

CAPA Level IV Science

Strand: PHYSICAL SCIENCES: The structure and composition of the universe can be learned from studying the stars and galaxies and their evolution.

Standard: 8PC4.BL41: Students know that the Sun is one of many stars in the Milky Way galaxy and that stars may differ in size, temperature, and color.

Alternate Achievement Standard:

✓ Know that the Sun is an average star that provides heat and light to Earth.

Manipulatives:

1 flashlight

1 small ball

Task Preparation:

Place on surface flashlight and small ball. Tell student that these objects will be used as a model for the Sun and Earth. Turn on flashlight and position it approximately 2 feet from ball so that light is easily seen striking one side of ball. Give first cue. While pointing to flashlight, give second cue. While pointing directly down at top of the ball, give third cue.

Correct answers: flashlight represents the Sun; gives off light; lit side of ball.

Cue/Direction:

Which object represents the Sun?

How is the flashlight like the Sun?

Which is the warm side of Earth?

Scoring Rubric:

(4) Completes task with 100% accuracy.

(3) Partially completes task (2 correct).

(2) Minimally completes task (1 correct).

(1) Attempts task.

(NR) No Response.

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Strand: PHYSICAL SCIENCES: All objects experience a buoyant force when immersed in a fluid.

Standard: 8PC.8DL41: Students know how to predict whether an object will float or sink.

Alternate Achievement Standard:

✓ Know that some objects float or sink.

Manipulatives:

1 container almost filled with water (minimum 6" diameter opening at top)

1 rock

1 plastic toy boat

1 cork

1 metal utensil

1 metal toy car

1 inflated balloon

7 paper towels

Task Preparation:

Provide a two-section sorting structure appropriate to the student. Label the left side "Floats" and the right side "Sinks." Place on surface a container filled with water. Tell students that some things float and some things sink. Place on surface the objects in the following left to right order one at a time: a rock, a plastic toy boat, a metal utensil, a cork, a small inflated balloon, a metal toy car. Give cue after placement of each object. Allow student to test each object in container of water. Direct student to place object in sorting structure after testing. Use a paper towel to absorb any water on surface after student tests each object.

Correct answers: floats – plastic toy boat, cork, small inflated balloon; sinks – rock, metal utensil, metal toy car. Student may either answer cues verbally or correctly sort objects for credit.

Cue/Direction:

Does this float or sink?

Scoring rubric

(4) Completes task with 100% accuracy.

(3) Partially completes task (4 – 5 correct).

(2) Minimally completes task (1 – 3 correct).

(1) Attempts task.

(NR) No Response.