

# What Do Fossils Tell about Extinction?

Name: \_\_\_\_\_

Date: \_\_\_\_\_

## What Do Fossils Tell About Extinction

- In 1700, there may have been \_\_\_\_\_ passenger pigeons living in North America.
- By 1900, the passenger pigeon was extinct in the \_\_\_\_\_.
- In 1914, the last passenger pigeon on Earth \_\_\_\_\_ at the Cincinnati Zoo.
- The passenger pigeon is one of the \_\_\_\_\_ species that have become extinct.
- Some animals have become extinct after populations declined over \_\_\_\_\_ of years.
- Others became extinct more \_\_\_\_\_.
- Still others appear to have become extinct as the result of a \_\_\_\_\_.

## Types and Causes of Extinction

- In Lesson 1, you learned about various types of \_\_\_\_\_ creatures, many of which no longer live on Earth – they are extinct.
- \_\_\_\_\_ occurs when the last of a species dies.
- What can cause a species to completely disappear from the planet?
- Extinctions occur at different \_\_\_\_\_.
- Extinctions in which only one or a few species disappear are called \_\_\_\_\_ **extinctions**.
- Extinctions in which large numbers of species suddenly die out are called \_\_\_\_\_ **extinctions**.
- Scientists estimate that more than \_\_\_\_\_ of all the species that have ever lived on Earth have become extinct.
- Some of these extinctions happened \_\_\_\_\_ ago.
- Others have occurred in the past \_\_\_\_\_.
- In fact, the extinction of the black rhinoceros occurred in \_\_\_\_\_.

## Types and Causes of Extinction: Gradual Extinction

- Most gradual extinctions occur when a species' \_\_\_\_\_ changes.
- Suppose, for example, that a species lives in a very small area that receives much \_\_\_\_\_.

- If the amount of rainfall steadily \_\_\_\_\_ over time, the species will try to adapt by changing its behavior or perhaps migrate to another location.
- If it \_\_\_\_\_ adapt to the change in water, it will become extinct.
- Although humans are expected to care for God's Creation, some human \_\_\_\_\_ can affect the survival of wild species of plants and animals.
  - \_\_\_\_\_ of pollution
  - \_\_\_\_\_ their habitat or food supply
  - cutting off \_\_\_\_\_ passageways
  - illegal \_\_\_\_\_
  - hunting can push species past the \_\_\_\_\_ point

### Types and Causes of Extinction: Mass Extinction

- Unlike gradual extinctions, mass extinctions are the result of \_\_\_\_\_ changes on Earth.
- Scientists have found evidence of \_\_\_\_\_ mass extinctions in the fossil record.
- For example, in the Paleozoic section of the geologic column, the Ordovician layers contain fossils of many \_\_\_\_\_ creatures.
- But in the Silurian layers just above, \_\_\_\_\_ of those creatures no longer exist in the fossil record.
- Scientists \_\_\_\_\_ this data to mean that those species became extinct.
- Because of clues in the fossil record, scientists have suggested that climate change, dropping sea levels, volcanic eruptions, or various combinations of these may have been \_\_\_\_\_ for the extinctions.
- Many scientists believe that the dinosaur extinction event involved a \_\_\_\_\_ impact that sent massive amounts of dust into the air.
- The dust would have prevented \_\_\_\_\_ from reaching Earth.
- As a result, plants and other producers could not make \_\_\_\_\_, and the animals that eat plants could not have survived.
- This \_\_\_\_\_ is based on the presence of unusually high levels of iridium in these rock layers.
- Iridium is an element that is \_\_\_\_\_ in Earth's crust but is more abundant in meteorites.
- Some interesting questions exist, though.
  - Why would dinosaurs become extinct but not alligators, crocodiles, and fishes?
  - Why would one kind of clam become extinct but not another?

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- Scientists with a biblical worldview believe many mass extinctions events are linked with the \_\_\_\_\_ and the events immediately afterward.