

WORKSHEET

CLASS- VIII

SUBJECT- Science

CHAPTER-5, Friction

A. Fill in the blanks.

1. The force acting between the two surfaces, whenever an object moves or tends to move over the surface of another object is called the _____.
2. _____ friction is a self- adjusting force.
3. The more is the _____ of the two surfaces in contact, more is the force of friction.
4. Friction _____ up our palms in winter.
5. We _____ the ground under our feet backwards, when we walk.

B. State True or False.

1. Sliding friction is a little more than static friction between two surfaces. _____.
2. It's much easier to roll than to slide a body over a given surface. _____.
3. Static friction < Sliding friction < rolling friction. _____.
4. Friction leads to production of heat. _____.
5. We are unable to write on the blackboard because of friction. _____.

C. Match the following.

- | | |
|----------------------|--------------------------------|
| 1. Streamlined body. | Opposes motion |
| 2. Ball bearings | Friction between ground & feet |
| 3. Static friction | Fish |
| 4. Walking | Snow on roads |
| 5. Sand. | Excessive heat |
| 6. Machine parts. | Grooves for grip |
| 7. Tyres. | Shafts of motors |

D. Give reasons for the following.

1. Air resistance increases with increase in speed of the moving object.
2. We sprinkle talcum powder on the board when we play carrom.
3. It is slippery and difficult to walk on a floor with new tiles.
4. Birds and aeroplanes have streamlined bodies.
5. Roller skates have ball bearings in the wheels.

E. Answer the following.

1. Understanding rolling friction had lead to a revolution in the transport industry. Comment.
2. Sports cars come with very special shapes. Explain.
3. Explain ,what are the causes of friction.
4. What are the factors that affect friction? Explain with an example.
5. Why are the soles of our shoes treaded?

F. Multiple choice questions.

1. Which will come down with the greater speed?
 - a. Flat sheet of foil
 - b. Crumbled ball of foil
 - c. Both of these
 - d. None of them
2. Fluid friction depends upon
 - a. Nature of fluid
 - b. Shape of the moving object
 - c. Speed of the moving object
3. Sliding is replaced by rolling by using ball bearings in
 - a. Dynamos
 - b. Axles of vehicles
 - c. Shafts of motors
 - d. All of these
4. Friction can be reduced by
 - a. Oiling & greasing
 - b. Using talcum powder
 - c. Using Air cushions
 - d. All of these
5. Friction is a nuisance is seen in everyday events
 - a. Wear & tear of moving parts
 - b. Chemical energy
 - c. Fix a nail in the wall
 - d. Both a & b
6. Friction is a necessity in these cases
 - a. Walking on wet floor
 - b. Snow covered roads
 - c. Writing with a pen
 - d. All of these
7. Suitcase with wheels remove
 - a. Static friction
 - b. Sliding friction
 - c. Rolling friction
 - d. None of these
8. Which of these have the highest value of friction?
 - a. Rolling
 - b. Sliding
 - c. Static
 - d. None
9. Better grip comes by making
 - a. Grooves
 - b. Spikes
 - c. Treads
 - d. All of these

10. Friction helps everyday in

- a. Tie a knot
- b. Light a matchstick
- c. Fix screw on wood
- d. All of these

G. Think of all the instances in our daily life where friction acts as a friend and also when it is a nuisance. Cut out pictures of such examples from magazines and create a photo collage and show it to your teacher during the online class. Decorate your study room with this poster.