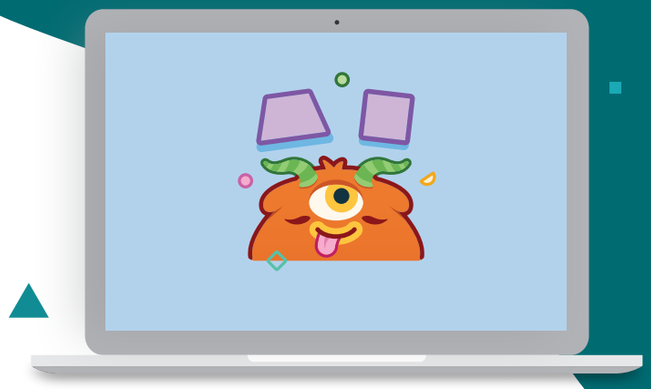
Unit 7
Lesson
4

**Student devices recommended**

We recommend students use devices for this lesson. **Student Edition pages** are also available.



# Picky Eaters

## Identifying and Describing Rhombuses and Hexagons

Let's explore what shapes different monsters like to eat.

## Key Concepts

### Today's Goals

1. **Goal:** Identify hexagons and rhombuses, including recognizing a square as a special type of rhombus.
2. **Language Goal:** Describe the attributes of hexagons and rhombuses using formal geometric language. **(Listening and Speaking)** ELPS 1.B, 2.B, 2.E

## Connections and Coherence

Students identify shapes as either **rhombuses** or hexagons to explore the attributes that define each of the shapes. Through this exploration, students notice that sometimes equal-length sides is a defining attribute of a shape and sometimes it is a non-defining attribute of a shape. **(TEKS 1.1.G)**

### Prior Learning

In Lesson 3, students identified circles, triangles, rectangles and squares. They used formal geometric language to describe the defining attributes of the shapes.

### Future Learning

In Lesson 5, students will build on their understanding of two-dimensional shapes by identifying and creating shapes.

## Depth and Rigor of Student Thinking

- Students develop their **conceptual understanding** of the defining attributes of hexagons and rhombuses.

## Vocabulary

### New Vocabulary

rhombus

### Review Vocabulary

*attribute*
*circle*
*curved*
*hexagon*
*rectangle*
*side*
*square*
*straight*
*triangle*
*vertex*

## TEKS

### Addressing

**1.6.D**

**Identify two-dimensional shapes,** including circles, triangles, rectangles, and squares, as special rectangles, **rhombuses, and hexagons and describe their attributes using formal geometric language.**

*Also Addressing:* **1.6.B**

**Math Process Standards:** 1.1.G

**ELPS:** 1.B, 1.C, 2.B, 2.D, 2.E, 3.A, 3.D, 3.E, 3.F

| Building On | Building Toward |
|---|---|
| **K.6.C** | **2.8.A** |
| **K.6.D** | |

## Building Math Identity

### I am a doer of math.

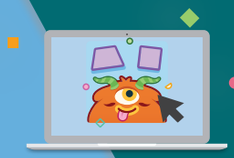
In math class, how do you want others to respond when you make a mistake?

Invite students to reflect on this question as they complete this lesson.

# Lesson at a Glance

60 min

**TEKS: 1.1.G, 1.6.B, 1.6.D**



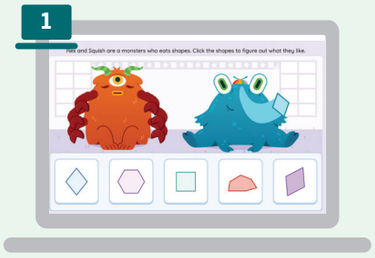
## Why digital?

**Students identify hexagons and rhombuses and receive Responsive Feedback to visualize defining attributes of both shapes.**

## Warm-Up

Whole Class | 10 min

Students use the **Notice and Wonder** routine to share what they notice and wonder about the two-dimensional shapes that Rex and Squish can eat.



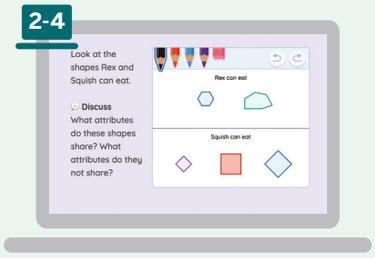

## Activity 1

Pairs | 15 min

Students discover that Rex can only eat hexagons and Squish can only eat rhombuses. They then analyze sets of 3 shapes and identify which is a hexagon, including some irregular hexagons. Students recognize that all hexagons have 6 straight sides that touch to form 6 vertices.

**Note:** The Student Edition is not required for this activity.

**Materials:** *Words to Describe Flat Shapes* chart and *What Helps Name a Shape?* chart (from prior lessons)



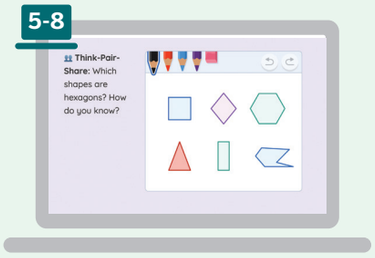

## Activity 2

Pairs | 15 min

Students discuss the difference between attributes of a hexagon and a rhombus. They analyze more sets of 3 shapes, including rhombuses and squares, and identify which shapes are rhombuses.

**Note:** The Student Edition is not required for this activity.

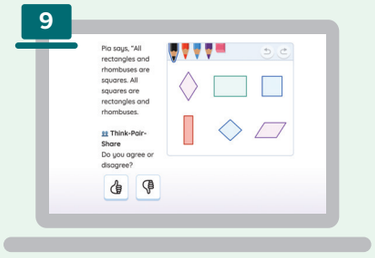
**Materials:** *Words to Describe Flat Shapes* chart and *What Helps Name a Shape?* chart (from prior lessons)




## Synthesis

Whole Class | 5 min

Students review and reflect on the defining attributes of rhombuses and hexagons.

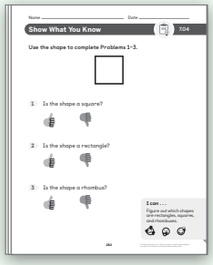



## Show What You Know (optional)

Independent | 5 min

Students demonstrate their understanding by identifying a two-dimensional figure as a square, rectangle, and rhombus.

**Materials:** *Show What You Know* PDF

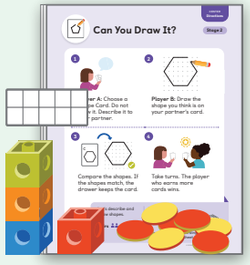



## Center Choice Time

Pairs | 15 min

Students have an opportunity to revisit these Centers to practice counting and adding and subtracting within 20.

- Counting Collections
- Cover Up
- What's Behind My Back?




## Math Language Development

**EB Emergent Bilinguals**

Consider using the *Math Language Development Resources* with the **Activity 1, Monitor** to support math language acquisition.

- ✓ Cognates
- ✓ Visuals
- ✓ Sentence frames and word bank

**ELPS 1.B, 1.E, 2.C, 2.D, 2.E, 2.F**

| Pre-Production | Beginning | Intermediate | High Intermediate | Advanced |
|---|---|---|---|---|
| Students **listen** to spoken English and **respond** using their primary languages and gestures. | Students **listen** to spoken English and **speak** using their primary languages, gestures, and single words or short phrases. | Students **listen** to spoken English and **speak** using short phrases or simple sentences. | Students **listen** to spoken English and **speak** using a variety of sentence types. | Students **listen** to spoken English and **speak** using longer sentences.<br>Exemplar responses are provided. |

Whole Class | 10 min | Suggested Pacing: Screen 1

# Warm-Up Notice and Wonder

**Purpose:** Students prepare for Activity 1 by exploring an interactive where they feed two-dimensional shapes to 2 monsters and notice which shapes the monsters eat.

Students using print



## 1 Launch

1 **Display** the monsters and the set of shapes.

**Say**, "Rex and Squish are monsters who eat shapes. Let's find out what types of shapes each monster will eat."

**Read aloud** the directions and let students explore.

**Students using print:** Demonstrate by having students suggest which of the shapes to feed Rex first. Repeat with the other 4 shapes.

**Use the Notice and Wonder routine.** Ask, "What do you notice? What do you wonder?"

## 2 Connect

**Invite students to share** their responses. As they share, demonstrate by clicking the shapes students choose.

**Say**, "Let's talk more about the shapes that Rex can eat and the shapes that Squish can eat."

### Students might say . . . ELPS 2.B

*I notice that Rex ate the shape that has 6 sides.*

*I notice that Squish ate the square and the other shapes that have 4 sides.*

*I wonder why Rex and Squish are such picky eaters.*

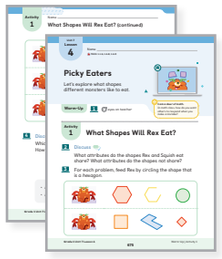
*I wonder why Rex and Squish don't eat the same shapes.*

Pairs | 15 min | Suggested Pacing: Screens 2–3, Screen 4

# Activity 1 What Shapes Will Rex Eat?

**Purpose:** Students analyze examples and non-examples of rhombuses and hexagons to recognize and identify the defining attributes of rhombuses and hexagons.

**Students using print**



**Additional Print Materials**

**Classroom materials:**

- Refer to the *Words to Describe Flat Shapes* and *What Helps Name a Shape?* charts (from prior lessons) throughout the activity.

## 1 Launch

2 **Ask**, "What do you notice about the shapes Rex and Squish can eat?"

**Invite students to share** their responses. Consider annotating to highlight the shapes' attributes as students share.

**Say**, "A *hexagon* is a shape with 6 straight sides. A **rhombus** is a shape with 4 straight sides that are all the same length."

**Say** (if not yet mentioned during discussion), "You have seen that Rex and Squish are picky — the only shapes Rex eats are hexagons and the only shapes Squish eats are rhombuses."

3 **Read aloud** the directions. Say, "You will complete Screen 3 with your partner. For each problem, choose the hexagon and then click Check. Explain to your partner how you figured out which shape is the hexagon before moving on to the next screen."

**Students using print:** Have students complete the problems independently for 4–5 minutes and then compare responses with their partner.

## 2 Monitor

While students complete **Screen 3**, refer to the D **Differentiation | Teacher Moves** table on the following page.

**If students need help getting started . . .**

- Ask, "What are you trying to find?"
- Ask, "What could you look for to help you know if a shape is a hexagon?"

A **Accessibility: Conceptual processing** Display the shapes on Screen 2 as students complete the problems. Encourage students to refer to the shapes that Rex can and cannot eat and look for similarities or differences in the shapes' attributes to support their thinking.

## 3 Connect

4 **Display** the examples of a hexagon and a rhombus.

**Use the Think-Pair-Share routine.** Ask, "Which shape is a hexagon? How do you know?" Annotate the hexagon to highlight defining attributes as students share.

MLR **MLR8: Discussion Supports – Pressing For Details** ELPS 2.D, 2.E
As students share attributes of a hexagon, press for details and accuracy in their reasoning. For example:
- If a student says, "It has 6 sides." . . .
- Press for details by asking, "What other attributes help you know that this shape is a hexagon?"
- Ask, "Can you use any words from the *Words to Describe Flat Shapes* chart to share your thinking?"

EB **Emergent Bilinguals** When discussing the sides of the shapes, use gestures to highlight the number of sides for each shape. ELPS 3.D, 3.F

**Record** any new language students use to describe the defining attributes of rectangles on the *Words to Describe Flat Shapes* chart.

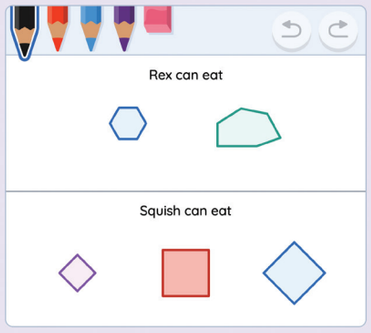
**Key Takeaway:** Say, "Hexagons are shapes with 6 vertices and 6 straight sides that touch at the corners. The sides may or may not be the same length."

***Students using digital***

**2**

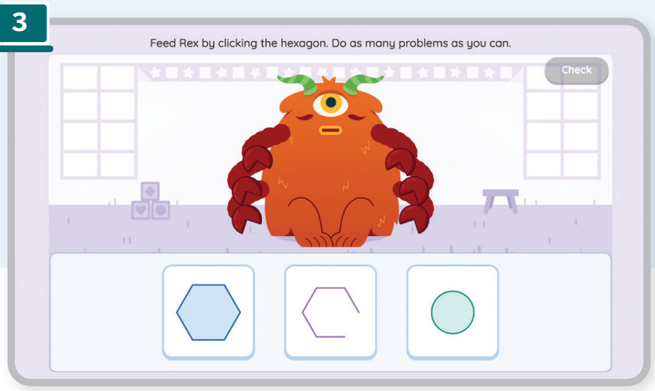
Look at the shapes Rex and Squish can eat.

**Discuss**
What attributes do these shapes share? What attributes do they not share?




Students may notice that both shapes have straight sides. They may notice that the hexagon has 6 straight sides and the rhombus has 4 straight sides.

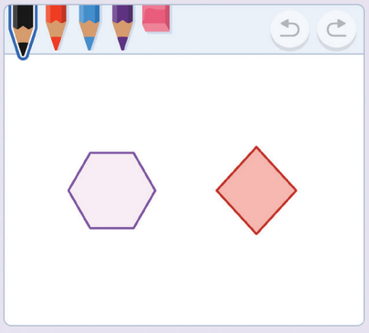
**3**




Students identify the hexagon when given 3 shapes in a series of repeated challenges.

**4**

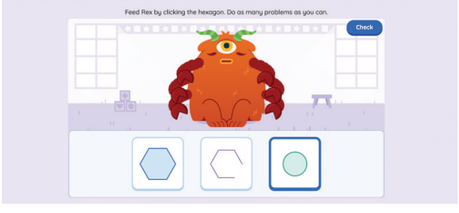
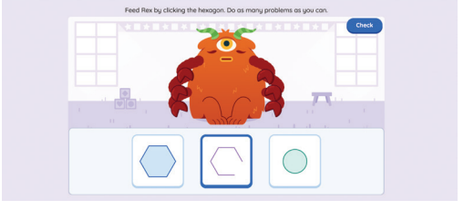
**Think-Pair-Share:** Which shape is a hexagon? Which shape is a rhombus? How do you know?



Students identify the left shape as a hexagon and the right shape as a rhombus. They may explain how they know by telling the number of sides and vertices.

***Students using print*** **will arrive at similar answers.**

## D Differentiation | Teacher Moves

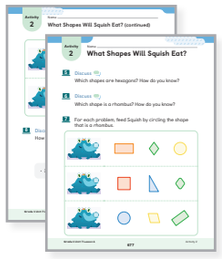
| Look for students who . . . | For example . . . | Provide support . . . |
|---|---|---|
| **Almost there**<br>Choose a shape that is not a hexagon. |  | **Support** Ask, "What do you know about the shapes that Rex can eat?" |
| **Almost there**<br>Choose a shape with an open side. |  | **Support** Ask, "What do you notice about the sides of the shape you chose? How are the sides different from the sides of the shapes Rex can eat? |
| Choose the shape that is a hexagon. |  | **Strengthen** Ask, "How do you know the other 2 shapes are not hexagons?" |

Pairs | 15 min | Suggested Pacing: Screens 5–6, Screen 7, Screen 8

# Activity 2 What Shapes Will Squish Eat?

**Purpose:** Students apply their understanding of hexagons and rhombuses to determine the name of a shape using the defining attributes.

**Students using print**



**Additional Print Materials**

**Classroom materials:**

- Refer to the *Words to Describe Flat Shapes* and *What Helps Name a Shape?* charts (from prior lessons) throughout the activity.

## 1 Launch

5 **Use the Think-Pair-Share routine.** Ask, "Which shapes are hexagons? How do you know?"

6 **Say**, "Now it is Squish's turn to eat. Remember that Squish is picky like Rex, but he only likes to eat rhombuses."

**Ask**, "Which shape is a rhombus? How do you know?"

**Invite students to share** their responses. Consider annotating to highlight the shapes' attributes as students share.

7 **Read aloud** the directions. Demonstrate the directionality of reading by reading the text top to bottom and left to right, pointing to the words as you read them. Invite students to follow along. **ELPS 3.A**

**Say**, "You will complete Screen 7 with your partner. For each problem, choose the rhombus and then click *Check*. Explain to your partner how you figured out which shape is the rhombus before moving on to the next screen." Monitor to ensure students are able to follow these directions. **ELPS 1.C**

**Students using print:** Read aloud the directions for Screen 7 and have students complete the problems independently for 4–5 minutes. Then have partners explain and compare responses.

EB **Emergent Bilinguals** Encourage students to refer to the *Words to Describe Flat Shapes* chart as they choose shapes to feed Squish and justify their thinking. **ELPS 3.D, 3.F**

## 2 Monitor

While students have complete **Screen 6**, refer to the D **Differentiation | Teacher Moves** table on the following page.

**If students need help getting started . . .**

- Ask, "What are you trying to find?"
- Ask, "What could you look for to help you know if a shape is a rhombus?"

A **Accessibility: Memory and attention** Clarify Responsive Feedback by helping students interpret the appearance of the yellow highlighting. For example, if students choose a shape with rounded vertices, ask them what is different about the vertices of Squish's snout and the vertices of the shape they chose.

## 3 Connect

8 **Display** the rhombuses.

**Use the Think-Pair-Share routine.** Ask, "Squish can eat all of these shapes. Why?" Annotate the shape to highlight the defining attributes of the rhombuses as students share. Consider using different colors to highlight each attribute to help students see which attributes are shared.

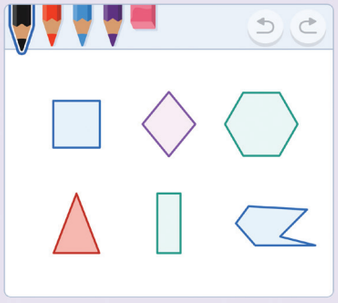
**Say** (if not yet mentioned during discussion), "A square is a special kind of rhombus. It has 4 straight sides of equal length and 4 *square vertices*. A square vertex is a vertex that looks like where 2 sides of a square touch."

**Key Takeaway:** Say, "Rhombuses are shapes with 4 straight sides that are equal in length and 4 vertices that touch at the corners. A square can also be called a rhombus because it has 4 straight sides that are equal in length."

***Students using digital***

**5**

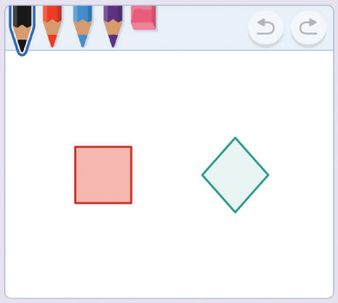
**Think-Pair-Share:** Which shapes are hexagons? How do you know?



Students identify 2 hexagons. Students may describe a hexagon as having 6 straight sides and 6 vertices.

**6**

**Think-Pair-Share:** Which shape is a rhombus? How do you know?



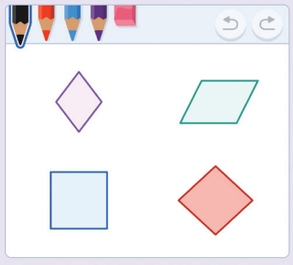
Students name both shapes as rhombuses. They may describe a rhombus as having 4 straight sides of equal length and 4 vertices. They may say that a square is a special rhombus.

**7**


Students identify the rhombus when given 3 shapes in a series of repeated challenges.

**8**

**Think-Pair-Share**
How do you know the shapes are rhombuses?



Students may describe rhombuses as having 4 straight sides of equal length and 4 vertices.

***Students using print*** **will arrive at similar answers.**

## D Differentiation | Teacher Moves

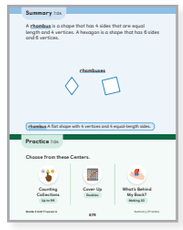
| Look for students who . . . | For example . . . | Provide support . . . |
|---|---|---|
| **Almost there**<br>Identify the non-square rhombus as a rhombus. | I know this is a rhombus because it has 4 equal sides and 4 vertices. | **Support** Ask, "What do you notice about the attributes of the other shape?" |
| **Almost there**<br>Identify the square as a rhombus. | | |
| Identify both shapes as rhombuses. | I know both shapes are rhombuses because they both have 4 equal sides and 4 vertices. | **Stretch** Ask, "What is the same and different about the vertices of both rhombuses? |

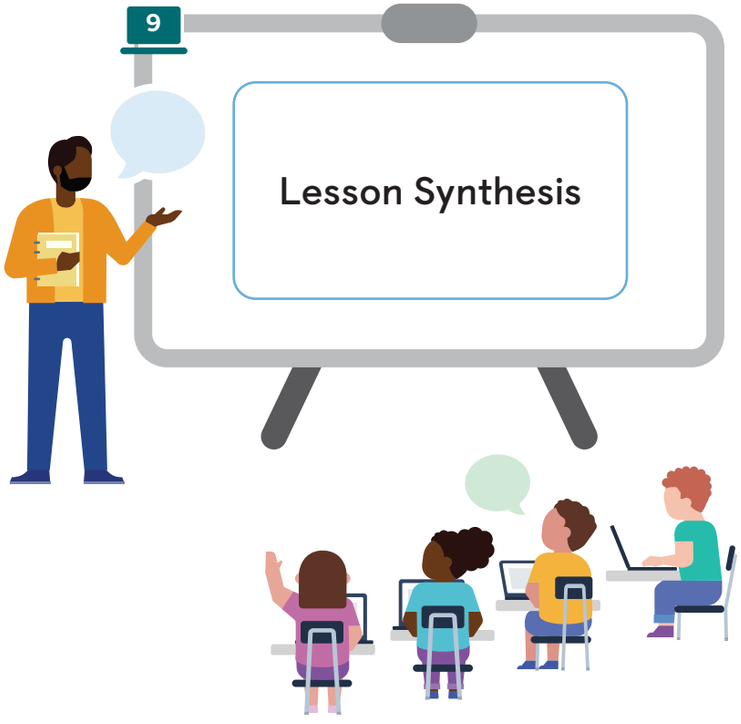
Whole Class | 10 min | Suggested Pacing: Screen 9

# Synthesis

**Lesson Takeaway:** All rhombuses have 4 equal-length sides. All hexagons have 6 sides that may or may not be equal in length.

**Students using print**






**9** **Display** a hexagon and a rhombus.

**Use the Think-Pair-Share routine** Ask, "What attributes must all rhombuses have? All hexagons?"

**Say**, All rhombuses must have 4 equal-length sides and 4 vertices. All hexagons must have 6 sides and 6 vertices. The sides of a hexagon do not need to be equal in length in order to be a hexagon. Sometimes it is necessary to identify whether a shape has equal-length sides in order to identify the shape. Sometimes it is not necessary to identify whether a shape has equal-length sides to identify the shape.

**Formalize vocabulary:** A **rhombus** is a flat shape with 4 vertices and 4 equal-length sides.

(optional) **Consider using the Frayer Model routine** with the word **rhombus**. ELPS 3.E, 3.F

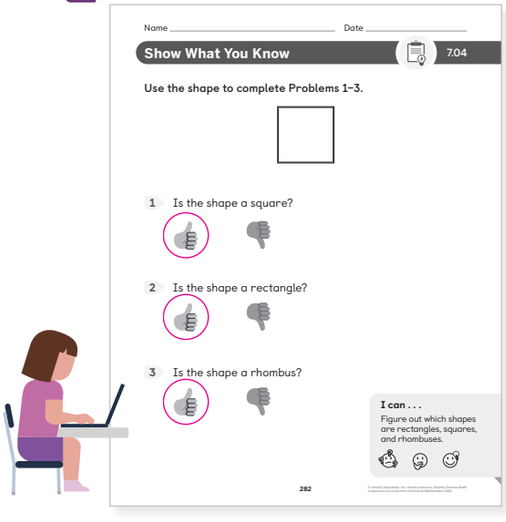
**Refer to the *Math Language Development Resources*** for a description of this routine and for more vocabulary support.

**Invite** students to refer to the **Summary** during Practice or anytime during the year.

# Show What You Know (Optional)

Independent | 5 min

PDF Show What You Know PDF


Name _____ Date _____

Show What You Know 7.04

Use the shape to complete Problems 1–3.

1 Is the shape a square?

2 Is the shape a rectangle?

3 Is the shape a rhombus?

I can . . .
Figure out which shapes are rectangles, squares, and rhombuses.

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## Today's Goals

1. **Goal:** Identify hexagons and rhombuses, including recognizing a square as a special type of rhombus.
   - In the *Show What You Know*, students identified a shape as a rhombus, a rectangle, and a square.
2. **Language Goal:** Describe the attributes of hexagons and rhombuses using formal geometric language. **(Listening and Speaking)** ELPS 1.B, 2.B, 2.E

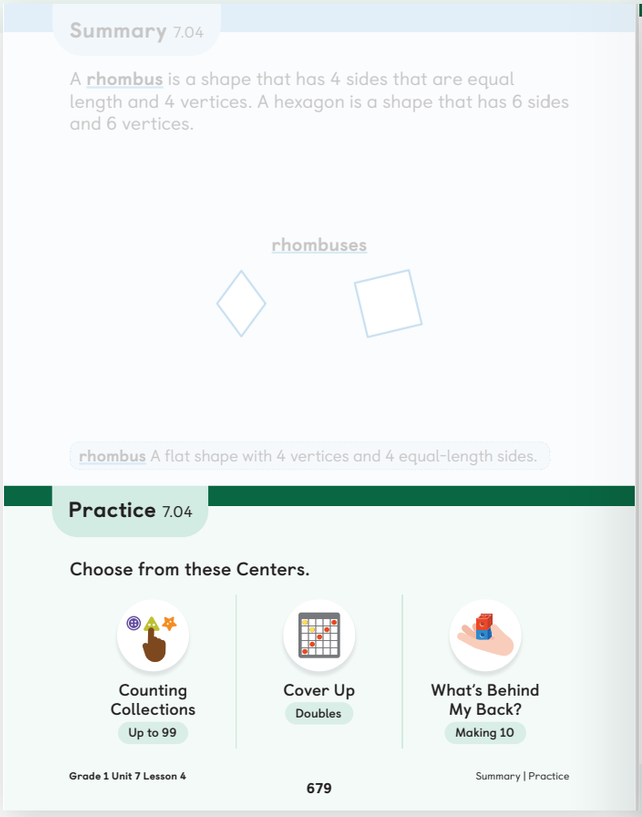
D **Differentiation** See the last page of the lesson for differentiation and Math Language Development support.

# Practice

Independent

Provide students with sufficient practice to build and reinforce their conceptual understanding, fluency, and application of mathematical topics, assessment practice, and ongoing spiral review.

***Students using print***



Summary 7.04

A **rhombus** is a shape that has 4 sides that are equal length and 4 vertices. A hexagon is a shape that has 6 sides and 6 vertices.

rhombuses

**rhombus** A flat shape with 4 vertices and 4 equal-length sides.

Practice 7.04

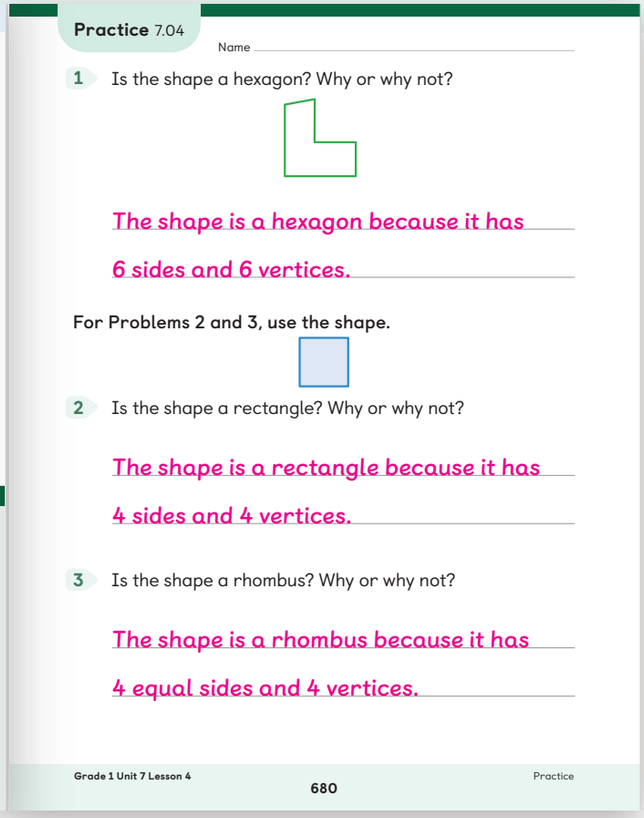
Choose from these Centers.

Counting Collections — Up to 99

Cover Up — Doubles

What's Behind My Back? — Making 10

Grade 1 Unit 7 Lesson 4 679 Summary | Practice



Practice 7.04

Name

1 Is the shape a hexagon? Why or why not?

The shape is a hexagon because it has 6 sides and 6 vertices.

For Problems 2 and 3, use the shape.

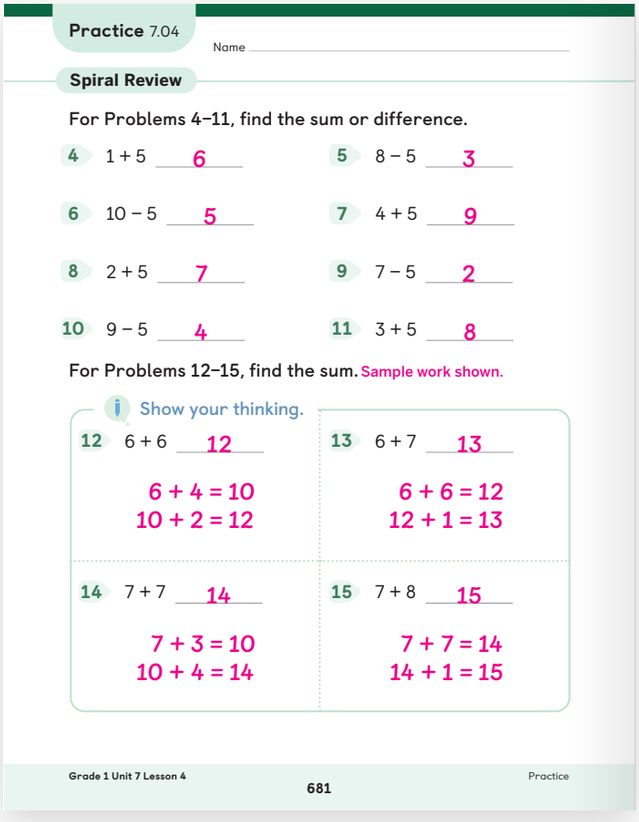
2 Is the shape a rectangle? Why or why not?

The shape is a rectangle because it has 4 sides and 4 vertices.

3 Is the shape a rhombus? Why or why not?

The shape is a rhombus because it has 4 equal sides and 4 vertices.

Grade 1 Unit 7 Lesson 4 680 Practice



Practice 7.04

Name

Spiral Review

For Problems 4–11, find the sum or difference.

4 1 + 5 = 6

5 8 − 5 = 3

6 10 − 5 = 5

7 4 + 5 = 9

8 2 + 5 = 7

9 7 − 5 = 2

10 9 − 5 = 4

11 3 + 5 = 8

For Problems 12–15, find the sum. Sample work shown.

Show your thinking.

12 6 + 6 = 12

6 + 4 = 10
10 + 2 = 12

13 6 + 7 = 13

6 + 6 = 12
12 + 1 = 13

14 7 + 7 = 14

7 + 3 = 10
10 + 4 = 14

15 7 + 8 = 15

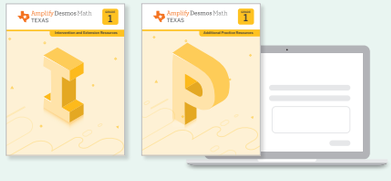
7 + 7 = 14
14 + 1 = 15

Grade 1 Unit 7 Lesson 4 681 Practice

## Practice Problem Item Analysis

| | Problem(s) | DOK | TEKS |
|---|---|---|---|
| **On-Lesson** | | | |
| | 1–3 | 2 | 1.6.D |
| **Spiral Review** | | | |
| Fluency | 4–11 | 1 | 1.3.D |
| | 12–15 | 1 | 1.3.A |

## Need more Practice?

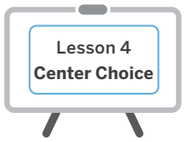


Additional practice can be found in the **Practice Resources, Intervention and Extension Resources,** and online resources (item banks, Boost Personalized Learning, and Fluency Practice).

# Center Choice Time

**Purpose:** Use this time to support students working in Centers, gather formative assessment data, or work with a small group of students on targeted skills.

**Presentation Screen**




**Short on time?** Consider omitting the Center Choice Time.

## Counting Collections

**Up to 99**

Pairs | 15 min | 1.2.C

Students count collections and represent how many and how they counted.

### Materials

- 10-frames **(Manipulative Kit)**
- collections of objects (one per pair), cups **(Classroom materials)**
- Directions, Recording Sheet **(Centers Resources)**

**Corresponds with the checklist from Unit 4, Sub-Unit 2.**

## Cover Up

**Doubles**

Pairs | 15 min | 1.3.D

Students double a number between 0 and 10.

### Materials

- number cards (0–10), two-color counters **(Manipulative Kit)**
- Directions, Gameboards (A, B) **(Centers Resources)**

**Corresponds with the checklist from Unit 2, Sub-Unit 4.**


Use Centers as games to offer fun and engaging ways for students to practice math skills.

GAMES

# What's Behind My Back?

Making 10

Pairs | 15 min | 1.3.D, 1.5.F

Students find how many cubes are removed from a tower of 10 and write equations to represent how they solved.

## Materials

- 10-frames, connecting cubes (10 per pair) **(Manipulative Kit)**
- Directions, Recording Sheet **(Centers Resources)**

**Corresponds with the checklist from Unit 2, Sub-Unit 3.**

## D Differentiation | Teacher Moves

### Work with students in their Centers by:

- Reinforcing Center routines and positive interactions.
- Asking probing questions to propel student thinking forward.
- Recording observations using the checklist provided.

### Consider pulling a small group of students for:

- Reviewing the lesson's learning goal by using the *Mini-Lesson* or the supports provided in the lesson.
- Reviewing essential skills from prior lessons or units.


# Differentiation Use after Lesson 4

**Lesson Goal:** Identify hexagons and rhombuses, including recognizing a square as a special type of rhombus.

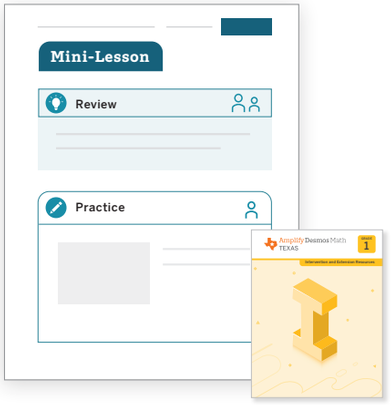
## Support

Provide targeted intervention for students by using these resources.

**If students** identify the shape as a square:

**Respond:**

- Assign the *Identifying Rhombuses and Hexagons* Mini-Lesson. | 15 min
- Review the Lesson 4 Synthesis.



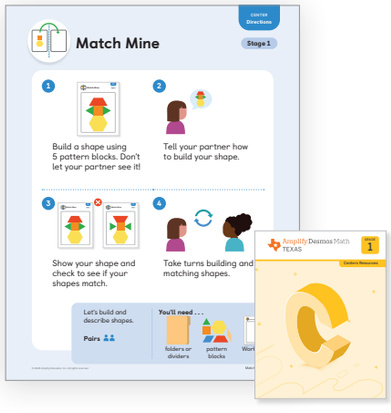

## Strengthen

Reinforce students' understanding of the concepts assessed by using these resources.

**If students** identify the shape as a square and a rectangle:

**Respond:**

- Invite students to play these **Centers.** | 15 min
  *Match Mine: Pattern Blocks*
  ***Mystery Shape: Grade K Shapes***
  *Picture Books: Find and Describe Shapes*
- Have students complete **Lesson 4 Practice.** | 15 min
- **Item Bank**



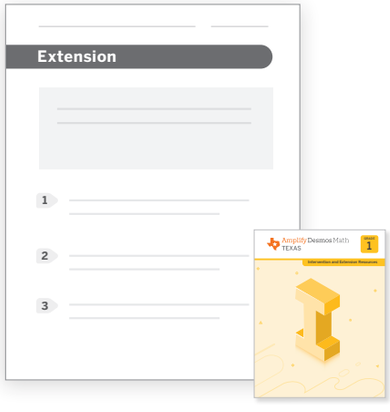

## Stretch

Challenge students and extend their learning with these resources.

**If students** identify the shape as a square, rectangle, and rhombus:

**Respond:**

- Invite students to explore the **Sub-Unit 1 Extension Activities.** | 15 min
- Revisit Activity 2 and invite students to respond to the **Stretch** question from the *Differentiation: Teacher Moves* table. | 5 min




*Support*, *Strengthen*, and *Stretch* learning by assigning these digital resources that adjust to each student's current level of skill and understanding.
• **Boost Personalized Learning** • **Fluency Practice** • **Math Adventures**

## Math Language Development

EB Use the **Math Language Development Resources** for further language support with all your students, including those building English proficiency.

- English/Spanish cognates, e.g., **rhombus/rombo**
- Frayer Model templates
- Vocabulary routines

### Professional Learning

What evidence have students given that they can distinguish between defining and non-defining attributes? What other opportunities for exploration and discussion might students need?