

Temperature Touch-o-meter

One important aspect of the sense of touch is the ability to detect and distinguish between different temperatures. Most people are pretty sensitive to room temperature and can detect a change of only one or two degrees. Explore how your body senses temperature in the activity below!

Be Careful!
Hot tap water can be very hot.

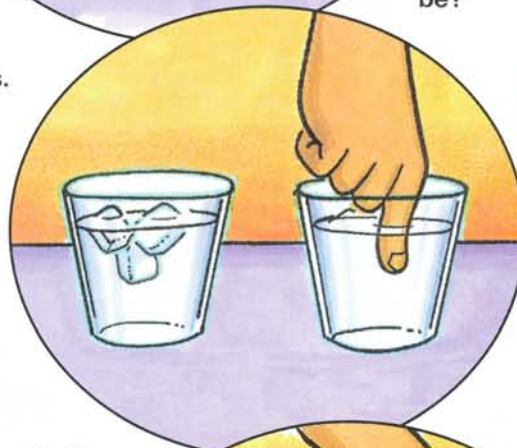
YOU WILL NEED:

cup of ice water
cup of hot water
(from the tap)
cup of water at room temperature

1 Place your index finger in a cup of ice water for about 5 seconds. Now take your finger out and place it immediately into a cup of room-temperature water. Notice how your finger feels as soon as you put it in the room temperature water. Don't take it out yet.



2 Leave your finger in the cup for a minute or two and describe how the temperature of the water feels. Does the water feel warmer or cooler than you thought it would? Does the temperature seem to change while your finger is in the water? If so, how?



3 While your index finger is still in the water, place your index finger from the other hand into the room-temperature water also. What do you notice? How could you explain what you feel?

4 Now place your original finger back in the ice water, but this time, leave it in for about 20 seconds. Then move it into the room-temperature water as you did before. Notice how your finger feels as soon as you put it in the room-temperature water. Don't take it out yet.



5 Leave your finger in the cup for a minute or two and describe how the temperature of the water feels. How does the temperature feel compared with how it felt when your finger was in the ice water for only 5 seconds? If it seems to be different, why do you think this might be?

6 While your index finger is still in the water, place your other index finger from the other hand into the room-temperature water also. What do you notice? Do your two fingers feel any different from the way they felt before?

7 Repeat steps 1–6 but instead of using ice water, use hot water from the tap. The water should feel hot but not so hot that it hurts. See if you can predict the changes and differences in temperature that you think you will feel.