

Discovery Lab Description:

This lab is a great introduction to some fundamental concepts of optics. Students will investigate through the use of shadow puppets, what happens when you put different materials in front of a beam of light. They will learn through hands on exploration the concept of transparency and opaque. Students will leave with a puppet which will be great for future writing and storytelling.

During your Discovery Lab students will be expected to:

- Sit in a large group and listen to instructions from the museum educator.
- Stay on task by completing their Guided Exhibit Exploration passport.

It is important that teachers and chaperones:

- Help focus the students' attention at the various stations.
- Assist students with the hands-on activities and experiments when necessary.
- Engage students at a higher level by asking open-ended questions throughout the class
 - For example: why did you choose _____?"

Literary connection:

To get students excited about the upcoming Discovery lesson we suggest reading the following story with your students: *Gregory's Shadow* by Don Freeman. Gregory Groundhog and his shadow desperately look for each other after they become separated from one another just before their annual appearance on Groundhog Day.

Nevada Academic Content Standards in Science (NGSS):

1-PS4-3. Plan and conduct investigations to determine the effect of placing objects made with different materials in the path of a beam of light.

Common Core:

W.K.2.2. Use a combination of drawing, dictating, and writing to compose informative/explanatory texts in which they name what they are writing about and supply some information about the topic.

