Objective: Using glyphs to represent, organize, and analyze data. Using glyphs to figure mean, median, mode, and range.

PASS Skills:

6th grade: Standard 5- Data Analysis and Statistics
1. Collect
2. Construct
3. Mean, Median, Mode

5th grade: Standard 5- Data Analysis and Statistics
a. Analyze Data
b. Formulate Questions
c. Range and Mean

- Two days early: Have kids take home chart to keep track of their time and a parent’s time watching T.V., listening to music, and talking or texting on the phone.

Material needed:
Camera
SmartBoard
Instructions on figuring mean, median, mode, and range
Mean, Median, Mode, and Range wksts.
Table/chart wkst.
Pre/Posttest
White Paper
Colored Pencils or Crayons
Scissors
Glue
Instruction: Day 1

1. Anticipatory Set: In your math journal write down a definition and a synonym for average. Draw a picture to go along with the definition. Let students share their definitions of average. You already know the definition of average, but what about mean, median, mode, and range. Over the next couple of days you will become masters at figuring mean, median, mode and range.

2. Instructional Process: Have students complete pretest. Use Smart Board presentation to present instruction on mean, median, mode, and range (Visual and Auditory). Going further with journal. Have students take notes in their math journal from presentation. (Visual and Tactile)

3. Guided Practice: Partner up and complete mean, median, mode, and range wkst. (modification: working in partners)

Instruction: Day 2  Yakkaty Yak

1. Anticipatory Set: How many of you like watching T.V., listening to music, or talking on the phone? Today we are going to find out just how much you like doing those things. You are going to be analytical scientists and use the data you’ve collected to construct a glyph graph. You will put into practice what you learned yesterday about figuring mean, median, mode, and range. You will also learn what a glyph graph is and how they are used to analyze data.

2. Instructional Process: Show an example of a glyph graph (see below) Explain how they work and what they can be used for. Show them an example of a glyph graph they will be constructing (see bottom of lesson plan). Have them get out their data they were collecting at home. Pass out keys to glyph (prepare ahead of time). Explain what each symbol stands for. Here I used a digital camera to take pictures of the kid’s eyes (watching T.V), ears (listening to music), and mouths (talking on the phone). You will need 4 of each. You can use the SmartBoard to easily complete this step. I then used those things as the symbols in the key for the glyphs. See
the bottom of the page for the amount of time given for each symbol. Have the students construct a glyph graph of their own data (tactile). They may draw a blank face and then attach the symbols. We then colored and decorated our glyphs. This part is really open for interpretation. You may do it however you want. Next gather all data for each age group and display on the SmartBoard. Have students copy data onto their own table.

3. Guided Practice: Have students figure the mean, median, mode, and range of the data. Discuss and analyze data for similarities and differences. Break it down if this is too much to do. Maybe only do one group instead of both or divide the class into groups and assign each one adults or kids.

4. Closure: Review concepts for pretest the following day

Assessment: Pretest, Posttest, Journaling, Guided Practice

Modification:

Partner Work
Oral Questioning
Reduced Assignments

Reflection:

When I was constructing this lesson my plan was to come up with something that would include the parents. I know that some of my students just made up their parent’s data, so that was frustrating. Also, we did this during the week. It may have been better to have them keep track over the weekend. We may have seen more of a difference between the parents and kids watching T.V. It was very interesting to find out that both groups watched nearly the same amount of T.V., probably because they use that as family time. The times that I had originally for each of the symbols to stand for were way off. Especially the time for talking on the phone. You may want to look at the data collected first and then assign times for the symbols. The lesson as a whole went very well. The kids got a kick out of seeing their faces cropped and I used class names on the worksheets and they always like seeing their name in print. The pre/posttest was very
useful. The kids enjoyed seeing how they had improved. It gave them a sense of accomplishment. I will continue to use the journal. Drawing a picture to go with the concept has helped my students that need to use association in order to learn.

Eyes: 30 min. or less, 31-60 min., 61-120 min., and 121 min. or more
Ears: 0 min., 1-10 min., 11-20 min., and 21 min. or more
Mouth: 0 min., 1-5 min., 6-10 min., or 11 min. or more