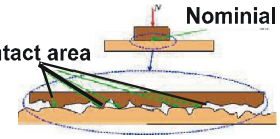
CLASS-VIII (CANCEPT MAP)

Friction

- Opposing force that is setup between the surfaces of contact,when one body slides or rolls or tends to do so on the surfaces of another body
- Frictional force has magnitude. It is measured in newtons.

Cause of friction

- Frictional force is produced when two surfaces rub against each other
- it is produced due to adhesive forces between contact surfaces

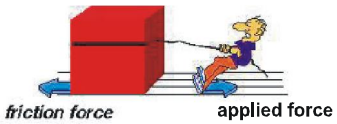


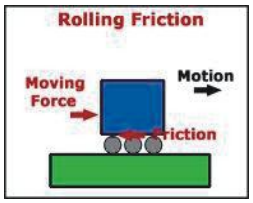
Dependence of friction

- directly proportional to the weight of body
- on the nature of surface in contact
- does not depend on the area of surfaces in contact till weight remains the same

Types of friction

- Static friction
- Limiting friction
- Sliding friction
- Rolling friction





Cause of rolling friction
Due to continuously forward forming inclined plane between roller and surfaces

The wheel flattens where it touches the road

Soon,this part of the tire will be flattened, flatten it the road must push back on the tire

Effects of friction

Uses

- Reduces slipping and sliding
- Allows us to control movement
- It would not be possible to light a matchstick without friction between its head and the side of the match box.
- Cars and buses are able to run on roads because of friction between the tyres and the road.
- without friction writing on paper would be impossible as the tip of the pen will slip on paper.

Demerits

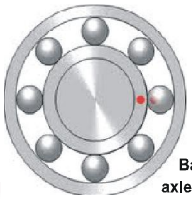
- Makes things overheat
- Makes objects move slowly
- cause tear and wear

Methods of increasing friction

- By making the surface rough
- By making grooves

Methods of decresing friction

- By applying oil or grease(by lubrication)
- By streamlining the body
- By using ball bearings
- By polishing the surface



Balls act as rollers between axle and inside suface of wheel