**Geologic Evidence of Change Over Time – FOSSILS**

**Fossil:** preserved remains or traces of \_\_\_\_\_\_\_ things

* Most fossils form when living things die and are buried by \_\_\_\_\_\_\_\_; over time the sediments harden
* Fossils are only found in sedimentary rock. WHY?  
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**Different kinds of fossils are:**

1. Mold and Cast

**Mold**: a \_\_\_\_\_\_\_\_ area in sediment in the shape of an organism or part of an organism; formed when the organism makes an indentation that turns to \_\_\_\_\_ over time.

**Cast**: a solid copy of the shape of an organism; made by filling in a mold with \_\_\_\_\_\_\_\_ that later turn to rock.

1. **Petrified fossil**: minerals replace all or part of an organism.
2. **Carbon film**: an extremely thin coating of carbon on rock; made when an organism is squeezed by rock until only \_\_\_\_\_\_ remains.
3. **Trace fossil**: evidence of activities of ancient organisms; may be \_\_\_\_\_\_\_, \_\_\_\_\_\_\_, nest, or trail
4. Preserved Remains

**Amber**: a hardened resin, or \_\_\_\_\_, of evergreen trees; organisms that get trapped in the sticky substance becomes part of the rock

**Frozen remains**: organisms caught in ice or snow

**Fossil record**: the complete body of fossils that shows how \_\_\_\_\_\_\_\_ and \_\_\_\_\_\_\_\_\_\_\_ change over time

* The fossil record shows that fossils occur in a particular order: \_\_\_\_\_\_\_ rocks contain simpler organisms and \_\_\_\_\_\_\_\_\_ rocks contain more complex organisms. WHY??

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* The fossil record provides evidence to support \_\_\_\_\_\_\_\_\_ (the gradual change in living things over long periods of time).

How do fossils give us the age of organisms that lived in the past?

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(Circle One) Is this fish fossil a few thousand years old **or** a few billion years old ?

**The Law of Superposition**: a given rock layer is older than the rock layer \_\_\_\_\_\_ it.

* Think about your dirty clothes in your laundry basket. Where is the oldest clothes compared to the clothes you wore yesterday? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  
  \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Uniformitarianism**

* Geologic process that happened in the past that are still present now.

Examples:

* Weather & erosion today also shaped Earth’s surface millions of years ago
* \_\_\_\_\_\_\_\_\_\_ Drift continues today as it did millions/billions of years ago

**Dating Rocks and Fossils**

* **Relative Dating**: uses information about rock \_\_\_\_\_\_\_ and the fossil record to determine the \_\_\_\_\_\_ relationships between rocks
* **Absolute Dating**: any method of measuring the age of an event or \_\_\_\_\_\_\_ in years