Fossils

Mr. Skirbst

Weekly Challenge: *Past mountain, meadow, field, and hill; it follows a river while standing still. What is it?*

Mary Anning
May 21, 1799 – March 9, 1847

She was an English **fossil collector** who
became famous around the world for her specimens.
She made many important discoveries such as
ichthyosaurs, plesiosaurs, pterosaurs, and coprolites.

Fossils

The preserved remains or evidence of a once-living organism.

Usually found in sedimentary rocks

Types of Fossils

1. Petrification

Types of Fossils

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replacement of organic material with minerals

Ex. Petrified wood

Types of Fossils

2. Molds

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empty space left by plant or animal buried in sediment

Types of Fossils

2. Molds

   empty space left by plant or animal buried in sediment

3. Casts

Types of Fossils

2. Molds

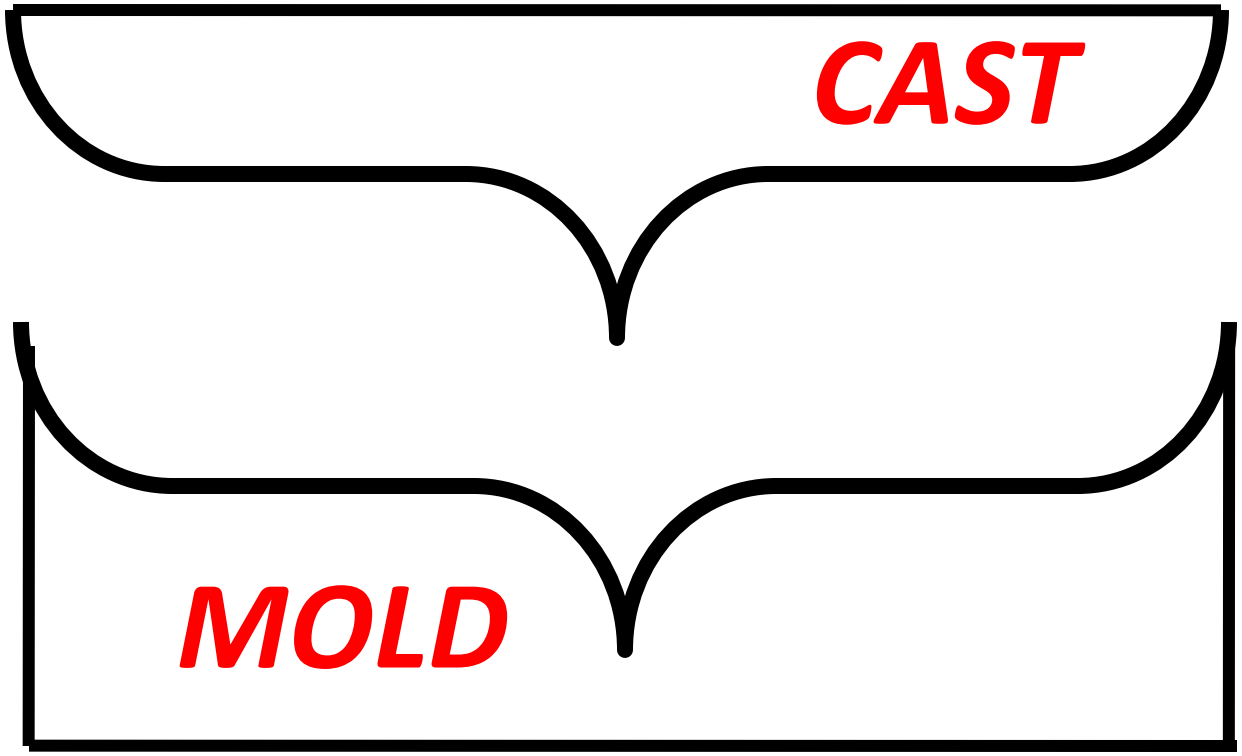
   empty space left by plant or animal buried in sediment

3. Casts

   a filled-in mold

Types of Fossils

Diagram of Molds & Casts



Types of Fossils

4. Imprints

Types of Fossils

4. Imprints

soft-body impression in sediment

Types of Fossils

4. Imprints

soft-body impression in sediment

Ex. Fossil plants, leaves, ferns

Types of Fossils

5. Preservation

Types of Fossils

5. Preservation

entire specimen preserved (hard and soft parts)

Types of Fossils

Freezing – trapped in ice,

like the Ice Man & Mammoths

Types of Fossils

Amber – trapped in sap

Types of Fossils

Tar pit – trapped in tar

Types of Fossils

Peat pit – trapped in peat / bog,

Ex. Warren County

Mastodon, peat people

Types of Fossils

5. **Preservation**

   entire specimen preserved (hard and soft parts)

Freezing – trapped in ice

Amber – trapped in sap

Tar pit – trapped in tar

Peat pit – trapped in peat / bog

Types of Fossils

6. Trace Fossils

Types of Fossils

6. Trace Fossils

tracks, trails, footprints, scat

Age of Fossils

Age of Fossils

1. ***Relative Age:***

Age of Fossils

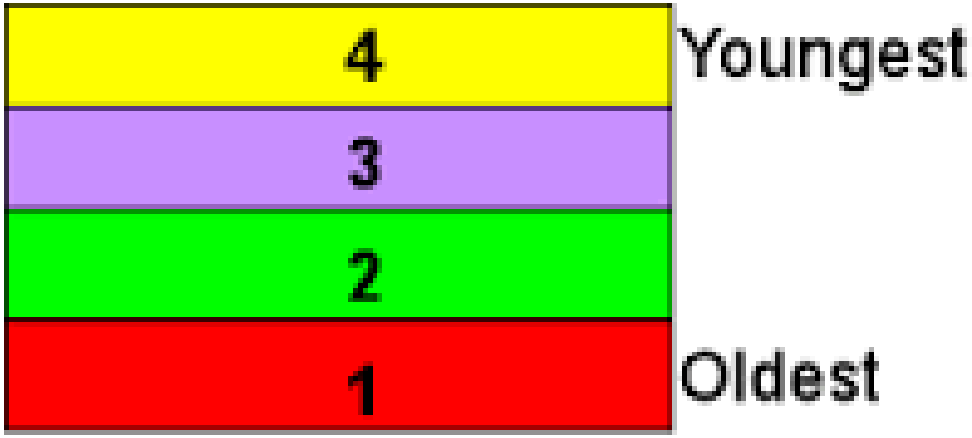
1. Relative Age:

- determining age "relative" (compared) to others

Age of Fossils

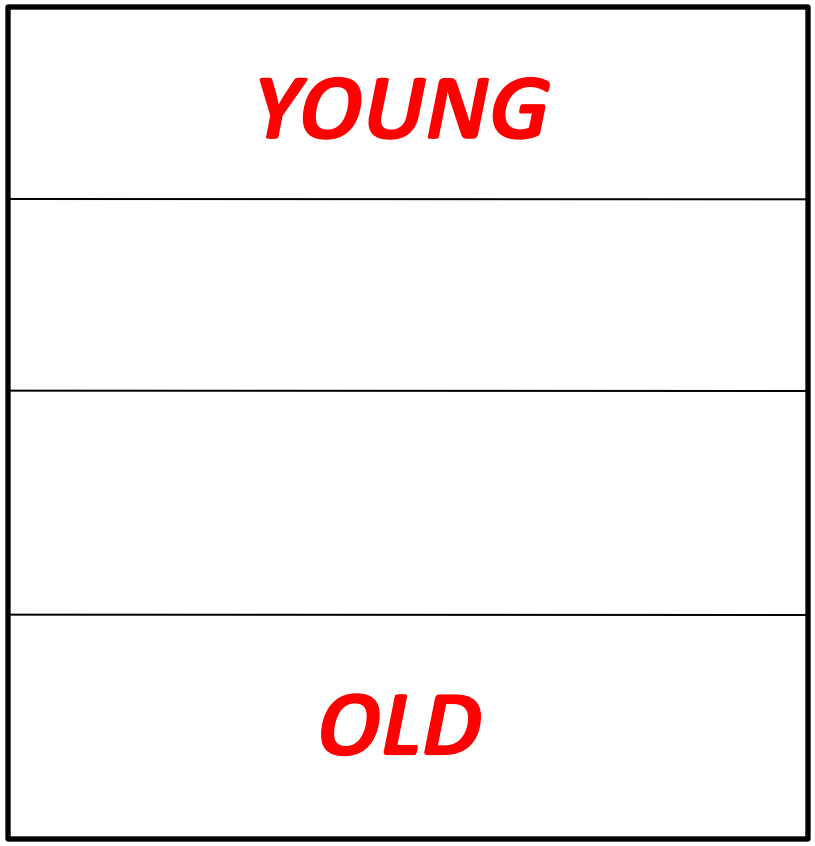
Law of Superposition

in sedimentary rock layers, older rocks are beneath younger rocks



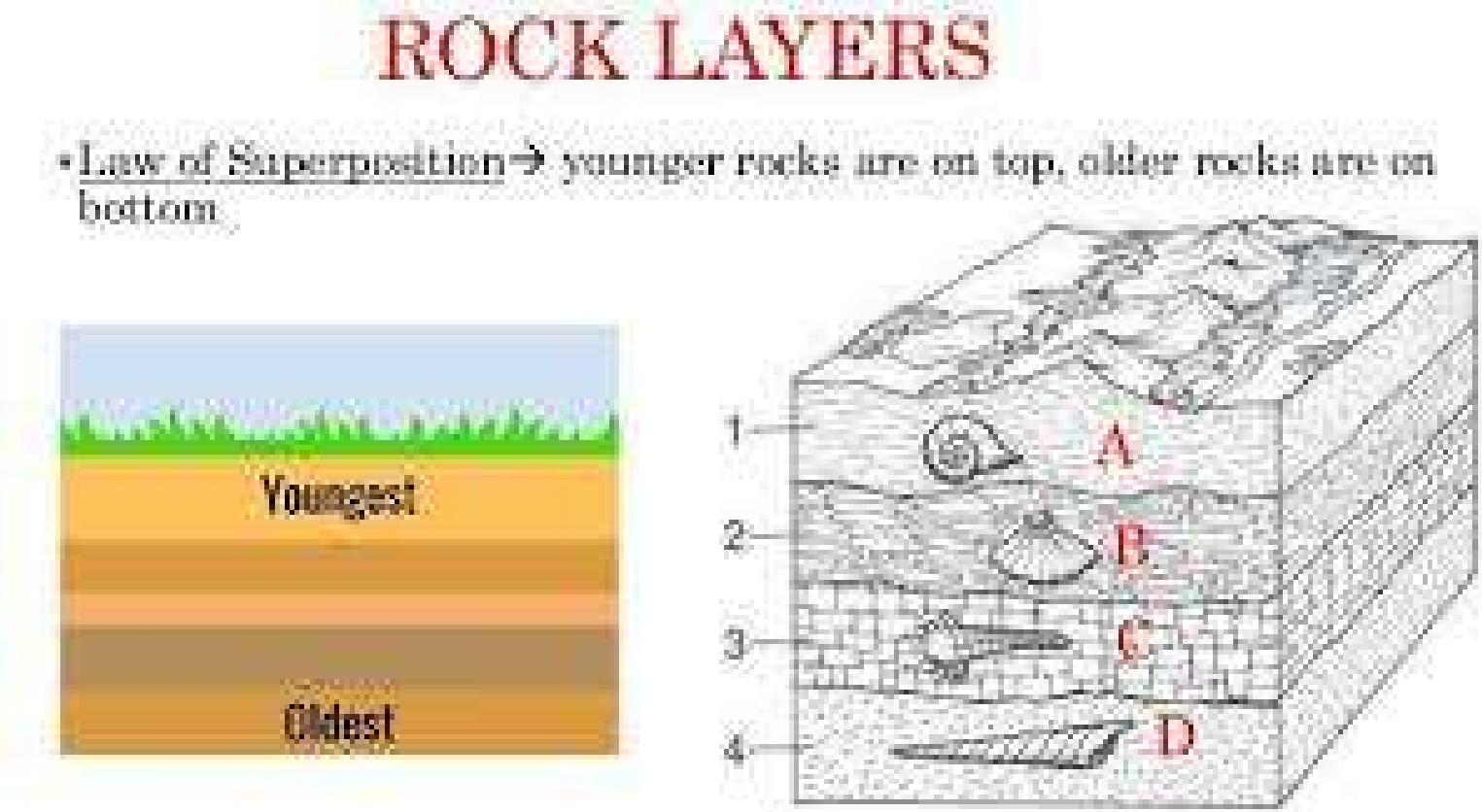
Age of Fossils

Law of Superposition



Age of Fossils

Law of Superposition



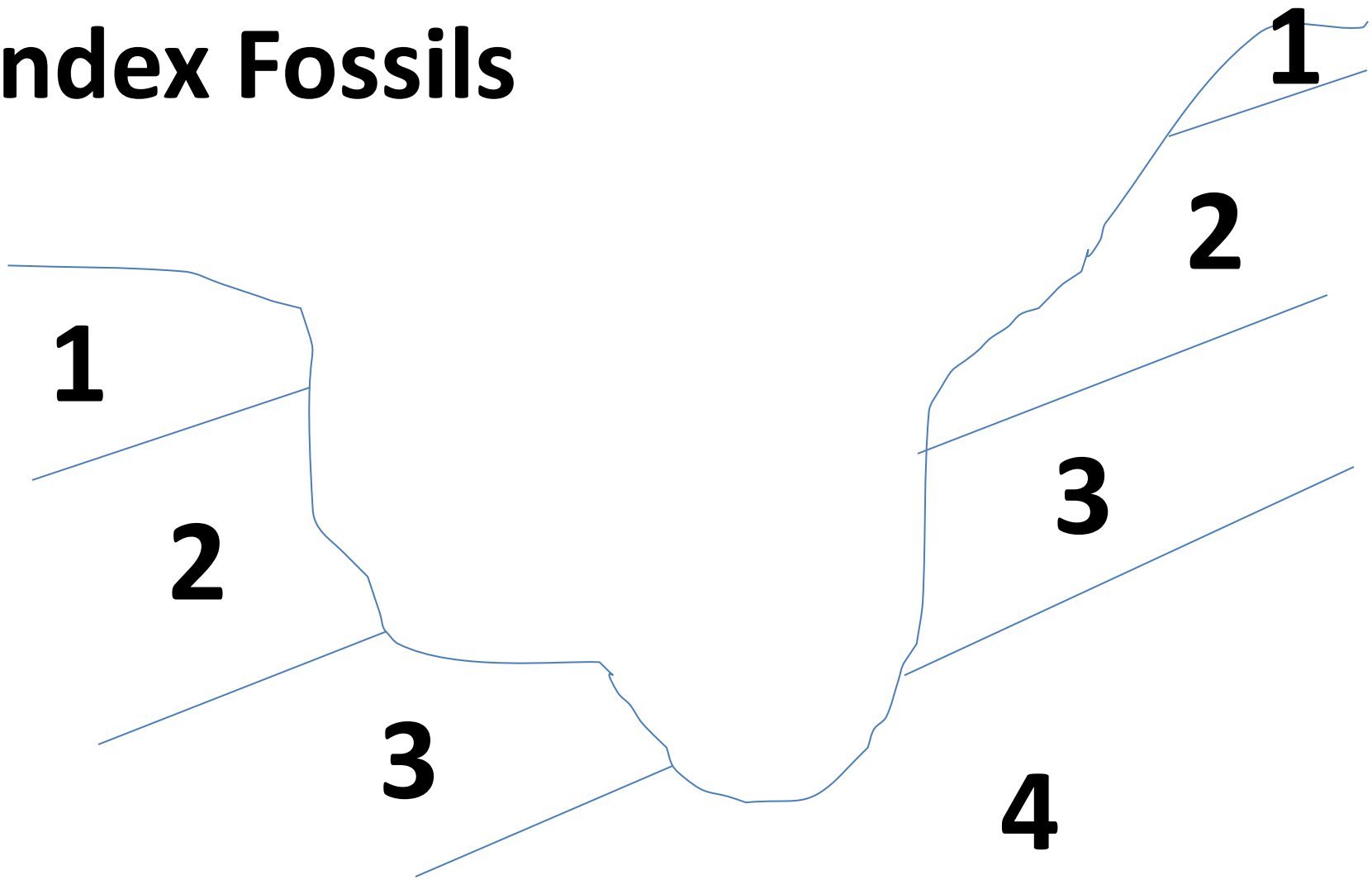
Age of Fossils

Index Fossils

- layers of rock with index fossils are close in age to other layers with the same kind of fossils

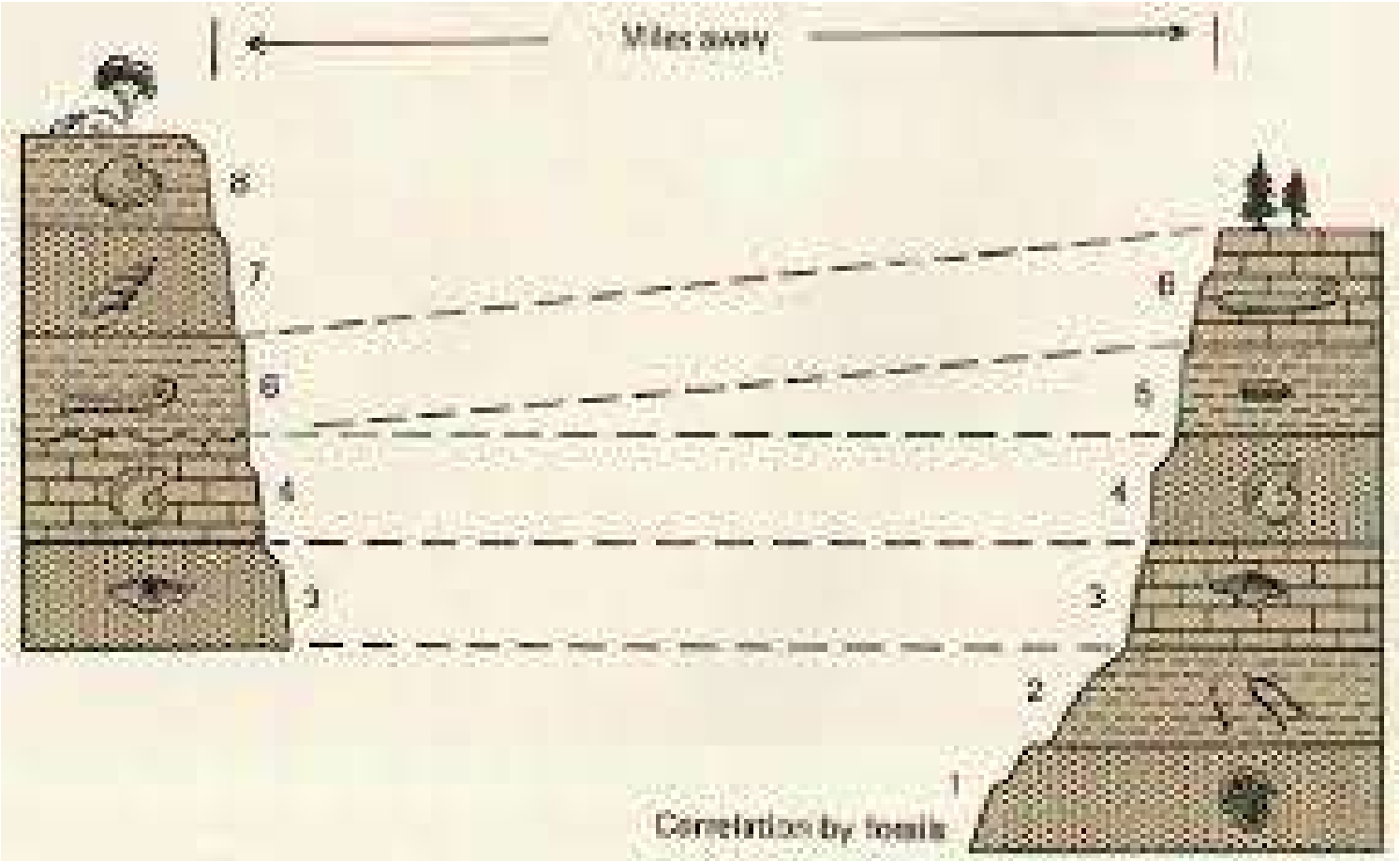
Age of Fossils

Index Fossils



Age of Fossils

Index Fossils



Age of Fossils

2. Absolute Age

Age of Fossils

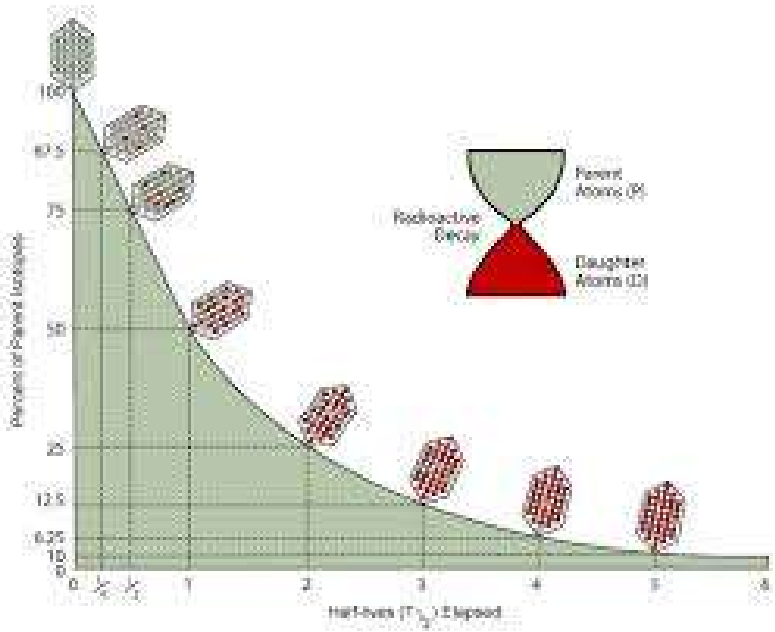
2. Absolute Age

determining the "actual" age of fossils

Age of Fossils

Radioactive Dating

- radioactive elements decay at a constant rate



Age of Fossils

Radioactive Dating

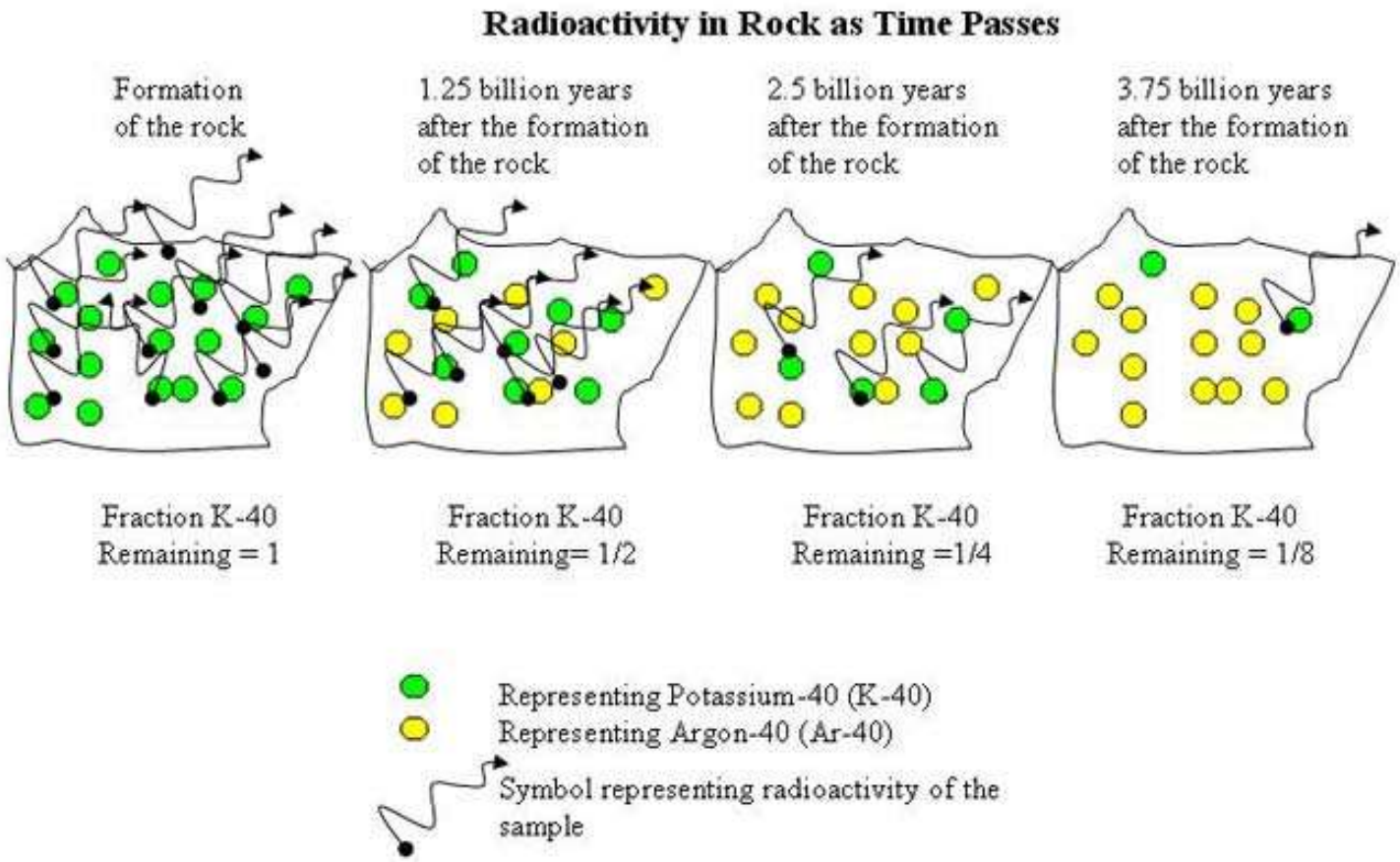
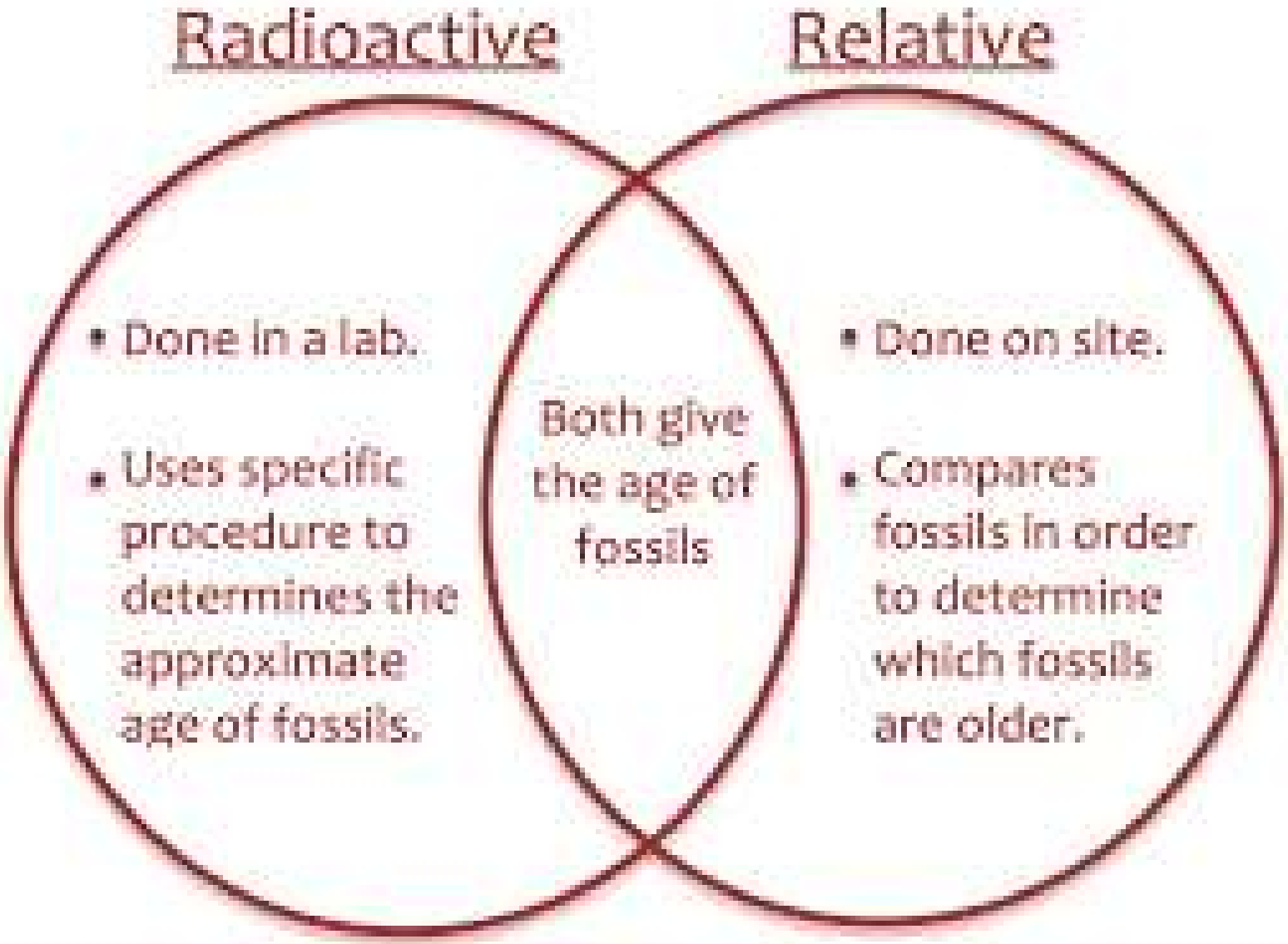
- radioactive elements decay at a constant rate

Half-life – time it takes for ½ of element to decay

Carbon – 14; Potassium – Argon

Age of Fossils

Radioactive Dating



Age of Fossils