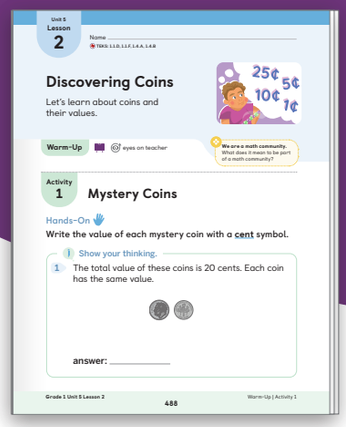
Unit 5
Lesson
2

Student Edition pages and Presentation Screens support learning in this lesson.



Discovering Coins

Identifying Coins by Value and Describing the Relationships Among Coins

Let's learn about coins and their values.

Key Concepts

Today's Goals

1. **Goal:** Identify pennies, nickels, dimes, and quarters by their values.
2. **Goal:** Find relationships among coins by comparing their values.
3. **Language Goal:** Explain how different coins are related to each other. **(Listening and Speaking)** ELPS 1.B, 2.B, 2.E

Connections and Coherence

Students apply their prior knowledge of skip counting to discover the values of individual coins. They attend to the individual physical characteristics of pennies, nickels, dimes, and quarters and their values. They learn that a **cent** is a unit of money then explore the relationships among coins by comparing their values. **(TEKS 1.1.D, 1.1.G)**

Prior Learning

In Unit 3, students explored concepts of financial literacy around saving and spending money on goods and services.

Future Learning

In Lesson 3, students will count by 2, 5, and 10 to find the value of a collection of coins.

Integrating Rigor in Student Thinking

- Students build **fluency** with skip counting by 5 and 10.
- Students develop their **conceptual understanding** of using the value of an individual coin to find the total value of a group of like coins.
- Students develop their **conceptual understanding** of the relationships between coins by comparing their values.

Vocabulary

New Vocabulary

cent

Review Vocabulary

penny

nickel

dime

quarter

TEKS

Addressing

1.4.A

Identify U.S. coins, including pennies, nickels, dimes, and quarters, by value and describe the relationships among them.

Also Addressing: 1.4.B

Math Process Standards: 1.1.D, 1.1.F

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

Building On	Building Toward
K.4.A	2.5.B

Building Math Identity

We are a math community.
What does it mean to be part of a math community?

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

Lesson at a Glance 60 min

TEKS: 1.1.D, 1.1.F, 1.4.A, 1.4.B

Warm-Up

Whole Class | 10 min

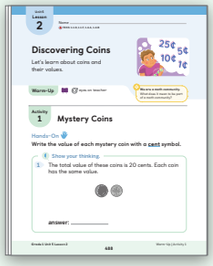
Students use the **Notice and Wonder** routine to make observations about items with price tags showing values with a cent symbol. The term **cent** is introduced and students learn how to write the cent symbol after a value.

Activity 1

Pairs | 15 min

Students interpret and contextualize groups of coins and determine their individual values. The language students use to describe each coin is collected and recorded on a chart that will be used throughout the sub-unit.

Manipulative Kit: connecting cubes (optional)
Materials: chart paper, markers, *Coins* chart (teacher made), real or plastic coins (optional), *Coins Chart* (sample) PDF, *Coin Images* PDF
Additional Prep Cut out: *Coin Images* PDF

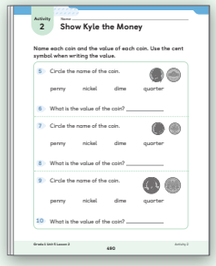


Activity 2

Pairs | 15 min

Students identify pennies, nickels, dimes, and quarters by name. They name coins and write their values using a cent symbol. They explore coin relationships by comparing coin values.

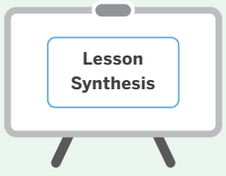
Manipulative Kit: connecting cubes (optional)
Materials: *Coins* chart (from Activity 1) *Coins to Cut and Count* PDF (optional)
Additional Prep Cut out: *Coins to Cut and Count* PDF



Synthesis

Whole Class | 5 min

Students review and reflect on the characteristics and values of pennies, nickels, dimes, and quarters.



Show What You Know (optional)

Independent | 5 min

Students demonstrate their understanding by identifying the names and values of pennies, nickels, dimes, and quarters.

Materials: *Show What You Know* PDF

Center Choice Time

Pairs | 15 min

Students have an opportunity to revisit these Centers to build fluency and practice counting and describing quantities using comparative language.

- Cover Up
- What's Behind My Back?

Math Language Development

Emergent Bilinguals

Consider using the *Math Language Development Resources* with the **Activity 2, Monitor** to support math language acquisition.

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

ELPS 1.B, 1.E, 2.B, 2.C, 2.D, 2.E, 2.F, 4.C, 4.D, 4.F

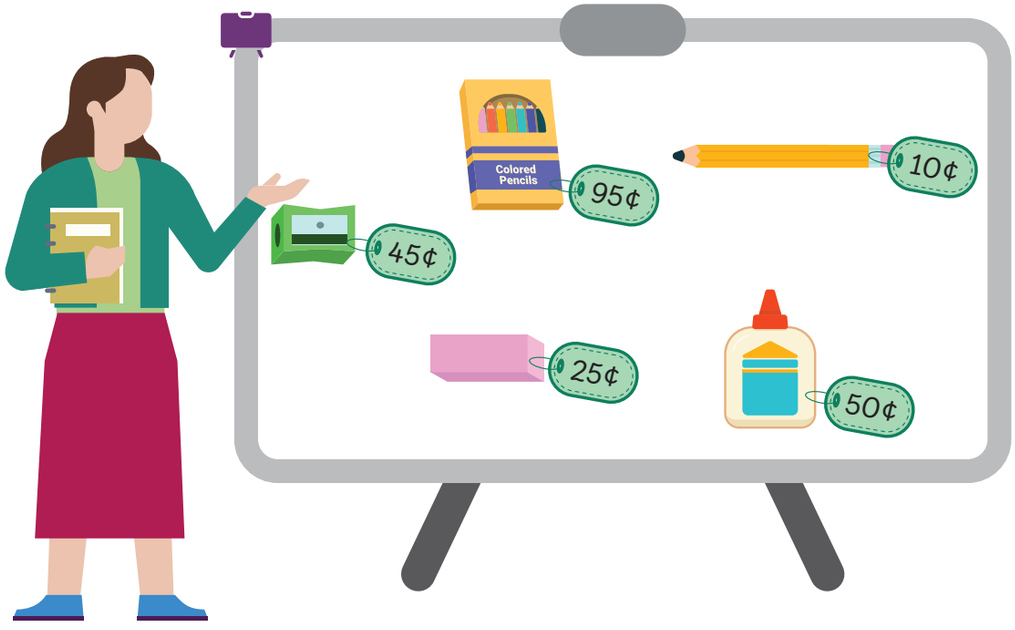
Pre-Production	Beginning	Intermediate	High Intermediate	Advanced
Students **listen** to spoken English and **respond** using their primary languages and gestures.	Students **listen** to spoken English and **speak** and **write** using their primary languages, gestures, and single words or short phrases.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

Whole Class | 10 min

Presentation Screen

Warm-Up Notice and Wonder

Purpose: Students examine a selection of items with price tags to learn the cent symbol and activate prior knowledge about money.



1 Launch

Display the image.

Use the Notice and Wonder routine.

Use the Think-Pair-Share routine. Ask, "What do you notice? What do you wonder?"

2 Connect

Record students' responses as they share.

Say, "When you write the value of something or how much it costs, you label it with cents. A **cent** is a unit of money. You use the cent symbol after the number to show that it represents cents."

Demonstrate writing a ¢ symbol.

Students might say . . . ELPS 2.B

I notice pictures of school supplies.

I notice each picture is labeled with a number.

I wonder what the little c's are next to the numbers.

I wonder why some numbers have a 5 in the ones place and some have a 0 in the ones place.

Pairs | 15 min

Activity 1 Mystery Coins

Purpose: Students reason about groups of like coins with given total values to identify individual coins and their values.

Presentation Screens

Materials

Lesson Resources:

- Use chart paper, markers, and the Activity 1 PDF, *Coins Chart* (sample) to create the chart during the Connect. Add the pre-cut coins to the chart from the Visual Display PDF, *Coin Images* during the discussion.

Manipulative Kit:

- Provide students with access to connecting cube towers of 10 and single cubes (optional).

Short on time? Consider omitting Problem 4.

1 Launch

Say, "Kyle wanted to use his money to help the Pineapple Street Library. He noticed that many of the coins in his piggy bank looked the same. Kyle's dad told him that coins that look the same have the same value, so Kyle organized coins that looked alike into groups."

Provide access to connecting cubes.

Read aloud the directions.

A **Accessibility: Visual-spatial processing** On a separate piece of paper, draw circles large enough for students to place groups of connecting cubes inside to represent the coins for each problem.

2 Monitor

After students have completed **Problem 2**, refer to the D **Differentiation | Teacher Moves** table on the following page.

If students need help getting started . . .

- Ask, "What information is given in the problem? What are you trying to figure out?"
- Ask, "How could you use connecting cubes to show the value of each coin?"

3 Connect

Invite pairs to share how they found the values of the mystery coins for Problems 1–3.

Say, "Kyle's mystery coins are a dime, nickel, and a penny."

Display the *Coins* chart.

Say, "A quarter has a value of 25 cents."

Use the Think-Pair-Share routine. Ask, "How would you describe each coin?"

MLR **MLR2: Collect and Display** ELPS 2.B

Support the acquisition of new words and high-frequency words by collecting student language used to describe each coin, such as *silver, Abraham Lincoln, copper, Thomas Jefferson, value, cents,* and add each word under the corresponding coin on the chart. Add the images of the coins to the *Coins* chart.

Key Takeaway: Say, "A cent is a unit of money. A penny is a coin worth 1 cent. A nickel is a coin worth 5 cents, a dime is a coin worth 10 cents, and a quarter is a coin worth 25 cents. You can use the symbol (¢) to show the value of a coin or an amount of money in cents. For example, 1¢ means 1 cent, 5¢ means 5 cents, and 25¢ means 25 cents."

Unit 5 Lesson 2

Name _____

TEKS: 1.1.D, 1.1.F, 1.4.A, 1.4.B

Discovering Coins

Let's learn about coins and their values.

Warm-Up eyes on teacher

We are a math community. What does it mean to be part of a math community?

Activity 1 Mystery Coins

Hands-On

Write the value of each mystery coin with a cent symbol.

Sample work shown for Problems 1–3.

Show your thinking.

1 The total value of these coins is 20 cents. Each coin has the same value.

10 20

answer: 10¢

Activity 1

Name _____

Mystery Coins (continued)

For Problems 2 and 3, write the value of each mystery coin with a cent symbol.

Show your thinking.

2 The total value of these coins is 10 cents. Each coin has the same value.

5 10

answer: 5¢

3 The total value of these coins is 3 cents. Each coin has the same value.

1 2 3

answer: 1¢

4 Discuss

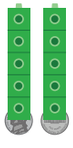
Share your responses with your partner. Be ready to share how you found the value of each mystery coin.

Oral activity: No writing expected. Sample response shown.

I noticed Kyle had 20¢ and 2 coins. I know there are 2 tens in 20 so each dime is 10¢.

Presentation Screens

D Differentiation | Teacher Moves

Look for students who . . .	For example . . .	Provide support . . .
Almost there Name the type of coins for a group.	*I think they are nickels because I know nickels are silver.*	**Support** Ask, "How could you represent the value of each coin if you think they are ____ (pennies, nickels, or dimes)?"
Use objects or drawings to find the value of each coin.	 *I took 10 cubes and placed cubes on each coin until I ran out of cubes. I saw that there were 5 cubes on each coin.*	**Stretch** Have students create a group of mystery coins with a total value of 50 cents for their partner to solve.
Know the value of a coin and use the representation to find the individual value of the coins.	 5 10 *I think these coins are nickels because I can count by 5 twice to get to 10.*	

Pairs | 15 min

Activity 2 Show Kyle the Money

Purpose: Students name and label the values of coins, then explore relationships among coins by comparing their values.

Presentation Screens

Materials

Lesson Resources

- If real or plastic coins are not available, distribute the pre-cut coins from the *Coins to Cut and Count* PDF.

Classroom materials

- Display the *Coins* chart during the activity.
- Provide students with access to real or plastic coins (optional).

1 Launch

Say, "Val showed Kyle some of the groups of coins that people used to pay for treats at her stand."

Read aloud the directions.

EB **Emergent Bilinguals** Demonstrate awareness of print concepts by showing how Activity 2 continues on the next page. ELPS 3.A

Provide access to printable, plastic, or real coins.

A **Accessibility: Memory and attention** Invite students to reference the *Coins* chart from the previous activity to support identification of the coins and their values.

2 Monitor

After students have completed **Problem 13**, refer to the D *Differentiation | Teacher Moves* table on the following page.

If students need help getting started . . .

- Ask, "What information do you know about this coin?"
- Ask, "How could you use the *Coins* chart to help find the value?"

EB **Emergent Bilinguals** Consider providing students with their own copy of the Coins chart and encourage them to point to each coin and read each coin name before starting Problem 5. ELPS 3.D, 3.F

3 Connect

Invite students to share their responses to Problem 13. Select and sequence their responses in the order shown in the *Differentiation* table.

MLR **MLR8: Discussion Supports — Pressing for Details** ELPS 2.E

As students share, press for details in their reasoning. For example:

- If a student says, "I put the penny first". . .
- Press for details in their reasoning by asking, "Why did you put the penny first? How did you compare the coins?"

Use the Think-Pair-Share routine. Say, "Explain how you know which coin has the greatest value."

EB **Emergent Bilinguals** Invite students to share their responses with a partner before sharing with the class. Monitor students' responses for increasing specificity, such as the name of the coin. ELPS 2.E

Key Takeaway: Say, "A quarter has the greatest value. A penny has the least value. You could compare coins by thinking about their values."

Activity 2

Name _____

Show Kyle the Money

Name each coin and the value of each coin. Use the cent symbol when writing the value.

5 Circle the name of the coin.

penny **nickel** dime quarter

6 What is the value of the coin? 5¢

7 Circle the name of the coin.

penny nickel **dime** quarter

8 What is the value of the coin? 10¢

9 Circle the name of the coin.

penny nickel dime **quarter**

10 What is the value of the coin? 25¢

Activity 2

Name _____

Show Kyle the Money (continued)

11 Circle the name of the coin.

penny nickel dime quarter

12 What is the value of the coin? 1¢

13 Put the coins in order from least to greatest by value.

nickel	quarter	penny	dime
penny	nickel	dime	quarter

14 Discuss

Explain to a partner how you arranged the coins in Problem 13.

Oral activity: No writing expected. Sample response shown.

I put the nickel before the dime because 2 nickels have the same value as 1 dime. I also know that 1 dime is made of 10 pennies.

Presentation Screens

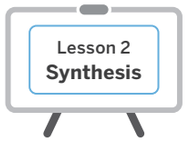
D Differentiation | Teacher Moves

Look for students who . . .	For example . . .	Provide support . . .
Almost there Arrange the coins in order by size.	dime penny nickel penny	**Support** Ask, "What is the value of each coin?"
Almost there Arrange the coins in order from greatest to least.	quarter dime nickel penny	**Support** Ask, "Is the value of the penny greater than or less than the value of the nickel?"
Arrange the coins in order by value.	penny nickel dime quarter	**Stretch** Ask, "How do you know the coins are in order from least to greatest by value?"

Whole Class | 5 min

Synthesis

Presentation Screen



Lesson Takeaway: Pennies, nickels, dimes, and quarters have their own values and characteristics. You can compare coins by thinking about their values.

Display the Synthesis Screen.

Say, "Val showed Kyle 2 groups of coins. Kyle said the groups of coins have the same value because the coins in both groups are the same color."

Use the Think-Pair-Share routine. Ask, "Do you agree with Kyle? Why or why not?"

Say, "Pennies, nickels, dimes, and quarters each have their own characteristics and values. You could use the characteristics of a coin to help you know the value of each type of coin and compare them."

Formalize vocabulary: A **cent** is a unit of money that is represented with a number and the cent symbol.

(optional) **Consider using the Word Structure: Cognates routine** with the word **cent**. Display or distribute copies of the *English/Spanish Cognates* PDF from the *Math Language Development Resources*. Consider asking, "How are the spellings and pronunciations for terms *cent* and *centavo* alike? How are they different?" ELPS 1.A, 1.B, 3.B, 3.C

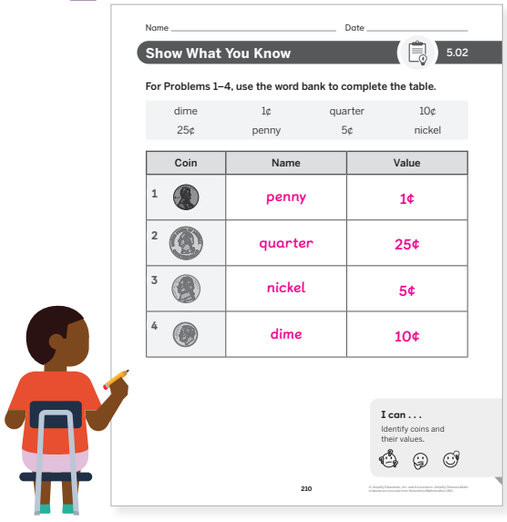
Refer to the *Math Language Development Resources* for a description of this routine and for more vocabulary support.

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

Show What You Know (Optional)

Independent | 5 min

Show What You Know PDF


Name _____ Date _____

Show What You Know 5.02

For Problems 1–4, use the word bank to complete the table.

dime	1¢	quarter	10¢
25¢	penny	5¢	nickel

Coin	Name	Value
1	penny	1¢
2	quarter	25¢
3	nickel	5¢
4	dime	10¢

I can . . .
Identify coins and their values.

210

Lesson Goals

1. **Goal:** Identify pennies, nickels, dimes, and quarters by their values.
   - » In the *Show What You Know*, students labeled the values of coins.
2. **Goal:** Find relationships among coins by comparing their values.
3. **Language Goal:** Explain how different coins are related to each other. **(Listening and Speaking)** ELPS 1.B, 2.B, 2.E
   - » In the *Show What You Know*, students labeled the coins by name.

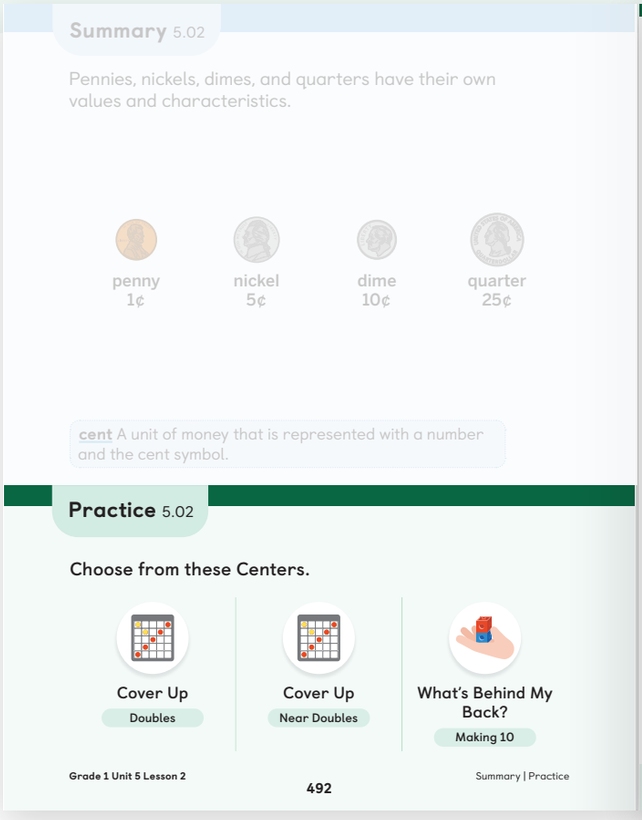
D **Differentiation** See the last page of the lesson for differentiation and Math Language Development support.

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 5.02

Pennies, nickels, dimes, and quarters have their own values and characteristics.

penny 1¢ | nickel 5¢ | dime 10¢ | quarter 25¢

cent A unit of money that is represented with a number and the cent symbol.

Practice 5.02

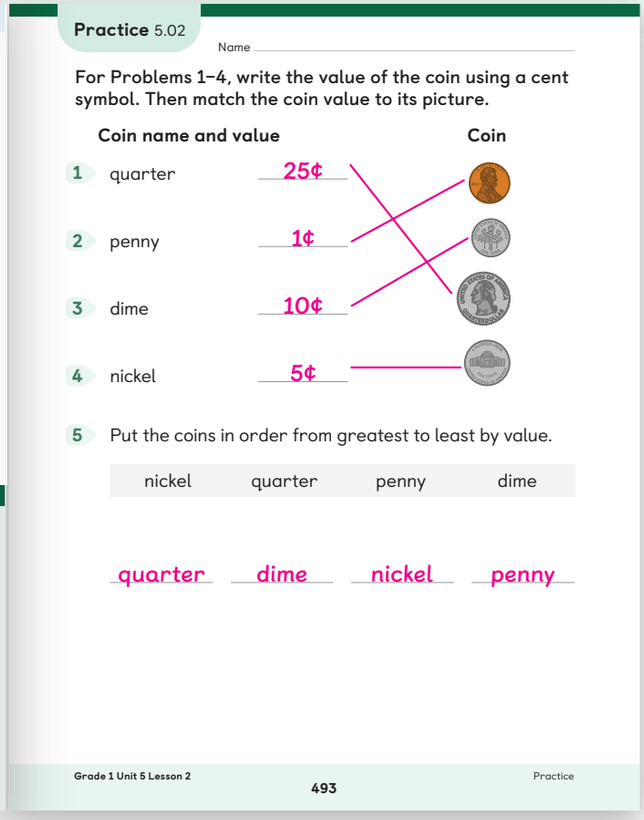
Choose from these Centers.

Cover Up — Doubles

Cover Up — Near Doubles

What's Behind My Back? — Making 10

Grade 1 Unit 5 Lesson 2 492 Summary | Practice



Practice 5.02

Name _____

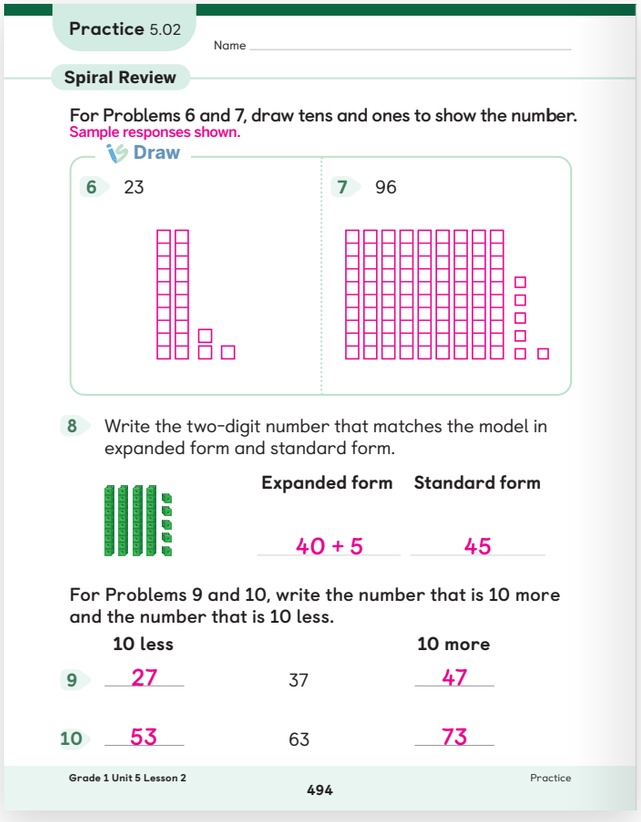
For Problems 1–4, write the value of the coin using a cent symbol. Then match the coin value to its picture.

	Coin name and value		Coin
1	quarter	25¢	
2	penny	1¢	
3	dime	10¢	
4	nickel	5¢	

5 Put the coins in order from greatest to least by value.

nickel	quarter	penny	dime
quarter	dime	nickel	penny

Grade 1 Unit 5 Lesson 2 493 Practice



Practice 5.02

Name _____

Spiral Review

For Problems 6 and 7, draw tens and ones to show the number.
Sample responses shown.

Draw

6 23

7 96

8 Write the two-digit number that matches the model in expanded form and standard form.

Expanded form	Standard form
40 + 5	45

For Problems 9 and 10, write the number that is 10 more and the number that is 10 less.

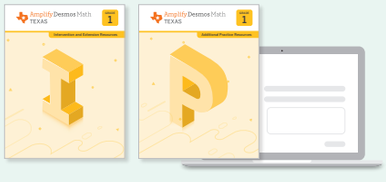
	10 less		10 more
9	27	37	47
10	53	63	73

Grade 1 Unit 5 Lesson 2 494 Practice

Practice Problem Item Analysis

	Problem(s)	DOK	TEKS
On-Lesson			
	1–5	1	1.4.A, 1.4.B
Spiral Review			
	6–8	1	1.2.C
Fluency	9, 10	1	1.5.C

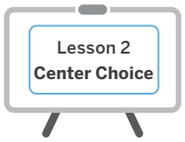
Need more Practice?



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

Presentation Screen



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.

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.

Cover Up

Near Doubles

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

Students double a number between 0 and 10 and then add or subtract 1.

Materials

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

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

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 for the unknown.

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 2

Lesson Goal: Identify pennies, nickels, dimes, and quarters by their values.

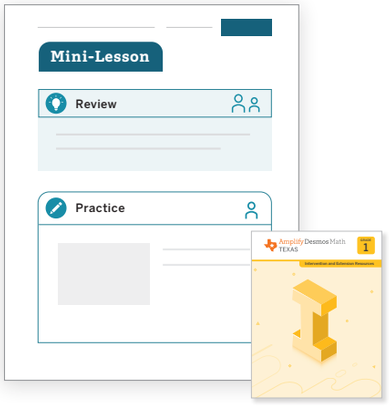
Support

Provide targeted intervention for students by using these resources.

If students identify the values of some of the coins:

Respond:

- Assign the *Identifying Coins and Their Values* Mini-Lesson. | 15 min
- Review the *Coins* chart from Activity 1.



Strengthen

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

If students accurately identify the values of all the coins:

Respond:

- Invite students to play this **Center.** | 15 min
  Last Number Wins: Numbers to 99 by 10
- Have students complete **Lesson 2 Practice.** | 15 min
- **Item Bank**

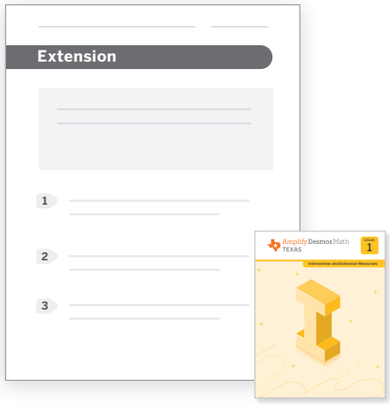
Stretch

Challenge students and extend their learning with these resources.

If students know the values of all the coins based on prior knowledge:

Respond:

- Invite students to explore the **Sub-Unit 1 Extension Activities.** | 15 min
- Revisit Activity 1 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., **cent**/**centavo**
- Frayer Model templates
- Vocabulary routines

Professional Learning

What did you learn about your students' understanding of money during this lesson? What did you notice in their work from today's lesson that you might leverage in a future lesson?