

EXPANSION AND CONTRACTION IN DAILY LIFE

WITH THE NAME OF ALLAH, MOST GRACIOUS, MOST MERCIFUL.

Allah (S.W.T.) has taught us many things. Among these, he has taught us to make use of expansion and contraction and how to allow for expansion and contraction in daily life.

In Sura Al-Baqara (Ch. 2) : verse 37 we read :-

“And He taught Adam the names (nature) of all things; ...”

Solids, liquids and gases expand when heated and contract when cooled.

Examples of expansion and contraction in daily life:-

- 1) Engines of motor vehicles run when gases expand.
- 2) When making steel rims for wheels.
- 3) When the screw-cap of a bottle cannot be opened.

Examples where it is necessary to allow for expansion and contraction :-

- A) When telephone wires are made, they are not pulled together tightly because on cold days they can contract and snap.
- B) Space is left between rails on a railway line so that the rails will not bend on a hot day.
- C) Oil and steam pipes are made with loops at certain places to provide for expansion and contraction of the pipes.

Worksheet

- 1) Why is space left between railway lines?

- 2) Complete: solids, liquids and gases _____ when heated and _____ when cooled.

- 3) Give two examples of expansion and contraction in daily life.
