

Student Teacher:____ Alexa Jones _____ **Date:**__ October 28, 2010 _____
Grade Level:__3rd_____ **Subject:**____Mathematics _____

PRELIMINARY PLANNING

PA Standards:

- 2.3.3. B- Identify a measurable characteristic of an object, select an appropriate standard or non-standard unit of measure and tool, and determine the measurement to a specified level of accuracy.

Pre-assessment:

- Have students review the previous day's lesson, which would be measuring using nonstandard units.
- Ask questions of the students
- Read the book *Inch by Inch* to the class

Objectives:

- Students will be able to use a ruler to measure 15 objects to the nearest inch with about 85% accuracy.

Individual Modifications:

- For students with attention difficulties, I will be using manipulatives to keep them focused on the lesson as well as kinesthetic activities by getting them up and moving from station to station.

Materials:

- About 10 paper clips in little baggies (5 baggies)
- Rulers with just the inch and half inch markings highlighted (12 or 13)
- Book *Inch by Inch*
- School supply station:
 - Highlighter
 - Notebook
 - Crayon
- Fall station
 - 2 Leaves
 - Pumpkin
- Food Station
 - Candy bar
 - Trisket box
 - Rice Krispie Treat
- Book Station
 - *The Flag We Love*
 - *Berenstein Bears*
 - Textbook
- Electronics
 - CD case
 - iPod case
 - Battery charger
- Bag of assorted candy

- Place cards for stations as well as instructions for each.

LEARNING SEQUENCE

Description _____ Time: 5- 6 minutes
INTO

- Remind students what we did in class yesterday.
 - Using paper clips to measure objects
- Review using nonstandard units (in this case paper clips) to measure objects.
 - Have students use the bags of paper clips placed on each desk to measure various objects such as: *
 - The width of their hand *
 - Their pencil/pen *
 - Eraser *
 - Have students compare answers out loud with the class.
- When finished with this, explain to the students that they will be learning the actual measures of objects with rulers.
 - One paperclip is about the length of an inch
- Have students go to reading corner. *
- Read the book *Inch by Inch* to the class. *
 - Read slowly to the class
 - Enunciate and pronounce words
 - Use inflection in my voice
- Have the students return to their desks. *

Description _____ Time: 25-30 minutes
THROUGH

- Make a PowerPoint for the class to view.
- Show the students a ruler on the screen. *
 - Tell students how the longest lines are the lines that measure the actual inches.
 - The next longest lines represent half an inch.
- Explain how you round to the nearest inch.
 - There are two long lines at the end of the inch to indicate the starting point and the ending point. There's a medium-sized line in the middle and two small lines in the quarter spots.
 - Review rules of rounding
 - If the object ends after the middle (medium-sized) line, then round the measure up to the next inch.
 - If the object ends before the medium sized line, then round the measure down an inch.

- Ask students to try rounding by giving them practice numbers such as 3.6, 7.2, and 5.4.
- Explain that not all rulers start right at the edge of the ruler.
- Some might start an eighth of an inch in at the first slash on the ruler.
- Give different picture examples such as:
 - Paintbrush- How many inches is this paintbrush? Etc. 4in
 - Shoe- 7 in
 - Marker – 3in
- Call on students to answer the measurements for each picture
 - Pick a new student each time - no repeats!
- After reviewing questions, pose a new question to students about why Carly measured the pencil wrong.
- Set up themed stations at each table.
 - There should be about five stations
 - Different themes:
 - School supplies
 - Fall
 - Food
 - Books
 - Electronics
- Give all instructions before breaking into groups and check for understanding
- Ask students to give an estimated measure before actually measuring objects. *
- Pair students in groups of two (or three depending on the class size).
- Have students start at the stations that are at their direct tables *
- Give students about 3 minutes at each station to measure each of the items. *
- After each three minutes have the students rotate clockwise to the next station. *
- Students should record all the measurements on their worksheet that I will print out for them.
- As students are working, walk around the room
 - Stop and check that students are on the right track and know what they are doing.
 - Ask questions. Why did you do that? How did you get that answer?
- When they are finished have the students go back to their seats. *
- Review the answers to their worksheets.
 - See master handout for the answers.

Decription_____Time: 3-5 minutes
BEYOND

- Have students get out their math journals. *
- Walk around and hand out candy to students. *
 - Let students choose their own pieces of candy.

- Prompt the students to write in their journals the measurement of their piece of candy.
- Tell students to explain what they did to find the answer as well as how they know it is the right answer.
- Give students about 3-5 minutes to complete this task. *
- Have students clean up their desks and get ready for gym class. *

POST INSTRUCTIONAL PLANNING

1. What levels of thinking (Bloom) did your lesson incorporate?
 - I used knowledge by asking the children to give me the answers to questions such as ‘what does 7.2 round to?’. I also used comprehension because I had the students explain to me how they got the answers they did. I also used the application level because I asked the students how rounding is related to measuring to the nearest inch.
2. How did you evaluate your student’s performance?
 - Checking for Understanding:
 - i. I make sure that I ask the students multiple questions during all points of the lesson to be sure that they understand what we are currently doing. For example, I asked them to answer some sample rounding problems as well as sample measuring problems.
 - Guided Practice:
 - i. I showed the students what they would have to do when they begin their stations. After I give them the directions, I will have some of my students repeat the directions back to me to be sure that they know what they are doing.
 - Independent Practice:
 - i. I had them practice at five different stations. Each station had a different theme and the children got 15 chances to practice measuring various objects. I walked around the room watching the children and checking their work. I also had them explain their answers to me. When they were finished, I reviewed the answers to the worksheet.
3. In what ways have you included safeguards that all children will learn including second language learners and special needs students?
 - I tried to hold the attention of the students by allowing the students to physically use hands-on methods with manipulatives. I also allowed them to get up and move around the room from station to station. This

helps the students to focus on one object for a short time and then switch and focus on another object.

4. Total Participation Techniques: How did you make sure all students were engaged in your lesson? (*)
5. Describe the instructional modes that you used in each of your activities.
 - I used a visual instructional mode because the students had to watch and look at me when I go over the PowerPoint presentation. I also make use of the auditory mode of instruction because I had the students listen to me when I am teaching the lesson; for example they have to listen to me talk about and explain the PowerPoint and the activity. Lastly I used a tactile method because there were hands-on portions of the lesson. The children had to physically measure manipulatives that I had ready for them.
6. Describe the changes you would make if you taught this lesson again.

Lesson taken from:

Houghton Mifflin Math, Grade 3, Volume 2, pgs. 354-357