

Subject: Mathematics

Grade: 7th

IDEAS Technology: This lesson//unit will incorporate using the Wall, Wii technology, data sets, and laptops.

Development team:

1. Target skill, concept, or understanding:

Data Analysis

1 Students use graphs and charts to represent, organize, interpret, and draw inferences from data.

- a. Create tables, pictograms, bar graphs, line graphs, pie charts, stem and leaf plots, box and whiskers plots, and histograms using pencil and paper and electronic technologies.
- b. Draw conclusions based on graphs and charts including tables, pictograms, bar graphs, line graphs, pie charts, stem and leaf plots, box and whiskers plots, and histograms.

2. Related learning standard:

B. DATA: Students make measurements and collect, display, evaluate, analyze, and compute with data to describe or model phenomena and to make decisions based on data. Students compute statistics to summarize data sets and use concepts of probability to make predictions and describe the uncertainty inherent in data collection and measurement

3. Outcomes: (what will students produce or do that indicates they have gained the target understanding/skill?)

Students will construct a possible solution to a posed question or theory which will then be supported (or maybe not!) with data they find. The students will need to select a type of graph which best displays their data and their

findings. Other students will be able to "tell the story" behind the data.

4. Instructional plan:

After students have learned about the types of graphs and how to create them using various types of data, we will view the graphs/questions Molly has shared. This will be done using the projector and Wii technology. Discussion of these and how they are used to tell a story will take up most of the period. That night, students should brainstorm possible questions/theories/opinions to share with the class.

The next class, we will use the Wall to have them share their ideas. Students will select which one they may be interested in after viewing the Wall. As the teacher, I will need to be sure the ideas left to select from are "doable," meaning there is data available. Since with brainstorming...everything is put down, the teacher will need to tactfully discuss if/why a particular theory may not be feasible.

The project will continue with ultimate end of producing a graph and a reflection of the process. A rubric will be provided prior to beginning the actual project. The students will see how a sample rubric of the samples they were shown in class to be sure they feel comfortable with the expectations.

Final presentations will be shared to the class and collected into one digital file to be shared during PTC or an Open House...depending on time!

DATA SET RESOURCES:

<http://exploringdata.cqu.edu.au/datasets.htm>

<http://www.mste.uiuc.edu/hill/dstat/dstatintro.html>

<http://lib.stat.cmu.edu/DASL/>

<http://exploringdata.cqu.edu.au/>

<http://www.erh.noaa.gov/car/climate/carrec.htm>

