

Wet Clothes and Dry Time

When you are river rafting, you will get wet from splashing water or falling into the water. In the story Jeff and Bill got wet. Wet clothing can make you very cold as the water **evaporates**. **Evaporation** is when water changes form into a gas. An example of evaporation is the smell that comes from liquid perfume. Evaporation takes heat energy, so when water evaporates from fabric, the fabric will get colder.

Experiment 1

Wet a t-shirt and wring out the extra water. Put on the wet t-shirt. How long did it take you to feel cold? The t-shirt is cold because the water is evaporating. Look for ways to get warm while wearing the wet t-shirt such as sitting in the sun, standing in front of a fan, or putting on a jacket. Did you find a way to get warmer? Would you want to stay in wet clothes for a long time? Why? Why is it important to have dry clothes when river rafting?

Experiment 2

In Experiment 1 you learned the importance of dry clothing when you are river rafting. Our clothes are made of different types of fabrics that dry at different rates.

This experiment should be done on a sunny day and it is best to start it early in the day.

Steps for this experiment:

1. Select clothes made of different fabrics that you might wear when river rafting. Some possible clothes to select are: t-shirt, button shirt, jeans, sweater, sweatshirt, jacket, socks, or any other clothing. If available, use a piece of clothing made with fabric designed to wick the moisture away from your skin, such as polypropylene.
2. Dunk each piece of clothing in a bucket of water. While they are dripping wet set them next to each other on an outside table or on a clothesline.
3. Note the time. This is time zero.
4. Wait 30 minutes and check to see if any of the clothes are dry.
5. Continue checking the clothes every 30 minutes.
6. Record the time when each item is dry.
7. Create a bar graph with your results. Below is an example.

Questions

- Which pieces of clothing dried the quickest? Why do you think they dried the quickest?
- Which pieces of clothing dried the slowest? Why do you think they dried the slowest?
- Look at the label to determine what type of fabric each item is made from (for example: cotton, polyester, nylon, wool, silk, rayon or a combination). Which type of fabric dried the quickest? Which type of fabric dried the slowest?
- Why did two items made of the same fabric have different drying times?
- Why is cotton clothing not recommended for river rafting?
- If you were river rafting, which type of fabric would you prefer your clothing be made from? Why?

Sample graph
Drying Time for Clothes

