Little Passports SCIENCE EXPEDITIONS

Eyes See You

When we look at the world around us, we're able to determine the distances between objects thanks to something called depth perception. Our eyes provide two points of view when looking at an object. By combining these points of view, our brains are able to decipher how near or far one object is from another. Complete the activities below to see just how important both eyes are in determining depth and distance.

Depth Drop

MATERIALS

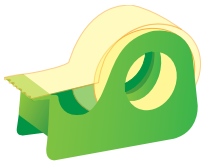
- ☐ small container (cup or small bowl)
- ☐ 5 small objects (coins, buttons, etc.)

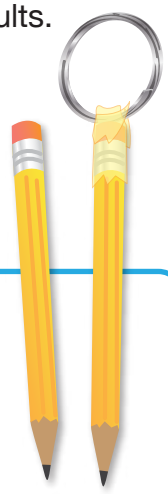
1. Ask a lab partner to sit in a chair. Place a small container on the floor about 3 feet in front of your partner.
2. Hold a small object above the container. Slowly move your hand back and forth over the container and have your partner say "Now!" when they think your hand is directly above it. Did the object fall inside of the container? Record the results.
3. Repeat the activity with the other 4 objects, recording the results each time.
4. Write down a hypothesis by answering the following question: Do you think the results will change if your partner covers one of their eyes?
5. Have your partner cover their left eye with their hand and repeat the activity. Record the results.
6. Have your partner cover their right eye and repeat the activity. Record the results. Was your hypothesis correct?

Bull's-eye

MATERIALS

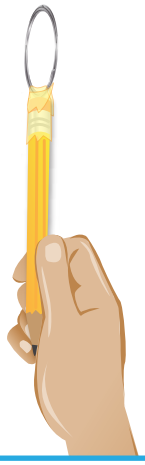
- ☐ 2 pencils
- ☐ wide key ring
- ☐ tape



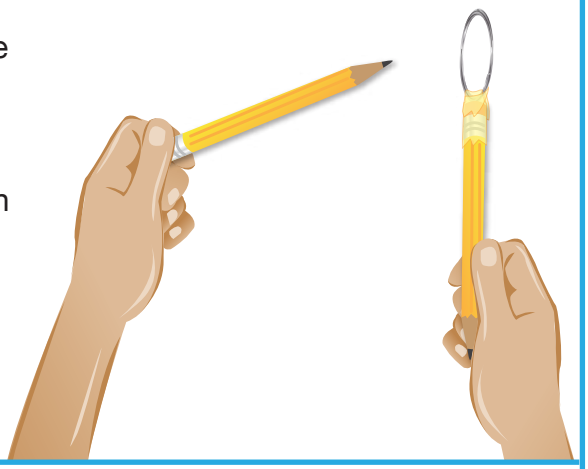


❶ Tape an edge of the key ring to the eraser end of one of the pencils. The ring's circular opening should remain uncovered and sit on top of the eraser like a hoop.

❷ Hold the end of the pencil so the opening of the ring faces to your left and right. Partially extend your arm so the ring is about a foot away from you.



❸ Close one eye and try to insert the tip of the second pencil through the center of the ring.



❹ Keep the same eye closed and repeat, this time moving your head from side to side. Repeat a third time with both eyes open. How easy or difficult is it to insert the pencil with one eye open versus both eyes open?