

**Academic Standards:** Science and Technology: 3.1.4 Grade 4 D. Know that scale is an important attribute of natural and human made objects, events and phenomena.

- Identify the use of scale as it relates to the measurement of distance, volume and mass.

**Objectives:** After listening to the lesson on measurement, the students will be able to use a scale and tape measurer to find the dimensions of a pumpkin.

**Cross-Curricular Integration:** Math, writing

**Materials:** Pumpkin, scale, tape measurer, knife, scoop

**New vocabulary:** circumference, weight, height, measure

**Instructional Procedures:**

Anticipatory set: Read Inch by Inch by Leo Lionni. Ask students how he measures and why he would be able to measure. Ask them to name some things that you can measure and what you would use to measure that object.

Developmental activity:

- Explain units that are used for measuring different objects.
- Define circumference as measuring around a circular object, weight as how heavy an object is, and height as how tall an object is from bottom to top.
- Say that inch, foot, and yard are used for measuring circumference, height, and distance. Pounds and ounces are used for weight.
- Give each team a pumpkin. Assign the students in the group a specific job. Ones will be the recorder, twos will get the materials, threes will measure the pumpkins circumference and height, fours will weigh the pumpkin, and fives will weigh the insides. All group members will help count the pumpkin.
- The groups will record their answers on the answer sheet and be sure to include units with their answers.

Closure: Ask students the different ways to measure an object. Ask them to name the correct units that go along with the measurement.

**Assessment:** Collect their papers they filled out with their measurement of the pumpkin.

**Extension/Enrichment:** A pumpkin glyph that has students fill it out according to measuring and their ideas on measurement.

**Special Needs Adaptation:** Enlarge the print for visually impaired. Talk louder and closer to hearing impaired.

### **Technology Integration:**

1. No computer- Show students the movie Predicting the Future: Measuring your World
2. One teacher computer- The students will record on paper all their measurements of the pumpkins. One person from each group will come to the teacher computer to put the information into a graph. The graph will be shown on the projection screen for the class to compare the different pumpkins and measurements.
3. Teacher station with 6 computers- During center time, the students that will be at the computers will go to <http://www.funbrain.com/measure/index.html> and play the measurement game individually. The website is divided into metric and English and also by difficulty.
4. Lab once a week- During lab time the students will research different kinds of measurement on the following website:  
[http://www.coe.uh.edu/archive/science/science\\_lessons/scienceles3/measure/](http://www.coe.uh.edu/archive/science/science_lessons/scienceles3/measure/) They will compile their findings into a PowerPoint presentation with examples of what measurement is used for.
5. Every student has a computer- The students will put the data from measuring the pumpkin into the computer and create a graph on the measurements. The students will use instant messenger to send each other their measurements. The students will create another graph including everyone's measurement. In word processor the students will write their findings in a paper form including how size effected the measurement.