ONTARIO EARTH AND SPACE SCIENCE, GRADE 12, UNIVERSITY PREPARATION (SES4U) · UNIT D

Earth Materials and Geological Processes — 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 rock cycle describes how rocks change between igneous, sedimentary, and**

A Volcanic only

B Fossil

C Metamorphic

D Mineral

Understand It with Pulse | Flag a mistake

2 **Igneous rocks form from cooling and solidification of**

- A Water
- B Sediment
- C Ice
- D Magma or lava

Understand It with Pulse | Flag a mistake

3 **Intrusive igneous rocks cool slowly underground and have large**

- A Pores
- B Layers
- C Fossils
- D Crystals

Understand It with Pulse | Flag a mistake

4 **Extrusive igneous rocks cool quickly at the surface and have small crystals or a**

- A Layered texture
- B Glassy texture
- C Metallic texture
- D Fossil texture

Understand It with Pulse | Flag a mistake

5 **Basalt is a common extrusive igneous rock that forms much of the ocean**

- A Atmosphere
- B Mantle
- C Core
- D Crust

Understand It with Pulse | Flag a mistake

6 **Granite is a common intrusive igneous rock rich in quartz and**

- A Clay
- B Calcite only
- C Feldspar
- D Olivine only

Understand It with Pulse | Flag a mistake

7 **Sedimentary rocks form from compaction and cementation of**

- A Ice only
- B Sediment
- C Lava
- D Magma

Understand It with Pulse | Flag a mistake

8 **Sandstone is a sedimentary rock made mainly of sand sized grains of**

A Clay only

B Calcite only

C Quartz

D Gypsum

Understand It with Pulse | Flag a mistake

9 **Limestone is a sedimentary rock made mainly of calcium**

A Oxide

B Silicate

C Carbonate

D Sulfate

Understand It with Pulse | Flag a mistake

10 **Metamorphic rocks form when existing rocks are changed by heat and pressure without**

- A Cooling
- B Erosion
- C Melting completely
- D Deposition

Understand It with Pulse | Flag a mistake

11 **Marble is metamorphic rock formed from**

- A Limestone
- B Sandstone
- C Granite
- D Shale

Understand It with Pulse | Flag a mistake

12 **Slate is metamorphic rock formed from**

- A Basalt
- B Sandstone
- C Shale
- D Limestone

Understand It with Pulse | Flag a mistake

13 **Foliation in metamorphic rocks is the alignment of minerals in layers or bands caused by directed**

- A Water
- B Pressure
- C Time
- D Heat only

Understand It with Pulse | Flag a mistake

14 **Plate tectonics theory states Earth outer shell is divided into plates that move over the**

A Asthenosphere

B Crust only

C Core

D Inner core

Understand It with Pulse | Flag a mistake

15 **At a divergent plate boundary, plates move apart and new crust forms, often at mid ocean**

A Volcanoes on land only

B Ridges

C Trenches

D Faults

Understand It with Pulse | Flag a mistake

16 **At a convergent boundary, plates move together and one plate may be forced down in**

- A Sliding
- B Spreading
- C Rifting
- D Subduction

Understand It with Pulse | Flag a mistake

17 **At a transform boundary, plates slide past each other horizontally, which can cause**

- A Volcanoes only
- B Earthquakes
- C New crust
- D Mountain folding only

Understand It with Pulse | Flag a mistake

18 **The San Andreas fault is an example of a transform boundary in**

A Europe

B California

C Asia

D Australia

Understand It with Pulse | Flag a mistake

19 **The Himalayas formed by collision of continental plates at a convergent**

A Divergent

B Transform

C Boundary

D Rift

Understand It with Pulse | Flag a mistake

20 **Seafloor spreading is supported by magnetic stripes on the ocean floor that are symmetric about mid ocean**

A Islands

B Trenches

C Ridges

D Faults

Understand It with Pulse | Flag a mistake

21 **Earthquakes occur mainly when rocks break and release stored elastic energy along a**

A Glacier

B Volcano

C Fault

D River

Understand It with Pulse | Flag a mistake

22 **The focus of an earthquake is the point inside Earth where rupture begins, while the epicentre is directly above it on the**

A Ocean

B Mantle

C Surface

D Core

Understand It with Pulse | Flag a mistake

23 **P waves are primary seismic waves that travel through solids, liquids, and**

A Gases

B Only solids

C Only liquids

D Vacuum

Understand It with Pulse | Flag a mistake

24 **S waves are secondary seismic waves that travel only through**

- A Vacuum
- B Solids
- C Gases
- D Liquids

Understand It with Pulse | Flag a mistake

25 **Volcanoes form most commonly at plate boundaries and hot spots, where magma reaches the**

- A Atmosphere
- B Mantle only
- C Surface
- D Core

Understand It with Pulse | Flag a mistake

ANSWER KEY

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

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