Key Knowledge 11

Changes in biodiversity over time

**Compete the table**

|  |  |
| --- | --- |
| **Time (Period)** | **Evolutionary event** |
|  | Dinosaurs become extinct |
|  | First fish appeared  |
|  | First angiosperms (flowering plants) appear |
|  | First animals on land  |
|  | Evolution of humans  |
|  | First mammals appeared |
|  | First reptiles appear |
| **Time (Eon)** | **Evolutionary event** |
|  | Oldest known fossils are found |
|  | Multicellular life develops  |
|  | First animal traces  |

How does fossilisation occur? (steps involved)

Which type of organisms are **most** likely to be fossilised & why?

**Convergent evolution:**

Give 3 examples:

1.
2.

What is **structural morphology**

Order the following from largest to smallest Epochs; Eon; Period; Eras

What does the geological time scale demonstrate?

What are the 5 mass extinctions & when did they occur?

What two observations Darwin made to come to the conclusion of natural selection?

**Homologous Structures:**

**Analogous Structures:**

**Vestigial Structures:**

|  |  |
| --- | --- |
| Relative Dating | Absolute Dating  |
|  |  |
| Advantages |
|  |  |
| Disadvantages  |
|  |  |

What is the relationship between palaeontology & evolution?

**Divergent evolution:**

Give 3 examples:

1.
2.

Similarities & Differences between divergence and convergent evolution

What is a **transitional fossil**?

Example

Evolutionary significance of transitional fossils

|  |
| --- |
| **Impression fossils** |
| **Mineralised fossils**  |
| **Trace fossils** |
| **Mummified organisms**  |