

A-MAZE-ING MIRRORS

AN INTRODUCTION
TO LIGHT



STUDENT WORKBOOK



ACTIVITY
1

SEE YOU AROUND (THE CORNER)

Have you ever wanted to spy around obstacles like fences and walls? In this first activity, you will build your own periscope. A periscope is a tool that uses mirrors to help you see over or around things.

LEARNING GOALS:

- ✓ I can make observations to show that objects must be lit up to be seen.

BUILD YOUR OWN PERISCOPE

WHAT YOU NEED:

FROM THE KIT:

- Box the kit came in
- Tape
- Two mirrors

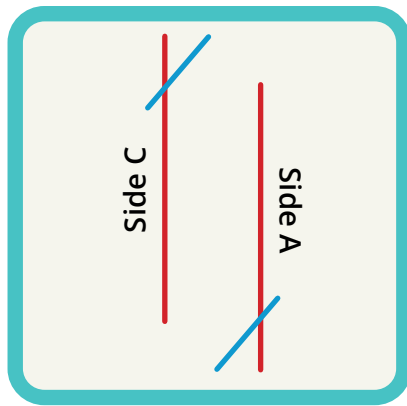
OTHER ITEMS:

- Marker or pen
- Scissors

WARNING: Be careful with scissors. Always point them away from your body! Ask an adult for help with cutting cardboard.

Never look at the sun directly or with mirrors.





STEP 16

If you were able to see inside the periscope right now, here's what it should look like. Check the angles of your mirrors and change them to make them the same if you need to.

STEP 17

If you want, you can use extra paper or cardboard to cover the top and bottom of the box. You can decorate the periscope however you like!

2

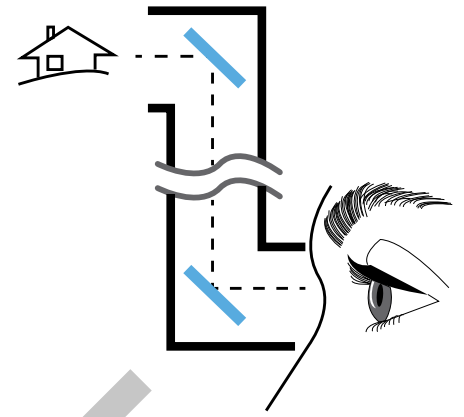
Your periscope is complete! To use it, hold it with Side A facing you and look at the mirror on the bottom. You should see an image of the other mirror that gives you a peek into the other side of the periscope.

Now, explore! Go try to see over fences or walls, and around corners.



If your periscope doesn't let you see anything, grab your teacher to help you out. You will need to change the angles of the mirrors.

Think about the periscope you made. You had to be careful where you put the mirrors, or it wouldn't work. This is because light had to get from the end of the periscope to your eye for you to be able to see with it.



For you to see something, light has to bounce off of it and then go to your eyes.

But light goes from place to place in a straight line. It can't bend or curve.

In the periscope, light traveled in a straight line, but it was able to bounce off of mirrors to change its direction.

4



THINK ABOUT IT!



1. Draw a picture below that shows how light travels when you point a flashlight at a toy in a dark closet to see the toy. Make sure your drawing shows the toy, the flashlight, and your eyes.



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