

Measure–Mania

1. Many of our measurements are based on methods people used before they had measuring devices like yardsticks and rulers. Horses were measured according to how many hands high they were. A yard of fabric was the length of the merchant's outstretched arm, from his or her nose to the tip of his or her thumb. A foot was the length of an average person's foot. Have student's research to find the origins of some of our more common measurements.
2. Bring a bathroom scale to class, and have students weigh themselves. Then have students figure out how many of them it would take to equal the weight of a 763- pound steer. How much would each student be worth at a current market price of 87 cents a pound?
3. Discuss the difference between weight and volume. Have students discuss whether it is more economical to buy produce by the pound, by the piece or according to volume. Why would it be more convenient to measure field crops like wheat by the bushel instead of by the pound? Why is produce usually sold by volume or by the piece in farmer's markets but by the pound in grocery stores?
4. Bring in an assortment of measuring tools—measuring cups, canning jars, a bushel basket. Ask students to determine why some tools are better for measuring liquid than solids. Allow students to use the tools for measuring sand and water. What can students find in the classroom that could be measured by the bushel?
5. Discuss the different businesses that depend on scales. (Doctors weigh their patients to know how much medicine to prescribe. Greenhouses measure garden seeds. Pharmacists measure liquids and powders to create some types of medicines.) List other businesses and determine whether they sell their products by weight or volume.
6. Have students visit a grocery store and find five products sold by the pound, five sold by the piece and five sold according to volume.
7. Bring a treat to class. Have students measure or weigh it before eating.
8. Divide students into pairs. Have student hold his or her arms and hands straight out to the sides while the other one cuts a piece of string that stretches from the fingertips of the first student's right hand to the fingertips of his or her left hand. Then have the second student put the end of the string on the floor and see if the other end reaches the top of the first student's head. Have the students switch places and repeat the experiment. Discuss the results.
9. Have students compare the weights of different combinations of fruits or vegetables, using a balance scale. For example, how many grapes does it take to equal the weight of a peach? Do raisins and grapes weigh the same? Have students invent their own combinations, depending on the available produce and other materials.
10. Bring a bathroom scale to class, and have students weigh themselves. Have each student write his/her weight on a piece of paper and drop it in a box. Write all the weights on the chalkboard, and have students figure the average. Then have students figure out how much an average student would be worth in comparison with the per pound cost of some of the produce items in the grocery ads.
11. Bring a pound of butter to class. Have students weight the butter. Then melt the butter, and have students measure it again. (Make sure they measure the receptacle holding the melted butter and deduct that weight from the actual butter.)