Chapter-12 Friction

1. *Suppose your writing desk is tilted a little. A book kept on it starts sliding down. Show the direction of frictional force acting on it.*
   The direction of the friction will be in the backward direction that means upward.

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2. *Give examples to show that friction is both a friend and foe.*

   Friend:
   It helps us to walk.
   It helps us to stop a vehicle.
   Foe:
   Reduces the speed of an object.
   Heats up the outer surface of a fast moving object.

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3. *Explain why objects moving in fluids must have special shapes.*
   Objects moving in fluids must have special shapes as they do not run on flat and solid surface like land, but swim or fly and are also exposed to wether very low or wether very high pressure.

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4. *What is static friction?*
   The force required to overcome friction at the instant an object starts moving from rest is a measure of static friction.

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5. *What is sliding friction?*
   The force required to keep the object moving with same speed is a measure of sliding friction.

6. *Explain why sliding friction is less than static friction?*
   When an object starts sliding, the contact point on its surface, do not get enough time to lock into the contact point on the floor. So the sliding friction is less than the static friction.

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7. *Why the soles of our shoes is grooved?*
   The soles of the shoes are grooved so that it provides a better grip on the floor and we can walk safely.
