A. **State Competency** – Data Analysis and Probability: The student will demonstrate an understanding of data collection, display and interpretation.

B. **Objectives for this lesson** – The student will be able to pose questions, collect, record and interpret data to help answer questions; read graphs and charts; construct a bar graph or pictograph with labels and a title from a set of data.

C. **Materials and Resources** – Harcourt Math Textbook (Maletsky, 2004, pp. 302-305, 322-327); Harcourt Math Workbook (2004, pp. 77-78; 83-85); Harcourt Math Teacher Resource Book (2004, pp. 59, 60, 63); Internet sites: [www.internet4classrooms.com](http://www.internet4classrooms.com), click on grade level help, click on 3rd grade skill builders math activities, click on data analysis (charts and graphs). I used #1, 5, and 7. [www.beaconlearningcenter.com](http://www.beaconlearningcenter.com) click on student resources, student web lessons. I used How it all stacks up, and I am special.

D. **Instruction**

   a. **Introduction** – I will use a pre-test to determine what prior knowledge the students already have about reading and understanding graphs and graphing vocabulary.

   b. **Instructional process** – I will use paper/pencil activities after teaching the lessons in math textbook, internet activities presented on the smartboard to help students read and understand graphs, and hands-on activities to allow the students to collect data and construct a bar graph and a pictograph. I will monitor the students
learning by taking grades on the pencil/paper lessons, asking questions during internet presentations, and grading some the hands-on learning centers. I will be using a tactile center in which each student will be collecting data and making a bar and pictograph, a tactile center in which the students will work in groups to collect data and make a bar graph, a visual and listening center which will be online.

c. **Closure** – This lesson will be brought to a close by reviewing all concepts, vocabulary, and steps used in learning about and constructing graphs.

E. **Assessment** - Hands-on project and a post-test

F. **Modifications/Accomodations** – I have one student with specific learning disabilities. The student is 2 grade levels behind in reading and math. She is pulled out for math but will stay in the classroom to do this unit with us as there is many hands on activities that she will be able to participate in with her peers. I will use one-on-one instruction, peer assistance during learning centers, and modified assessment on the pre and post-test.

G. **Reflection** – My students were very stressed and frustrated with the pre-test. They were disappointed when I wouldn’t explain what the vocabulary meant or give them verbal directions on reading the graphs on the test. I believe the paper/pencil pre-test caused undue stress and frustration on my 3rd grade students and from now on I would choose to assess their prior knowledge by question and answer and KWL chart rather than the pencil/paper test that I developed. When I teach this unit again, I would use a game such as Boomerang to practice the vocabulary associated with the unit. I allowed 8 class periods for this unit, but would extend that time next time to allow them more time to gain better understanding of vocabulary and practice more collection of data and construction of graphs.
I will continue to have them practicing these skills throughout the year across the curriculum when appropriate.
Bibliography


Internet sites:

www.beaconlearningcenter.com

www.internet4classrooms.com
Goldfish Graphing

Visual and tactile center

Each student will complete this center at the end of our graphing unit.

The students will each get a bag of 50 multi-colored goldfish crackers. They will complete a tally and frequency table, pictograph, and bar graph using the crackers as their data.

This center will also be used as an assessment tool to check for student’s understanding of graphing techniques taught during the unit.
Tactile and visual

The students will be placed in peer learning groups to collect and record data about Wildcat Pride Day.

Each group of students will be assigned a grade level to collect data on using a tally and frequency table and then report that data on a bar graph constructed by the group.

The question that the students will collect data on is, “What was your favorite dress up day during Wildcat Pride Week?”
Computer Center

Visual, listening, tactile

The student will use the following websites during their computer lab time:

**www.beaconlearningcenter.com**
1. Click on student resources
2. Click on student web lessons
3. Click on How it all stacks up
4. The students were instructed to listen as I read each page and then they responded by clicking mouse as necessary.

**www.internet4classrooms.com**
1. Click on grade level help.
2. Click on 3rd grade skill builders math activities.
3. Click on data analysis (charts and graphs).
4. I led the kids through a tutorial of skill numbers 1, 5, and 7.
5. They then played the games on their own.