View online activity

“Volcanoes around the World” and “Earthquakes around the World”
Land and ocean features

• What other sort of land features or landforms do you notice where volcanoes and earthquakes are concentrated?
Focus question

• Why do volcanoes and earthquakes occur where they do?
Alfred Wegener’s story

Alfred Wegener (1880–1930)

Alfred Wegener noticed something interesting about the continents of Africa and South America.

What do you notice?
Examine fossil evidence

Teacher master AA, *US Geological Survey Puzzle Key*
Put puzzle together

Put the puzzle together.
Discuss continental shelves

Teacher master BB, *US Geological Survey—The World Today*
View video

Wegener

Earth History Course, 6.2: Moving Continents
Step 9
Notebook sheet 32, “Wegener” Questions
Discuss the video

1. What evidence did Wegener use to support his idea of continental drift?
2. What did other scientists say about Wegener’s ideas?
3. How did other scientists explain why the continents seemed to fit together?
Wegener didn’t know what made the continents move, but he didn’t think that was his problem. He thought that was something that other people would have to work on.
Introduce plate

Earth’s lithosphere is broken, plus many smaller pieces. They call these chunks and pieces lithospheric plates.
**Introduce plate**

Tectonic means anything to do with the structure or movement of Earth’s lithosphere.

Geologists call this the theory of plate tectonics.
Introduce plate boundary

Teacher master CC, Plate Map

Earth History Course, 6.2: Moving Continents
Step 12
Slide 15
Introduce plate boundary

• What do you notice about the locations of volcanoes and earthquakes now that you have worked with the continent puzzle and have seen the plate-tectonics map?
Introduce plate boundary

A plate boundary is the edge of a tectonic plate where earthquakes, volcanoes, and other tectonic activity take place because of the motions of the plates.
Review vocabulary

Spend a few minutes reviewing the vocabulary for this part. Update the vocabulary index and table of contents in your notebook.
Review vocabulary

• continental drift
• continental shelf
• plate
• plate boundary
• tectonic
• theory of plate tectonics
Answer the focus question

• Why do volcanoes and earthquakes occur where they do?
Homework

Teacher master Z, *US Geological Survey Puzzle*
Wrap-Up/Warm-Up

Select one of the bullets about the nature of science, discuss what it means and how it applies to the work of Wegener.
Wrap-Up/Warm-Up

• **Scientific knowledge is based on empirical evidence.** Scientific knowledge is based upon logical and conceptual connections between evidence and explanations. Science disciplines share common rules of obtaining and evaluating empirical evidence.
Scientific knowledge is open to revision in light of new evidence. The certainty and durability of scientific findings vary. Scientific findings are frequently revised and/or reinterpreted based on new evidence.