Recording Earth's Geological History — Practice Test

Ontario Earth and Space Science, Grade 12, University Preparation (SES4U) • 25 questions

This practice test was made by AI and there may be mistakes. If a question or answer looks wrong, use the Flag a mistake button to let Brett know so he can fix it.

1 **The principle of superposition states that in undisturbed sedimentary layers, the oldest layer is at the**

- A Bottom
- B Middle
- C Side
- D Top

Understand It with Pulse | Flag a mistake

2 **Original horizontality states sedimentary layers are deposited in horizontal layers and then may be**

A Heated

B Melted

C Eroded only

D Tilted or folded

Understand It with Pulse | Flag a mistake

3 **Cross cutting relationships state that a fault or intrusion is younger than the rocks it**

A Covers

B Is parallel to

C Lies above

D Cuts through

Understand It with Pulse | Flag a mistake

4 **An unconformity is a gap in the rock record caused by erosion or**

- A Folding only
- B Deposition only
- C Melting
- D Non deposition

Understand It with Pulse | Flag a mistake

5 **An index fossil is useful for dating rocks because it lived for a short time and was**

- A Deep water only
- B Rare
- C Large only
- D Widespread

Understand It with Pulse | Flag a mistake

6 **Relative dating determines whether one rock layer is older or younger than another, without giving a numerical**

- A Age
- B Name
- C Colour
- D Location

Understand It with Pulse | Flag a mistake

7 **Absolute dating gives a numerical age, often using radioactive decay of**

- A Parent isotopes to daughter isotopes
- B Stable isotopes
- C Fossils only
- D Minerals only

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8 **After one half life, the fraction of parent isotope remaining is**

A One quarter

B One half

C Three quarters

D Zero

Understand It with Pulse | Flag a mistake

9 **After two half lives, the fraction of parent isotope remaining is**

A One half

B One quarter

C One eighth

D Zero

Understand It with Pulse | Flag a mistake

10 **After three half lives, the fraction of daughter isotope present is**

- A One eighth
- B One half
- C Seven eighths
- D Three quarters

Understand It with Pulse | Flag a mistake

11 **A rock starts with 80 grams of parent isotope. After 2 half lives, the parent mass remaining, in grams, is**

ANSWER _____

Understand It with Pulse | Flag a mistake

12 **A sample has parent to daughter ratio 1 to 3. The number of half lives elapsed is**

ANSWER _____

Understand It with Pulse | Flag a mistake

13 **Carbon dating is useful for organic material up to about**

- A 50000 years
- B 5 billion years
- C 500 years
- D 500 million years

Understand It with Pulse | Flag a mistake

14 **Potassium argon dating is used for very old rocks because potassium 40 has a long**

- A Atomic mass
- B Decay chain only
- C Melting point
- D Half life

Understand It with Pulse | Flag a mistake

15 **The geologic time scale is divided into eons, eras, periods, and**

- A Ages only
- B Millennia
- C Centuries
- D Epochs

Understand It with Pulse | Flag a mistake

16 **The Precambrian accounts for most of Earth history, about 88 percent of its**

- A Surface
- B Age
- C Mass
- D Volume

Understand It with Pulse | Flag a mistake

17 **Dinosaurs lived mainly during the Mesozoic era, which is often called the age of**

A Amphibians

B Mammals

C Reptiles

D Fish

Understand It with Pulse | Flag a mistake

18 **The Cenozoic era is often called the age of**

A Trilobites

B Dinosaurs

C Mammals

D Reptiles

Understand It with Pulse | Flag a mistake

19 **A mass extinction at the end of the Cretaceous is associated with a large asteroid impact and the loss of non avian**

A Mammals

B Plants only

C Dinosaurs

D Fish

Understand It with Pulse | Flag a mistake

20 **Fossils in sedimentary rock provide evidence for past environments and past**

A Volcanoes

B Weather only

C Life

D Magnetism

Understand It with Pulse | Flag a mistake

21 **A trilobite fossil indicates a marine environment because trilobites lived in ancient**

A Forests

B Lakes only

C Seas

D Deserts

Understand It with Pulse | Flag a mistake

22 **Stromatolites are layered structures formed by ancient**

A Cyanobacteria

B Corals

C Fish

D Trees

Understand It with Pulse | Flag a mistake

23 **The fossil record shows life has changed over time, supporting the theory of**

- A Catastrophism only
- B Uniformitarianism only
- C Evolution
- D Plate tectonics only

Understand It with Pulse | Flag a mistake

24 **Uniformitarianism states that processes operating today also operated in the past at similar**

- A Speeds always
- B Temperatures
- C Rates and ways
- D Locations only

Understand It with Pulse | Flag a mistake

25 **Correlation of rock layers across regions uses similar fossils, rock types, and**

A Thickness only

B Colours only

C Sequence of layers

D Heights

Understand It with Pulse | Flag a mistake

ANSWER KEY

1.	A	**10.**	C	**19.**	C
2.	D	**11.**	20	**20.**	C
3.	D	**12.**	2	**21.**	C
4.	D	**13.**	A	**22.**	A
5.	D	**14.**	D	**23.**	C
6.	A	**15.**	D	**24.**	C
7.	A	**16.**	B	**25.**	C
8.	B	**17.**	C		
9.	B	**18.**	C		

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