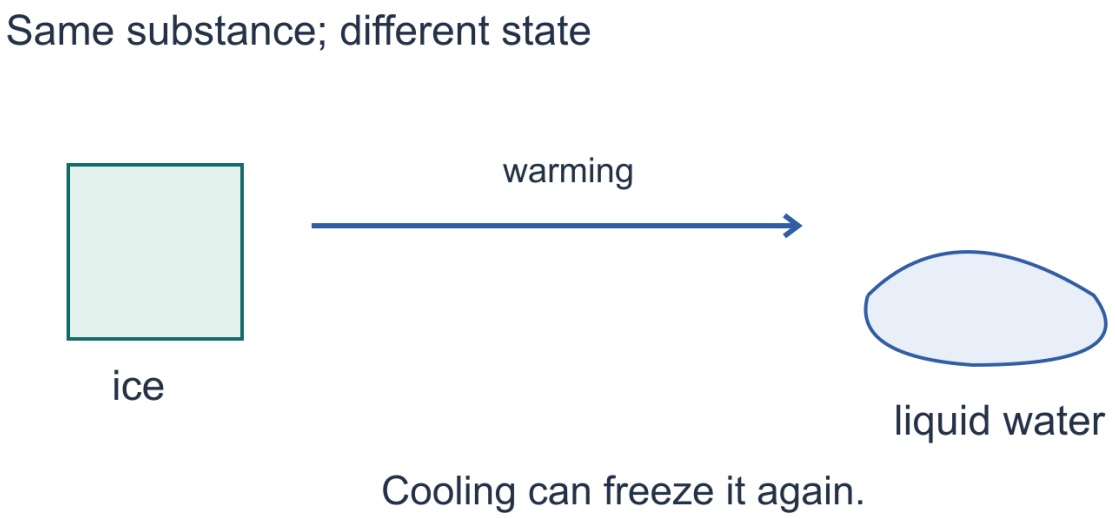
Reversible and irreversible changes: what can you get back?

Grade 6 · Practice and answer pack

Ice can melt and freeze again. A cooked egg cannot be returned to a raw egg by cooling it. To classify a change, explain what recovery would actually require.

A reversible change can be undone to recover the starting material in the intended conditions. An irreversible change cannot readily be undone that way. Physical/chemical and reversible/irreversible are related but not identical classifications.

Independent BananaLearn resource. Not an official exam paper or endorsed assessment.



Ice melts into liquid water; cooling can reverse this change of state. Both are water.

Matching complete guide

bananalearn.com/learn/grade-6-reversible-irreversible-changes.html

Try before looking at the answers

Name (optional): _____ Date: _____

Show your method or explain your choice. Work through a short group at a time. Questions are original practice, not a complete syllabus assessment.

1. Water freezes and later melts. Reversible?

2. A nail rusts. Is cooling it enough to recover the original nail?

3. Can melted ice be recovered as ice?

4. Will ordinary filtering remove dissolved salt?

5. Does cutting paper necessarily create a new substance?

6. Do bubbles always prove a chemical reaction?

7. How could salt be recovered from salt water?

8. What is missing from “the change is reversible”?

9. Compare sand in water with salt in water.

10. Why record observations before classifying?

Answers and reasoning

Compare the explanation as well as the answer. If a method is unclear, revisit the matching guide and try a changed example.

1. Water freezes and later melts. Reversible?

Yes

Changing temperature can reverse the state change.

2. A nail rusts. Is cooling it enough to recover the original nail?

No

Rusting forms different substances.

3. Can melted ice be recovered as ice?

Yes, by freezing

The water changes state.

4. Will ordinary filtering remove dissolved salt?

No

Dissolved salt passes through ordinary filter paper with the water.

5. Does cutting paper necessarily create a new substance?

No

A difficult-to-reverse change can still be physical.

6. Do bubbles always prove a chemical reaction?

No

Boiling water produces vapour bubbles.

7. How could salt be recovered from salt water?

Evaporate the water

Collect and condense vapour as well if recovering water is required.

8. What is missing from “the change is reversible”?

The method and conditions for reversing it

Name how the starting material or form is recovered.

9. Compare sand in water with salt in water.

Sand remains as separate grains; salt dissolves.

Their different behaviour suggests different separation methods.

10. Why record observations before classifying?

To support the classification with evidence

A label alone does not show what happened.

Check understanding

• Can you state a recovery method?

• Have you distinguished dissolving from vanishing?

• Does the evidence support your classification?