

Fiber Detective!

Things you will need:

- Threads or fibers from cloth made of some of the following: wool, cotton, nylon, linen, silk, polyester, blends.
- slides and cover slips
- water and dropper
- scissors and tweezers
- labels and pen
- your microscope
- your science journal
- lint from a clothes dryer

Procedures:

1. With tweezers, place a few 1/4" to 1/2" pieces of one of your fibers in a drop of water on a slide. Cover with a cover slip and label the kind of fiber. (See "[Wet Mounting](#)" if necessary.)
2. Observe the fiber under the microscope and write a description and draw a sketch of it in your journal. Use careful observation skills.
3. Repeat this with each of your other fibers, until you can distinguish among them based on appearance.
4. Now place a tiny amount of lint from a clothes dryer in a drop of water on a slide. Cover with a cover slip and label.
5. Observe these fibers under the microscope and write descriptions of the different fibers you see.

Questions:

1. How many of the dryer lint fibers can you identify by comparing them with your labeled fibers?
2. What are these fibers?
3. Can you think of any type of work that such a comparison skill might be useful in?
4. What differences did you notice between the man made fibers, plant fibers, and animal fibers?
5. What similarities did you notice?