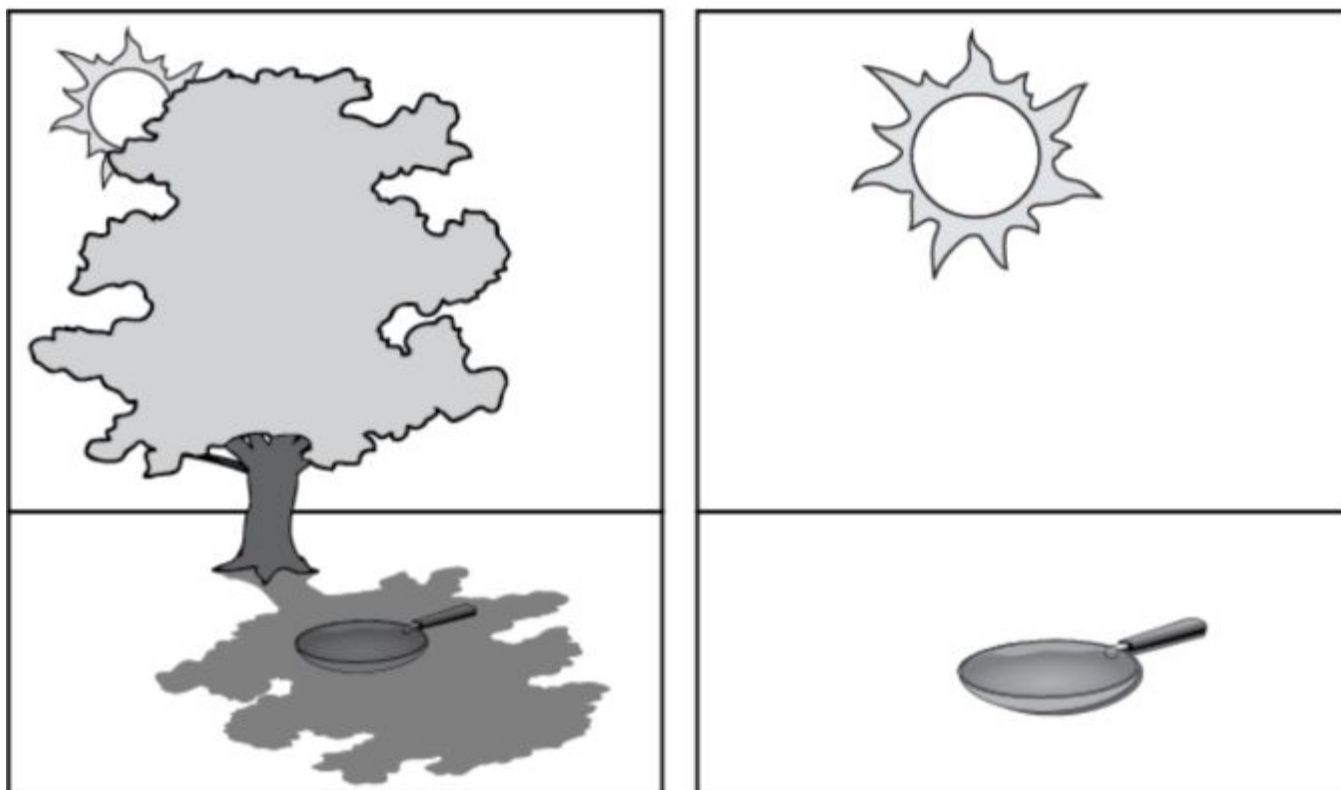


Short Answer Response

Benchmark: K-PS3-1. Make observations to determine the effect of sunlight on Earth's surface.
[Clarification Statement: Examples of Earth's surface could include sand, soil, rocks, and water]
[Assessment Boundary: Assessment of temperature is limited to relative measures such as warmer/cooler.]

DOK Level: 2

It is a hot day. Troy puts a pan of water in the shade. He puts a pan of water in the Sun.



Later, Troy feels the water in each pan.

How will the water in the Sun feel different?

Correct Answer: warmer/hotter/higher temperature

Rationales:

| | |
|------------------|--|
| Correct Answer | Sunlight will make the pan in the Sun feel warmer than the pan in the shade. |
| Incorrect Answer | All other answers are incorrect. Because both pans are filled with water, students may think that the water might feel the same in both or cooler in the sunlight. |

Benchmark: 1-PS4-4. Use tools and materials to design and build a device that uses light or sound to solve the problem of communicating over a distance.* [Clarification Statement: Examples of devices could include a light source to send signals, paper cup and string “telephones,” and a pattern of drum beats.] [Assessment Boundary: Assessment does not include technological details for how communication devices work.] * The performance expectations marked with an asterisk integrate traditional science content with engineering through a Practice or Disciplinary Core Idea.

DOK Level: 3

Kit is camping with Mom and Dad. Kit will ride bikes with Dad. Mom will make lunch. She will make hot dogs or sandwiches. Mom has spoons and pans.

Kit and Dad will be too far to hear Mom call. They want to make a plan. Mom wants to use what they have to let Kit and Dad know when lunch is ready and what they will eat.

How can Mom tell Kit and Dad when lunch is ready and what they will eat?

Response Area:

Scoring Rubric and Exemplar

Rubric:

| | |
|---|---|
| 4 | 4 points: A score of four indicates that the student has demonstrated a thorough understanding of the scientific concepts and/or procedures embodied in the task. The student has completed the task correctly, used scientifically sound procedures, and provided clear and complete explanations and interpretations. The response may contain minor flaws that do not detract from a demonstration of a thorough understanding. |
| 3 | 3 points: A score of three indicates that the student has demonstrated an understanding of the scientific concepts and/or procedures embodied in the task. The student's response to the task is essentially correct, but the scientific procedures, explanations, and/or interpretations provided are not thorough. The response may contain minor flaws that reflect inattentiveness or indicate some misunderstanding of the underlying scientific concepts and/or procedures. |
| 2 | 2 points: A score of two indicates that the student has demonstrated only a partial understanding of the scientific concepts and/or procedures embodied in the task. Although the student may have arrived at an acceptable conclusion or provided an adequate interpretation of the task, the student's work lacks an essential understanding of the underlying scientific concepts and/or procedures. The response may contain errors related to misunderstanding important aspects of the task, misuse of scientific procedures/processes, or faulty interpretations of results. |
| 1 | 1 point: A score of one indicates that the student has demonstrated a very limited understanding of the scientific concepts and/or procedures embodied in the task. The student's response is incomplete and exhibits many flaws. Although the student's response has addressed some of the conditions of the task, the student has reached an inadequate conclusion and/or provided reasoning that is faulty or incomplete. The response exhibits many flaws or may be incomplete. |
| 0 | 0 points: A score of zero indicates that the student has not provided a response or has provided a response that does not demonstrate an understanding of the scientific concepts and/or procedures embodied in the task. The student's explanation may be uninterpretable, lack sufficient information to determine the student's understanding, or contain clear misunderstandings of the underlying scientific concepts. |

Exemplar:

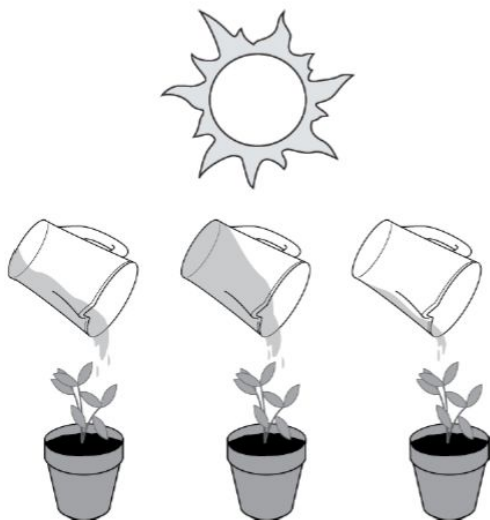
| | |
|---|--|
| 4 | Mom can make a drum with the spoons and pan. She can hit the pan with the spoons in a pattern. She can tell them which pattern is for each food. The pan will make a loud noise to let them know it is time to eat. They will know what they are eating by the pattern Mom uses. |
| 3 | Mom can hit the pan in a pattern with a spoon like a drum. Kit and Dad will come when they hear Mom hit the pan with a spoon. |
| 2 | Mom can hit the pan with a spoon. |
| 1 | Pans are loud when you hit them with spoons. |

No 0-point exemplar is required.

Selected Response

Benchmark: 2-LS2-1. Plan and conduct an investigation to determine if plants need sunlight and water to grow. [Assessment Boundary: Assessment is limited to testing one variable at a time.]
DOK Level: 2

Erin wants to know what helps a bean plant grow best. She plants three bean plants.



Plants need lots of things to grow. Look at the picture. What is Erin testing that plants need?

- a) soil
- b) sunlight
- c) water

Rationales:

| | |
|---|---|
| a | Incorrect. Plants need soil to grow, but Erin is keeping both the amount and type of soil the same in her experiment. |
| b | Incorrect. Plants need sunlight to grow, but Erin is keeping the amount of sunlight constant by placing each cup in the same location with equal access to light. |
| c | Correct. |