

In class activities

February 25, 2010
Morning class results

The present is the key to the past is a fundamental part of

- catastrophism.
- plutonism.
- neptunism.
- uniformitarianism.

Explanation:
Uniformitarianism holds that the physical, chemical, and biological principles that operate today also operated in the past. Thus, the present is the key to the past.

Option	Percentage
1	6%
2	0%
3	0%
4	94%

Which principle of relative dating states that in an undeformed sequence of sedimentary rocks, each layer is older than the one above and younger than the one below?

- Original horizontality.
- Superposition.
- Cross-cutting.
- Inclusion.

Option	Percentage
1	47%
2	47%
3	6%
4	0%

What is the principle of original horizontality?

- Each sedimentary layer is older than the layer above.
- Each sedimentary layer is younger than the layer above.
- Each new layer of sediment is laid down nearly horizontally over older sediment.
- Each new layer of sediment is laid down accordingly.

Option	Percentage
1	23%
2	0%
3	74%
4	3%

In a thick bed of sedimentary rocks, we find an igneous dike. According to the principle of cross-cutting, the order in which these rocks formed is:

- simultaneously.
- igneous before sedimentary.
- sedimentary before igneous.
- unknown.

Option	Percentage
1	0%
2	6%
3	91%
4	3%

What is an unconformity?

- A scientific debate between Earth scientists.
- Younger igneous plutonic rock above older sediments.
- A continuous sequence of sedimentary layers.
- A gap in an otherwise continuous time-sequence of rock layers.

Explanation:
Unconformities represent a missing record of time, like pages missing from a book.

Option	Percentage
1	0%
2	9%
3	0%
4	91%

Ancient geologic processes as revealed in Paleozoic rock layers were

- predominantly volcanic in origin.
- primarily glacial.
- predominantly processes of erosion and sedimentation.
- very similar to processes seen today.

Explanation:
Remember: The present is the key to the past!

Option	Percentage
1	9%
2	0%
3	6%
4	85%

The numerical dates associated with events on the geologic time scale were determined by

- radiometric dating.
- relative dating.
- superposition.
- fossil assemblages through time.

Explanation:
Presently, the only way to obtain numerical dates is with radiometric dating.

Option	Percentage
1	77%
2	20%
3	3%
4	0%

What is the principle of faunal succession?

- Fossil organisms follow one another in a definite, irreversible time sequence.
- Rock cycling may dislodge and relocate fossils, making their age difficult to determine.
- A fossil is always older than the rock in which it is found.
- All of the above.

Option	Percentage
1	42%
2	13%
3	42%
4	3%

When comparing geologic time to a calendar year, the time of the dinosaurs is in the

1. middle of October.
2. first half of December.
3. **second half of December.**
4. first half of February.

Explanation:
Amazing as it may seem to many people, dinosaurs are a recent phenomenon in Earth's long history.

Option	Percentage
1	36%
2	18%
3	24%
4	21%

Life forms in the Precambrian included

1. trilobites.
2. brachiopods.
3. coelacanth.
4. **cyanobacteria.**

Option	Percentage
1	63%
2	10%
3	0%
4	27%

The most important event during the Cambrian period was the

1. emergence of the fishes.
2. **ability of organisms to form an outer skeleton.**
3. emergence of the trilobite.
4. ability of organisms to develop lungs.

Explanation:
The evolutionary development of an outer skeleton increased survival rates.

Option	Percentage
1	3%
2	27%
3	43%
4	27%

Which of the following is NOT true of the fossil record?

1. The fossil record spans about 3.5 billion years of Earth's 4.5 billion year age.
2. The most common fossils are those organisms that had hard parts like shells and bones.
3. The first fossils were simple, anaerobic algal plants.
4. **The Paleozoic era is credited with the emergence of life.**

Explanation:
Life emerged in Precambrian time, which precedes the Paleozoic era.

The Mesozoic era is known as the age of the

1. dinosaurs.
2. synapsids.
3. fishes.
4. **reptiles.**

Explanation:
Dinosaurs are but one group of reptiles.

Option	Percentage
1	45%
2	3%
3	10%
4	42%

During which era did pine and redwood trees appear?

1. Precambrian
2. **Mesozoic**
3. Paleozoic
4. Cenozoic

Option	Percentage
1	4%
2	32%
3	25%
4	39%