

# Exploring Temperature



Most of a school's energy is used to control the temperature of the air in the buildings. Students and teachers work better when they are comfortable—not too hot or too cold.

What is a comfortable temperature? It depends on what you're doing. You can be comfortable in very cool weather with just a shirt and shorts if you're playing soccer. The people sitting in the stands might need a jacket. It depends on the season, too. A day that feels cool in the summer might feel very warm in the middle of winter.

- Heat flows from hotter objects to cooler objects. Heat flows until everything is in balance. That means the objects in your classroom are at the same temperature. Touch objects made of the materials listed below and circle how they feel. Do they feel hotter than the air, colder than the air, or the same?

<b>Metal</b>	hotter	colder	the same
<b>Glass</b>	hotter	colder	the same
<b>Plastic</b>	hotter	colder	the same
<b>Wood</b>	hotter	colder	the same
<b>Fabric</b>	hotter	colder	the same

- Using a thermometer, record the temperature of the things listed in Fahrenheit (F) and Celsius (C) scales.

<b>Human Body</b>	<b>98.6 °F</b>	<b>37 °C</b>
<b>Classroom Air</b>	_____ °F	_____ °C
<b>Outside Air</b>	_____ °F	_____ °C
<b>Ice Water</b>	_____ °F	_____ °C
<b>Warm Water</b>	_____ °F	_____ °C

- Fill a container with water the same temperature as the air in the classroom. Use the thermometer to find the temperature. How does it feel compared to the air?

<b>Air</b>	_____ °F	_____ °C	too warm	too cool	just right
<b>Water</b>	_____ °F	_____ °C	too warm	too cool	just right

- Do you usually like the air to be hotter or colder than your body? Why?
- When might you want water to be colder than your body?
- When might you want the water to be the same temperature or warmer than your body?