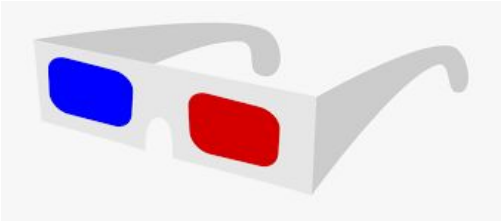
Create your own special effects!

Step 4

Make your own 3D glasses!

Ask an adult to help you with these steps.



1. Start with an old pair of sunglasses that you don't use anymore. Or, find an inexpensive new pair at a dollar store. Carefully pop out the plastic lens.

2. Cut out two holes the same size as the lenses in a clear sheet of transparency, cellophane, or acetate. Use the original lenses as templates.

3. Use markers to color one lens red and one blue. Do a little research to see why red and blue are used. This link as some information on how they work: https://science.howstuffworks.com/3-d-glasses2.htm.

4. Place the new lenses into the frame. Red goes on the left side, blue goes on the right. Now look at the picture to the right, does it looks normal? Try out some other photos as well!

Surf a Soundwave!

Step 5- Choose one activity to do:

Sound technology has changed enormously over time making it easier to share, but no matter how music is played, it all comes from the science of sound waves.

1. **Experiment with Acoustics:** Acoustics are the qualities that affect how a sound is heard in a particular area. Find a radio or phone (any device that plays music) and choose 3 spaces, such as the backyard, or kitchen. In each space, listen to a song for at least 30 seconds from 3-5 feet away at the same volume. Write down what you notice about the sound in each place.

2. **Go on an Elephant Hike:** Elephants can hear better than humans. You'll learn why in this experiment. Get two 16-oz. paper or plastic cups. Cut a pair of 2-inch slits down the side of each, about 1-inch apart. This will make a flap. Fold the flap back and cut it off so there is a space to fit your ear. Hike with an adult for about 5 minutes and pay attention to sounds. After 5 minutes put on your "elephant ears" (the bottom of the cup should be at the back of your ear) and hike another 5 minutes.

Entertainment Technology Badge Review

Think about these questions or talk about them with friends and family

Would you continue to draw or create digital animations like your flip book?

What are some things a developer has to do for their job?

What are some improvements you had to do on your catapult?

What did you learn about sound and how does it change in spaces like a room or when using big “elephant ears” ?