Name _____

Fossils (p. 362 – 369)

I. Formation OF Fossils

p. 362

1. **Define the term fossils.**

   Fossils – remains, imprints, or traces of prehistoric organisms

2. **What causes the remains of plants and animals to decay?**

   Bacteria (Why does your poop smell?)

3. **Most fossils form when living things die and are buried by sediments.**

   Circle One : (True) False

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4. **Why do only the hard parts of organisms generally leave fossils?**

   The soft parts often decay quickly or are eaten by animals

II. Types Of Preservation

p. 364 Top

1. **Define the term premineralized remains.**

   Premineralized Remains – fossils in which the spaces inside are filled with minerals from groundwater.

Spaces for cells, blood vessels, nerves or air

2. **What molecule can be extracted from original material in premineralized remains?**

   DNA

3. **Water and dissolved silica can sometimes replace the hard parts of fossil organisms.**

   Circle One : (True) False Ex. - Shells

Shroud of Turin

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4. **Define the term carbon film.**

   Carbon Film – thin film of carbon residue that remains to form a silhouette of the original organism.

Screen Print Shirts

5. **A carbon film forms when minerals preserve the delicate parts of an organism.**

   Circle One : True (False) Carbon left after evaporation of other minerals

Birthday Cake w/ pictures

6. **How does coal form?**

   Large amounts of plant material accumulates → Completely carbonized after millions of years

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7. **Circle the letter of each sentence that is true about casts and molds.**

   a. Both molds and casts copy the shape of ancient organisms.
   b. A mold forms when the hard part of an organism is buried in sediment
   c. A cast is a hollow area in sediment in the shape of an organism.
   d. Molds and casts do not show details of the organism's structure.

* (The mold creates the cast.) *

Jello Molds

Name _____

8. Define the term amber.

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Amber – hardened form of sticky tree resin (traps + preserves insects)

9. Besides amber, what are two other ways in which original remains can be preserved?

1. Ice 2. Tar Pits

3. Peat Bogs 4. Quicksand

10. Define the term trace fossils.

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Trace Fossils – fossilized tracks + other evidence of activity of organisms

11. List three clues about the past that scientists can infer by looking at fossil footprints.

1. Animal size + behavior + speed
2. Walked on 2 or 4 legs
3. Solitary or herd lifestyles

12. Circle the letter of each trace fossil.

a. Footprints
b. Animal Trails
c. Animal Shells
d. Burrows

III. Index Fossils

1. Define the term index fossils.

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Index Fossils – remains of species that existed on Earth for relatively short periods of time, were abundant and were widespread geographically

2. Circle the letter of each sentence that is true about index fossils.

a. Index fossils must be found in many different areas.
b. Index fossils must represent an organism that lived for a very ~~long~~ short time.
c. Index fossils tell the ~~exact~~ relative ages of the rock layers in which they occur.
d. Not all rocks contain index fossils.

IV. Fossils & Ancient Organisms

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1. List three things that scientists learn by studying fossils.

1. Evidence of how life changes over time.
2. How Earth's surface has changed.
3. What past environments were like.