

Light and Shadows

READ ALOUD PASSAGE

Light is a form of energy. It travels in straight lines from wherever it comes from. The sun, fire, light bulbs, and glowing screens are all light sources. Without a light source, there is nothing to see. Materials react to light in different ways. Opaque materials block all light, like wood, brick, or your hand. Transparent materials let almost all light pass straight through, like clear glass or water. Translucent materials let some light through, but they scatter it, like wax paper or frosted glass.

A shadow needs three things: a light source, an opaque object, and a surface for the shadow to land on. A shadow is really just an area where light has been blocked. The closer the light source is to the object, the bigger the shadow gets. The angle of the light changes the shadow's direction and length. The sun appears to move across the sky from east to west during the day. In the morning, the sun is low in the east, so shadows are long and point west. Around noon, the sun is at its highest, so shadows are short. In the evening, the sun is low in the west, so shadows are long again, but now they point east.

Light also bounces off surfaces. This is called reflection. Almost everything we see is reflected light, not light the object makes on its own. The moon is a good example. It does not make its own light. We only see it because it reflects light from the sun.

Activity 1: Word Sort Challenge

Sort the words in the box. Write each word under the right heading.

WORD BANK

points bounces blocks brick sun glass moon shadow travels reflects

Nouns

Verbs

Activity 2: Because, But, So

Finish the sentence two ways. After because, tell why. After but, tell something different or surprising.

My shadow was long in the morning because

My shadow was long in the morning, but

Activity 3: Sentence Scramble

These words are mixed up. Put them in order to make a sentence. Start with a capital letter and end with a period.

1. light / is / energy / of / form / a

2. light / is / nothing / of / see / source / to / there / without / a

3. materials / to / different / in / light / react / ways
