**Thermal Energy Transfer**

Website: [Thermal Energy Transfer (pbslm-contrib.s3.amazonaws.com)](https://pbslm-contrib.s3.amazonaws.com/WGBH/conv16/conv16-int-thermalenergy/index.html#/intro)

**Thermal Insulators and Conductors:**

Just like for electricity, some materials are better at transferring heat than others. Materials that easily allow heat energy to travel (transfer) between particles are called conductors. These materials heat up quickly when thermal energy is added, but also cool down quickly when heat is removed.

**Some examples of good thermal conductors are:**

**Some examples of good thermal insulators are:**

Conduction, Convection and Radiation Questions

For each question below, write down the connection(s) to conduction, convection and/or radiation in each real-world example:

**The Sun Warms Earth**

What keeps our planet at a temperature that can support life?

Why are some parts of the planet warmer than others?

How does transfer of thermal energy relate to earthquakes and volcanoes?

**Around a Campfire**

Picture yourself at a campfire. What do you notice?

Why might you feel warmer?

What causes the marshmallow to melt?

What should you use to hold the marshmallow over the fire?

Why does smoke rise from the fire?

**Staying Cool on a Hot Day**

How can you stay cool on a hot day?

What kinds of floor surfaces feel more comfortable?

How does your body react to the heat?

Where can you go to cool off?

**Solar Energy in Your Home**

How can your house be designed to take advantage of the ways that thermal energy is transferred?