

Heat

Lexile: 810

When thermal energy moves from something warm to something cool, this is known as heat. Thermal energy is the tiny particles moving around in things. Heat is transferred throughout the environment every day. Heat transfer is always from the hotter material to the colder material in our environment. Insulation is used to slow down heat transfer. When you wear a jacket, you are keeping the heat from leaving your body. It keeps you warm.

Heat can be made in different ways. Rub your hands together for ten seconds. Put the palms of your hands on your cheeks. You created heat with friction. Friction is a force that occurs when one object rubs against another object. Friction works with brakes on a bicycle, because the bicycle's breaks have to squeeze the tire from spinning anymore. Friction helps our feet from slipping underneath us, because the rubber from our shoes grip the floor.

Electricity can create heat. When you touch a light bulb out of the box, the light bulb is not hot. When you touch a light bulb after it has been screwed into a light socket, the light bulb is really hot. Electricity did this by moving through the light bulb. When you toast bread in a toaster, electricity moves through the toaster to heat the bread.

When certain chemicals mix together, heat is created. Hand warmers create heat on cold days, because chemicals in the packets are activated and heat is created. Different chemicals can create heat when mixed together.

People use heat in many different ways. Think about a cold day, whenever you go outside you need a jacket. Your hands might be cold, and then you need hand warmers. You may be hungry, and then use the microwave to heat your food. Rubbing your hands together will create some much need heat when you need it!

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1.) What is thermal energy?

2.) What is heat?

3.) List three ways heat can be made.

4.) List four different uses of heat.

5.) Name a way heat is created.

6.) Name a way we use heat.

