

Lesson 26 Worktext pages 51–52

Objectives

- Identify and trace a circle
- Identify position using the terms *next to*, *before*, and *after*
- Extend a color pattern

Teacher Materials

- Charts 1, 13: *Farm Scene, Circle*
- Stick puppets: *Farmer Brown, Mrs. Brown*
- Number Cards 1–10
- Manipulatives: 5 green circles, 5 yellow circles, 10 other shapes
- “Did You Ever See a Lassie?” (A11)
- “London Bridge” (A15)
- “Numbers, Numbers 1 to 10” (A17)

Student Materials

- 1-2-3 *Write*, circle (Teacher’s Toolkit CD)
- A circular object such as a lid, a button, or a plate

Practice and Review

Count to 10 and back from 10

- ▶ Display Number Cards 1–10. Sing “Numbers, Numbers 1 to 10.”
- ▶ Instruct the students to count 1–10 round robin style, 1 number per student or group of students. Use Mrs. Brown to point to the student(s) whose turn it is to count.
- ▶ Follow the same procedure to count back from 10 to 1.

Identify numbers before and after

- ▶ Use Mrs. Brown to point to the number 3.
What number is this? 3
What number comes right before the number 3? 2
What number comes right after the number 3? 4
- ▶ Continue the activity with other numbers.

Teach for Understanding

Lesson Focus

In this lesson you will learn about the attributes of a circle and about patterns.

Identify and trace a circle

- ▶ Distribute a circular object to each student.
How would you describe your object? possible answers: no corners, round, flat, like a ball, like a circle, able to roll
- ▶ Instruct the students to use their index fingers to trace around the object.
- ▶ Display the Circle chart. Choose a volunteer to identify the shape at the top of the chart. Run your hand under the word *circle* as you say the word.
- ▶ Invite students to identify the objects on the chart.
What is the same about all these objects? They are all circle shapes.
Do circles have corners? no
- ▶ Reinforce the fact that circles are round and have no corners.
What shape does your object remind you of? a circle Why? It is round and has no corners.

Are all circles the same size? no

- ▶ Explain that circles can be any size.
- ▶ Display a circle. Instruct each student to compare his circle with the one you display. Direct the students to hold up their circle if it is larger than your circle.
- ▶ Follow the same procedure for those with smaller circles.
Place your circle on your desk. Without picking it up, turn the circle like a wheel.
Does the shape of the circle change when it is turned? no
- ▶ Sing “Draw a Circle in the Air” to the tune of “London Bridge.” Before singing each verse, explain what to use to draw the circle (finger, elbow, foot).
Draw a circle in the air, in the air, in the air.
Draw a circle in the air with your finger (elbow, foot).
- ▶ Invite students to identify objects in the room that are shaped like circles. As a student names an object, allow him to place his circle on the part of the object that reminds him of a circle. Point out that we often use the names of flat shapes to describe objects that are not flat.
- ▶ Choose volunteers to identify objects at home that are shaped like circles.
- ▶ Display the Farm Scene chart. You may choose to sing “Did You Ever See a Circle?” to the tune of “Did You Ever See a Lassie?”
Which objects in the picture are shaped like circles?
possible answers: tires on the tractor, the sun, tomatoes
- ▶ Display Farmer Brown. Ask the students to find circles on Farmer Brown. buttons
- ▶ Distribute the 1-2-3 *Write* page. Guide students as they practice tracing a circle and then using the dot to draw a circle.
- ▶ Display 10 circles and 10 other shapes.
- ▶ Invite students to make a set of circles from the shapes. Instruct them to say the shape name (“circle”) as they move a circle shape to the circle set.

Although all the objects referred to may not be true circles, the goal is to identify and recognize objects that have an overall circular shape.

Identify position using the terms *next to*, *before*, and *after*

- ▶ Display a green circle followed by a yellow circle. Direct the students to look at the shapes from left to right as they answer the questions.
What is the same about these shapes? They are both circles.
What is different about these circles? One is green and the other is yellow.
Which color circle is first? the green circle
Which color circle is right after the green circle? the yellow circle
Which color circle is right before the yellow circle? the green circle
- ▶ Explain that another way to describe these circles is “the yellow circle is next to the green circle” or “the green circle is next to the yellow circle.”

Circle

Trace each circle.

Chapter 4

Look at the shapes. Color each circle red.

Math 61 • Chapter 4, Lesson 26 51

Trace the circles.

Time to Review

Circle the one that is exactly the same.

Math 61 • Chapter 4, Lesson 26 52

Recognize and extend a color pattern

- ▶ Display a second set of 1 green and 1 yellow circle on the same row after the first pair to create an *abab* pattern. Point out the placement of the second set of circles *next to* or *after* the first set to create a repeating pattern.
- ▶ Lead the students in reading the pattern as you point to each circle: green circle, yellow circle, green circle, yellow circle.

What comes after a yellow circle in this pattern? a green circle

- ▶ Invite a student to place a green circle after the last yellow circle in the pattern.
- ▶ Continue the pattern until all 10 green and yellow circles are displayed.

In this chapter the attributes of color, size, and shape will be used to describe and extend shape patterns. Ask questions similar to those in Chapter 1 to find the repeating pattern: Are the shapes the same? Are the shapes the same size? Are the shapes the same color?

Worktext pages 51–52

- ▶ Read and guide completion of the pages.

Lesson 27 Worktext pages 53–54

Objectives

- Identify and trace a rectangle
- Identify circles and rectangles by their attributes
- Identify position using the terms *before*, *after*, *above*, and *below*
- Extend a size pattern

Teacher Materials

- Charts 1, 14, 25: *Farm Scene, Rectangle, Hundred Chart*
- Stick puppet: *Mrs. Brown*
- Number Cards 1–10
- Manipulatives: 5 green rectangles, 5 green circles, 5 red circles
- “London Bridge” (A15)
- 5 index cards with a dot in each corner
- A small opaque bag

Student Materials

- Field Workmat (back of Farm Workmat)
- Manipulatives: 10 sheep, 1 rectangle
- 1-2-3 Write, rectangle (Teacher’s Toolkit CD)
- An index card with a dot in each corner

Practice and Review

Count 1–20

- ▶ Use Mrs. Brown to point to numbers 1–20 on the Hundred Chart as you count together.

Count up to 10 objects

- ▶ Distribute a Field Workmat and 10 sheep to each student.
- ▶ Point out the side of the mat with the larger pen. Direct the students to place all the sheep in the pen.
Farmer Brown is moving all his sheep from the pen into the field to eat the grass around the pond. Count each fuzzy sheep as you move it from the pen and place it near the pond.
- ▶ Count together: 1 fuzzy sheep, 2 fuzzy sheep, 3 fuzzy sheep, . . . 10 fuzzy sheep.
- ▶ Follow the same procedure, counting different numbers of sheep. For example, direct each student to take 2 sheep off his mat and place them on the side of his desk. Then direct him to move all the other sheep back into the pen before beginning to count again.

Teach for Understanding

Lesson Focus

In this lesson you will learn about the attributes of a rectangle.

Identify and trace a rectangle

- ▶ Display the Rectangle chart. Choose a volunteer to identify the shape at the top of the chart. Run your hand under the word *rectangle* as you say the word.
- ▶ Distribute the prepared index cards.
Does this card look like the rectangle on the chart? yes
- ▶ Instruct each student to lay the card on his desk and use his index finger to trace around the card, moving from dot to dot.
How many sides does a rectangle have? 4 sides

Are the 4 sides the same length? *no*

What do you notice about the 2 long sides? *The lengths are the same. They are opposite, or across from, each other.*

- ▶ Direct the students to point to the 2 long sides of the card. Lead a discussion about the 2 short sides.
- ▶ Instruct the students to point out the 4 corners of the cards.
How many corners does a rectangle have? 4 corners
- ▶ Explain that a rectangle is a shape with 4 sides and 4 corners. Reinforce the word *rectangle* throughout the discussion.
- ▶ Invite students to identify the real-life objects on the chart.
What shape are all these objects? rectangles
Why do you think the shapes are rectangles? They have 4 sides like the shape at the top of the chart.

- ▶ Display a green rectangle.

How many sides does this rectangle have? 4 sides

How many corners does this rectangle have? 4 corners

How can you place the rectangle so that it looks tall? Elicit that the rectangle looks tall when the long sides go up and down.

How can you place the rectangle so that it looks long? Elicit that the rectangle looks long when the long sides go from side to side.

- ▶ Demonstrate both orientations and explain that the shape of the rectangle does not change when we turn it but that it looks tall or long depending on its position.
- ▶ Sing “Draw a Rectangle in the Air” to the tune of “London Bridge.”
Draw a rectangle in the air, in the air, in the air.
Draw a rectangle in the air with your finger (elbow, foot).
- ▶ Invite students to identify rectangle shapes on the Farm Scene chart. *barn doors, gate, hayloft, house windows, some of the bricks in the chimney*
- ▶ Encourage students to look for an object in the room that is shaped like a rectangle. Invite a student to place his index card rectangle on the part of the object that reminds him of a rectangle.
- ▶ Distribute the 1-2-3 Write page. Guide the students as they practice tracing a rectangle and then using the dots to draw a rectangle.

Identify circles and rectangles by their attributes

- ▶ Place 5 green circles and 5 green rectangles in a bag.
- ▶ Direct volunteers to take a shape without looking into the bag. Ask the students to identify each shape. Use questions such as the following to assess the students’ understanding.
What shape did you take? a circle
How do you know it is a circle? A circle is round and has no corners.
What shape did you take? a rectangle
How do you know it is a rectangle? A rectangle has 4 sides and 4 corners.

Rectangle

Trace each rectangle. Complete the sentence.

There are 5 rectangles.

Color each rectangle blue. Draw a happy face on each circle.

Math 63 • Chapter 6, Lesson 27

Identify position using the terms *before*, *after*, *above*, and *below*

- Distribute a rectangle to each student. Direct him to turn it over so the white side is showing and to place it next to his index card as you demonstrate.

Which rectangle is larger? *the index card*

Describe the other rectangle. *It is a smaller rectangle than the index card.*

Place the small rectangle next to the large rectangle.

- Point out that the small rectangle can be on any side of the large rectangle and still be *next to* it.

Place the small rectangle *above* the large rectangle.

- Encourage the students to discuss why they chose this position as *above* the large rectangle. Follow the same procedure with the position *below*.

- Explain that when making a pattern or ordering events from left to right, we often use the position words *before* and *after* to describe the parts' location.

Place the small rectangle *after* the large rectangle.

Extend a size pattern

- Display an *abab* pattern of large rectangle (index card), small rectangle (back of manipulative), large rectangle, small rectangle.

What is the same about these shapes? *They are all rectangles. They are all white.*

Color the shapes to match the key.

Time to Review

Circle the number that matches each dot pattern.

Math 63 • Chapter 6, Lesson 27

Are the rectangles the same size? *No, 2 are larger and 2 are smaller.*

- Guide the students as they read the pattern aloud.
 - What pattern is repeated? *large rectangle, small rectangle*
- Explain that this repeated part is called a base pattern. Repeat the entire pattern together again.
 - What size rectangle would come next? *a large rectangle*
- Invite a student to extend the pattern with a large white rectangle.
 - What rectangle would come next? *a small rectangle*
- Continue the pattern until all 10 rectangles are displayed.
- Follow a similar procedure to create and continue an *abab* color pattern using green circles and red circles.

Worktext pages 53–54

- Read and guide completion of the pages.
- Demonstrate drawing a happy face in a circle. Direct the students to draw a happy face on each circle on page 53.
- Introduce the students to using a key to color the shapes appropriately on page 54.

CHAPTER REVIEW

Objectives

- Identify circles, rectangles, squares, and triangles by their attributes
- Identify, copy, and extend sound, shape, and color patterns
- Identify position using the terms *before* and *after*

Teacher Materials

- Charts 13–16: *Circle, Rectangle, Square, Triangle*
- Manipulatives: 3 rectangles, 3 green squares, 2 red triangles, 2 yellow triangles, 4 sheep, 4 ducks
- An index card

Student Materials

- Manipulatives: 6 red triangles, 6 yellow triangles, 6 green squares

Check for Understanding**Discuss circles, rectangles, squares, and triangles**

- ▶ Display the Circle chart.
- ▶ Choose a volunteer to identify the large shape at the top of the chart.
- ▶ Guide a discussion on the attributes of the circle. **Circles are round with no corners.**
- ▶ Allow students to identify the objects on the Circle chart and tell why they are pictured on the Circle chart. **All of the objects are round like a circle.**
- ▶ Follow a similar procedure for the Square, Rectangle, and Triangle charts. **The rectangle objects have 4 sides and 4 corners; the square objects have 4 sides that are the same length and 4 corners; the triangle objects have 3 sides and 3 corners.**

Identify circles, rectangles, squares, and triangles by their attributes

What is a spy? someone who secretly watches someone or something

Today we will play a game called I Spy a Shape.

- ▶ Explain that you will say something such as the following: "I spy a shape that is round."
- ▶ Choose a volunteer to identify an object in the room that is the shape of a circle.
- ▶ Play the game spying circles, rectangles, squares, and triangles.

Identify shapes in various orientations

- ▶ Display in random order 2 rectangles, 2 squares, and 2 triangles in various orientations.
- ▶ Display a third triangle. Ask a student to identify the shape.
How do you know it is a triangle? It has 3 sides and 3 corners.
- ▶ Invite a student to point to the displayed shapes that are triangles.
How do you know those shapes are triangles? They have 3 sides and 3 corners.
- ▶ Follow the same procedure with a rectangle and a square.

Identify, copy, and extend sound, shape, and color patterns

- ▶ Instruct the students to listen carefully as you say the sound pattern clip, clop, clip, clop. Direct them to copy the pattern. Remind them that the base pattern tells what to repeat. Ask a student to identify the base pattern. **clip, clop**
- ▶ Direct the students to repeat the pattern 3 times.
- ▶ Display the animal pattern sheep, duck, sheep, duck.
What pattern of animals is repeated? sheep, duck
- ▶ Invite students to extend the pattern until all 8 animals are displayed.
- ▶ Distribute 6 red triangles and 6 yellow triangles to each student. Display a color pattern using triangles: red triangle, yellow triangle, red triangle, yellow triangle. Direct the students to copy the color pattern at their desks.
What is the base pattern? red triangle, yellow triangle
- ▶ Instruct the students to extend the pattern 2 more times.
What comes right before a red triangle? a yellow triangle
What comes right after a yellow triangle? a red triangle
- ▶ Distribute 6 green squares to each student. Display the pattern yellow triangle, green square, yellow triangle, green square.
What is the base of this pattern? yellow triangle, green square
- ▶ Instruct the students to copy the pattern and extend it 2 more times.
What comes right before a green square? a yellow triangle
What comes right after a yellow triangle? a green square

Chapter 4 Review

Color the shapes to match the key.

Color to extend each pattern.

Math 61 • Chapter 4, Lesson 11

Circle the shape that comes next in each pattern.

Math in the Home

Help your child notice the shape of objects. Play an "I spy" game. Describe objects by giving clues such as, "It is round," "It has 2 sides longer than the other 2," or "It has 3 corners." You might say, "I spy something round on the wall." Your child may say, "The clock is round." Then let your child have a turn describing an object for you to guess.

Try the following cut-and-glass activity. Draw and cut several circles, squares, triangles, and rectangles. Make some the same size and some different sizes. Let your child use his imagination to make a picture. Circle him in gluing the shapes on a large sheet of paper. Ask your child to point to all the circles, squares, triangles, or rectangles. Display the picture.

In Chapter 5 your child will compare sizes, lengths, and heights. He will measure length and height using objects and various measurement units.

Math 62 • Chapter 4, Lesson 11

Worktext pages 61–62
 Read and guide completion of the pages.