



STEPPING STONE
SCHOOL (HIGH)

CLASS: 6

Subject: Physics

Date: 01/06/2020

Topic: Measurements (Thermometer) Time Limit: 30 min.

Worksheet No. : 7

*[Copy the questions following the notes and solve them on a sheet of paper date wise.
Keep the worksheets ready in a file to be submitted on the opening day.]*

Things To Remember:-

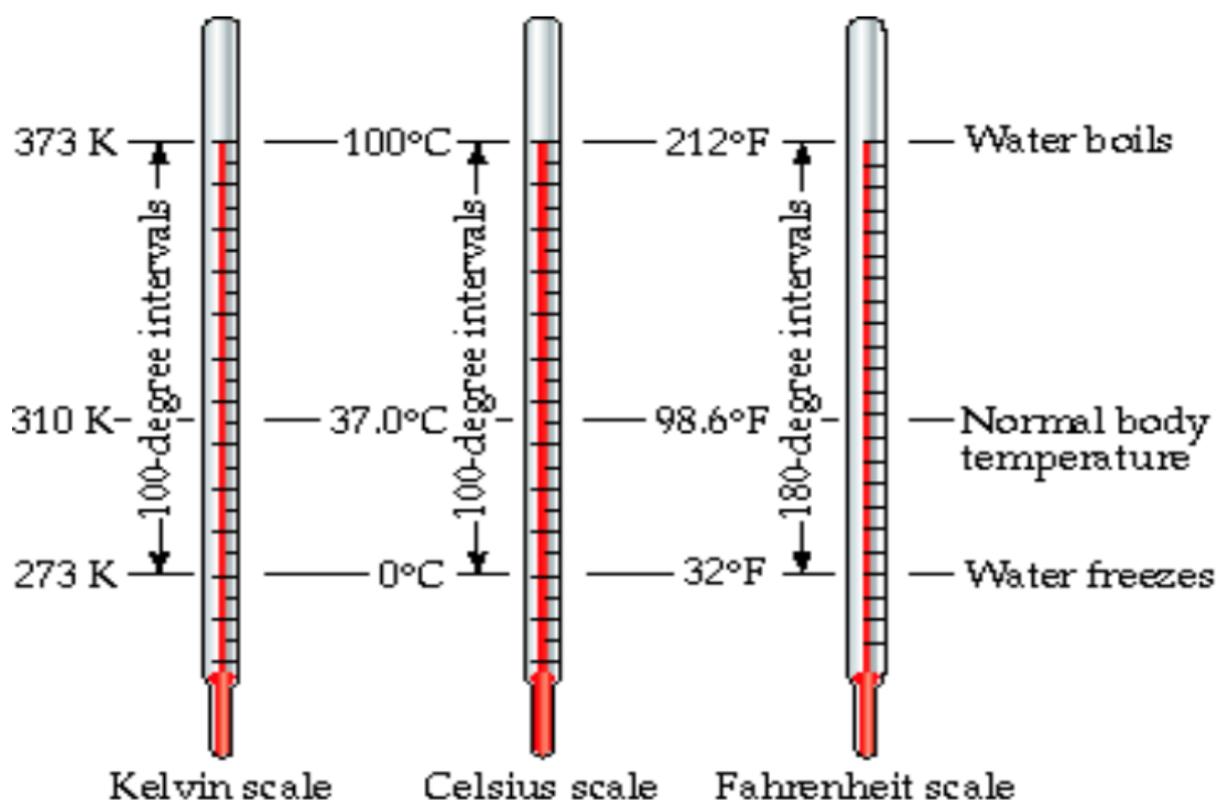
A **thermometer** is used to measure the temperature of an object. A thermometer consists of a long, narrow, uniform glass tube called the stem. The scales in which the temperature is measured are marked on the stem. At the end of the stem, there is a small bulb which contains mercury in it. A capillary tube is inside the glass stem in which mercury expands when the bulb is kept in contact with a hot body or cold body.

- The lower fixed point of thermometer is known as **melting point**
- The upper fixed point of thermometer is known as **boiling point**.

Some commonly used temperature scales are **the Celsius scales, the Fahrenheit scales & the kelvin scale**.

- In **Celsius scale**, the melting point of ice is taken as $0\text{ }^{\circ}\text{C}$ and the boiling point of water as $100\text{ }^{\circ}\text{C}$. The difference between the two points is divided into 100 degrees.
- In **Fahrenheit scale**, the lower fixed point or the melting point of ice is $32\text{ }^{\circ}\text{F}$ and the upper fixed point or the boiling point of water is $212\text{ }^{\circ}\text{F}$. The difference between these two points is divided into 180 degrees.

- In **Kelvin scale**, the lower fixed point or melting point is 273 K and upper fixed point or boiling point is 373 K. The difference between these two points is divided into 100 degrees.



Relation between °C, °F and K.

$$\frac{C - \text{freezing point}}{\text{no of divisions}} = \frac{F - \text{freezing point}}{\text{no of divisions}} = \frac{K - \text{freezing point}}{\text{no of divisions}}$$

$$\frac{C - 0}{100} = \frac{F - 32}{180} = \frac{K - 273}{100}$$

$$\text{or } \frac{C}{5} = \frac{F - 32}{9} = \frac{K - 273}{5}$$

Fill in the blanks

- (i) The temperature at which water freezes is known as _____.
- (ii) The upper fixed point of commonly used thermometer is also known as _____.
- (iii) Freezing point in Kelvin scale is _____.

- (iv) **The difference between melting & boiling point in Fahrenheit scale is divided into _____ division.**
- (v) **The temperature at which water boils is known as _____.**
- (vi) **In _____ & _____ scale the number of division are same between two points.**
- (vii) **Boiling point of water in Fahrenheit scale is _____.**

Questions

- (i) **Define thermometer?**
- (ii) **State and define some commonly used thermometer?**
- (iii) **Convert -40°F into $^{\circ}\text{C}$.**

[Click here to get YouTube video on measuring temperature](#)