The Theory of Continental Drift

Continental Drift Discovery
The World
ALFRED WEGENER
THEORY OF CONTINENTAL DRIFT

Found evidence for PANGAEA and proposed the theory of continental drift.
Continental Drift
(p95 red book, 182 in Sciencesaurus)

- Theory that continents were once part of a single landmass that broke apart and have moved to their present locations.
- Can drift apart from one another and have done so in the past

For more information about what the continents looked like throughout the Earth’s History go to:
http://www.ucmp.berkeley.edu/geology/anim1.html
Pangaea

Pangaea is the name given to the single landmass that was present 200 million years ago.

Can you name the continents in Pangaea?
http://kids.earth.nasa.gov/archive/pangaea/Pangaea_game.html
Recreating Wegener’s Discovery

Create your own Pangaea using the same evidence Wegener used.

K12: Plate Tectonics
Continents
“fit together”
like puzzle pieces

WEGENER’S EVIDENCE
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Fossil Evidence

• fossils are remains of living things that lived long ago.
• similar fossils have been discovered in matching coastlines on different continents.
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Cynognathus

South America

Africa

India

Australia

Antarctica

Mesosaurus

Glossopteris
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• Mountains
  – Some mountain ranges on different continents seem to match.
    • Ex: ranges in Canada match Norway and Sweden
    • Ex: Appalachian Mtn. match UK mtn
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- Climatic evidence such as glaciers in areas that are now close to the Equator.
Satellites used to measure the movement of continents

- Laser Geodynamics Satellite (LAGEOS)
The Plates Move…
So what now?

Which way?

- 50 million years