

Water

Chapter 3: Water · Topic 1

Key Concept

Water's chemical formula is H_2O , and it's often called the 'universal solvent' due to its ability to dissolve many different substances.

Hard water contains dissolved calcium and magnesium salts, causing issues like scale formation and reduced soap lathering.

Soft water lacks these dissolved salts, making it more effective for washing and preventing scale buildup in pipes and appliances.

Water can be purified through methods like filtration, boiling, and distillation, removing impurities and making it safe for use.

Quick Revision Notes

- Water's formula is H_2O .
- It's called the 'universal solvent'.
- Hard water has dissolved calcium and magnesium salts.
- This causes scale formation and less soap lather.
- Soft water lacks these dissolved salts.
- It's better for washing, prevents scale.
- Water purification: filtration, boiling, distillation.
- These remove impurities, making water safe.

Practice Questions

- 1 Discuss why water is called the universal solvent.
- 2 Research the difference between hard and soft water.
- 3 Explain how hard water causes scale.
- 4 Research a water purification method.
- 5 Discuss why purification is important for safe drinking water.
- 6 Test water at home for hardness (if possible).