



Youth & Education Programs

## 3-D Images (GA Lesson Plan #4)

**Suggested Grade Levels:** Grades 6-8

### **Standards:**

[MS-PS4-B: Electromagnetic Radiation](#)

### **Scenario Overview / Introduction:**

Students work in pairs to create 3D pictures.

### **Learning Goal:**

Describe how polarized 3D glasses alter light waves to make 2-dimensional objects look 3-dimensional.

### **Essential Question:**

How do 3D glasses affect light waves? What are the different types of 3D glasses?

### **Learning Objectives:**

Students will take stereoscopic pictures and be able to explain the science behind the 3D image.

### **Vocabulary**

- **Polarization of light:** the orientation of a light wave, horizontal or vertical
- **Polarizer:** material that lets light through in one direction and absorbs the light in the other direction.
- **Stereoscopic:** creating or enhancing the illusion of depth in an image
- **Filter:** to absorb some colors and allow others to pass through

### **Pre-Visit Learning Activities:**

1. Review how 3D glasses work. <https://howtechnologywork.000webhostapp.com/how-3d-glasses-work/>
2. Have students get into pairs.
3. Explain they must take pictures of a still object from about 60 feet away. They will need to take two pictures – one will be the first image, the second from 2.5 inches to the right of left. <https://www.instructables.com/id/3D-Stereoscopic-Photography/>

### **Post-Visit Learning Activities:**

1. Turn pictures from your visit to Universal Studios into stereoscopic pictures.