

**Formative Exam Fossils to Geological Time****Multiple Choice**

*Identify the choice that best completes the statement or answers the question.*

*Write the letter that best answers the question or completes the statement on the line provided.*

- \_\_\_\_\_ 1. Rocks record geological events and
- a. life forms of the present.
  - b. life forms of the past.
  - c. astronomical milestones of the past.
  - d. Earth's circumference and diameter in the past.
- \_\_\_\_\_ 2. The geologic processes that shape Earth's features today
- a. are much different from those of thousands of years ago.
  - b. did not operate in the distant past.
  - c. are basically the same today as they were in the geologic past.
  - d. became important only several hundred years ago.
- \_\_\_\_\_ 3. For what purpose do geologists use relative dating?
- a. to determine which rock layer in a canyon wall formed first
  - b. to find the age of a rock layer
  - c. to determine how a rock's composition has changed over time
  - d. to identify past life forms that once lived in a rock layer
- \_\_\_\_\_ 4. In general, the law of superposition states that in an undeformed sequence of sedimentary rocks, each layer is
- a. about the same age.
  - b. older than the one below it.
  - c. older than the one above it.
  - d. thicker than the one above it.
- \_\_\_\_\_ 5. According to the principle of cross-cutting relationships, an intrusive rock body is
- a. deposited as sedimentary layers.
  - b. younger than the rocks it intrudes into.
  - c. always made of the same materials as rock around it.
  - d. older than the rocks it intrudes into.
- \_\_\_\_\_ 6. Which type of geologic event has to occur to create an angular unconformity?
- a. uninterrupted deposition of sediment
  - b. igneous intrusion into layered rock
  - c. sediment deposited on older, eroded igneous rock
  - d. folding or tilting of rock layers

- \_\_\_\_\_ 7. The laws of superposition and original horizontality are best applied to
- a. all rock types.
  - b. igneous rocks.
  - c. sedimentary rocks.
  - d. metamorphic rocks.
- \_\_\_\_\_ 8. What are fossils?
- a. the oldest layers of rock in a region
  - b. the remains or traces of an organism preserved from the geologic past
  - c. living creatures with habitats in or around rock
  - d. objects that people of long ago left behind as artifacts
- \_\_\_\_\_ 9. Which of the following is important if an organism is to become a fossil?
- a. soft parts and slow burial
  - b. rapid burial and hard parts
  - c. rapid burial and soft parts
  - d. hard parts and slow burial
- \_\_\_\_\_ 10. Index fossils allow geologists to
- a. match rocks of the same age in different regions.
  - b. determine the exact age of rocks.
  - c. identify organisms that did not leave fossil evidence behind.
  - d. determine why some organisms became extinct.
- \_\_\_\_\_ 11. Radioactivity is produced when unstable nuclei
- a. bond.
  - b. break apart.
  - c. become cooler.
  - d. expand.
- \_\_\_\_\_ 12. Radiocarbon dating is used to date
- a. geologic events up to 75,000 years ago.
  - b. geologic events up to 10,000 years ago.
  - c. geologic events more than 1 million years ago.
  - d. all geologic events of the past.
- \_\_\_\_\_ 13. The largest expanse of time on the geologic time scale is the
- a. eon.
  - b. epoch.
  - c. era.
  - d. period.
- \_\_\_\_\_ 14. How much C-14 will remain after five half-lives?
- a. 1/8th
  - b. 1/16th
  - c. 1/32nd
  - d. 1/64th
- \_\_\_\_\_ 15. This type of fossil shows evidence of past life, but it does not include an organism or its remains.
- a. Index
  - b. Cast and mold
  - c. Trace
  - d. Coprolite
- \_\_\_\_\_ 16. What is a method that geologist use to find the absolute age of rocks?
- a. Law of superposition
  - b. Law of cross cutting relationships
  - c. Principle of original horizontality
  - d. Radiometric dating

Name: \_\_\_\_\_

ID: A

- \_\_\_\_\_ 17. What is needed for fossils to form?
- a. warm moist soil
  - b. cold water and pressure
  - c. hard parts and rapid burial
  - d. loose soil and much oxygen
- \_\_\_\_\_ 18. The changes in organisms over time, due to alteration in their environment is called
- a. survival of the fittest
  - b. evolution
  - c. organic adaptation
  - d. gunderson variance
- \_\_\_\_\_ 19. A mummy would be an example of
- a. index fossils
  - b. original preservation
  - c. trace fossils
  - d. cast and mold fossilization
- \_\_\_\_\_ 20. A sample of a radioactive substance has 80 grams of mass, and a half-life of 20 years. How many grams will be left in 100 years.
- a. 2.5 grams
  - b. 5 grams
  - c. 10 grams
  - d. none

**Formative Exam Fossils to Geological Time  
Answer Section****MULTIPLE CHOICE**

- |            |        |
|------------|--------|
| 1. ANS: B  | PTS: 1 |
| 2. ANS: C  | PTS: 1 |
| 3. ANS: A  | PTS: 1 |
| 4. ANS: C  | PTS: 1 |
| 5. ANS: B  | PTS: 1 |
| 6. ANS: D  | PTS: 1 |
| 7. ANS: C  | PTS: 1 |
| 8. ANS: B  | PTS: 1 |
| 9. ANS: B  | PTS: 1 |
| 10. ANS: A | PTS: 1 |
| 11. ANS: B | PTS: 1 |
| 12. ANS: A | PTS: 1 |
| 13. ANS: A | PTS: 1 |
| 14. ANS: C | PTS: 1 |
| 15. ANS: C | PTS: 1 |
| 16. ANS: D | PTS: 1 |
| 17. ANS: C | PTS: 1 |
| 18. ANS: B | PTS: 1 |
| 19. ANS: B | PTS: 1 |
| 20. ANS: A | PTS: 1 |