

Magnets & Materials

Sorting Yard Gate with Snapling

Learning target

Use evidence to identify magnetic materials without saying all metals attract.



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

Magnetic attraction; selected metals; nonmagnetic materials; testing

Open Sorting Yard Gate - 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.



Magnets & Materials - key ideas

1. The first clues

Magnets strongly attract some materials, including iron and many steels. Not all metals are strongly magnetic.

2. How the clues connect

A test is better than a rule based only on metallic appearance. Plastic, wood and many metals do not behave like iron in a simple attraction test.

3. Our evidence record

Our cargo table shows an iron piece attracted, while aluminum and plastic are not. Sort according to the record, not a claim that every shiny object sticks.

Keep the science accurate

Not all metals are magnetic. Treat electromagnets qualitatively; no field mathematics or unsupervised powered builds.

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/3-ps2-motion-and-stability-forces-and-interactions>

Talk through the evidence

1. Which sample is attracted here?

Expected answer: Iron

Reasoning: Our cargo table shows an iron piece attracted, while aluminum and plastic are not. Sort according to the record, not a claim that every shiny object sticks.

2. Are all metals strongly attracted?

Expected answer: No

Reasoning: Magnets strongly attract some materials, including iron and many steels. Not all metals are strongly magnetic.

3. What happens to aluminum in this record?

Expected answer: It is not attracted

Reasoning: Our cargo table shows an iron piece attracted, while aluminum and plastic are not. Sort according to the record, not a claim that every shiny object sticks.

4. What should guide the cargo sort?

Expected answer: The material test results

Reasoning: Our cargo table shows an iron piece attracted, while aluminum and plastic are not. Sort according to the record, not a claim that every shiny object sticks.

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.