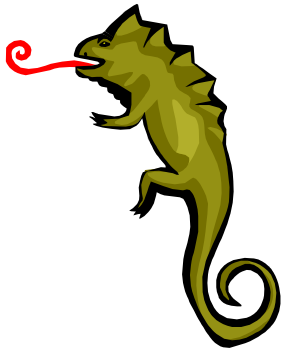

Performance Task: Lizards, Lizards, Everywhere!

STANDARDS FOR MATHEMATICAL CONTENT

MCC.2.MD.1. Measure the length of an object by selecting and using appropriate tools such as rulers, yardsticks, meter sticks, and measuring tapes.

MCC.2.MD.9 Generate measurement data by measuring lengths of several objects to the nearest whole unit, or by making repeated measurements of the same object. Show the measurements by making a line plot, where the horizontal scale is marked off in whole-number units.

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.

*****Mathematical Practices 1 and 6 should be evident in EVERY lesson. *****

BACKGROUND KNOWLEDGE

(Information quoted from Van de Walle and Lovin, Teaching Student-Centered Mathematics: Grades K-3, pages 323, 325)

"Line graphs and line plots do show trends or tendencies that cannot be shown in bar graphs, and students should be encouraged to use them when appropriate."

"When data are depicted on a number line, such as in a line plot or histogram, the idea of data that are spread out or grouped together takes on a numeric meaning as well. For example, in a measure of the heights of boys and girls in inches, we might notice that girls' heights are spread over a wider range than the boys'. The boys' heights may cluster around a particular height."

ESSENTIAL QUESTIONS

- Why is it important to be able to organize and graph data?
- How do you know what type of graph to use?
- Why is it important for us to know how to measure different objects using different tools of measurement?

MATERIALS

- Lizards Recording Sheet
- Centimeter Ruler
- Paper

GROUPING

Individual

TASK DESCRIPTION, DEVELOPMENT AND DISCUSSION

This is a culminating task for the standards in the unit of measuring and using a line plot graph. The students will be given a recording sheet that has graphics of lizards on it. Using a centimeter ruler the students will measure each lizard in centimeters. After measuring each lizard in centimeters, the students will then use that data to create a line plot graph that displays the lizard population at the zoo.

Students will be required to create the line plot graph, labeling all parts of the graph and also add sentences about the graph they created.

FORMATIVE ASSESSMENT QUESTIONS

- Can you show me how you measured this (teacher points) lizard with your ruler?
- Explain to me how to use a ruler.
- How do you build a line plot graph?
- Where do the numbers on the number line of a line plot graph come from?
- What do you notice about your line plot graph?
- What do you think might challenge others when creating a line plot graph?

Name: _____

Performance Task: Lizards, Lizards, Everywhere!

The zoo has many new lizards. Please help collect some data on their lizard population.

Measure the lizards to the nearest whole centimeter. Create a line plot to display the data. Write sentences about what you notice about your line plot.