

Stored Energy

Stored Spring Garden with Zingling

Learning target

Identify examples of stored energy and what can happen when released.



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

Raised objects; stretched springs; food and fuels; later changes

Open Stored Spring Garden - 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.



Stored Energy - key ideas

1. The first clues

Energy can be stored in systems, such as a raised object with Earth or a stretched spring. Food and fuels also store chemical energy.

2. How the clues connect

Stored energy can later be transferred and produce motion or other changes. A stretched spring can act when released.

3. Our evidence record

Our model holds a spring stretched, then releases it to move a cart. The change connects stored energy with motion; the cart does not get energy from nothing.

Keep the science accurate

Use qualitative energy evidence; no kinetic/potential-energy equations. Energy is transferred, not simply destroyed when a device stops.

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/4-ps3-energy>

Talk through the evidence

1. Which setup has stored energy in this model?

Expected answer: The stretched spring

Reasoning: Energy can be stored in systems, such as a raised object with Earth or a stretched spring. Food and fuels also store chemical energy.

2. What happens when the spring is released here?

Expected answer: It moves the cart

Reasoning: Stored energy can later be transferred and produce motion or other changes. A stretched spring can act when released.

3. Can raised objects be part of an energy store?

Expected answer: Yes

Reasoning: Energy can be stored in systems, such as a raised object with Earth or a stretched spring. Food and fuels also store chemical energy.

4. Which chain fits the record?

Expected answer: Stored energy to motion

Reasoning: Stored energy can later be transferred and produce motion or other changes. A stretched spring can act when released.

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.