Lesson 1: What is Heat?

Heat is the transfer of thermal energy.
Thermal Energy is the movement of molecules that make up an object or substance.

As molecules move they rub against one another. This creates friction which raises the temperature of the molecules.

The faster the molecules move, the more thermal energy they are able to generate.
Temperature is the measure of heat in an object or substance.

Temperature is most commonly measured using the Fahrenheit and Celsius scales. The Kelvin scale is also used by scientists – particularly for measurement of very low temperatures.

The point at which no heat is present is called absolute zero.

Absolute zero is reached at a temperature of -273 C (or 0 degrees Kelvin).
Key Questions:

1) What determines the amount of thermal energy in an object or substance?

2) What is temperature? What scales are used to measure temperature?

3) Do you agree with the statement, “There is no such thing as cold.” Explain.