Common Core Georgia Performance Standards Framework

Kindergarten Mathematics • Unit 3

CONSTRUCTING TASK: Going on a Shape Hunt

Approximately 2-3 days (Adapted from Read, Write and Think)



STANDARDS FOR MATHEMATICAL CONTENT

- **MCC.K.G.1.** Describe objects in the environment using names of shapes, and describe the relative positions of these objects using terms such as *above*, *below*, *beside*, *in front of*, *behind*, and *next to*.
- MCC.K.G.2. Correctly name shapes regardless of their orientations or overall size.
- **MCC.K.G.3.** Identify shapes as two-dimensional (lying in a plane, "flat") or three-dimensional ("solid").

STANDARDS FOR MATHEMATICAL PRACTICE

- 1. Make sense of problems and persevere in solving them.
- 2. Reason abstractly and quantitatively.
- 3. Construct viable arguments and critique the reasoning of others.
- 4. Model with mathematics.
- 5. Use appropriate tools strategically.
- 6. Attend to precision.
- 7. Look for and make use of structure.
- 8. Look for and express regularity in repeated reasoning.

BACKGROUND KNOWLEDGE:

"Children need experiences with a rich variety of both two- and three-dimensional shapes. It is useful for students to be able to identify common shapes, notice likenesses and differences among shapes, become aware of the properties that different shapes have, and eventually use these properties to further define and understand their geometric world. As students find out more about shapes over time, they can begin to appreciate how definitions of special shapes come to be" (Van de Walle, p193).

ESSENTIAL QUESTIONS:

- How can we describe the location of a shape?
- How can we describe shapes in our everyday life?
- What makes shapes different from each other?

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MATERIALS:

- *The Greedy Triangle* by Marilyn Burns (Scholastic, 1995)
- Round Trip by Ann Jonas (Greenwillow, 1983)
- Eight Hands Round by Ann Whitford Paul (HarperCollins, 1991)
- Chart paper or overhead projector
- Cardstock cut to 1" x 6"
- Clipboards or other portable writing surface
- Two- and three-dimensional geometric models

GROUPING

Large group, small group and pairs

TASK DESCRIPTION, DEVELOPMENT AND DISCUSSION

Part I

Gather students in a large group on the carpet. Introduce or review the names of the geometric shapes that they are learning in order to activate any prior knowledge they may have on shapes. You need to focus solely on two-dimensional shapes and eventually do this activity again solely using three-dimensional shapes.

Read aloud the book that you have selected. The story should be read aloud in its entirety, pausing only to allow students to predict upcoming events. Predicting allows students to focus attention on reasoning, patterns, and problem solving while incorporating what they already know about geometric shapes with the ideas presented in the book.

Part II

Discuss the idea that shapes are not just in books but are all around us.

Introduce the Shape Hunt Chant. As you say the chant, hold up the model of a circle you have prepared for student reference. When you reach the line that says, "Do you see a circle?" ask students to point to a circle in the classroom. Finish the song.

You may wish to have students get up and move to the object they have selected instead of sitting on the carpet pointing. For example, when you say, "Do you see a circle?" pause and allow them to move to a location in the classroom where a circle is located. Once almost everyone is sitting by something, go on with "yes, we see a circle." This is especially beneficial for students who are kinesthetic learners.

Start a list of objects that are circles in the classroom on chart paper. Model various strategies for spelling words. For example, "Maria is pointing at the clock. Can you all point to the word clock

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in our classroom? Right, it's on a red card beside the clock. You read the letters while I print them on the chart. Jose is pointing at a plate in our house center. I don't see that word anywhere in our classroom. Let's try to write it together. P-p-plate. What letter do I need to print at the beginning of the word plate?" Another strategy is to point out words that are on the classroom word wall or located on posters or in other environmental print.

Repeat the shape hunt chant. You can use the same shape and ask them to choose different objects. Or you can change the shape. If you do this, start a new list on another piece of chart paper. You may want to limit the number of shapes to four or five, depending on how long each "hunt" takes the students. You might also choose to focus only on two-dimensional or only on three-dimensional shapes.

When you have gone through four or five shapes, you may choose to have students complete either the *Two-Dimensional* Task Sheet or the *Three-Dimensional* Task Sheet task sheet depending on what is most appropriate. Remind them to use classroom labels, the word wall, personal dictionaries, the charts just created, and their ability to sound out words to help them complete their work.

PART 3

Review the charts that you created with your students in Session 2.

Inform students that they will be going on a shape hunt outside the classroom. Have them brainstorm some other areas in the school where they could look for shapes such as the office, the library, the gymnasium, the cafeteria, or the hallways.

You may choose to give each student a clipboard or portable writing surface, a pencil, and either the *Two-Dimensional* Task Sheet or the *Three-Dimensional* Task Sheet or both, depending on what they used in Session 2. Review with them how to complete the sheets. Ask students to choose different objects on this shape hunt than they chose during Session 2. Bring along the models of the shapes you used in Session 2.

At each location, choose one shape for students to look for. Show them the model of the shape. If they are completing the task sheets, they should complete the appropriate section. Review with them various strategies they can use to write the words on their sheet-they can sound it out, think about words they know that are similar, or look for environmental print.

When you return to the classroom, allow students a few minutes at their seats to complete their task sheets. Remind them that they may want to check the word wall for words that they were uncertain how to spell correctly.

FORMATIVE ASSESSMENT

- How many shapes did you find?
- What types of shapes did you find?
- Did you find different kinds of the same shape?

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DIFFERENTIATION

Extensions

- Send home copies of the *Two-Dimensional* Task Sheet or the *Three-Dimensional* Task Sheet and have students go on a shape hunt at home. Use geometric cutouts to create pictures. Allow students (with supervision) to use a digital camera to take pictures of all the shapes found in your classroom or your school and create a book of shapes. The book could have a section for each shape and each student could be responsible for writing the text for one page of the book.
- Have students pair up and visit the Sammy's Shapes website where they can identify
 specific shapes appropriate for their grade level and locate and describe the shapes. This
 website can be used during math work stations or center time.
 http://primarygames.com/storybooks/sammy/start.htm

Interventions

• Give the child a picture of a space with shapes highlighted, for example: a picture of a grocery store aisle with the outline of the cereal box bolded. Have them place cut outs or manipulatives on top of the outline.

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Shape Hunt Chant

Adapted from the traditional children's song Going On a Picnic)

Going on a shape hunt, Leaving right away. If it doesn't rain, We'll stay all day. Adult: Do you see a circle? Children: Yes, we see a circle. Going on a shape hunt, Here we go.

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Going on a Flat Shape Hunt

Circle what you found:	Circle what you found:
square rectangle circle	square rectangle circle
triangle hexagon	triangle hexagon
<u>Draw the shape:</u>	<u>Draw the shape:</u>
My shape was a :	My shape was a :
was a	was a
Circle what you found:	Circle what you found:
Circle what you found: square rectangle circle	Circle what you found: square rectangle circle
•	
square rectangle circle	square rectangle circle
square rectangle circle triangle hexagon	square rectangle circle triangle hexagon
square rectangle circle triangle hexagon	square rectangle circle triangle hexagon
square rectangle circle triangle hexagon	square rectangle circle triangle hexagon
square rectangle circle triangle hexagon	square rectangle circle triangle hexagon
square rectangle circle triangle hexagon	square rectangle circle triangle hexagon

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Going on a Solid Shape Hunt

Circle what you found:	Circle what you found:
sphere cube cylinder cone	sphere cube cylinder cone
Circle the shape you found:	Circle the shape you found:
My shape was a :	My shape was a :
<u>Circle what you found:</u>	Circle what you found:
Circle what you found: sphere cube cylinder cone	Circle what you found: sphere cube cylinder cone
sphere cube cylinder cone	sphere cube cylinder cone
sphere cube cylinder cone	sphere cube cylinder cone