MAKING MICROSCOPE SLIDES

Objective:

Students will collect samples and make their own microscope slides.

Materials:

Plastic slides, plastic cover slips, nail polish, microscopes, sharpie markers for labeling slides

Check for prior learning:

What do we use microscopes for? Why can't we just use magnifying glasses to look at small things? How is a microscope different from a magnifying glass?

New learning:

Students will go outside and collect samples to mount on microscope slides. Samples should be relatively flat and small (e.g., pieces of leaves, grass, seed pods, etc).

Procedure:

1. For each sample, place the item on the microscope slide.
2. Using nail polish, coat the outside of a plastic cover slip.
3. Place the plastic cover slip over the sample.
4. Carefully place the slide under the microscope objective on the stage.
5. Be sure to start out with the 4x objective (which is actually 40x because the eyepiece is 10x).
6. Focus the sample clearly with the 4x objective, then switch to 10x and then to 40x. (You may have to adjust the light using the diaphragm as you change magnifications.)

Check for learning: As a group, discuss which samples appeared clearly and which ones did not. Discuss reasons why some samples were less visible (e.g., too thick, not flat enough, too opaque, etc). Students may take home their samples to share with family and friends.