

Very short answer questions:

1. What is done to increase friction between tyres and roads?
2. Name the different types of friction.
3. What are the factors upon which the friction between two surfaces depends?
4. Sheela is playing tug of war. She feels that the rope is slipping away from her hands. Suggest ways by which she can prevent this.
5. What is the special shape of aeroplane and ships called?
6. How can a very heavy machine be moved conveniently from one place to another in a factory? (No crane is available for this purpose).
7. What is drag? Give examples.
8. If you try to hold a glass with a soapy hand, it slips from your hand. Why?
9. Why does friction damage the machines?
10. Name a device which is used to measure force acting on an object.

Short Answer Questions:

1. Why do brake pads of bicycles have to be replaced quite often?
2. How does oiling and using ball bearings help in reducing friction?
3. The handle of cricket bats and badminton racquets is usually rough. Why?
4. Explain why rolling friction is less than sliding friction?
5. When a ball is released from a certain point on an inclined wooden board, it travels a distance of 45 cm on floor A before it comes to rest. When the same ball is released from the same point on the same inclined board, it travels a distance of 20 cm on floor B before coming to rest. Which floor, A or B offers greater friction? Give reason for your answer.
6. You might have noticed that when used for a longer time, slippers with rubber soles become slippery. Explain.
7. Matchstick does not get ignited when stroked against a smooth surface, Justify
8. What are lubricants? How do they help in reducing friction?

Long answer questions:

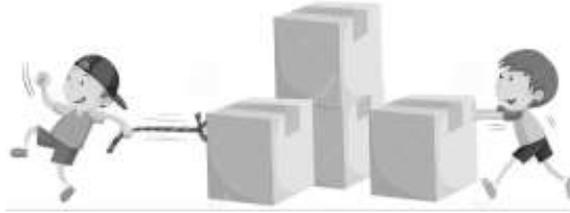
1. What is the relationship among magnitude of friction and
 - (a) The weight of the body
 - (b) Nature of surfaces in contact
 - (c) Area of the surfaces in contact.
2. It is easier to move a box which is already moving than one which is at rest. Why?
3. What is the measure of static friction and sliding friction?

HOTS

1. Why can't you write properly with a chalk on a glass sheet?
2. We have two identical metal sheets. One of them is rubbed with sand paper and the other with ordinary paper. The one rubbed with sand paper shines more than the other. Give reason.

DIAGRAM BASED QUESTION

1. Two friends are trying to push a heavy load as shown in given figure. Suggest a way which will make this task easier for them.



2. Arun and his friends performed an activity. They took few cylindrical rods and placed them parallel to each other. A thick block of wood was kept over it. They found it was easier to move that wooden block when it was kept over the cylindrical rods. Can you give a suitable explanation for their observation?

