

Unit 3 Review

Summary

- Differences which make an organism better suited to its environment may help the organism survive and reproduce. This process is called natural selection or survival of the fittest.
- Darwin suggested that as a result of natural selection, a group of living things can change so much that they evolve into a new species.
- One way scientists learn about living things from the past is by studying fossils. Fossil studies support the idea that species of today have common ancestors.
- Scientists have long wondered how life began. Experiments which combined gases that could have been found on the earth billions of years ago have shown that these gases may have formed the compounds needed to make the cells of living things.

For Your Portfolio

1. Recently, the remains of a human who lived thousands of years ago were found buried in a glacier near the borders of Austria and Italy. This fossil is special because it is of a complete human, not just a few bones. It is the most complete fossil of an ancient human ever found. This fossil is referred to as the Ice Man. The Ice Man was protected from the movement of the glacier because he was wedged between rocks while the glacier flowed above him. Find out how the Ice Man was discovered and what scientists have learned from this early human. Look up information about the Ice Man and get pictures to share with your class. Find out about the tools he used, the clothes he wore, and other details about his daily life. Give an oral report of your findings.
2. Go to a museum of natural history. Look at the displays of animals from the last Ice Age. Do any of these ancient animals remind you of animals that are alive today? Find out what kinds of ancient animals used to live in your part of the country. Report your findings to the class.
3. Make a survey of ten dinosaurs. Create one or more posters showing the differences among them. On your poster, write their scientific names, the places where their remains have been found, and the time period when they lived.



4. Different theories have been developed about why dinosaurs died so quickly after living on the earth for millions of years. Research each theory. Then explain to the class which theory you most strongly support and the reasons for your decision.
5. Make a time line of evolutionary time periods. Show the evolution of life, from when life first appeared on the earth to the present. Use books from the library containing evolution charts to help you make your time line.
6. Learn more about the experiment performed by Stanley Miller. Make a poster that includes a picture which shows how gases and energy might have produced the first compounds that make up life.
7. Comparative anatomy is the study of the structures of living things. Find a book on comparative anatomy. Write a report about how mammals of different species are similar to each other. Include a discussion of the animals that are believed to be the ancestors of mammals.

Unit 3 PRACTICE TEST

Match the terms in Column A with their definition in Column B.

| Column A | Column B |
|---|----------------------|
| _____ 1. a living thing of the past, from which other living things evolved | a. adaptation |
| _____ 2. development of traits that make an organism better able to live in its environment | b. natural selection |
| _____ 3. chemicals joined together in a specific, consistent way | c. species |
| _____ 4. group of living things that can mate with each other and produce young that can also produce young | d. evolution |
| _____ 5. process by which organisms with certain traits survive and reproduce | e. fossil |
| _____ 6. the preserved remains or traces of a once-living thing | f. ancestor |
| _____ 7. process by which living things change over time | g. compounds |

Fill in the blanks.

- The members of a population have many different traits. The traits that are the most helpful are _____.
- Another term for natural selection is _____.
- In general, life evolved from very _____ living things to those that are more complex.
- As a population of living things becomes different from others of the same kind, it may evolve into a new _____.
- Because living things decay after they die, fossils are often made of only the remaining _____ parts.
- Scientists can tell if different animals are related by looking at _____ structures in animals.

Answer one of the following questions.

- In a paragraph, describe the events that take place in natural selection.
- Describe how the compounds that make up living things may have appeared on the earth.