

INV. 1 ACTIVITY—MAKING SHADOWS

Focus Question: How are shadows made?

Find out more about shadows and have fun making shadow images!

Materials:

- Darkened room
- Flashlight
- Interesting objects to make shadows
- Your hands
- Science notebook
- Computer with Internet access

Instructions:

1. Collect some interesting objects in your home that you think will make interesting shadows.
2. Place the objects one at a time in front of the flashlight beam.
What does the shadow look like?
Be sure to rotate the object in front of the beam as the shadow may change depending on how the light is shining on it.
3. Record your observations in your notebook. You should include a picture of the object and then drawings of the shadow that you created.
4. Write a description under your shadow drawing to explain why the shadow looks like it does.
5. Do an Internet search on “hand shadow puppets.”
6. Try to make the shadow puppets at home.
7. Record your shadow puppets in your notebook.
What is the shadow (rabbit, dog, etc.)?
How did you need to hold your hands to create the shadow?
Why does the shadow
look like the puppet you were making?

INV. 1 ACTIVITY—SOLAR MEDIA RESOURCES

Online Resources on FOSSweb (Must log in to FOSSweb with a username and password)

Use these online resources to help review content from Investigation 1 of Earth and Sun. The **tutorials and virtual investigations** provide interactive resources that review concepts from the FOSS active investigations. The virtual investigations often mimic the active investigations that were done in class.

For the articles in *FOSS Science Resources*, access the **interactive eBook** and make sure to click on the interactive links within the readings. Take notes on what you learn from the online resources and respond to the questions from the articles in your science notebook.

Investigation 1 Digital Resources

Online activities

- Shadow Tracker
- Seasons

Tutorial: Sun Tracking

FOSS eBook Readings

- Changing Shadows
- Sunrise and Sunset