School/Home Connection Your child has been learning about shapes. Take a walk around your house and ask your child to identify objects with the shapes of circles, squares, rectangles, and triangles. Make sure your child understands that a square is a special kind of rectangle—all squares are rectangles, but not all rectangles are squares.
**SHAPES**

triangle  
square  
rectangle

Draw 4 squares, 4 rectangles (that are not squares), and 4 triangles. Make them different sizes.

**School/Home Connection** Your child has been learning about shapes. Ask your child to draw a circle, a square, a rectangle, and a triangle. Ask how many straight sides and corners each shape has. Make sure your child understands that a square is a special kind of rectangle—all squares are rectangles, but not all rectangles are squares.

Discovering Math, Geometry, Geometric Shapes or, Shape Up
School/Home Connection Your child has been learning about shapes. Take a walk around your yard or neighborhood and look for items that have the shapes of circles, squares, triangles, and rectangles. Make sure your child understands that a square is a special kind of rectangle—all squares are rectangles, but not all rectangles are squares.
SHAPES AND RELATIONSHIPS

Draw a girl inside the raft.
Draw a bird above the raft.
Draw a fish below the raft.
Draw a bush between the trees.

School/Home Connection Your child has been learning about shapes and spatial relationships. Gather some stuffed animals and give directions such as: Put the dog below the chair. Put the cat between the dogs. Then extend the task to include items with particular shapes in your instructions, such as referring to a book in the shape of a rectangle.
**School/Home Connection** Your child has been learning about shapes and spatial relationships. Ask your child to help you unpack groceries. Make groups of items that have the shapes of spheres, cylinders, rectangular prisms, and cones. Give instructions for arranging them using terms such as between, above, below, in front of, behind.

Discovering Math, Geometry, Shapes and Relationships or, Shape, Rattle, and Roll
School/Home Connection Your child has been learning about shapes and spatial relationships. Ask your child to find things in his or her room that have the shapes of cubes, cones, rectangular prisms, spheres, and cylinders. Then describe the location of one shape in relation to another.
**PATTERNS**

Use green and black.  
Color.  
Continue the pattern.

**School/Home Connection** Your child has been learning about patterns. Ask your child to look at his or her clothing and describe patterns. Help your child see the difference between a pattern that repeats and a design that has an arrangement of single forms without repetition.
**PATTERNS**

Draw the shape that comes next in the pattern.

School/Home Connection Your child has been learning about patterns. Take a walk around your house and discuss patterns that you see. Look for patterns with repeating elements or sequences on wallpaper, flooring, furniture, placemats, and so on.
**PATTERNS**

Choose three colors. Create a color pattern.

**School/Home Connection** Your child has been learning about patterns. Take a walk outside and make a list of patterns that you see, hear, or otherwise observe (or perform, such as walking), with repeating elements or sequences. Encourage your child to look at buildings, fences, gardens, and other elements of nature.
SHAPES

Color things with these shapes. [Check student’s answers]

- red
- blue
- green
- yellow

School/Home Connection: Your child has been learning about shapes. Take a walk around your house and ask your child to identify objects with the shapes of circles, squares, rectangles, and triangles. Make sure your child understands that a square is a special kind of rectangle—all squares are rectangles, but not all rectangles are squares.
**Shapes**

Draw 4 squares, 4 rectangles (that are not squares), and 4 triangles. Make them different sizes. [Check student’s answers.]

**School/Home Connection** Your child has been learning about shapes. Ask your child to draw a circle, a square, a rectangle, and a triangle. Ask how many straight sides and corners each shape has. Make sure your child understands that a square is a special kind of rectangle—all squares are rectangles, but not all rectangles are squares.
SHAPES

Choose a word to make each sentence true.

rectangle triangle vertex square

1. A __________ has four sides that are the same length. [square]
2. A __________ has exactly three corners. [triangle]
3. A __________ has opposite sides the same length, and may not be a square. [rectangle]

Find something in your classroom with these shapes. Write about it or draw a picture.

4. triangle
5. rectangle

CHALLENGE

6. Draw a picture that includes circles, squares, triangles, and rectangles. [Check student’s answers.]

School/Home Connection
Your child has been learning about shapes. Take a walk around your yard or neighborhood and look for items that have the shapes of circles, squares, triangles, and rectangles. Make sure your child understands that a square is a special kind of rectangle—all squares are rectangles, but not all rectangles are squares.
**SHAPES AND RELATIONSHIPS**

Draw a girl inside the raft.
Draw a bird above the raft.
Draw a fish below the raft.
Draw a bush between the trees. [Check student’s answers.]

**School/Home Connection** Your child has been learning about shapes and spatial relationships. Gather some stuffed animals and give directions such as: Put the dog below the chair. Put the cat between the dogs. Then extend the task to include items with particular shapes in your instructions, such as referring to a book in the shape of a rectangle.
**SHAPES**

- sphere
- rectangular prism
- cylinder
- cone

**Write the name of each shape.**

- [cylinder]
- [rectangular prism]
- [cone]
- [sphere]
- [sphere]
- [cylinder]

**School/Home Connection** Your child has been learning about shapes and spatial relationships. Ask your child to help you unpack groceries. Make groups of items that have the shapes of spheres, cylinders, rectangular prisms, and cones. Give instructions for arranging them using terms such as between, above, below, in front of, behind.
SHAPES AND RELATIONSHIPS

Look at pictures in a magazine. Find things that have these shapes. Make a list of the things that you find.

1. sphere
2. rectangular prism
3. cylinder
4. cone
5. cube

School/Home Connection Your child has been learning about shapes and spatial relationships. Ask your child to find things in his or her room that have the shapes of cubes, cones, rectangular prisms, spheres, and cylinders. Then describe the location of one shape in relation to another.
**PATTERNS**

Use green and black. Color. Continue the pattern. [Check student’s answers.]

School/Home Connection Your child has been learning about patterns. Ask your child to look at his or her clothing and describe patterns. Help your child see the difference between a pattern that repeats and a design that has an arrangement of single forms without repetition.
PATTERNS

Draw the shape that comes next in the pattern.

[heart]

[triangle]

[square]

[oval]

School/Home Connection Your child has been learning about patterns. Take a walk around your house and discuss patterns that you see. Look for patterns with repeating elements or sequences on wallpaper, flooring, furniture, placemats, and so on.
Choose three colors.
Create a color pattern. [Check student’s answers.]

School/Home Connection Your child has been learning about patterns. Take a walk outside and make a list of patterns that you see, hear, or otherwise observe (or perform, such as walking), with repeating elements or sequences. Encourage your child to look at buildings, fences, gardens, and other elements of nature.
Three Dimensional Figures

Three dimensional figures have a **length**, a **height**, and a **width**. Here are some examples of three dimensional figures.

- **Rectangular solid (prism)**
- **Cube**
- **Cylinder**
- **Cone**
- **Sphere**
- **Pyramid**

Flat surfaces are called **faces**. The faces meet at an **edge**. The edges meet at a corner, called a **vertex**.
Look at the items below. Label the figures correctly.

cone       rectangular solid      cube          cylinder      pyramid        sphere

1. __________________________

2. __________________________

3. __________________________

4. __________________________

5. __________________________

6. __________________________
Identify the parts of the figures below.

1.

\[\text{a.}\]

2.

\[\text{a.}\]

\[\text{b.}\]

\[\text{c.}\]

Explain what is alike and what is different about these two objects.

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________
Let's Count!

Look at the cube. Count the faces.

How many faces does the cube have? ___________

How did you get your answer?

______________________________________________________________
______________________________________________________________
______________________________________________________________
______________________________________________________________
______________________________________________________________

Look at this rectangular prism (solid).

How many vertices does the rectangular prism have? ____________

How did you get your answer?

______________________________________________________________
______________________________________________________________
______________________________________________________________
______________________________________________________________
______________________________________________________________
______________________________________________________________
Three Dimensional Figures

Name___________________________________________ Date______________

Answer the questions

1. What is this figure called?
   a. cone
   b. rectangular prism
   c. cylinder
   d. cube

2. What shape are the faces on a cube?
   a. circle
   b. square
   c. hexagon
   d. pentagon

3. What is the total number of faces on this rectangular prism (solid)?
   a. 3
   b. 4
   c. 6
   d. 8

4. How many vertices does a cube have?
   a. 2
   b. 4
   c. 6
   d. 8

5. Which of these figures has no faces?
   a. cube
   b. sphere
   c. cone
   d. pyramid

6. Which of these items is a cylinder?
   a. basketball
   b. gift box
   c. can of beans
   d. ice cream cone

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Draw a picture using three-dimensional figures. Put the correct letter on each figure in your pictures.

A. cone
B. sphere
C. cube
D. rectangular prism (solid)
E. cylinder
F. pyramid
Three Dimensional Figures

Name___________________________________________ Date____________

ANSWERS

1. cone
2. rectangular solid
3. sphere
4. cylinders
5. cubes
6. pyramid

1. a. face
2. a. face
   b. edge
   c. vertex

Answers about similarities and differences may vary. Accept any reasonable answers, including: They both have faces; they are both three dimensional figures. The cube has edges and vertices. The cylinder has rounded sides. The cube has more faces (six, while the cylinder has two).

1. The cube has 6 faces. Accept any reasonable answers about how this was determined, including: I imagined the parts I couldn’t see (only three faces are visible); I looked at a real cube; I remembered it from class…
2. The rectangular prism has 8 vertices. Accept any reasonable answers about how this was determined, including: I imagined the parts I couldn’t see (only seven vertices are visible); I looked at a real rectangular prism; I remembered it from class…

1. a. cylinder
2. b. square
3. c. 6
4. d. 8
5. b. sphere
6. c. can of beans
Mystery Shapes

1. I have 4 sides and 4 vertices, what am I?

________________________

2. I am round, what am I?

________________________

3. I have 3 sides, what am I?

________________________

4. I have 2 short sides and 2 long sides, what am I?

________________________

5. I don’t have any vertices, what am I?

________________________

6. I only have 3 vertices, what am I?

________________________

7. I have 4 sides but my sides aren’t all the same, what am I?

________________________
On the back of this page, make a shape person or animal.

- My hat has:
  - ____ circles
  - ____ rectangles
  - ____ squares
  - ____ triangles

- My face has:
  - ____ circles
  - ____ triangles
  - ____ squares

- My arms are:

- My body is a:

- My legs are:

- My feet are:
Color all the triangles green. How many triangles are there? ____

Color all the squares red. How many squares are there? ____

Color all the rectangles blue. How many rectangles are there? ____

Color all the squares brown. How many squares are there? ____
Cut out the shapes, sort them and order them from smallest to largest.