



Getting rid of shadows

Shadows can be a nuisance. You can get rid of them by using many lights, or just a piece of card.

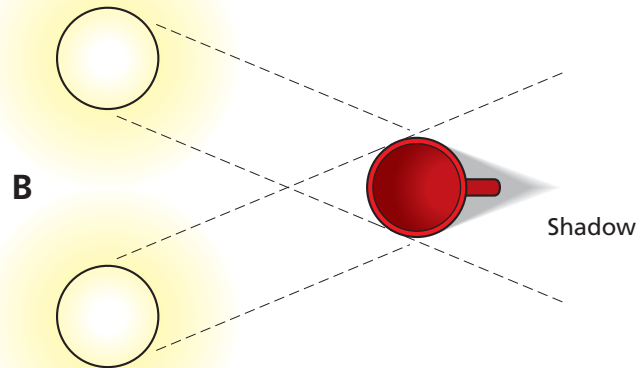
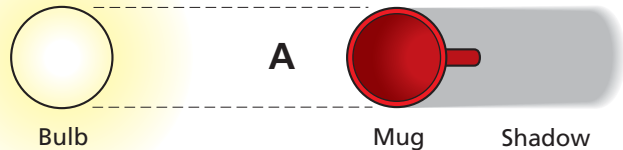
Whenever you have just one source of light you will always have shadows. In some cases, shadows can be a problem (Picture 1). So how can we get rid of shadows?

Adding sources of light

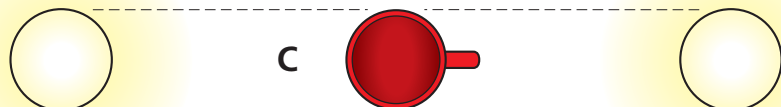
In Picture 2, you can see what happens if we use more than one source of light.



▼ (Picture 1) It can be difficult to read a book if it is in the strong shadow cast by a single room light.



▲▼ (Picture 2) If you have just one source of light, you will get deep shadows (A). If you use two sources of light, the shadow will be smaller (B). If the lights are opposite one another, there will be no shadow at all (C).

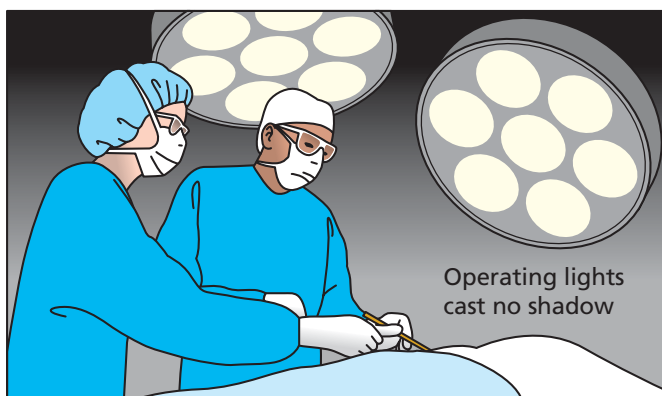


This is a very important idea, and used in places such as a hospital operating theatre (Picture 3).

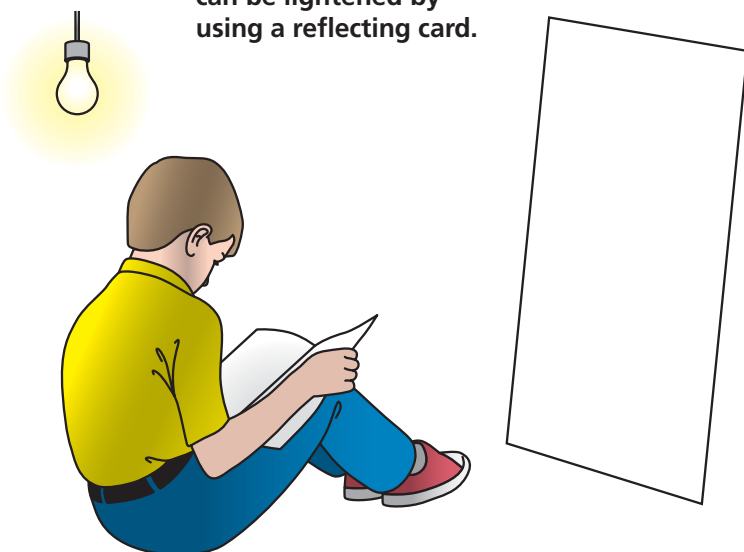
Adding light-bouncing card

If all you want to do is to make the shadow weaker, you do not need extra bulbs. Instead, all you need is white card or shiny foil (Picture 4). The card or foil must be placed so they face the bulb.

▼ (Picture 3) When it is important to get rid of all shadows, people use many lights, as, for example, in this operating theatre in a hospital.



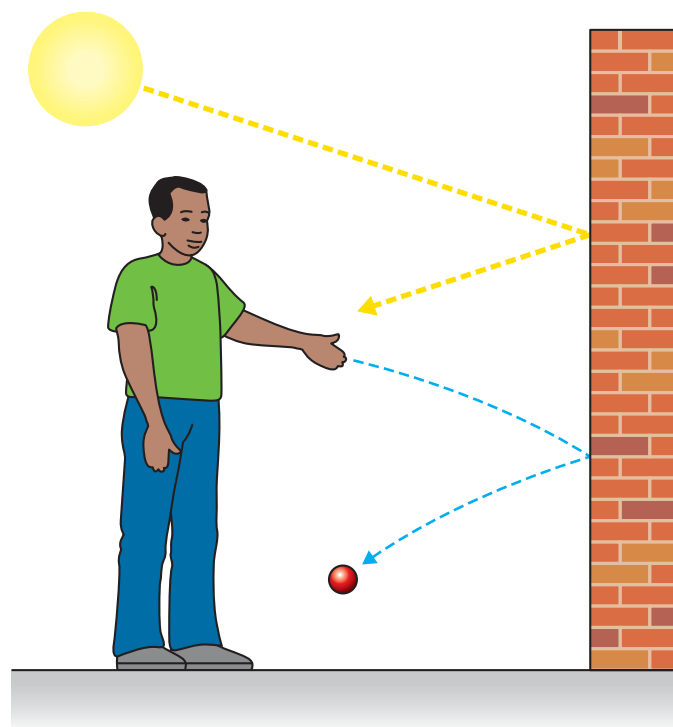
▼ (Picture 4) Shadows can be lightened by using a reflecting card.



To see how this works, think of a ball as part of a beam of light (Picture 5). When you throw the ball against a wall it is like a beam of light striking the card or foil.

When the ball hits the wall, it bounces back. This is what happens when light hits the card or foil. This light bouncing is called **REFLECTION**.

The lighter the colour of the card, the more it will reflect light, whereas the darker the card, the less light will be reflected.



▲ (Picture 5) Light bounces from surfaces just as a ball bounces from a wall.

Summary

- Shadows can be removed by using many lights.
- Shadows can be lessened by using light-bouncing materials.