



1. A student argues that stars appear dimmer than the Sun because they are farther away from Earth. Which experiment using a lamp and light meter that measures brightness will provide data to support the argument?

A

| Test | Lamp | Distance: Light to Light Meter (meters) |
|------|--------------------------|---|
| 1 | lamp with one light bulb | 10 |
| 2 | lamp with one light bulb | 10 |

C

| Test | Lamp | Distance: Light to Light Meter (meters) |
|------|---------------------------|---|
| 1 | lamp with two light bulbs | 10 |
| 2 | lamp with one light bulb | 10 |

B

| Test | Lamp | Distance: Light to Light Meter (meters) |
|------|--------------------------|---|
| 1 | lamp with one light bulb | 10 |
| 2 | lamp with one light bulb | 50 |

D

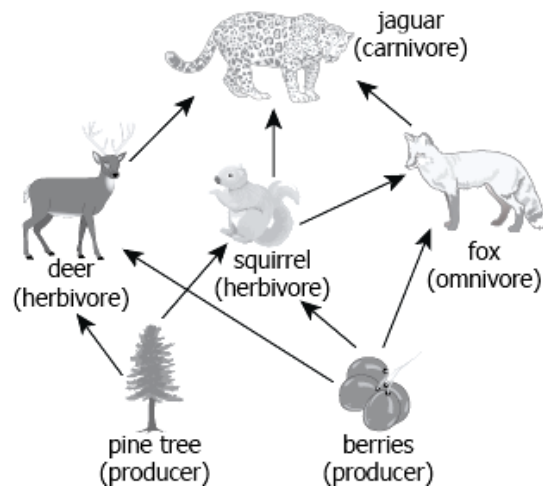
| Test | Lamp | Distance: Light to Light Meter (meters) |
|------|---------------------------|---|
| 1 | lamp with two light bulbs | 10 |
| 2 | lamp with one light bulb | 50 |

2. A student adds 10 grams of salt and 10 grams of sand to a cup of water. The sand, salt, and water are stirred for 2 minutes. The student observes that the sand forms a layer at the bottom of the cup, while the salt is not visible.

Which statement explains the student's observations?

- A** Salt is completely soluble in water, while sand is not soluble in water.
- B** Sand is less dense than water, while salt is more dense than water.
- C** Sand particles are bigger than salt particles.
- D** Salt particles are lighter than water and sand.

3. The image shows a food web.



How do deer obtain food?

- A by eating berries only
- B by eating jaguars only
- C by eating jaguars and squirrels
- D by eating pine trees and berries

4. A teacher mixes bananas, strawberries, and milk to make a drink.



The bananas, strawberries, and milk have a total mass of 10 grams before the teacher mixes them. What is the mass of the drink after mixing?

- A 5 grams
- B 6 grams
- C 8 grams
- D 10 grams