

Heat is a type of energy. It's measured by temperature. We say objects that have a high temperature are hot and objects with a low temperature are cold. The temperature of an object is determined by how fast its molecules are moving. The faster the molecules are moving the higher the temperature. When two items are combined or touching each other, their molecules will transfer energy called heat. They will try to come to a point where they both have the same temperature. This is called equilibrium. Heat will flow from the hotter object to the colder. The molecules in the hotter object will slow down and the molecules in the colder object will speed up. Eventually they will get to the point where they have the same temperature. When heat transfers from one object to another, this is called conduction. Some materials conduct heat better than others. Metal, for example, is a good conductor of heat. We use metal in pots and pans to cook because it will move the heat from the flame to our food quickly. Cloth, like a blanket, isn't a good conductor of heat. Because it's not a good conductor, a blanket works well to keep us warm at night as it won't conduct the heat from our bodies out to the cold air.

Heat has an impact on the state of matter. Matter can change state based on heat or temperature. There are three states that matter can take depending on its temperature: solid, liquid, and gas. For example, if water is cold and its molecules are moving very slow, it will be a solid (ice). If it warms up some, the ice will melt and water becomes a liquid. If you add a lot of heat to water, the molecules will move very fast and it will become a gas (steam).

Work to do:

- Give a title to the text.
- How many paragraphs are there?
- What are the main ideas of the text?
- Give some applications of heat.
- What is the role of physics in our daily life?