

CLASS 6

SCIENCE

EXTRA QUESTIONS

Class 6 Science Chapter 9 Methods of Separation – Extra Questions with Answers

Extra practice questions for Class 6 Science Chapter 9 (Methods of Separation in Everyday Life), beyond the textbook, for deeper practice and exam preparation.

Contents

Very Short Answer Questions (1 mark)

Short Answer Questions (2–3 marks)

Higher-Order Thinking / Application Questions

Extra practice questions for Class 6 Science Chapter 9 (Methods of Separation in Everyday Life), beyond the textbook, for deeper practice and exam preparation.

Very Short Answer Questions (1 mark)

Q1. What is the term used for the liquid that passes through a filter?

Ans: Filtrate.

Q2. Which method is used to separate cream from milk?

Ans: Churning.

Q3. Which method separates iron nails from sawdust?

Ans: Magnetic separation.

Q4. Name the process used to obtain salt from seawater.

Ans: Evaporation.

Q5. What is winnowing used to separate?

Ans: Grain from lighter husk, using wind.

Short Answer Questions (2–3 marks)

Q6. Explain the difference between threshing and winnowing, and describe the order in which they are used on harvested wheat.

Ans: Threshing is a mechanical process of beating harvested stalks to loosen grain from the stalk. Winnowing follows threshing — it uses wind to blow away the lighter husk, leaving the heavier grain behind. Threshing must happen first, since winnowing only works once the grain is already separated from the stalk.

Q7. A student wants to separate a mixture of muddy water. Describe the complete process using at least two methods, and explain why more than one method is needed.

Ans: First, let the mixture stand so the mud settles at the bottom (sedimentation). Then carefully pour off the clear water on top (decantation). Since some fine mud particles may still remain suspended, pass the water through a filter (filtration) to get completely clear water. More than one method is needed because each step removes a different portion of the impurity — decantation alone cannot remove very fine suspended particles.

Q8. Why can sieving not be used to separate salt dissolved in water, but filtration also cannot fully purify this mixture either? What method should be used instead?

Ans: Sieving only works on solid-solid mixtures with different particle sizes — dissolved salt is not a separate particle, so sieving cannot catch it. Filtration also fails for the same reason: the salt is dissolved, not suspended, so it passes through the filter with the water. The correct method is evaporation, which turns the water into vapour and leaves the salt behind as a solid.

Q9. Give two reasons why we separate mixtures in everyday life, with one example each.

Ans: (1) To remove an unwanted or harmful component — for example, removing stones from rice before cooking. (2) To separate two useful components from each other — for example, separating butter from buttermilk by churning, since both are useful on their own.

Q10. A shopkeeper has a mixture of wheat grains, small stones, and husk. Suggest the correct order of separation methods to clean the wheat completely.

Ans: First use winnowing (or threshing, if the grain is still attached to stalks) to remove the husk using wind. Then use handpicking to remove any remaining stones, since they are few in number and visibly different from the grain.

Higher-Order Thinking / Application Questions

Q11. Explain, using the example of nasal hair or a face mask, how filtration-like processes occur naturally in the human body or in everyday objects, even without formal laboratory apparatus.

Ans: Nasal hair acts as a natural filter inside the nose, trapping dust and larger particles from the air before it reaches the lungs, similar to how a cloth filter traps solid particles from a liquid. A face mask works on the same principle — its layered fabric has small enough pores to block dust particles and droplets while still allowing air to pass through, just like a filter paper allows a liquid through while retaining solid particles.

Q12. Why is churning classified as a separation method even though it involves continuous stirring rather than settling, filtering, or evaporating?

Ans: Churning is still a separation method because it physically separates two components of a mixture (fat/butter and the liquid buttermilk) based on a physical difference between them — the fat globules clump together under sustained agitation and rise/separate from the rest of the liquid. The mechanism (agitation) is different from filtration or evaporation, but the outcome — obtaining a pure component from a mixture — is the same.

See also: [Chapter 1](#) | [Chapter 2](#) | [Chapter 3](#) | [Chapter 4](#) | [Chapter 5](#) | [Chapter 6](#) | [Chapter 7](#) | [Chapter 8](#) | [Chapter 9](#)

Practice more: [Chapter 1](#) | [Chapter 2](#) | [Chapter 3](#) | [Chapter 4](#) | [Chapter 5](#) | [Chapter 6](#) | [Chapter 7](#) | [Chapter 8](#)

Quick revision: [Chapter 1](#) | [Chapter 2](#) | [Chapter 3](#) | [Chapter 4](#) | [Chapter 5](#) | [Chapter 6](#) | [Chapter 7](#) | [Chapter 8](#) | [Chapter 9](#)