NCERT Solutions For Class 8 Science Chapter 12: For 8th class students, the NCERT Solutions for Class 8 Science Chapter 12 Friction are essential tools. The solutions offered here are meant to aid students in developing an engaging understanding of the chapter. Experts in the field have developed these Chapter 12 Friction Solutions under the most recent CBSE syllabus and norms.

The solutions to the problems in the CBSE Class 8 Science textbook are included in this solution, along with additional questions, worksheets, MCQs, exemplary questions, and short answer questions.

In order to properly prepare for their examination, students are urged to practise the solutions on a regular basis. Students are recommended to read and complete past years' question papers and sample papers in addition to the NCERT Solutions. Completing the last year's questions will enable them to become familiar with the most recent exam format and marking system.

NCERT Solutions For Class 8 Science Chapter 12 Overview

Science is a study of intriguing and captivating discoveries. The clearest explanation of the idea of friction can be found in our chapter 12 of NCERT Solutions Class 8 Science. Science, Chapter 12, 8th grade an excellent resource for the chapter's foundations and precise solutions to challenging math problems is NCERT Solutions. Students who want to ace their exams can study NCERT Solutions Science Chapter 12. Students can use NCERT Solutions for Class 8th Science Chapter 12 to visualize and explore the concept.

Comprehensive insights into the intriguing realm of friction can be found in our NCERT Solutions for Class 8 Science Chapter 12 "Friction". Students will find it easier to comprehend the function of friction in daily life with the help of these solutions, which address the basic ideas and concepts linked to frictional forces. Our dedication to education is apparent, with an emphasis on precision and clarity, and they provide students with high-quality, easily accessible resources.

These answers not only help students understand science better, but they also enable them to understand the importance of friction in a variety of contexts, such as industrial processes and transportation. Our admirable commitment to advancing scientific literacy and excellence makes these solutions a crucial component of science education for pupils.

Some of the Major Topics Covered under Class 8 Science Chapter 12

Here we have listed some of the topics of NCERT Solutions For Class 8 Science Chapter 12 Friction -

- Friction
- What Are the Causes of Friction?
- Factors Affecting Friction
- Types of Friction
- Advantages of Friction
- Disadvantages of Friction

NCERT Solutions For Class 8 Science Chapter 12

Here we have provided NCERT Solutions for Class 8 Science Chapter 12 for the ease of students so that they can prepare better for their exams.

1. Fill in the blanks.

(a) Friction opposes the _____ between the surfaces in contact with each other.

(b) Friction depends on the _____ of surfaces.

(c) Friction produces _____.

(d) Sprinkling of powder on the carrom board _____ friction.

(e) Sliding friction is _____ than the static friction.

Soln:

(a) Friction opposes the **motion** between the surfaces in contact with each other.

(b) Friction depends on the **nature** of surfaces.

(c) Friction produces **heat.**

(d) Sprinkling of powder on the carrom board **reduces** friction.

(e) Sliding friction is **lesser** than the static friction.

2. Four children were asked to arrange forces due to rolling, static and sliding frictions in a decreasing order. Their arrangements are given below. Choose the correct arrangement.

(a) rolling, static, sliding

(b) rolling, sliding, static

(c) static, sliding, rolling

(d) sliding, static, rolling

The answer is (c) static, sliding, rolling

3. Alida runs her toy car on dry marble floor, wet marble floor, newspaper and towel spread on the floor. The force of friction acting on the car on different surfaces in increasing order will be

(a) wet marble floor, dry marble floor, newspaper and towel

(b) newspaper, towel, dry marble floor, wet marble floor

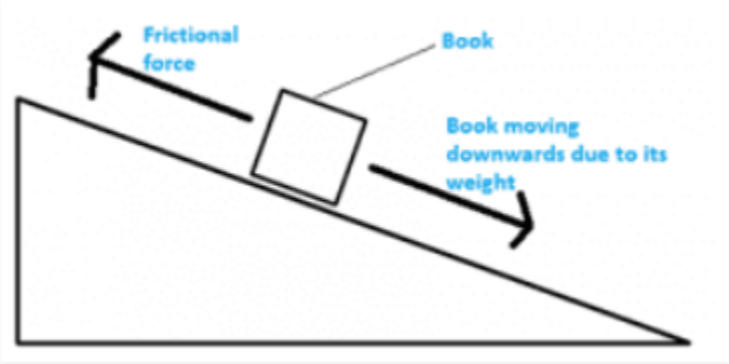
(c) towel, newspaper, dry marble floor, wet marble floor

(d) wet marble floor, dry marble floor, towel, newspaper

The answer is (a) wet marble floor, dry marble floor, newspaper and towel.

4. 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.

A frictional force is created between the book and the desk surface when it slides down on it. The friction force acting on the book is directed upward and in the opposite direction to the direction of its travel. In the diagram below, it is displayed.



5. You spill a bucket of soapy water on a marble floor accidentally. Would it make it easier or more difficult for you to walk on the floor? Why?

Because of the friction between our feet and the ground, walking is feasible on the floor. When walking, our feet press on the earth in a rearward motion. We are able to walk because of the force of friction pushing it forward. If there is soapy water on the floor, there is less friction between the feet and the ground. This makes walking on the soapy floor challenging.

6. Explain why sportsmen use shoes with spikes.

Because spikes provide a superior grip when running, athletes use shoes with spikes. This is a result of the spikes increasing the force of friction between the shoes and the ground.

7. Iqbal has to push a lighter box and Seema has to push a similar heavier box on the same floor. Who will have to apply a larger force and why?

The force of friction is created when the imperfections on the two surfaces in contact interlock. The imperfections on the floor and box's surface interlock strongly when a heavy object is placed on it. This is a result of greater pressure between the two in touch surfaces. As a result, greater force is needed to release the interlocking. Seema must therefore exert more force than Iqbal in order to push the heavier box.

8. Explain why sliding friction is less than static friction.

Friction arises when surface imperfections between two things come into contact and become entangled. There is very little time allotted for slides to interlock. Interlocking is therefore weak. Consequently, less effort is needed to release this entanglement. Sliding friction is therefore less than static friction.

9. Give examples to show that friction is both a friend and a foe.

Benefits of friction

a) Friction allows us to move and walk.

b) The friction created by the pen's tip and the paper allows us to write.

The drawbacks of friction

a) Tyres and shoe soles deteriorate due to friction.

b) Heat is produced by friction between the machine's many components. The machines may be harmed by this.

10. Explain why objects moving in fluids must have special shapes.

An opposing force seeks to prevent a body from moving through a fluid in the same way as it does. The drag force is this opposing force, and the frictional force is contingent upon the geometry of the body. It is possible to reduce the amount of friction acting on an object by giving it a unique shape. As a result, a body can travel through the fluid more easily.

Benefits of NCERT Solutions For Class 8 Science Chapter 12

Some of the main advantages of practicing the NCERT Solutions for Class 8 Science Chapter 12 Friction are as follows.

- Experts have carefully selected NCERT solutions, with the main goal being to cover every crucial subject.
- The solutions are presented in an understandable, exact, and basic manner.
- The answers are precise and adhere to the CBSE format for responding to queries.
- The subject matter specialists have offered clearly described solutions that take into account each student's intellectual capacity to help everyone understand the topics more fully.
- Examples are provided after concepts to help with comprehension of the theories.