

# NCERT Solutions For Class 6 Science Chapter 4:

## Topic-Wise Exercise Solutions

*NCERT Solutions For Class 6 Science Chapter 4 have been provided below for CBSE Class 6 students. Interested students can check the complete NCERT solutions for Class 6 Science Chapter 4 on this page!*

**NCERT Solutions For Class 6 Science Chapter 4:** NCERT Solutions For Class 6 Science Chapter 4 aims to help students grasp the concepts outlined in Sorting Materials into Groups, in accordance with the CBSE syllabus. This material is crucial for those preparing for the CBSE Class 6 annual examination. The answers in these solutions, crafted by experts at PhysicsWallah, assist students in resolving queries related to Sorting Materials into Groups. The responses offer a strong foundation by providing detailed explanations to the textbook's exercise questions in simple language.

### NCERT Solutions For Class 6 Science Chapter 4 Overview

NCERT Solutions for Class 6 Science play a vital role in scoring well in the Class 6 examination and easing comprehension of advanced topics in higher classes. Accessible both online and offline, these solutions are excellent study resources. They cover topics like objects around us, different types of materials, their properties such as hardness and opacity, similarities and differences between materials, and the significance of grouping materials.

### NCERT Solutions For Class 6 Science Chapter 4 Sorting Materials Into Groups

NCERT Solutions For Class 6 Science Chapter 4 Sorting Materials into Groups, is comprehensively explained in the NCERT Solutions, ensuring a solid understanding. These solutions, crafted by subject experts, can be valuable for school exams and olympiads. PhysicsWallah's NCERT Solutions are regularly updated to align with the latest syllabus, ensuring students focus on the most recent content.

NCERT Solutions For Class 6 Science Chapter 4 delves into the details of objects around us, different types of materials, and their properties.

### Exercise Questions

1. Name five objects which can be made from wood.

**Solution:**

- a) Table
- b) Chair
- c) Doors
- d) Desk

e) Box

**2. Select those objects which shine from the following:**

**Glass bowl, steel spoon, plastic toy, cotton shirt**

**Solution:**

Glass bowls and steel spoons are the objects which shine.

**3. Match the objects given below with the materials from which they could be made. Remember, an object could be made from more than one material, and a given material could be used for making many objects.**

| Objects | Material |
|---------|----------|
| Book    | Glass    |
| Tumbler | Wood     |
| Chair   | Paper    |
| Toy     | Leather  |
| Shoes   | Plastics |

**Solution:**

| Objects | Material                              |
|---------|---------------------------------------|
| Book    | Paper, wood                           |
| Tumbler | Glass, wood, plastic                  |
| Chair   | wood, plastic                         |
| Toy     | Glass, wood, paper, plastics, leather |
| Shoes   | Leather, plastic                      |

**4. State whether the statements given below are True or False.**

**(i) Stone is transparent, while glass is opaque.**

- (ii) A notebook has lustre while an eraser does not.
- (iii) Chalk dissolves in water.
- (iv) A piece of wood floats on water.
- (v) Sugar does not dissolve in water.
- (vi) Oil mixes with water.
- (vii) Sand settles down in the water.
- (viii) Vinegar dissolves in water.

**Solution:**

- i) False
- ii) False
- iii) False
- iv) True
- v) False
- vi) False
- vii) True
- viii) True

**5. Given below are the names of some objects and materials:**

**Water, basketball, orange, sugar, globe, apple and earthen pitcher. Group them as:**

**(a) Round shaped and other shapes**

**(b) Eatables and non-eatables**

**Solution:**

(a) Round shaped – Basketball, Orange, Globe, Apple, Earthen Pitcher

Other shapes – Water, Sugar

(b) Eatables – Water, Orange, Sugar, Apple

Non-eatables – Basketball, Globe, Earthen Pitcher

**6. List all items known to you that float on water. Check and see if they will float on oil or kerosene.**

**Solution:**

A few items that float on water are as follows:

1. Sponge's piece
2. Plastic bottle
3. Paper's piece
4. Thermocol's piece
5. Wood
6. Plastic ball
7. Cork

However, these items will not float on oil or kerosene.

**7. Find the odd one out from the following:**

**a) Table, Bed, Baby, Chair, Cupboard**

**b) Rose, Boat, Lotus, Jasmine, Marigold**

c) Aluminum, Copper, Iron, Sand, Silver

d) Sugar, Sand, Salt, Copper Sulphate

**Solution:**

a) Baby – others are made up of wood

b) Boat – others are flowers

c) Sand – others are metals

d) Sand – others are soluble in water

## **NCERT Class 6 Science Chapter 4 Sorting Materials Into Groups Topic-Wise Discussion**

Here's a topic-wise discussion for NCERT Class 6 Science Chapter 4:

### **4.1 Things Around Us**

NCERT Solutions for Class 6th Science Chapter 4 aim to assess what students already know about the things that are around us. The lesson primarily aims to show how to group these things. Students also learn how to organise things into different groups in this section. PhysicsWallah's NCERT solutions highlight the methods and principles of sorting various things, helping students better understand them. When a thing is present, they can easily determine which category it belongs to.

Two activities are provided to students for practical knowledge about things and the materials used for them in the NCERT Solutions of Science Class 6 Chapter 4 PDF.

### **4.2: Characteristics of Materials**

In this part of Chapter 4, students can learn about the different characteristics of materials because things need to be categorised based on their characteristics. Things with similar characteristics are placed in a single group. Class 6 Science Chapter 4 NCERT Solutions mainly focus on things, their materials, their characteristics, and their purposes.

Without prior knowledge of the purpose of an item, we should not use the appropriate material to make it. Chapter 4 of Class 6 Science explains the concept of characteristics using a simple example that can be understood by sixth-grade students.

#### **Appearance**

In CBSE Class 6 Science Chapter 4, students are encouraged to understand the first characteristic that helps in easily grouping objects – appearance. This visible trait, as explained in PhysicsWallah's NCERT Solutions, includes examples like wood, iron, steel, plastic, etc. Students are also involved in activities where they collect various objects based on their appearance.

#### **Hardness**

NCERT Solutions for Class 6 Science Chapter 4 prioritise the use of sense organs to categorise objects. Moving on to the next characteristic, it is the hardness of the object. Students can comprehend this by simply touching the object. For instance, wood feels hard, while objects made of cloth or rubber feel soft. Using this understanding, students can group objects accordingly.

### **Soluble or Insoluble**

As students explore different object properties in Chapter 4 of Class 6 Science using PhysicsWallah's NCERT Solutions, another important aspect is solubility. The chapter guides students to test items by mixing them in water. If an item dissolves, it's termed a solution, and if it doesn't, it's considered a nonsolution.

### **Objects may Float or Sink**

This part requires careful attention from students, and the NCERT Solutions of Class 6 Science make efforts to clarify the distinction between these two properties. The chapter also introduces a visual aid method using photos to help students understand this concept.

### **Transparency**

In NCERT Solutions for Class 6 Science Chapter 4, which focuses on sorting materials into groups, the last section enlightens students about transparent and opaque materials.

## **Benefits of NCERT Solutions for Class 6 Science Chapter 4**

Here are some of the main benefits of NCERT solutions for Class 6 Science Chapter 4:

1. **Aligned with the Curriculum:** NCERT solutions are designed to closely follow the curriculum prescribed by educational boards. This ensures that students receive information and guidance that is directly relevant to their academic syllabus.
2. **Clear and Concise Explanations:** NCERT solutions offer clear and concise explanations for each topic covered in the textbook. The language used is simple, making it easy for students to understand complex concepts.
3. **Step-by-Step Solutions:** Complex problems and questions are broken down into step-by-step solutions. This approach helps students understand the logical progression of solving a problem, enhancing their problem-solving skills.
4. **Illustrative Diagrams and Examples:** Visual aids, diagrams, and examples are often included in NCERT solutions to supplement textual explanations. This visual representation helps students develop a better understanding of the concepts and improves retention.
5. **Correct and Authentic Information:** NCERT solutions are known for providing accurate and authentic information. Students can rely on these solutions for correct answers and information, helping them build a strong foundation in the subject.
6. **Exam-oriented Approach:** NCERT solutions are crafted with an exam-oriented approach. This means that the content is structured to help students prepare for their examinations effectively. It covers key topics likely to be tested in exams.
7. **Additional Practice Material:** Apart from solving questions from the textbook, NCERT solutions often include additional practice questions and exercises. This supplementary material allows students to reinforce their understanding and practise more problems for better mastery of the subject.
8. **Self-Assessment and Evaluation:** NCERT solutions typically include self-assessment exercises and questions at the end of each chapter. This allows students to evaluate their understanding of the concepts covered and identify areas where they may need further clarification.

9. **Encourages Self-study:** With the help of NCERT solutions, students can engage in self-directed study. The clear explanations and structured format empower students to learn independently, fostering a sense of self-reliance and confidence.
10. **Widely Accepted Resource:** NCERT textbooks and solutions are widely accepted and recommended by educational boards across India. Many competitive exams also refer to NCERT textbooks, making these solutions a valuable resource for comprehensive learning.

## How to Prepare With NCERT Solutions for Class 6 Science Chapter 4?

Preparing for Class 6 Science Chapter 4 with NCERT solutions involves a systematic and thorough approach to understand the concepts and principles covered in the chapter. Chapter 4 of the NCERT Science textbook for Class 6 is titled "Sorting Materials into Groups." Here's a detailed guide on how to prepare effectively:

1. **Read the Chapter Thoroughly:** Start by reading the entire Chapter 4 carefully. Understand the main concepts, definitions, and key points. Pay attention to the examples provided to illustrate different materials and their properties.
2. **Highlight Important Points:** As you read through the chapter, use a highlighter to mark important points, definitions, and examples. This will help you in quick revision before exams.
3. **Understand the Concepts:** Make sure you have a clear understanding of the concepts discussed in the chapter. If there are any terms or ideas that are unclear, refer to your class notes or additional resources to get a better grasp.
4. **Solve NCERT Questions:** After reading the chapter, solve the questions given at the end. NCERT questions are designed to test your understanding of the concepts. Attempt each question and cross-verify your answers with the solutions provided in the textbook.
5. **Use NCERT Solutions:** NCERT solutions are available at the end of each chapter in the textbook. Refer to these solutions to check the correctness of your answers. Understand the step-by-step solutions provided to improve your problem-solving skills.
6. **Make a Summary:** Create a summary of the chapter in your own words. This can be in the form of notes or a mind map. Summarising the chapter will help reinforce your understanding of the key concepts.
7. **Practise Additional Questions:** To enhance your problem-solving skills, practise additional questions related to the chapter. You can find extra questions in reference books or online platforms. This will expose you to a variety of problems and improve your ability to tackle different types of questions.
8. **Discuss with Peers or Teachers:** If you come across any doubts or difficulties, discuss them with your classmates or teachers. Group study sessions can be beneficial for gaining different perspectives and clarifying doubts.
9. **Revise Regularly:** Make a revision schedule and stick to it. Regular revision is crucial for retaining information. Use flashcards, summaries, or self-made quizzes to reinforce your memory.
10. **Take Mock Tests:** Practise mock tests to assess your preparation level. This will help you manage your time during the actual exam and identify areas that need further improvement.

## NCERT Solutions for Class 6 Science Chapter 4 FAQs

- 1. What is an object? What are its properties?**
  - a. An object is a tangible item with mass and volume. Its properties include characteristics like colour, shape, size, and texture.
- 2. What are the chemical properties of an object?**
  - a. The chemical properties of an object refer to its behaviour in chemical reactions, such as reactivity with acids, flammability, and corrosion resistance.
- 3. How do we sort different materials?**
  - a. Different materials can be sorted based on their physical properties, like density, hardness, and conductivity, or by their chemical properties, such as reactivity with specific substances.
- 4. What does the property of a material signify?**
  - a. The property of a material signifies its inherent characteristics, which can be either physical (e.g., density, melting point) or chemical (e.g., reactivity, combustibility).
- 5. What does one mean by physical properties?**
  - a. Physical properties are inherent characteristics of a material that can be observed or measured without changing its chemical composition, such as colour, density, and conductivity.
- 6. What does one mean by chemical properties?**
  - a. Chemical properties describe how a substance interacts with other substances, including its reactivity, flammability, and ability to undergo chemical reactions.