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:

1- Give a title to the text;
2- Give synonyms of the words written in bold;
3- Give opposites of the underlined words;
4- How to measure conductivity of materials?