

Thermal Energy Changes 101 Video Notes

Temperature and Kinetic Energy

- Temperature = measure of the _____
 - o Increase the temperature the atoms move _____
 - o Decrease the temperature the atoms move _____

Temperature

- Unit for Temperature
 - o _____
 - o _____
 - o _____

Thermal Energy

Thermal Energy (TE) = the sum of the kinetic and _____

Heat

Heat = flow of thermal energy from a _____

Energy always transfers from _____

- Really no such thing as _____

Check for Understanding 1 – Fill in the blanks for the following sentences.

1. As Temperature increases, Kinetic energy _____.
2. The less particles move, the _____ Kinetic energy they have.
3. If Kinetic energy lowers, the _____ lowers as well.
4. Temperature is the measure of _____.
5. As _____ increases, Kinetic energy _____, as Temperature decreases _____ decreases. This is a _____ relationship.

Heat Transfer

Conduction is the transfer of thermal energy through matter by the _____ An example of conduction is _____ Metals are good _____

Convection is the transfer of energy in a _____ A fluid = _____ Examples = _____

Draw an example of Convection currents below:

Radiation is the transfer of _____ . The main source is _____ or energy from the _____ .

Draw and label the picture for Conduction, Convection, and Radiation for the pot of water at (8:08)

Controlling the Flow of Heat

Insulators – material that does not allow _____

- Air is one of the best _____
- _____
- Homes: _____

Conductors - _____

Check for Understanding 2 – Write whether the following examples are conduction, convection or radiation.

1. - _____ 2. - _____ 3. - _____ 4. - _____
5. - _____ 6. - _____ 7. - _____ 8. - _____
9. - _____ 10. - _____