Bridges in Mathematics Kindergarten Unit 6

Three-Dimensional Shapes & Numbers Beyond 10

In this unit, your student will:

• Identify, name, and describe objects in the environment using the names of shapes



- Explore the difference between two-dimensional (flat) and three-dimensional (solid) shapes
- Build three-dimensional shapes
- Understand the numbers from 11 to 20 as "10 and some more"
- Solve number combinations within 10

Your student will practice these skills by solving problems such as these:

PROBLEM	COMMENTS
Find things that are shaped like a sphere.	Geometric shapes are all around: the places we live, schools we attend, toys we play with, and foods we eat are three-dimensional shapes. This month, students go on a 3-D shape hunt looking for shapes in their environment.
How are the objects being sorted? The ones on the blue paper have straight sides. The ones on the yellow paper don't have straight sides, but they all have curves.	Several lessons in this unit are designed to help students think about the attributes, or features, of shapes. In the sorting activity, students try to guess the "rule" as objects are sorted into two groups. In this example, the "secret attribute" is straight sides and curves, but there are many ways to sort two- and three-dimensional shapes.
Min, Dalvin, and Amara worked hard to roll 5 big snowballs. They wanted to use 2 buckets to carry the snowballs back to the treehouse. How many snowballs could be in each bucket?	By the end of kindergarten, students are expected to fluently add and subtract within 5. This means they are able to find sums such as 1 + 4 and differences such as 4 – 2 with confidence. They also work with combinations within 10. In previous units, students have developed an understanding of number combinations using various math models. This unit asks students to write equations to match these models. When working with your student, help them to see how the numbers in the equation match the pictures or objects being described in the equation.

Frequently Asked Questions About Unit 6

Q: My student calls three-dimensional objects by two-dimensional names. Why is this, and how can I help?

A: Children are generally taught the names of two-dimensional shapes in their preschool years. When looking at three-dimensional items, young children are likely to talk about the faces of the objects. They will most likely refer to a sphere and a cylinder as *circles*, a cube as a *square*, and so on. Help your



student recognize the similarities and differences. For example, a *square* is a rectangle with equal side lengths, and it is flat. A *cube* is a rectangular prism with equal edge lengths, and it is solid. Using the correct terms when talking about shapes models the language of geometry accurately and helps your student avoid future misconceptions.

Q: How can I help my student remember how to name and write the teen numbers?

A: The teen numbers can be confusing to young children. The names do not follow the rules of other 2-digit numbers. The number 46 sounds and looks like "forty-six," yet 16 is read as "sixteen" rather than "tenty-six." Likewise, "thirteen" sounds very similar to "thirty," as does "fourteen" to "forty," "fifteen" to "fifty," and so forth. Adding to the confusion is the fact that the words for numbers 11 and 12 sound nothing like other teen number names. Even when young students learn to name and recognize the teen numbers, they might confuse the quantity that the symbols represent. Some of the lessons in Unit 6 help students recognize that teen numbers are composed of 1 ten and some more ones. For example, 14 is made of 10 + 4, as shown in the models used in this unit.



Q: How can I support my student's learning?

A: Encourage your student to look for three-dimensional shapes everywhere you go, and support them in naming those shapes. You can also have your student practice making sets of objects that number in the teens.

To further support your student in learning mathematics, you can:

- Visit <u>mathathome.mathlearningcenter.org</u> and do some or all of the activities in Kindergarten: Set 6 together. These activities complement the learning taking place in the classroom during Unit 6 and provide fun ways to engage children in mathematical thinking.
- Visit <u>apps.mathlearningcenter.org</u> and invite your student to explore the Number Frames and Number Rack apps. Throughout Unit 6, students practice counting sets and making collections in the teens. They also practice reading and writing the numbers from 11 through 19. These apps can provide additional practice with teen numbers.
- Encourage your student to find and identify three-dimensional shapes in the illustrations of books you read together this month. Some books to check out include:
 - » Danbi Leads the School Parade by Anna Kim
 - » Mi Casa Is My Home words by Laurenne Sala, pictures by Zara González Hoang
 - » Brown Rabbit's Shapes: Discover Shapes with the Little Rabbits by Alan Baker
 - » Cubes, Cones, Cylinders, & Spheres by Tana Hoban
 - » Any book from the Three Dimensional Shapes series by Luana K. Mitten
 - » Captain Invincible and the Space Shapes by Stuart J. Murphy, illustrated by Rémy Simard
 - » A 3-D Birthday Party by Ellen B. Senisi

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