CULMINATING TASK: CHOICE BOARD

STANDARDS FOR MATHEMATICAL CONTENT

MCC3.G.1. Understand that shapes in different categories (e.g., rhombuses, rectangles, and others) may share attributes (e.g., having four sides), and that the shared attributes can define a larger category (e.g., quadrilaterals). Recognize rhombuses, rectangles, and squares as examples of quadrilaterals, and draw examples of quadrilaterals that do not belong to any of these subcategories.

MCC3.G.2. Partition shapes into parts with equal areas. Express the area of each part as a unit fraction of the whole. *For example, partition a shape into 4 parts with equal area, and describe the area of each part as 1/4 of the area of the shape.*

MCC3.MD. 3 Draw a scaled picture graph and a scaled bar graph to represent a data set with several categories. Solve one- and two-step "how many more" and "how many less" problems using information presented in scaled bar graphs. *For example, draw a bar graph in which each square in the bar graph might represent 5 pets.*

MCC3.MD.4 Generate measurement data by measuring lengths using rulers marked with halves and fourths of an inch. Show the data by making a line plot, where the horizontal scale is marked off in appropriate units— whole numbers, halves, or quarters.

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

Throughout this unit, students have reasoned with shapes and their attributes, including learning about quadrilaterals and partitioning all shapes into equal areas. Students have also had the chance to represent and interpret data through scaled picture and bar graphs. They should have also generated measurement data and displayed the data on a line plot. Since this is the performance task for the unit, students should be able to show what they know from this unit.

ESSENTIAL QUESTIONS

- What do know about a quadrilateral that you didn't know at the beginning of this unit?
- How can you show what you have learned about quadrilaterals and other shapes?
- How would you explain to a younger student about the different shapes and how some shapes can share attributes?

- Can all shapes be split into halves, thirds, fourths, sixths and eighths? Prove it.

MATERIALS

- Choice Board Activity Sheet
- Rubric

GROUPING

Individual/ Group/Partner

TASK DESCRIPTION, DEVELOPMENT, AND DISCUSSION

Students will be given the Choice Board Activity sheet and the Rubric for the Choice Board Activity. Read each of the activities with the students and discuss the rubric that students will be scored with. In order to show master of the standards that are presented in this unit, students should complete at least one activity with each letter. Activity A will show standard MCC3.G.1. Activity B will show standard MCC3.G.2. Activity C will show standards MCC3.MD.3 and MCC3.MD.4 Allow students several days (make a deadline within your class) to create, finalize, and present their activity from the Choice Board Activity Sheet. Assist students during the creation stage.

FORMATIVE ASSESSMENT QUESTIONS

- How will you show your classmates what you have learned through this unit?
- Is there something that still confuses you about shapes, data, or measurement?
- Would you rather work with a partner for this task? How will you make sure you both are represented through the final project?

DIFFERENTATION

Extension

- Students that need the extension may wish to do more than one or two of the activities. Students could be given time outside the classroom to work on additional activities.

Intervention

- Students may need assistance with many of the activities. Support these students by allowing them to work with a partner or providing additional support.

Geometry Choice Board

Student Directions: Show what you have learned from this unit. Pick one activity with an **A**, one activity with a **B**, and one activity with a **C** from the following activities to demonstrate to your classmates what you have learned.

A Pretend you are square. Write a letter to another quadrilateral (rectangle, rhombus, or parallelogram) telling her/him why you should be a part of his/her class. List specific likenesses/differences.	**A** Design a power point presentation on Quadrilaterals. Use at least five vocabulary terms in your power point that you have learned through this unit. Include the definitions and pictures.	**B** Make a poster that shows shapes partitioned into equal areas of half, thirds, fourths, sixths, and eighths. Remember to show a variety of shapes and show the same shape partitioned in several ways.
C Draw 5 shapes onto a piece of paper. Walk around your classroom or school for 10 minutes. Tally each shape that was seen. Create a bar graph or picture graph with this data. Remember to use a scale other than one to represent your data.	**A/B** Design a bulletin board idea for our classroom. Show examples of posters, worksheets, or projects from this unit that should be shown. Be sure to include examples for MCC3.G.1 and MCC3.G.2 Turn in an example mini sheet of what the bulletin board would look like.	**A** Find a website or game online that gives information about quadrilaterals. Give a small presentation explaining what you can learn about quadrilaterals from the website.
A/B Create a game for all of the shapes learned. Also include partitioning of the shapes in the game. Think of the cards needed, pieces and game board you want to use. Attach written instructions for how to play.	**C** Find 15 items around the room and measure them to the nearest inch or ½ inch. Make a table and create a line plot showing your data.	**C** Survey your class and another class about their favorite shape. Display the information using a bar graph and a picture graph. Remember to use a scale other than one to represent the data.

Rubric for Choice Board Activity

CATEGORY	**Outstanding**	**Good**	**Fair**	**Poor**
Content	Presentation content is engaging and interesting and appropriate for the intended audience.	Presentation content contains interesting information, but has limited appropriateness for the audience.	Presentation content has relevance, but is not appropriate for the audience.	Content is not relevant and does not focus on learning assessment.
Preparation	The presenter is well prepared with all necessary materials. Includes more than one activity for A, B, and C.	Most of the necessary materials are readily available. Includes at least one activity for A, B, and C.	Some of the necessary materials are unavailable or cannot be located. Includes only 2 activities.	The presenter displays a lack of preparation and lacks necessary materials. Only includes 1 activity for A, B or C.
Presentation	Presentation is engaging and easily understood and clearly stated for the audience.	Presentation is understood, but offers limited engagement of the audience.	Presentation has value, but is not engaging for the audience.	Presentation is not engaging and does not offer worthwhile information for the audience.
Relevance	Presentation demonstrates a clear connection to the student and his/her success in math.	Presentation is relevant, but no support is given for "why" the assessment is relevant to success in math.	Presentation has little relevance to the child's success in math.	Presentation is not relevant to the child's success in math.
Impact	This presentation will have a significant impact on my students' success in math.	This presentation will have a positive impact on my students' success in math.	This presentation will have a minor impact on my students' success in math.	This presentation will have no impact on my students' success in math.