

Mirror Pairs

Reflecting on reflections

Introduction

Place two mirrors together at an angle and interesting things happen.

Material

Two mirrors at least 10 cm square. (4")

Masking Tape

Assembly

Tape the two mirrors side by side together so that the angle between them can be changed. The mirrors open like a book.

To Do and Notice

0 Preliminary: hold the mirrors nearly flat, lying on the top of a table, with the line between them running away from you. Look at yourself in the mirrors. Change the angle between the mirrors until you are a Cyclops with just one eye. (To do this raise both mirrors along the line over which they touch.) Change the angle between the mirrors until you have just two eyes and one nose. Close your right eye, notice the eye that is closed in the mirror. This is the image of yourself we will be looking for in subsequent activities.

1. Begin to fold the mirror surface together as if you were closing a book. . Notice that you have just two eyes and one nose when the mirrors make an angle of 90 degrees. Close your right eye, notice the eye that blinks closed in the mirror. This image is not reversed right to left. This is how other people see you. Rotate the mirrors so that the crease between the mirrors is horizontal. You will rotate the mirrors by 90 degrees. Notice that your image flips over, that is, it rotates by 180 degrees.

2. Fold the mirrors together even more until once again you have two eyes and one nose. Close your right eye. Notice that this is once again a mirror image. Rotate the mirror until the crease between them is horizontal. Notice that your image does not rotate at all!

What's Going On?

Can be figured out from the law of reflection. Good luck!

Etc.

This activity was originally invented by Richard Gregory.

[Return to Draft Activities](#)

Scientific Explorations with Paul Doherty	© 2000	14 June 2000
--	------------------------	--------------