

National Institute of Open Schooling
Secondary Course : Science And Technology
Lesson 14 : Thermal Energy
Worksheet-14

1. Thermal Energy is the energy due to which we feel hot or cold and it is an important form of energy and it gets connected intimately with our life and comfort. Observe your surroundings and mention its role in our life.
2. The term temperature and heat are often used interchangeably in everyday language. In Physics, is there any difference between temperature and heat?
 - a) If Yes, Support your answer with reasons.
 - b) If No, Support your answer with reasons.
3. Write an activity for understanding the concept that Heat and Temperature are intimately related.
4. It is generally observed that whenever a patient is brought to a doctor, the doctor normally measures patient's body temperature. Name the device the doctor uses to measure patient's body temperature and explain working of the device.
5. Continue to **Q4** do we have different thermometers for different purposes. Differentiate different types of thermometers which are used for different purposes.
6. Write a note on Construction of Thermometer and give reasons why use of mercury (not any other liquid) is preferred as thermometric liquid.
7. Observe your surroundings and list effects of heat in our daily life.
8. Write one activity for understanding the concept expansion in solids, liquids and gases when heat is supplied to solids, liquids and gases.
9. Continue to **Q8** Observe your surroundings and write uses of thermal expansion in day to day life.
10. The expansivity of different materials is normally different. The fact can be easily understood with different activities mentioned in **Q8**. Support your answer with suitable reasons why expansivity is different for different material. Define Linear Expansivity and Volume Expansivity.