

Earth Science Quantitative Challenge

Earth Science · Answer Key · 10 Questions

1. On what date did the largest recorded earthquake in history, the Valdivia earthquake, occur in Chile?

- A) May 22, 1960**
- B) March 27, 1964
- C) December 26, 2004
- D) August 15, 1950

2. What is the approximate depth of the Mohorovicic discontinuity beneath the continental crust?

- A) 5-10 km
- B) 30-50 km**
- C) 100-150 km
- D) 200-250 km

3. Who proposed the theory of continental drift in his 1915 book 'The Origin of Continents and Oceans'?

- A) Harry Hess
- B) Beno Gutenberg
- C) Alfred Wegener**
- D) Charles Richter

4. The Saffir-Simpson Hurricane Wind Scale is divided into how many categories?

- A) 3
- B) 4
- C) 5**
- D) 6

5. What is the value of the solar constant, representing the average amount of solar energy reaching the top of Earth's atmosphere?

- A) 1,361 W/m²**
- B) 1,050 W/m²
- C) 980 W/m²
- D) 1,500 W/m²

6. In which year did the eruption of Mount Tambora, the most powerful volcanic eruption in recorded history, occur?

A) 1783

B) 1815

C) 1883

D) 1902

7. The Earth's inner core has a radius of approximately how many kilometers?

A) 637 km

B) 1,220 km

C) 2,440 km

D) 3,480 km

8. How many official Earth 'spheres' (e.g., atmosphere, lithosphere) are commonly categorized in traditional physical geography?

A) 3

B) 4

C) 5

D) 6

9. The Keeling Curve, which tracks atmospheric carbon dioxide levels, began continuous measurements in which year?

A) 1948

B) 1958

C) 1968

D) 1978

10. What is the approximate percentage of Earth's total water volume that is contained in the oceans?

A) 92.5%

B) 95.0%

C) 96.5%

D) 98.0%