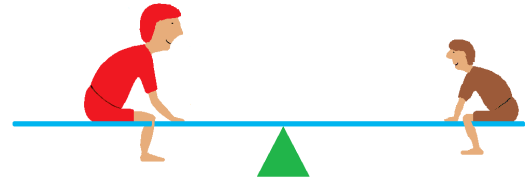


CHAPTER 9

MECHANISMS



- 1) Explain which type of pulley would you use to move:
 - a) A 0.8 kg load.
 - b) A 2 kg load.
 - c) A 30 kg load.

- 2) Look at the picture of the two children sitting on a see-saw. The see-saw doesn't move, it doesn't go up or down.
The small child is 4 m away from the fulcrum (load arm)
The bigger child is 2 m away from the fulcrum (effort arm)
The small child weighs 30 Kg. (Load)

How much does the big child weigh? (Effort)

- 3) Calculate the effort to move a load with a lever if:
 - a) Load arm = 30 cm ; effort arm = 10 cm ; Load = 1 Kg
 - b) Load arm = 60 mm ; effort arm = 12 mm ; Load = 10 Kg
 - c) Load arm = 8 cm ; effort arm = 24 cm ; Load = 30 Kg
 - d) Load arm = 25 m ; effort arm = 5 m ; Load = 100 Kg

- 4) What type of lever is the see-saw?

- 5) Go to <http://videos.howstuffworks.com/howstuffworks/116-how-clutches-work-video.htm> and watch the video about how the clutch works.

Write a 3 line summary about the video.

- 6) Which of these mechanisms have linear motion and which have rotary motion?
 - a) Motor
 - b) Belt
 - c) Pulley
 - d) Spur Gears
 - e) Clutch