



# Lighting the Way

## Surface Color

All the light in a room does not have to come directly from a particular light source. Some of it comes indirectly, after it has been reflected or bounced off of surfaces in a room. These surfaces can include the ceiling, walls, floors, or other objects found in a room.

**Direct lighting** is light that comes directly from the light source to an object, whereas **indirect lighting** is light that comes from a light source and is reflected from a surface that disperses the light to an object.

This means that it is not only the number of lights or their placement in a room that is important, but also how well the room's surfaces reflect light.

The color of surfaces in a room affect how well they reflect light. Lighter colors reflect light — up to 90 percent of the available light — and, therefore, provide more usable light than darker colors, which reflect as little as 20 percent of the available light.

Ceilings are often colored lighter than floors, which means they reflect more light down into the room. This is ideal, since it is less likely to cause the glare and shadows discussed earlier.

### Activity Four

Determine the sources of light.

#### Materials needed

- Pencil
- 4-H Electric manual

#### Directions

1. Select a room in your house.
2. Answer the following questions.

- A. What is the name of the room you selected? \_\_\_\_\_
- B. How many light sources are there? (Don't forget windows!) \_\_\_\_\_
- C. What are the light sources? \_\_\_\_\_
- D. What color is the ceiling? \_\_\_\_\_
- E. What color are the walls? \_\_\_\_\_
- F. What color is the floor? \_\_\_\_\_
- G. Is part of the light in the room coming from indirect sources? \_\_\_\_\_
- H. What surfaces are reflecting the light? \_\_\_\_\_
- I. Are the reflecting surfaces dark or light colored? \_\_\_\_\_