

Dissolving & Solutions

Dissolve Fountain Court with Mixling

Learning target

Explain that dissolving does not make a substance vanish.



Before you begin

Use the reference page and discussion prompts on their own, or open the optional browser adventure. No earlier lesson or physical kit is required.

For online play: use an internet-connected current browser with local storage enabled. Read the three-part Gemling briefing, answer the quick check, and apply the evidence at three checkpoints. Retry feedback supports review; results are not a secure test or gradebook.

Use for teacher-led review, science centers or partner practice. Independent readers may need support with the vocabulary below. The design target is grades 3-5; choose support based on the learner.

Vocabulary and concepts to discuss

Solute; solvent; dissolved particles; water solutions; limits of dissolving

Open Dissolve Fountain Court - direct lesson link

Scan the QR code or use the clickable link. This guide is usable offline; the adventure runs on an external educational website.



Dissolving & Solutions - key ideas

1. The first clues

A solution is a mixture in which a solute is distributed through a solvent. In salt water, salt is the solute and water the solvent.

2. How the clues connect

Dissolving is not disappearance. The dissolved material remains present even when individual pieces cannot be seen.

3. Our evidence record

Our record adds salt until some remains undissolved under the same conditions. There is a limit to how much can dissolve in that amount of water at that temperature.

Keep the science accurate

Dissolving is not disappearance and filtration does not remove dissolved salt. Use safe supplied models and data.

Apply the evidence

Use a specific observation from this lesson to explain one choice. Point to a clue, then connect that clue to a scientific idea.

Curriculum reference: <https://www.nextgenscience.org/dci-arrangement/5-ps1-matter-and-its-interactions>

Talk through the evidence

1. What is the solute in salt water?

Expected answer: Salt

Reasoning: A solution is a mixture in which a solute is distributed through a solvent. In salt water, salt is the solute and water the solvent.

2. What is the solvent?

Expected answer: Water

Reasoning: A solution is a mixture in which a solute is distributed through a solvent. In salt water, salt is the solute and water the solvent.

3. Does dissolved salt stop existing?

Expected answer: No

Reasoning: Our record adds salt until some remains undissolved under the same conditions. There is a limit to how much can dissolve in that amount of water at that temperature.

4. What can leftover solid salt indicate here?

Expected answer: A dissolving limit under these conditions

Reasoning: Our record adds salt until some remains undissolved under the same conditions. There is a limit to how much can dissolve in that amount of water at that temperature.

Guide the discussion

Ask learners to name the evidence that supports their answer. If an answer differs, revisit the matching key idea on page 2 and invite a revised explanation.

Online rewards: this lesson grants one fixed digital Expedition Discovery. Five saved digital Gemling friends become available only after all six distinct subject lessons are complete, in any order. Digital rewards do not establish physical ownership.