

Name: _____ Date: _____

Friction

Q1. Which is easier to hold in hand: a kulhar (earthen pot) or a glass tumbler? Why?

Ans. _____

Q2. Iqbal has to push a lighter box and Seema has to push a similar heavier box on the same floor. Who will have to apply a larger force and why?

Ans. _____

Q3. How do rough and smooth surfaces affect friction?

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Friction

Q1. Which is easier to hold in hand: a kulhar (earthen pot) or a glass tumbler? Why?

Ans. It is easier to hold a kulhar (earthen pot) in our hand than a glass tumbler. This is because due to rough surface of kulhar, the friction between kulhar and our hand is much more which makes it easier to hold it. On the other hand, due to the smooth surface of glass tumbler, the friction between glass tumbler and hand is much less which makes it comparatively difficult to hold it.

Q2. Iqbal has to push a lighter box and Seema has to push a similar heavier box on the same floor. Who will have to apply a larger force and why?

Ans. Force of friction arises because of interlocking of irregularities on the two surfaces in contact. When a heavy object is placed on the floor, the interlocking of irregularities on the surfaces of box and floor become strong. This is because the two surfaces in contact are pressed harder. Hence, more force is required to overcome the interlocking. Thus, to push the heavier box, Seema has to apply a greater force than Iqbal.

Q3. How do rough and smooth surfaces affect friction?

Ans. Friction is caused by the irregularities on the two surfaces in contact. Even those surfaces which appear very smooth have a large number of minute irregularities on them. Irregularities on the two surfaces lock into one another. When we attempt to move any surface, we have to apply a force to overcome interlocking. On rough surfaces, there are a larger number of irregularities. So the force of friction is greater if a rough surface is involved.