



Activity 1: The Difference Between Hot and Cold

How good are your hands at detecting different temperatures?

Materials

- three containers that can hold water and are large enough to put your hand in (such as buckets or large bowls)
- clock or stopwatch
- cold water, warm water, and room
- temperature (not warm or cold) water

Procedure

Safety Warning:

Use only warm water for this activity. Hot water can burn. If you spill water, clean it up immediately so you do not slip on it.

1. Into three buckets, put cold water, room temperature water, and warm water. Room temperature water is neither warm nor cold. (A good way to obtain room temperature water is to leave a bucket of water on a counter top in a room for a couple of hours.)

2. At the same time, put one hand into the container of cold water and put your other hand into the container of warm water. Keep your hands in the water for two minutes.

3. Make a hypothesis (prediction): What will the room temperature water feel like to both of your hands?

4. After the two minutes, place both hands into the third container of room temperature water. Record in the *Observations Table* what your hands feel in the room temperature water.

Observation Table

Hand that started in cold water (How did it feel placed in room temperature water)	Hand that started in warm water (How did it feel placed in room temperature water?)

Conclusion

Look back at your hypothesis, and think about the results of this activity. Write a statement that offers a conclusion about what you have learned about using your hands to detect different temperatures.