

Frog Graph



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LESSON OVERVIEW

Subject(s):	Mathematics
Topic or Unit of Study:	This lesson is part of a unit on graphing.
Grade/Level:	4
Objective:	Students will graph 139 points on graph paper.
Summary:	Students will plot predetermined points on graph paper. Upon graphing each point, students will connect the point to the next point to create a picture. Lastly, the students will color in their picture.

IMPLEMENTATION

Learning Context:	This activity fits into the general context of what is being taught because it applies the concepts of x-axis and the y-axis and their relationship in graphing information.
Teaching Strategies:	Teaching strategies used to deliver this lesson include monitoring student progress and one-on-one correspondence with individual students.
Time Allotment:	1 class period. 45 Min. per class.
Sample Student Products:	Attachments <ol style="list-style-type: none"><u>Completed Frog Graph (non-colored)</u>

Author's Comments & Reflections:

PROCEDURE

Anticipatory Set:	The teacher will introduce this lesson by reading aloud the book "Tiger Math: Learning to Graph from a Baby Tiger" by Ann Whitehead Nagda and Cindy Bickel. Following this read aloud, there will be a short grand discussion in regards to the essence of graphing.
Modeling:	The teacher will model the activity to the students by plotting the first two points on the overhead transparency.
Guided Practice:	The teacher shall lead the students through the activity by having several students come up to the front of the class (one at a time) and plot the next point on the overhead transparency. Students will have time to agree and/or disagree with their classmate's plot.
Independent Practice:	Students will independently plot and connect the remaining points listed. Additionally, they will color in the picture produced by the connected points.
Closure:	The teacher will conduct a whole group conclusion by asking students to share their colored graphic with the class.
Follow-Up:	Students shall reinforce their skills and connect to new skills by applying what they learn in this lesson to graphing with negative numbers.

MATERIALS AND RESOURCES

Instructional Materials: Attachments

1. **Points to Graph** These are the points to graph in order to make a frog graphic.
2. **Blank Graph Paper**

Resources:

- Materials and resources:
graph paper; handout of points; pencils; crayons; transparency paper; overhead projector

STANDARDS & ASSESSMENT

Standards:

CA- California K-12 Academic Content Standards

- **Subject** : Mathematics
 - **Grade** : Grade Four
By the end of grade four, students understand large numbers and addition, subtraction, multiplication, and division of whole numbers. They describe and compare simple fractions and decimals. They understand the properties of, and the relationships between, plane geometric figures. They collect, represent, and analyze data to answer questions.
 - **Area** : Statistics, Data Analysis, and Probability
 - **Sub-Strand 1.0**: Students organize, represent, and interpret numerical and categorical data and clearly communicate their findings:
 - **Standard 1.1**: Formulate survey questions; systematically collect and represent data on a number line; and coordinate graphs, tables, and charts.

Assessment Plan: Student performance will be assessed by their ability to complete the graphic on their graph paper.

Assessment/Rubrics: Students will be scored using the following system:

PLUS=graphed and connected points, and colored in picture

CHECK=graphed and connected points, but did not color in picture

MINUS=did not graph all points, did not connect any points, and did not color in the picture