NCERT Solutions For Class 6 Science Chapter 15: Detailed Solutions With Explanations

NCERT Solutions For Class 6 Science Chapter 15 *are given below to help CBSE Class 6 science students in their exam preparation. Students can find the detailed solutions for Science Chapter 15 here!*

NCERT Solutions For Class 6 Science Chapter 15: NCERT Solutions for Class 6 Science Chapter 15 serve as an excellent study aid for students preparing for their examinations. Understanding all the concepts in Air Around Us Class 6 is essential for writing precise answers and securing good marks in science exams.

Students may sometimes find certain textbook concepts confusing due to unnecessary or irrelevant sentences. NCERT Solutions for Class 6 Chapter 15 efficiently help understand the significant topics covered in Class 6 Science, making it easier for students to navigate and understand the material quickly.

NCERT Solutions For Class 6 Science Chapter 15 Overview

NCERT Solutions for Class 6 Science Chapter 15, "Air Around Us," are beneficial for students to grasp the concepts thoroughly. Crafted by experts at PhysicsWallah in line with the 2023-24 CBSE syllabus, these solutions cover topics like air, its constituents, wind, air in soil and its significance, the importance of oxygen for living organisms, the atmosphere, and the crucial role of plants for our survival.

The detailed answers to the questions provided in these solutions aid students in comprehending the covered concepts effectively. Therefore, to achieve good marks in examinations, it is advisable for students to study the NCERT Solutions for Class 6 Science. These solutions not only enhance understanding of air-related concepts but also prepare students well, instilling confidence for the annual exams.

NCERT Solutions For Class 6 Science Chapter 15 Air Around Us

NCERT Solutions for Class 6 Science Chapter 15 Air Around Us are provided here with simple step-by-step explanations.

1. What is the composition of air?
Air comprises water vapour, oxygen, nitrogen, carbon dioxide, dust and smoke.

2. Which gas in the atmosphere is essential for respiration?
Oxygen in the atmosphere is essential for respiration.

3. How will you prove that air supports burning?
Place two candles of the same length on a table. Light both candles. Cover one of the candles with an inverted glass tumbler. We can observe that the candle covered with the glass tumbler got extinguished after some time, whereas the other candle continued burning. The candle gets extinguished because the air component inside of the glass tumbler, which supports burning, is limited. Most of the component is used up by the burning candle. However, the other candle is getting a continuous supply of air. This component of air, which supports burning, is known as oxygen.

4. How will you show that air is dissolved in water?
Take some water in a container. Heat it slowly on a tripod stand. Before the water begins to boil, look at the inner surface of the container. We observe tiny bubbles inside.
These bubbles come from the air dissolved in water. When you heat the water, to begin with, the air dissolved in it escapes. This experiment concludes that air is present in the water.

5. Why does a lump of cotton wool shrink in water?
The lump of cotton wool shrinks in water because the air inside the cotton lumps is replaced by water which makes the layer stick together.

6. The layer of air around the earth is known as _____.
The layer of air around the earth is known as the atmosphere.

7. The component of air used by green plants to make their food is _____.
The component of air used by green plants to make their food is carbon dioxide.

8. List five activities that are possible due to the presence of air.
The five activities that are possible due to air are as follows:

- Photosynthesis
- Cloud formation
- Respiration
- Transpiration
- Winnowing

9. How do plants and animals help each other in the exchange of gases in the atmosphere?
During the process of respiration, animals and plants consume oxygen from the air and release carbon dioxide gas into the air. Besides, green plants also release oxygen gas by utilising carbon dioxide during the process of photosynthesis. Hence, in this way, plants and animals help each other in the exchange of gases in the atmosphere.

Benefits of NCERT Solutions for Class 6 Science Chapter 7

The benefits of using NCERT Solutions for Class 6 Science Chapter 15, "Air Around Us," are manifold, providing students with a comprehensive learning experience. Here's a detailed overview of the advantages:

1. Conceptual Clarity: NCERT Solutions offer clear explanations and detailed answers, ensuring students develop a strong conceptual understanding of the topics covered in Chapter 15. This clarity is crucial for a solid foundation in science.

2. Exam Preparation: The solutions provide well-structured answers to questions that are likely to appear in examinations. By studying these solutions, students can effectively prepare for their exams, gaining confidence in tackling questions related to the chapter.

3. Concise and Relevant Information: NCERT Solutions eliminate unnecessary details, offering concise and relevant information aligned with the CBSE syllabus. This streamlining aids students in focusing on essential concepts, making their study sessions more efficient.

4. Ease of Comprehension: Written in a language that is easy to comprehend, the solutions cater to students of varying learning levels. The simplified language ensures that even complex concepts are presented in a way that is accessible and understandable.

5. Better Time Management: The solutions help in optimising study time by providing direct and to-the-point answers. Students can efficiently cover the material, leaving them with ample time for practice and revision.

6. Exam-oriented Approach: NCERT Solutions for Class 6 Science Chapter 15 follow an exam-oriented approach, aligning with the patterns and formats typically seen in CBSE examinations. This familiarity with exam-style questions enhances students' preparedness for the actual tests.

7. Enhanced Problem-Solving Skills: By tackling the questions and exercises in the solutions, students improve their problem-solving skills. The step-by-step solutions guide them through the thought process, aiding in the development of logical reasoning.

8. Self-assessment and Progress Tracking: The solutions often include self-assessment questions and exercises. By attempting these, students can assess their understanding and track their progress. Identifying areas that require more attention allows for targeted study.

9. Comprehensive Coverage: NCERT Solutions cover all the significant topics included in Chapter 15 of Class 6 Science. This comprehensive coverage ensures that students are well-equipped with knowledge across various aspects of the subject.

10. Accessible Anytime, Anywhere: Being available in a digital format, NCERT Solutions offer flexibility in access. Students can study and revise the material anytime and anywhere, utilising online platforms for convenience.

How to Prepare With NCERT Solutions for Class 6 Science Chapter 15

Preparing with NCERT Solutions for Class 6 Science Chapter 15, "Air Around Us," involves a strategic approach to maximise understanding and perform well in exams. Here's a detailed guide on how to prepare effectively:

1. Familiarise Yourself with the Chapter: Start by reading the chapter thoroughly to understand the key concepts, definitions, and topics covered. Pay attention to the structure of the chapter to grasp the flow of information.

2. Use NCERT Textbook: NCERT Solutions are designed to complement the NCERT textbooks. Use the textbook along with the solutions for an integrated learning experience. Cross-reference between the two to reinforce your understanding.

3. Read NCERT Solutions Thoroughly: Go through the NCERT Solutions for Chapter 15 meticulously. Understand the step-by-step solutions provided for each question. Focus on the reasoning and logic behind each answer to build a strong conceptual foundation.

4. Take Notes: While studying the solutions, take concise notes summarising key points. This will serve as a quick reference during revision and help in reinforcing important information.

5. Practice Regularly: Practice is crucial for science subjects. Work on the exercises and additional questions provided in NCERT Solutions. Regular practice enhances problem-solving skills and familiarises you with various types of questions that may appear in exams.

6. Self-assessment: Engage in self-assessment by attempting the questions without looking at the solutions initially. Compare your answers with the solutions to identify areas that need improvement. This process enhances your understanding and boosts confidence.

7. Clarify Doubts: If you encounter any doubts or difficulties, consult your teacher, classmates, or refer to additional study materials. Clearing doubts promptly ensures a solid understanding of the concepts.

8. Create a Study Schedule: Plan a study schedule that allocates specific time slots for Chapter 15. Break down the study sessions into manageable chunks, covering different sections of the chapter. This prevents last-minute cramming and promotes better retention.

9. Use Visual Aids: Create visual aids like diagrams or charts to represent concepts such as the composition of air, atmospheric layers, etc. Visual aids enhance understanding and serve as memory aids during revision.

10. Revision: Regularly revise the chapter to reinforce your learning. Use the notes you've taken and revisit the solutions periodically. Frequent revision helps in better retention and recall during exams.

11. Mock Tests: Practise with mock tests or sample question papers to simulate exam conditions. This helps in improving time management, identifying weak areas, and familiarising yourself with the exam pattern.

12. Stay Consistent: Consistency is key to effective preparation. Regular, small study sessions are more beneficial than irregular, lengthy ones. Stay disciplined and adhere to your study schedule.

NCERT solutions for class 6 science chapter 15 Important Questions

Q1. Is air present everywhere around us?
Yes, air is present everywhere around us.

Q2. What is air made up of?
Air is made up of various gasses, including nitrogen, oxygen, carbon dioxide, and traces of other gases.

Q3. How does oxygen become available to animals and plants living in water and soil?
Oxygen becomes available to animals and plants living in water and soil through processes like diffusion and the movement of air.

Q4. How is the oxygen in the atmosphere replaced?
The oxygen in the atmosphere is replaced through photosynthesis, where plants produce oxygen by using sunlight, carbon dioxide, and water.

Q5. What are five activities made possible by the presence of air, according to Chapter 15 of NCERT Solutions for Class 6 Science?
The five activities made possible due to the presence of air are:

- Photosynthesis
- Cloud formation
- Respiration
- Transpiration
- Winnowing.

Q6. How can you demonstrate that air supports burning, as discussed in Chapter 15 of NCERT Solutions for Class 6 Science?
To demonstrate that air supports burning, place two candles of equal length on a table. Light both candles. Cover one candle with an inverted glass tumbler. Observing the experiment, you will notice that the candle covered with the glass tumbler eventually goes out, while the other candle continues to burn. This happens because the air component supporting burning inside the glass tumbler is limited, as most of it is consumed by the burning candle. The continuous supply of air allows the other candle to burn, and this air component supporting burning is known as oxygen.

Q7. How does an organism living in soil breathe?
Through air present in soil.

Q8. How can you show that air is dissolved in water?
Take water in a pan and heat it. After sometimes just before it boils we can observe some bubbles at the inner surface of the pan. This is because of the air dissolved in water.

Q9. Why does an animal living in soil come out of soil for respiration in the rainy season?
When it rains heavily, water fills up all the spaces occupied by the air in the soil. Therefore, organisms living in soil have to come out for respiration.

Q10. Why does a lump of cotton wool shrink in water?
A lump of cotton wool shrinks in water because water fills up the empty space that the air has occupied.

NCERT Solutions For Class 6 Science Chapter 15 FAQs

1. What is air made up of?
Air is made up of various gasses, including nitrogen, oxygen, carbon dioxide, and traces of other gases.

2. How does oxygen become available to animals and plants living in water and soil?
Oxygen becomes available to animals and plants living in water and soil through processes like diffusion and the movement of air.

3. How is air formed?
Air is formed through the natural processes of Earth's atmosphere, involving the presence of various gases like nitrogen, oxygen, and carbon dioxide.

4. Why is air important to animals?
Air is important to animals as it contains oxygen, necessary for respiration and survival.

5. Why is air important to plants?
Air is important to plants as it facilitates photosynthesis, a process where they produce oxygen and convert carbon dioxide into food.