

Name: _____ Date: _____

Friction

Q1. When we strike a matchstick against the rough surface, it catches fire. Give reason.

Ans. _____

Q2. Suppose your writing desk is tilted a little. A book kept on it starts sliding down. Show the direction of frictional force acting on it.

Ans. _____

Q3. How lubricants work?

Ans. _____

Q4. Explain why the sliding friction is less than the static friction.

Ans. _____

Friction

Q1. When we strike a matchstick against the rough surface, it catches fire. Give reason.

Ans. When we strike a matchstick against the rough surface, then the friction between the head of the matchstick and rough surface produces heat. This heat burns the chemicals present on the head of the matchstick due to which the matchstick catches fire.

Q2. Suppose your writing desk is tilted a little. A book kept on it starts sliding down. Show the direction of frictional force acting on it.

Ans. When a book slides on the writing desk, a frictional force acts between the book and the surface of the desk. The direction of frictional force on the book is opposite to the direction of its motion and acts in upward direction.

Q3. How lubricants work?

Ans. When oil, grease or graphite is applied between the moving parts of a machine, a thin layer is formed there and moving surfaces do not directly rub against each other. Interlocking of irregularities is avoided to a great extent. Thus, Movement becomes smooth.

Q4. Explain why the sliding friction is less than the static friction.

Ans. Friction is caused by the interlocking of irregularities in the two surfaces. When the object starts sliding, the contact points on its surface do not get enough time to lock into the contact points on the floor. So, the sliding friction is slightly smaller than the static friction and we find it somewhat easier to move the object already in motion than to get it started.