**Temperature, thermal energy, and heat**

**Temperature scales:**

The \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ scale is **used by the United States** to measure temperature while the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ scale is used by every other country. **Scientists** use the \_\_\_\_\_\_\_\_\_\_\_\_ scale.

Different objects at the same temperature can have different amounts of energy.

Calculating temperature:

Celsius (C◦)= (F◦-32) ÷ 1.8

Fahrenheit (F◦)= 1.8(C◦)+32

To convert C◦ into F◦ you would multiple the degrees in Celsius by 1.8 and then add 32.   
Formula here: 1.8(C◦)+32

Kelvin= C◦ + 273.15

**What determines the temperature of an object?**

All moving objects have \_\_\_\_\_\_\_\_\_\_\_ energy.

Temperature is the **measure** of the average \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ of the **particles** in an object.

As an object heats up, the particles move \_\_\_\_\_\_\_\_\_\_\_.

**What is Thermal Energy?**

Different objects at the **same temperature** can have \_\_\_\_­­­­­­\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ amounts of energy.

Temperature, thermal energy, and heat are closely related but they \_\_­­­\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_ the same thing.

Thermal energy is the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_­­­\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ of all the particles in an object.

The \_\_\_\_\_\_­­­­\_\_\_\_ particles an object has at a given temperature, the \_\_\_\_\_\_\_\_\_\_ thermal energy it has.

Objects contain \_\_\_\_\_\_\_­­­­­­­­­­­­­­\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

**Heat** is the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ of thermal energy from a warmer object to a cooler object.

**After thought:**

What are 2 factors that determine an objects thermal energy? ­­­­­­­­­­­­­­­\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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