Test Date:

It's Getting Hot in Here!

Key Vocabulary

thermal energy—a form of energy that moves particles of matter. **It moves from hotter objects to cooler objects.** Heat from a fire moves to cook a hot dog.

temperature—the measurement of how hot or cold something is

thermometer—a tool that measures how hot or cold something is

Celsius—the metric scale for measuring temperature

conduction—the movement of heat between objects that are touching each other

friction—the movement between two objects that slows the objects and produces heat. Rub your hands or two sticks together really fast...what happens? **HEAT happens because of FRICTION!**

insulation—material used to slow the movement of heat. Houses, jackets, and coolers have this material to control the heat.

insulator—an object that conduct heat well

evaporate—when a liquid turns to gas because of heat.

What is HEAT?

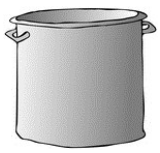
Heat is the movement of thermal energy from hotter objects to cooler objects. The **main heat source** on Earth is the **sun**. Other heat sources or **ways to produce heat** are **friction**, **electricity**, and **chemical reactions**.

Let's Check Your Temperature

- Temperature is how hot or cold something is.
- To measure temperature, you use a tool called a thermometer and the unit for measuring **temperature is in degrees**.
- A thermometer has two measurements, Celsius and Fahrenheit. Celsius is the metric scale and used by scientists.
- When something is warmed by the sun, the temperature of that object will get warmer. For example, **the temperature of water will rise when it is warmed by the sun**.
- When the temperature of **something gets warmer, the liquid inside a thermometer rises**. When something is cooled down, the liquid in a thermometer will go down.

Conductor vs. Insulator

A **conductor** is an object or material that **allows heat to move easily and quickly.** Metals, such as copper, silver, iron, and aluminum heat up quickly because metals are conductors. This is why most cooking pots and pans are made of metal.



An **insulator** is an object or material **where heat CANNOT move easily**. Wood, plastic, foam, cloth, fur, and rubber are good insulators. Some cooking spoons are made of wood and plastic because they keep heat from traveling easily and you won't burn your hand. Our clothes, which are made of cloth, keep us warm because cloth keeps our body heat from escaping quickly.