

Name _____ Class _____ Date _____ 2021

Laboratory Techniques

Activity 03-13 2021

Determining the Accuracy of a Beaker



Safety First !

Check glassware for chips or cracks. Cracked or chipped glassware should be disposed of properly.

Instructions: Design a way to provide both quantitative and qualitative evidence to support the claim, “the markings on beakers are not accurate”.

Materials:

four different sized beakers (50 mL, 150 mL, 100 mL, 250 mL)
one graduated cylinder (100 mL, 50 mL, or 25 mL - glass)
tap water



Data and Analysis:

Provide a table of quantitative data and paragraphs for the qualitative data. You will need data for each beaker size.

Conclusion (Claim and Evidence):

Prepare conclusion paragraphs including both your claim and supporting evidence.

Questions: (Include these answers after your conclusion paragraph. Write the answers in complete sentences in one paragraph.)

- 1) Are the markings the same on each size of beaker?
- 2) Are the markings exact on each size of beaker? How close are they? Are some beaker sizes more accurate than others? Why might that be?
- 3) What is the most accurate tool for measuring volume of liquid? Why?



Constructing Explanations