab and break in using her mom's keys.
- Natalie, Twig, and Dari set the alarm off and Natalie guesses the code.
- Natalie finds out that the seed she and mom grew previously was in a bag that was labeled with the name of a different flower, not the Cobalt Blue Orchid.
- Natalie finds her mom's office still intact, which makes her really confused because she thought her mom was fired.
- The security guard catches Natalie, Dari, and Twig.

##### Lesson 12

- The security guard calls Mrs. Menzer, who comes to the lab and finds Natalie, Twig, and Dari. Then she brings them home and tells their parents what they did.
- Mrs. Menzer explains to Natalie that she needs to speak to her mom about the flower she thought was an orchid, and tells Natalie that Mikayla misses her as a friend.
- Natalie feels like everything she believed about her mom wasn't true and feels confused and betrayed, because she thought her mom was fired when she wasn't, and she thought they grew a Cobalt Blue Orchid, but they didn't.
- Natalie finds out that the project for the Cobalt Blue Orchid lost funding.
- Natalie and her mom are honest with each other about how they feel; her mother explains that she is depressed.
- Natalie's mom plants flowers in their greenhouse because she wants a second chance.
- Natalie feels conflicted.

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10.2

Activity Page

### One Sentence Summary

Follow the steps below to write a one sentence summary that summarizes the results of the egg drop competition.

1. Read the prompt carefully.
2. Write short responses to each question using concise wording.
  - Who or what? Natalie, Dari, and Twig
  - Did what? lost the egg drop competition
  - When? the afternoon of January 13th
  - Where? at an old three-story building
  - Why? because their egg, S'meggs, cracked open
  - How? How did this make the characters feel? devastatingly, shockingly, unexpectedly
3. Pair the parts that describe *who* and *did what* together.
4. Decide if the sentence should start with the part that describes *when* or the part that describes *why*.
5. Think about how to order the remaining sentence parts to make the strongest sentence.
6. Reread the sentence to make sure the parts are ordered in a way that makes the most sense, checking for proper capitalization and punctuation.

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One Sentence Summary:

Answers may vary, but they could include: On the afternoon of January 13th, at an old three-story building, Natalie, Dari, and Twig lost the egg drop competition when their egg S'meggs cracked open unexpectedly, leaving Natalie feeling shocked and devastated.

Draw a picture or diagram that supports your one sentence summary. You may include words or phrases that support your image.

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10.3 Activity Page

### Brainstorming

*Narrative Writing Prompt: Imagine that Natalie, Dari, and Twig win the egg drop competition. Write an alternate ending for The Science of Breakable Things that demonstrates what happens after they win.*

Complete the graphic organizer below to brainstorm at least three ideas for your narrative.

| Main Events<br>(What happens?)                                                                                                                     | Narrator                                  | Secondary<br>Characters                                                      | Setting                                                                                                                                  |
|----------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------|------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------|
| Answers may vary.<br>Sample idea:<br>They won the prize money and decided to donate it to scientific research, instead of going on Natalie's trip. | Answers may vary.<br>Sample idea:<br>Twig | Answers may vary.<br>Sample idea:<br>Natalie and Dari, and Natalie's parents | Answers may vary.<br>Sample idea:<br>the parking lot outside of the building where they held the egg drop competition; Natalie's kitchen |
|                                                                                                                                                    |                                           |                                                                              |                                                                                                                                          |
|                                                                                                                                                    |                                           |                                                                              |                                                                                                                                          |
|                                                                                                                                                    |                                           |                                                                              |                                                                                                                                          |
|                                                                                                                                                    |                                           |                                                                              |                                                                                                                                          |

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11.1 Activity Page

### Narrative Planning

Fill out the Narrative Planner for your alternate ending below.

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                                                                                                                                                             |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Who (the characters)</b><br>Put a star next to the narrator.<br>Answers may vary. Example:<br>Natalie, Dari, Twig*, Natalie's dad                                                                                                                                                                                                                                                                                                                                                                | <b>Where (setting) and when (timing)</b><br>Answers may vary. Example:<br>the parking lot where the egg competition was held<br>sitting on stools in Natalie's kitchen                                                      |
| <b>What (key events)</b><br>Answers may vary. Example:<br><br><b>Beginning:</b><br>Natalie, Dari, and Twig receive the prize money. Natalie's dad drives Twig and Natalie home.<br><br><b>Middle:</b><br>In Natalie's kitchen, Natalie tells Twig and her dad that she wants to donate the money to scientific research instead of using it to buy flights to New Mexico. Twig is shocked.<br><br><b>End:</b><br>Natalie's mom comes out of her room to be with her family. Twig leaves to go home. | <b>Why (character's reasons) and how</b><br>Answers may vary. Example:<br><br>Natalie decides that getting her mother the blue orchid isn't going to make her happy, but rather she needs to find happiness within herself. |

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12.1 Activity Page

### Character Changes

Use the table below to identify how and why characters have changed in The Science of Breakable Things. In the first column, write how the character is behaving or thinking now. Then, identify the character's change by writing how this is different from their behavior or perspective at the beginning of the text. Last, write why you think the character has changed or what might have caused this change.

| Identify how the character is behaving or thinking now, including their relationships with other characters. (What does the character do or say?) | Identify the change (How is this different from the character's behavior or perspective earlier in the text?)                                                                                      | Infer the cause (Why do you think this character has changed? Who or what could have impacted this character?)                                                                                                                                                   |
|---------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Answers may vary, but see examples below:<br>Natalie opens up to her parents about how she is feeling.                                            | Answers may vary, but see examples below:<br>Natalie didn't like speaking with her father, or having him "therapist her," and her mother was always in her room so she didn't get to speak to her. | Answers may vary, but see examples below:<br>Going to the lab and seeing her mom's office, as well as learning about the flower, made Natalie realize that there was a lot she didn't know and didn't understand, that she wanted to speak to her parents about. |

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| Identify how the character is behaving or thinking now, including their relationships with other characters. (What does the character do or say?) | Identify the change (How is this different from the character's behavior or perspective earlier in the text?)                      | Infer the cause (Why do you think this character has changed? Who or what could have impacted this character?)                                            |
|---------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------|
| Natalie opens up to Twig, and tells her how much she appreciates her and what is going on with her mom at home.                                   | Natalie and Twig had an unspoken agreement where this didn't get too personal or talk about what was going on with their families. | Natalie realizes that when she lets friends in, they can help her get through things that are challenging.                                                |
| Natalie's mom plants in the greenhouse and tells Natalie she loves her, and that they deserve a second chance, with tears in her eyes.            | Natalie's mom stayed inside of her room most of the time, and didn't show Natalie much emotion.                                    | When Natalie broke into the lab to retrieve the orchid seed to help her mother, her mom realized how much Natalie was hurting and wanted her to be happy. |

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### Examining an Introduction

"And here it is! The grand prize of five hundred dollars for Natalie, Dari and Twig!" Charlaïne said with a broad smile as she handed over a check to Natalie. Due to the cold, the expansive parking lot had mostly cleared out, but there were a few lingering kids and parents watching as if they wanted proof of the prize money. We shivered in the brisk January air, but Charlaïne didn't seem to notice, drawing out each of her words as if she had nowhere to be. "Here ya go team captain! And great work future scientists!" Charlaïne's voice sounded as if it were floating on a hot air balloon, like it was so high it could pop at any moment. I turned to look at Natalie. I expected to see satisfaction or relief. But I could tell something was up. She had that face. The one where she's thinking hard about something, like there's a pinball going back and forth in that smart brain of hers.

Natalie's dad nudged her and cleared his throat. Natalie jumped, snapping out of it for a bit. "Oh um.. Thank you." I could see her forcing a half-smile on her face. Dari turned to Natalie and tipped his hat, like one of those old Hollywood movie stars. "All yours" he said with a smile, and turned and walked towards his parents' car before anyone could protest. "Twig, Nats - you ready?" Natalie's dad motioned over to the car. I shuffled closer to Natalie so I could whisper in her ear stealthily as we walked towards her dad's car. "Now let's go back to your place and get those plane tickets." But Natalie didn't respond. She was still lost in the other universe.

#### Characteristics of a Strong Introduction

1. Introduces the characters, narrator, and setting
2. Describes the first event
3. Intrigues or hooks the reader
4. Uses figurative language, descriptive language, and sensory details
5. Includes a variety of sentence types

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### Analyze the Results

#### Part 1

*In The Science of Breakable Things, Natalie analyzes the results of her scientific experiment. Now it's your turn to analyze the results of the novel. Answer the following question: What did Natalie learn about breakable things? Use evidence from the text to support your response.*

Answers may vary, but see sample response below:

In The Science of Breakable Things, Natalie learns that "you can't always protect breakable things," such as eggs and hearts. Sometimes no matter how hard you try, things that you love will break. However, even when things break, you keep trying, asking questions and you don't give up even when things are hard. We will all experience highs and lows, but it is important to be open and continue to ask questions. Because as Natalie says, "science is asking questions. And living is not being afraid of the answer."

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#### Part 2

*Rearrange this set of words and write a complete sentence:*

protect things always breakable can't you

New sentence:

You can't always protect breakable things.

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### Examining a Conclusion

"Let's go fund those scientists!" I cheered, pumping my fist in the air like I was performing a cheerleading routine. Then again, I was a cheerleader, Natalie's cheerleader. That's what best friends are for right?

Natalie nodded, a small but appreciative nod. "Thank you" she silently mouthed when her father wasn't looking. We heard a sound. At that moment, the quiet creak of the door opening sounded as loud as an elephant's sneeze. We all swiveled our heads towards the bedroom door. I could feel Natalie holding her breath beside me.

"Good afternoon", Natalie's mom's voice floated through the air as she stepped into the kitchen hallway. "It sounds like I've got some catching up to do." While Natalie's expression shifted into a state of surprise, her eyes smiled from ear to ear. I knew that was my cue, so I slid off the stool gesturing for Natalie's mom to take my place. "So tell me, who won this egg drop competition?" she asked as she rested her elbows on the cool kitchen countertop. "Start from the beginning." Then she placed her chin in her hands, and waited patiently for Natalie's response. I didn't wait, however. I looked over at my best friend, who was beaming, as she recounted the competition in detail. I turned towards the exit and silently slipped away, knowing that things were going to turn around for the Napolis.

#### Characteristics of a Strong Conclusion

1. Ends the story; explains how problems are resolved or what happens to the characters at the end

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2. Answers questions the reader might have; leaves the reader wondering what might happen next
3. Connects the ending to events that happened or how the characters felt earlier in the narrative
4. Includes a variety of sentence types; includes dialogue; includes transitional words and phrases
5. Includes sensory and descriptive details and figurative language

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Activity Page

### Revising Word Choice

Revisions may vary, but see sample revisions below:

#### Part 1: Sample Sentences

1. We shivered in the brisk January air, but Charlaine didn't seem to notice, drawing out each of her words as if she had nowhere to be.
2. Natalie's dad gently nudged her and quietly cleared his throat.
3. "All yours" he whispered with a shy smile, and turned and shuffled quickly towards his parents car before anyone could protest.
4. Natalie's dad hurriedly pointed to the car.
5. Charlaine's voice sounded as if it were floating on a hot air balloon, like it was so high it could pop at any moment.

#### Part 2: Revising My Own Writing

Improve your description by revising your word choice and expanding sentences.

- Add concrete and sensory details by:
  - replacing a verb with a more specific, concrete verb,
  - adding an adverb to describe a verb,
  - and adding an adjective to describe a noun.
- Add an appositive to describe a noun.
- Add a dependent clause.
- Add figurative language.

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Select one sentence from your narrative you'd like to revise. Write the sentence in the line below. Then, revise your word choice or expand your sentence by completing at least two of the steps above.

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