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| **Term** | **Meaning** |  |  |
| **Heat** | **A form of energy that transfers among the particles in a substance. The hotter something is the faster the particles in it move.** |  |  |
| **Temperature** | **A measure of how hot or cold something is. The average kinetic energy of the particles in a substance. Measured with a thermometer in degrees Celcius.(oC)** |  |  |
| **Particle Theory** | **The theory that all matter is made of tiny moving particles. The hotter something is the faster the particles move.** |  |  |
| **Specific heat capacity** | **The amount of heat energy needed to raise the temperature of 1 gram of a substance by 1 degree Celcius. For water it is 4.2J and for Mercury 0.1J** |  |  |
| **Absolute zero** | **The theoretical temperature at which the particles in a substance would have no kinetic energy, that is, no heat. -273.4oC or zero Kelvin (0K)** |  |  |
| **Heat Transfer** | **The movement of heat from one object to another, Always from higher temperature to lower temperature,** |  |  |
| **Conduction** | **The way heat is transferred in solids. Heated particles vibrate faster and collide more energetically with their neighbours and so on.** |  |  |
| **Conductors** | **Substances that conduct heat. Most metals are good conductors of heat.** |  |  |
| **Insulators** | **Substances that don’t conduct heat. Gases, liquids and most non-metal solids are insulators.** |  |  |
| **Convection** | **The main way heat is transferred in liquids and gases. Hotter fluid is less dense so it flows upwards carrying heat with it.** |  |  |
| **Convection Current** | **A flow in a fluid caused by uneven heating. For example the sea breeze is caused by a convection current.** |  |  |
| **Radiation** | **The way heat is transferred through space. All objects radiate some heat. The hotter the object the more heat it radiates.** |  |  |
| **Infrared radiation.** | **Heat radiation which is invisible to our eyes. Very hot objects might also produce visible light.** |  |  |
| **Reflected** | **When light and heat bounce off something. Light colours and shiny surfaces reflect more heat and light.** |  |  |
| **Absorbed** | **When heat radiation is taken in by a body. Dark and rough surfaces absorb more heat. Light colours absorb less heat.** |  |  |
| **Transmitted** | **When light or heat passes through an object without being absorbed.** |  |  |
| **Emitted** | **Also called radiated. When an object gives of heat. Dark coloured objects radiate heat better than light coloured objects.** |  |  |