Assignment

Class  -VIII

SCIENCE

FORECE AND PRESSURE &FRICTION

**1.**   Write some harms of friction.

**2.**   What is sliding friction?

**3.**   Why we fall down when we stop on banana peel?

**4.**   In which direction frictional force acts on a moving object.

**5.**   What is easier- rolling or sliding?

**6.**   What is drag?

**7.**   Hoes does the friction get affected by the nature of surface?

**8.**   What happens, if the floor we walk on is friction less?

**9.**   The sole of shoes get worn after some time. Explain why?

**10.**   What happens when there is no friction between the chalk and the blackboard.

**11.**   Write on harm of friction.

**12.**   Why do kabaddi players rub their hands with soil?

Complete the sentence.

1. Friction always \_\_\_\_\_\_\_\_\_\_\_\_

       a. helps the motion

       b. opposes the motion

       c. both of these

       d. none of these

**2.**   Which one of these characteristics does a smooth surface has?

       a. Less frictional force

       b. More frictional force

       c. Sometimes less and sometimes more force

       d. All of above

**3.**   Friction is a \_\_\_\_\_\_\_\_\_\_

       a. Contact force

       b. Non-contact force

       c. Magnetic force

       d. None of these

**4.**   What kind of substances are known as lubricants

       a. Increase friction

       b. Decrease friction

       c. Increase or decrease friction

       d. None of these

**5.**   Fluid are\_\_\_\_

       a. Gases

       b. Liquids

       c. Gases and liquids both

       d. None of these

**6.**   On what force of friction depends?

       a. Smoothness of surface

       b. Roughness of surface

       c. Inclination of surface

       d. Al of above

**7.**   Friction is a /an\_\_\_\_\_\_\_

       a. Evil

       b. Foe

       c. Both (a) and (b)

       d. None

**8.**   Lubricants \_\_\_\_\_\_\_\_

       a. Increase friction

       b. Reduce friction

       c. Both (a) and (b)

       d. None

**9.**   Rolling friction is smaller than?

       a. Sliding friction

       b. Static friction

       c. Fluid friction

       d. All of the above

**10.**   The shape of the airplane is like a

        a. Bird

        b. Car

        c. Dog

        d. All

**1.**   Does friction depend on the nature of objects?

**2.**   Which type of surface produces more friction?

**3.**   Which type of surface produces less friction?

**4.**   Which is less sliding friction or static friction?

**5.**   Why is it difficult to move on a wet marble floor?

**6.**   What would happen when an object starts moving if there is no friction?

**7.**   Give two examples where friction is undesirable?

**8.**   Our hands become warm when we rub them. Why?

**9.**   Why do we shape aero planes like that of bird?

**10.**   Write some methods to reduce friction?

**11.**   Write various types of friction.

**12.**   What is a fluid friction? Write the factors on which fluid friction depends

**Extended Learning — Activities and Projects**

1. Make a 50 cm × 50 cm bed of dry sand about 10 cm in thickness. Make sure that its top surface is levelled. Take a wooden or a plastic stool. Cut two strips of graph paper each with a width of 1 cm. Paste them vertically on any leg of the stool - one at the bottom and the other from the top. Now gently put the stool on the sand bed with its legs resting on the sand. Increase the size of sand bed if required. Now put a load, say a school bag full of books, on the seat of the stool. Mark the level of sand on the graph strip. This would give you the depth, if any, to which the legs of stool sink in sand. Next, turn the stool upside down so that now it rests on its seat on the sand bed. Note the depth to which the stool sinks now. Next, put the same load on the stool and note the depth to which it sinks in the sand. Compare the pressure exerted by the stool in the two situations.
2. Take a tumbler and fill it with water. Cover the mouth of the tumbler with a thick card similar to that of a postcard. Hold the tumbler with one hand while keeping the card pressed to its mouth with your other hand. Turn the tumbler upside down while keeping the card pressed to its mouth. Make sure that the tumbler is held vertical. Gently remove the hand pressing the card. What do you observe? Does the card get detached allowing the water to spill? With a little practice you will find that the card continues to hold water in the tumbler even after it is not supported by your hand. Also try this activity by using a piece of cloth to hold the tumbler in an upside down position



3.Take plastic bottles of different shapes and sizes. Join them together with small pieces of glass or rubber tube as shown in Fig. Keep this arrangement on a level surface. Now pour water in any one of the bottles. Note whether the bottle in which water is poured gets filled first or all the bottles get filled up simultaneously. Note the level of water in all the bottles from time to time. Try to explain your observations.

