A fusion magnet milestone

2021 | Supported reading · Words first

Words to know

research — careful study to find out more

experiment — a planned test of an idea

goal — something people aim to achieve

Talk before you read

Point, speak, draw, or write. Use your home language first if it helps. Take one word at a time with a teacher or partner.

The teacher page at the end gives all seven steps of the vocabulary routine. These everyday and general academic words are teaching choices, not an official WIDA word list.

Look closely

Modern topic illustration created for Massachusetts History Explorers. It is not a historical artifact.

Read the story

Researchers at MIT and Commonwealth Fusion Systems tested a powerful magnet.

Their work aimed to help future fusion research.

A successful test was an important step, but did not mean a working commercial power plant existed.

Think, talk, and show evidence

1. What happened in this reading? Tell one fact.

2. Who or what is this reading mostly about?

3. Choose a word from the word bank. Explain it in your own words.

4. Look at the picture and its caption. What does it help you notice? Is it from the time of the event?

Try these starters: “This happened in ___. I learned ___. The picture shows ___. My word is ___. It means ___.”

Follow-up reading: Michelle Wu is elected Boston mayor

2021

Michelle Wu became the first woman and first person of color elected mayor of Boston. Her election changed representation in city leadership. Kim Janey had already served as acting mayor.

How are the two readings alike or different? Tell a partner one connection. Which event came first?

Teacher guide & source trail

Original classroom adaptation. Suggested reading levels are instructional choices, not standardized readability certifications. Use professional judgment and learner feedback.

ELA practice: RI.2.1: ask and answer questions; RI.2.2: identify a main topic; RI.2.7: use images and words; W.2.2 and SL.2.1: explain and discuss.

These tasks support selected skills in the Massachusetts 2017 ELA framework; they do not establish mastery of an entire standard.

Answer guidance

Factual anchor: Researchers at MIT and Commonwealth Fusion Systems tested a powerful magnet. Their work aimed to help future fusion research. A successful test was an important step, but did not mean a working commercial power plant existed. A 2021 high-temperature superconducting magnet test reached twenty tesla. Separate demonstrated engineering results from future promises. Scientific milestones require precise descriptions of what was measured.

Accept accurate main ideas and explanations supported by the text. Vocabulary meanings are in the opening word bank. For picture questions, use the caption and credit below; distinguish what is visible from what is inferred. For comparison, accept a specific connection supported by both readings. Do not require personal accounts of trauma.

Calderón's seven-step vocabulary routine

1. Say and show each selected word. Invite learners to repeat it three times.

2. Place the word in a meaningful sentence connected to this event. Read the sentence aloud and point to the word.

3. Give a precise definition. Clarify which meaning fits this context.

4. Restate it in friendly language using an example, object, gesture, or picture.

5. Briefly highlight a useful sound, spelling pattern, word part, or verified home-language connection. Do not invent cognates.

6. Partners practice the word aloud in a complete sentence. Listen, prompt, and provide feedback before asking for writing.

7. Explain how learners will use the word in the reading and final explanation. Revisit it and check that each learner can use or explain it.

Adapted for this lesson from Margarita Calderón's seven-step vocabulary handout. The routine is a teaching adaptation, not a reproduced worksheet.

Offer oral rehearsal, a bilingual glossary, extra processing time, text-to-speech, and a choice of spoken, drawn, dictated, or written response. Consult WIDA Can Do Descriptors for language scaffolds. Clear type and spacing can aid access but are not a dyslexia treatment.

Continue the inquiry

Research source for this event ↗

Research source for follow-up ↗

Event page, accessible HTML reading, and vocabulary game ↗

Image: Original site illustration.

Image source and rights record ↗

The PDF contains selectable English text and embedded fonts. For adjustable text and browser reading tools, use the event's HTML page. External sources may need adult guidance.