

Date: _____

Chapter 7, lesson A: Light Travels (7.A.1)

1. Which objects are sources of light?

Circle **four** correct answers.

burning firewood

kettle

lit candle

lit torch

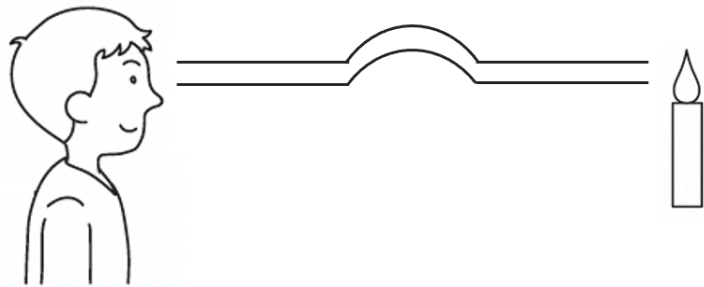
the Sun

trumpet

2. Complete the sentence about how light travels.

Light travels in straight lines.

3. Look at the diagram.



Ken

Ken says that he can see the candle flame through the tube.

Is he correct?

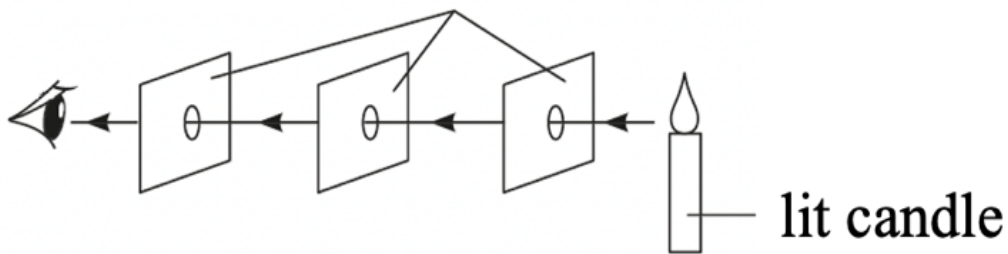
Tick (✓) the correct box.

yes ☐

no ☒

4. Jo sets up the experiment below.

cardboard cards with holes



Jo arranges the cards in a straight line.

She can see the light from the candle through the holes.

When Jo moves one of the cards to the left slightly, she cannot see the light from the candle through the holes.

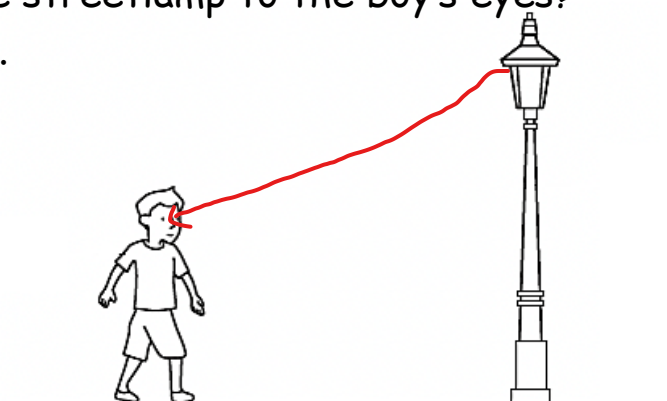
Explain Jo's observation.

Light travels in straight lines. When the cards are arranged in a straight line, light from the candle can travel through the holes to Jo's eyes. So, she can see the light. When one of the cards is moved, the light cannot travel to Jo's eyes. So, she cannot see the light.

5. The diagram shows a boy standing near a street lamp.

a. How does light travel from the streetlamp to the boy's eyes?

Draw an arrow on the diagram.

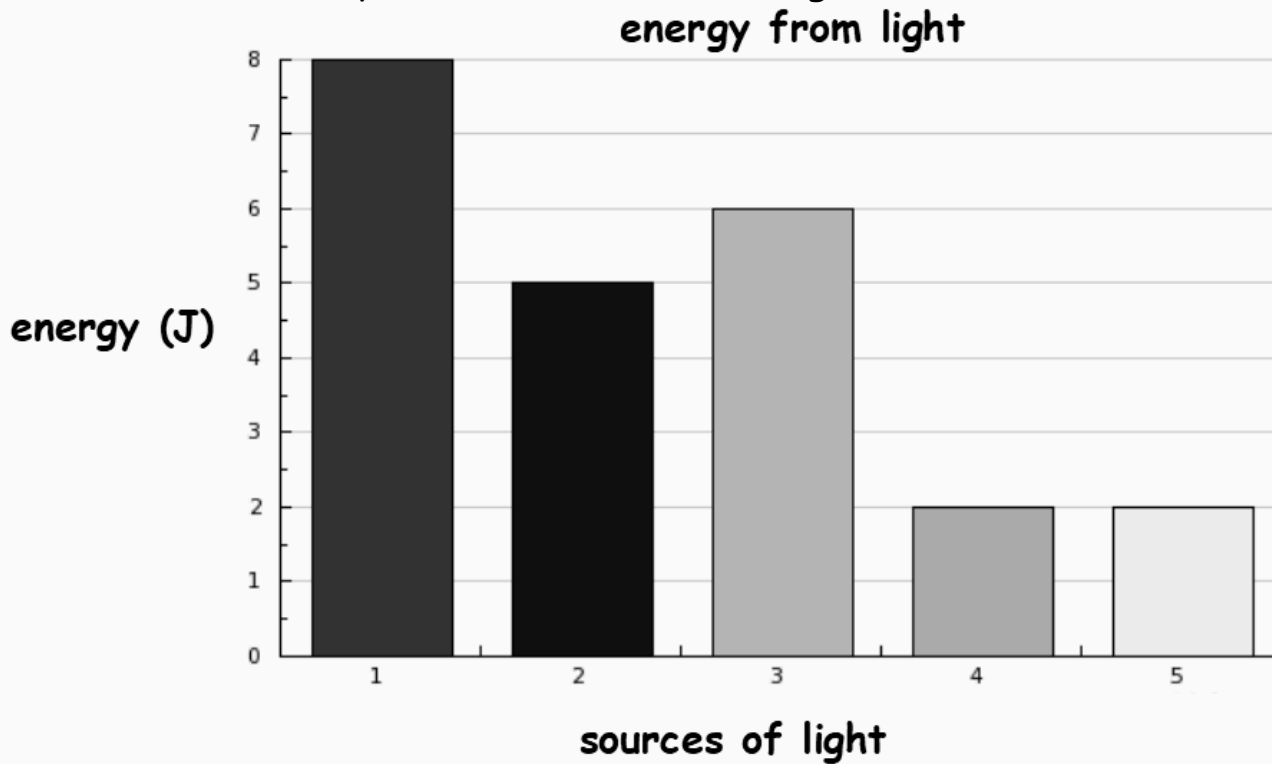


b. What is a ray diagram?

A ray diagram is a model that shows how light travels. It is made up of straight lines with arrows. The arrows show the direction in which light travels.

6. The bar chart shows the amount of energy in J from 5 different light sources.

Answer the questions below according to the information in the bar chart.



- a. Which light source gives the highest energy? 1
- b. Which light source(s) gives the lowest amount of energy? 4 and 5
- c. Which light source could be the Sun? 1
- d. If burning fire gives 6 J of energy, which light source is fire? 3
- e. A streetlamp and a flashlight give the same amount of energy,
from the bar chart above, which light sources could they be?
4 and 5