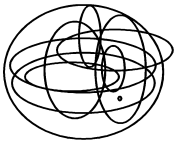
Cubes & Liquids

Observations, Predictions and Explanations

Class_____

Name_____

Date_____



An **ACASE** Assessment Activity

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Prediction 1: Check one. The cube will:

□ float

□ sink

□ not enough information

Reasons for your prediction (use full sentences):

Observation 1 (use full sentences):
Record the details of our experiment.
Describe fully what the experimenter did and what happened as a result.

Prediction 2: Check one. The cube will:

□ float

□ sink

□ not enough information

Reasons for your prediction (use full sentences):

Observation 2 (use full sentences):
Record the details of our experiment.
Describe fully what the experimenter did and what happened as a result.

Prediction 3: Check one. The cube will:

□ float

□ sink

□ not enough information

Reasons for your prediction (use full sentences):

Observation 3 (use full sentences):
Record the details of our experiment.
Describe fully what the experimenter did and what happened as a result.

Prediction 4: Check one. The cube will:

□ float

□ sink

□ not enough information

Reasons for your prediction (use full sentences):

Observation 4 (use full sentences):
Record the details of our experiment.
Describe fully what the experimenter did and what happened as a result.

Thought Experiment 1:

Consider 2 possibilities. The mystery cube is either

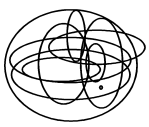
- lighter than the other two cubes, or
- heavier than the other two cubes.

Considering both these possibilities, predict whether the mystery cube will float or sink in these beakers or whether there is not enough information. Give your full reasoning for each prediction.

Thought Experiment 2:

What must the properties of the mystery liquid be for the cube to float in that liquid? Do not use the word 'density' in your answer.

Summary Question: Explain your ideas about floating and sinking now that you have seen these experiments.



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