

Palaeontology Masterclass

Palaeontology · Answer Key · 15 Questions

1. Which geological period is often called the 'Age of Cycads' due to the dominance of these seed plants?

- A) Triassic
- B) Jurassic**
- C) Cretaceous
- D) Permian

2. What is the specific name for the process where minerals replace the organic material of a once-living organism, turning it into stone?

- A) Carbonization
- B) Permineralization**
- C) Impression
- D) Mummification

3. Which group of marine reptiles, characterized by their dolphin-like bodies and large eyes, are not actually dinosaurs?

- A) Plesiosaurs
- B) Mosasaurs
- C) Ichthyosaurs**
- D) Pterosaurs

4. What defines a 'trace fossil' in the study of palaeontology?

- A) Fossilized bone structure
- B) Fossilized skin impressions
- C) Fossilized footprints or burrows**
- D) Fossilized teeth

5. Which era is known as the 'Age of Reptiles' and comprises the Triassic, Jurassic, and Cretaceous periods?

- A) Paleozoic
- B) Mesozoic**
- C) Cenozoic
- D) Proterozoic

6. What is the significance of the Burgess Shale fossil site in Canada?

- A) It contains the largest dinosaur skeletons
- B) It preserved soft-bodied organisms from the Cambrian explosion**
- C) It is the only place to find trilobites
- D) It was the site of the first T-Rex discovery

7. What do palaeontologists use 'coprolites' for?

- A) Identifying ancient plant species
- B) Determining the diet and digestion of extinct animals**
- C) Studying the skin texture of dinosaurs
- D) Calculating the weight of prehistoric mammals

8. Which of these organisms is considered a 'living fossil' because its physical appearance has changed very little over hundreds of millions of years?

- A) Coelacanth**
- B) Woolly Mammoth
- C) Sabre-toothed Cat
- D) Triceratops

9. What is the scientific term for the study of the arrangement of rock layers to determine the age of fossils?

- A) Stratigraphy**
- B) Taxonomy
- C) Paleobotany
- D) Archaeology

10. Which extinct supercontinent included the lands that are now South America, Africa, Antarctica, India, and Australia?

- A) Laurasia
- B) Pangaea
- C) Gondwana**
- D) Rodinia

11. What were 'gastroliths' used for by some herbivorous dinosaurs?

- A) Displaying feathers for mating
- B) Attracting prey
- C) Grinding tough plant material in the gizzard**
- D) Defending against predators

12. Which extinction event, occurring about 66 million years ago, resulted in the loss of all non-avian dinosaurs?

- A) Permian-Triassic
- B) K-Pg (Cretaceous-Paleogene)**
- C) Late Devonian
- D) Triassic-Jurassic

13. What is the primary difference between an 'endocast' and a regular fossil?

- A) An endocast is a fossilized internal organ
- B) An endocast is a cast of the internal space of a skull**
- C) An endocast is a fossil of a tooth
- D) An endocast is a microscopic fossil

14. Which specialized branch of palaeontology focuses on the study of ancient pollen and spores?

- A) Palynology**
- B) Micropalaeontology
- C) Ichnology
- D) Taphonomy

15. What is the 'Kimmeridge Clay' formation famous for containing?

- A) Extensive evidence of early human tools
- B) Well-preserved marine reptile fossils from the Jurassic**
- C) Fossils of the first flowering plants
- D) Large deposits of dinosaur eggs