

12 → The kinetic energy is the measure of temperature of the body, when temperature increases the average kinetic energy also increases. At boiling point, ~~At boiling~~ average kinetic energy increases.

15 → The expansion of a substance on heating is called thermal expansion of the substance.

18 → Factors on which linear expansion of rod depends

- i) Length of road
- ii) Temperature of road
- iii) Nature of material of road.

14) The road having greater length will expand more when roads are heated to the same temperature. 10m long road will expand more.

15) Most telephone wires are made out of copper which contracts with drop in temperature and hence breaks in winter if it becomes too tight between the poles.

b) Iron rims are made smaller in diameter than the wooden wheel, so on heating the rims expand and can easily slip over the wooden wheel and contract on cooling and fit tight over the wooden wheel.

c) The gaps are left between the successive rails for making

space for their ~~expansion~~ expansion when there is rise in temperature in

Summer:

1) A glass stopper stuck in the neck of a bottle can be removed by pouring hot water on the neck of the bottle, because the neck expands on pouring hot water.

2) Small pieces of cement expansion in summer. So, to allow expansion, gaps are left between small pieces.

27) When a solid is heated, it expands in all directions. When a cubical metal solid block is heated the volume of the cube increases.

32) Gas will expand more as the intermolecular forces of attraction in gas molecules is less and kinetic energy is maximum.