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Lesson Plans

CMST Institute

8-8-2006

Slope Slider

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The College at Brockport

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Seitz, Carrie, "Slope Slider" (2006). *Lesson Plans*. 12.

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Generic Lesson Plan Template

You should submit this form in addition to any computer generated files/documents/models to your group folder on Angel. Please create a .zip file and upload the group of files as a single archive.

Name: Carrie Seitz
Grade level(s)/Subject taught: 7 th Math
Objectives: Students will be able to <ul style="list-style-type: none">• Identify the slope and y-intercept in an equation in the form $y=mx +b$• Describe the difference between lines by looking at the slope and y-intercept

Please provide a rich **one-page, single-spaced**, description or a *vision* of your best thinking on a way or ways you might teach the planned lesson. (approximately $\frac{1}{2}$ page for the teacher role, $\frac{1}{2}$ page for the student role). Also, construct a tentative rubric that you might use with your students (see example)

Items to include in your lesson plan: (Choose your discipline/concepts from your own area).

1. Write the Mathematical Concept or "key idea" that modeling will be used to teach: (e.g. Students use mathematical modeling/ multiple representation to provide a means of presenting, interpreting, communicating, and connecting mathematical information and relationships)

Algebra Standard <ul style="list-style-type: none">○ understand patterns, relations, and functions○ represent and analyze mathematical situations and structures using algebraic symbols

Materials:

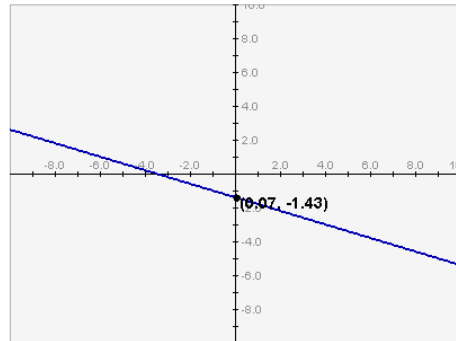
- Access Project Interactivates "Slope Slider"
- Worksheet for slope slider

- Poster paper and markers

Name _____ Date _____

Slope Slider Activity

Directions: Use the purple and green sliders
To adjust the line. The equation for the line
Will adjust while you move it!



— [purple slider] —
 $y = (-0.4)x + (-1.4)$
— [green slider] —

Find four lines that are "going up"

$Y = \underline{\hspace{1cm}} * X + \underline{\hspace{1cm}}$

$Y = \underline{\hspace{1cm}} * X + \underline{\hspace{1cm}}$

$Y = \underline{\hspace{1cm}} * X + \underline{\hspace{1cm}}$

$Y = \underline{\hspace{1cm}} * X + \underline{\hspace{1cm}}$

Find four lines that are "going down"

$Y = \underline{\hspace{1cm}} * X + \underline{\hspace{1cm}}$

$Y = \underline{\hspace{1cm}} * X + \underline{\hspace{1cm}}$

$Y = \underline{\hspace{1cm}} * X + \underline{\hspace{1cm}}$

$Y = \underline{\hspace{1cm}} * X + \underline{\hspace{1cm}}$

How do the equations look similar for

Going

up? _____

Going down? _____

Find two equations that cross the y-axis *above* zero.

$$Y = \underline{\quad} * X + \underline{\quad}$$

$$Y = \underline{\quad} * X + \underline{\quad}$$

Find two equations that cross the y-axis *below* zero.

$$Y = \underline{\quad} * X + \underline{\quad}$$

$$Y = \underline{\quad} * X + \underline{\quad}$$

Find two equations that cross the y-axis *AT* zero.

$$Y = \underline{\quad} * X + \underline{\quad}$$

$$Y = \underline{\quad} * X + \underline{\quad}$$

Can you find a rule for where the line crosses the y-axis ?

Slope Slider - Mozilla Firefox

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file:///C:/Documents%20and%20Settings/cmst2006/Desktop/ProjectInteractivate/Project%20Interactivate%20Pr

Customize Links Free Hotmail Windows Marketplace Windows Media Windows

Slope Slider

what? how? why?

$y = (0.0)x + (0.0)$

Applet flydata/FlyData started

start Lesson Plan #1 Carri... Project Interactivate ... Slope Slider - Mozilla ... 100% 12:10 PM