Math Investigation Centers

2nd Grade ~ Units 8, 9, and 10
Length in Customary and Metric Units; Data

Math in the Real World

Teeth, Teeth, Teeth:
Who has lost the most teeth in your class? Collect and graph data to find out.

Math and Science

Chameleons Everywhere:
The zoo has just received many new chameleons for their new chameleon display. You will help them collect and record data about their chameleons.

Student Choice

Math and Measurement

Measurement Hunt:
Measuring can be lots of fun. Test your skill at measuring with inches and centimeters.

Math and Measurement

How Big is a Foot?
Feet come in all different sizes. Use your feet to have fun measuring.

Math Investigation Center

Teeth, Teeth, Teeth

Units of Study 8, 9, and 10

Core Correlation: 2.MD.10

DOK: 3; **Proficiency Level:** 4

Type of Activity: Math in the Real World

Materials: Teeth, Teeth, Teeth, Activity Sheet; Teeth, Teeth, Teeth Bar Graph Questions; crayons, pencil; Lemonade for Sale, by Stuart J. Murphy

Introduction: Who has lost the most teeth in your class? Collect and graph data to find out.

Instructions:

- Read or listen to the story, Lemonade for Sale, by Stuart J. Murphy https://www.youtube.com/watch?v=WJO25oslDPk&feature=youtu.be
- Ask 5 friends how many teeth they have lost.
- Use tally marks to record the data on the Teeth, Teeth, Teeth Activity Sheet.
- Create a bar graph to show the number of teeth each friend lost. Remember to write the name of each friend on your graph.
- Answer the following questions using data from your bar graph:
    - Which friend lost the greatest number of teeth?
    - Which friend lost the least number of teeth?
    - What is the difference between the least number of teeth lost and the greatest number of teeth lost? Explain how you figured it out.
    - How many teeth did your friends lose in all? Show your work.
    - Did any friends lose the same number of teeth? If so, who lost the same amount of teeth?
    - What question could you ask and answer using your bar graph?

Assessment:

Grade will be determined by

- Completion of Teeth, Teeth, Teeth Activity Sheet and Bar Graph Questions

Teeth, Teeth, Teeth

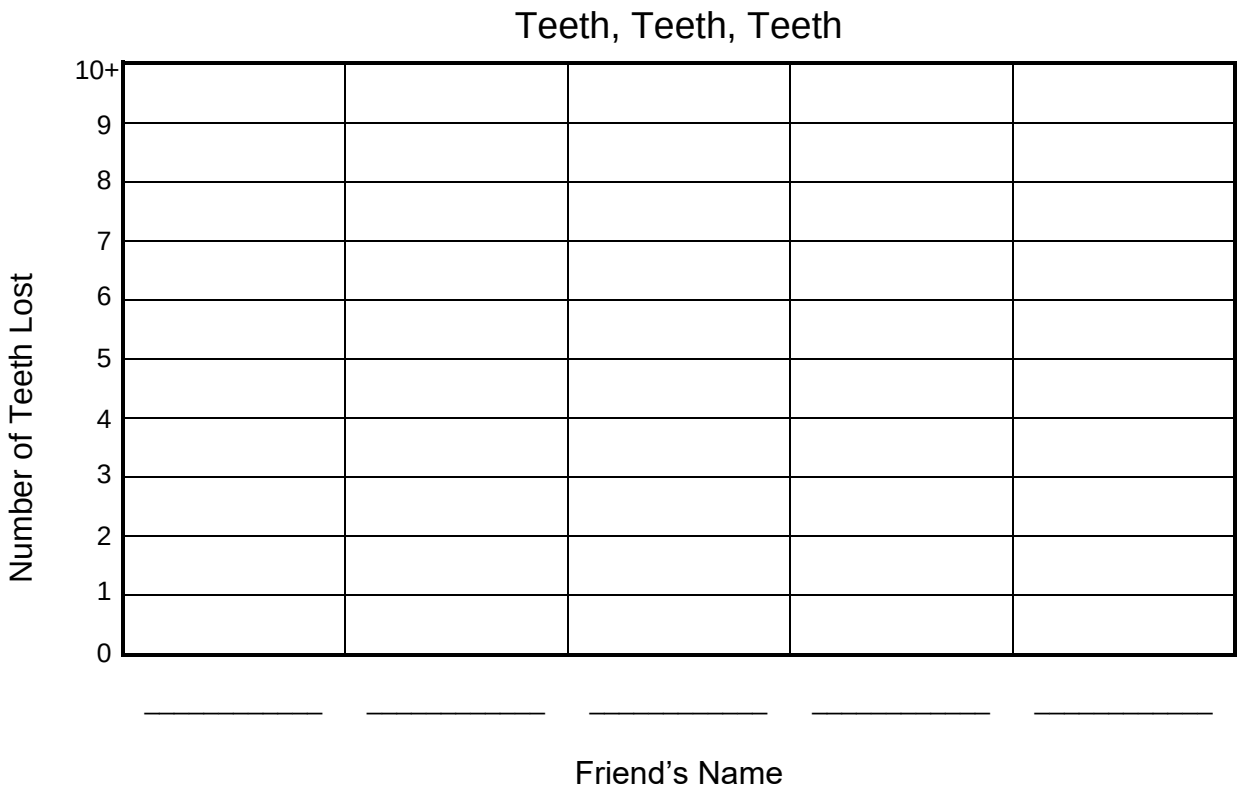
Activity Sheet

Name: _____

Ask 5 friends, how many teeth they have lost and record it in the table below.

Friend's Name	Number of Teeth Lost

Create a bar graph to show the number of teeth each friend lost.



Teeth, Teeth, Teeth

Bar Graph Questions

Name: _____

Answer the following questions using data from your bar graph:

1. Which friend lost the greatest number of teeth?

2. Which friend lost the least number of teeth?

3. What is the difference between the least number of teeth lost and the greatest number of teeth lost? Explain how you figured it out.

4. How many teeth did your friends lose in all? Show your work.

5. Did any friends lose the same number of teeth? If so, who lost the same amount of teeth?

6. What question could you ask and answer using your graph?

Math Investigation Center

How Big is a Foot?

Units of Study 8, 9, and 10

Core Correlation: 2.MD.1, 2, and 3

DOK: 3; **Proficiency Level:** 4

Type of Activity: Math and Measurement

Materials: How Big is a Foot Activity Sheet, How Big is a Foot by Rolf Myller, pencil, construction paper

Introduction: Feet come in all different sizes. Use your feet to have fun measuring.

Instructions:

- Read or listen to the story, How Big is a Foot, by Rolf Myller https://www.youtube.com/watch?v=bWhWL1MET7A
- After reading the story, find a partner and trace each other's foot on paper. Cut out each footprint and label them as Partner 1 and Partner 2.
- Use each foot to complete the How Big is a Foot Activity Sheet. Find the difference between each measurement.
    - How many feet wide is a desk?
    - How many feet tall is a desk?
    - How many feet tall is your teacher?
    - How many feet wide is your teacher's desk?
    - Find something in the room that is about five feet tall or long. What was the object?
    - Find something in the room this is about three feet tall or long. What was the object?
    - Is your foot bigger or smaller than your partner's foot? Explain how you know.
    - Estimate and measure each of the items using a 12-inch ruler.
    - How did the ruler measurements compare to your estimate and with you and your partner's measurements? Explain.

Assessment:

Grade will be determined by completion of the following:

- Completion of the How Big is a Foot Activity Sheet

How Big is a Foot?

Activity Sheet

Name: _____

Measure the following items using each footprint. Find the difference between each measurement.

Question	Partner 1 Foot	Partner 2 Foot	Difference
How many feet wide is a desk?			
How many feet tall is a desk?			
How many feet tall is your teacher?			
How many feet wide is your teacher's desk?			

Find something in the room that is about five feet tall or long. What was the object?

Find something in the room that is about three feet tall or long. What was the object?

Is your foot bigger or smaller than your partner's foot? Explain how you know.

Estimate and measure each of the items again using a 12-inch ruler.

Question	Estimate Measurement	Ruler Measurement
How many feet wide is a desk?		
How many feet tall is a desk?		
How many feet tall is your teacher?		
How many feet wide is your teacher's desk?		

How did the ruler measurements compare with you and your partner's measurements? Explain.

Math Investigation Center

Measurement Hunt

Units of Study 8, 9, and 10

Core Correlation: 2.MD.1, 2, and 3

DOK: 2; **Proficiency Level:** 4

Type of Activity: Math and Measurement

Materials: Yardstick, meter stick, 12-inch ruler, ribbon or string, pencil, Measurement Hunt Activity Sheet

Introduction: Measuring can be lots of fun. Test your skill at measuring with inches and centimeters.

Instructions:

- Read or listen to Inch by Inch by Leo Lionni https://www.youtube.com/watch?v=T_ShMUz9o7M
- Estimate and record the measurement of each body part on the Measurement Hunt Activity Sheet.
- Using string or ribbon find the actual measurement of each of body part on the Measurement Hunt Activity Sheet. You may need a partner to help you measure.
- Answer the following questions:
    - What is different about the inch measurements and centimeter measurements? Explain.
    - How close were your estimates to the actual measurements? Explain.

Assessment:

Grade will be determined by the following:

- Completion of the Measurement Hunt Activity Sheet

Measurement Hunt

Activity Sheet

Name: _____

Estimate then measure the following body parts.

Body Part	**Estimate** (inches)	**Actual Measurement** (inches)	**Estimate** (centimeters)	**Actual Measurement** (centimeters)
Thumb				
Index finger				
Arm				
Hand				
Foot				
Leg				
Body (length)				

What is different about the inch measurements and the centimeter measurements? Explain.

How close were estimates to the actual measurements? Explain.

Math Investigation Center

Chameleons Everywhere

Units of Study 8, 9, and 10

Core Correlation: 2.MD.1; 2.MD.9

DOK: 3; **Proficiency Level:** 4

Type of Activity: Math and Science

Materials: Centimeter ruler, Chameleons Everywhere Measurement Sheets, Chameleons Everywhere Activity Sheet, pencil

Introduction: The zoo has just received many new chameleons for their new chameleon display. You will help them collect and record data about their chameleons.

Instructions:

- Watch the following video https://www.youtube.com/watch?v=BhroWoqbe9A
- Use a centimeter ruler to measure each chameleon to the nearest whole centimeter on the *Chameleons Everywhere Measurement Sheets.*
- Record the length of each chameleon on the *Chameleons Everywhere Activity Sheet*.
- Use the data to create a line plot that displays the chameleon population at the zoo.
- Label all parts of the line plot and answer the following questions:
    - What is the length of the longest chameleon?
    - What is the length of the shortest chameleon?
    - What is the difference between the longest and shortest chameleon? Explain how you figured it out.
    - Were any chameleons the same length?
    - Which measurement appears the most often?
    - What question could you ask and answer using your line plot?

Assessment:

Grade will be determined by the following:

- Completion of *Chameleons Everywhere Activity Sheet*

Adapted from Georgia Standards of Excellence Framework; Grade 2; Unit 3; pages 93-98.

Chameleons Everywhere

Activity Sheet

Name: _____

The zoo has many new chameleons. Please help collect some data on their chameleon population. Measure the chameleons to the nearest whole centimeter.

Chameleon 1 _____ cm	Chameleon 6 _____ cm	Chameleon 11 _____ cm
Chameleon 2 _____ cm	Chameleon 7 _____ cm	Chameleon 12 _____ cm
Chameleon 3 _____ cm	Chameleon 8 _____ cm	Chameleon 13 _____ cm
Chameleon 4 _____ cm	Chameleon 9 _____ cm	Chameleon 14 _____ cm
Chameleon 5 _____ cm	Chameleon 10 _____ cm	Chameleon 15 _____ cm

Create a line plot to display the data.

Answer each question.

1. What is the length of the longest chameleon? _____
2. What is the length of the shortest chameleon? _____
3. What is the difference between the longest and shortest chameleon? _____
   Explain how you figured it out.
4. Were any chameleons the same length? _____
5. Which measurement appears the most often? _____
6. What question could you ask and answer using your line plot?

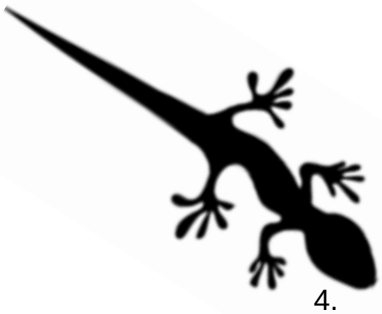
Chameleons Everywhere

Measurement Sheet (page 1)

1.

2.

3.



4.

5.

6.

7.

8.

Chameleons Everywhere

Measurement Sheet (page 2)

9.

10.

11.

12.

13.

14.

15.