

**ST. THOMAS SCHOOL
DHRUWA, RANCHI – 4
THIRD TERM 2021-22**

Std – 4

Subject – Science

Practice paper – 4 (with model answer)
L-12 Friction as a Force

Q 1. Give two examples.

1. Friction related to our daily life –

Ans. (i) Friction helps us to walk.

(ii) Friction helps us to hold things and to write.

2. Substances that are used to reduce friction –

Ans. (i) Use of oil, powder.

(ii) Use of wheels.

Q2. Write True or False for the following: -

1. Friction is not a force – False
2. Friction between two objects produces heat – True
3. Friction is a pushing force – True
4. The use of wheels increases friction – False
5. Friction makes it possible for us to walk – True
6. Friction causes wear and tear of surfaces of objects – True
7. Oiling reduces friction – True
8. Friction waste energy – True

Q3. Match the following: -

A

1. rubbing palms – (e)
2. oil – (a)
3. groove on tyres – (d)
4. rough surface (b)
5. Friction waste (c)

B

- (a) reduces friction
- (b) increases friction
- (c) energy
- (d) improve road grip
- (e) produces heat

Q4. Give reason

1. Friction helps us to walk.

Ans. The friction between the soles of our shoes and ground prevents us from slipping while walking and thus we get a better grip on ground.

2. Cars & Buses are able to run on roads.

Ans. The friction between the tyres of the car/bus and the road helps to get a grip on the road and enables the car/bus to move ahead.

3. It is difficult to walk on ice?

Ans. It is difficult to walk on ice because there is very little friction between the bottom of our shoes and ice.

4. Suitcases now a days come with wheels.

Ans. Wheels makes it easy to move heavy objects. That is why suitcases now a days come with wheels.

5. While playing carom, white powder is spread on the board.

Ans. It is because powder reduces the friction between the striker and the board. This helps the striker to move smoothly over the board.

6. A match stick ignites when its tip is rubbed against the match box.

Ans. The match sticks ignite because the friction between the edge of the match stick and the match box produces enough heat to light the chemical on the tip of the match stick.

7. Oil is used on moving parts of machines that moves over one another.

Ans. Oiling reduces friction. So, we use oil to reduce the friction between the moving parts inside the machines or car engine.

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