

## Laboratory Skills Checkup 4

### Identifying Errors

Read the following paragraph and then answer the questions.

Andrew arrived at school and went directly to his earth science class. He took off his cap and coat and sat down at his desk. His teacher gave him a large rock and asked him to find its density. Realizing that the rock was too large to work with, Andrew got a hammer from the supply cabinet and hit the rock several times until he broke off a chip small enough to work with. He partly filled a graduated cylinder with water and suspended the rock in the water. The water level rose 2 cm. Andrew committed this measurement to memory. He next weighed the rock on a balance. The rock weighed 4 oz. Andrew then calculated the density of the rock as follows: He divided 2 cm by 4 oz. He then reported to his teacher that the density of the rock was 0.5 cm/oz.

### Questions

1. What safety rule(s) did Andrew break?

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2. What mistake did Andrew make using measurement units?

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3. What should Andrew have done with his data rather than commit them to memory?

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4. What is wrong with the statement "He next weighed the rock on a balance"?

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5. Why is "4 oz" an inappropriate measurement in a science experiment?

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6. What mistake did Andrew make in calculating density?

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