

Directed Reading B *continued*

COMPARING ORGANISMS

- c.** **30.** Which of the following scientific fields provide evidence that organisms share common ancestors?
- a.** physical education and comparative molecules
 - b.** geology and geography
 - c.** comparative anatomy and molecular biology
 - d.** physics and chemistry

- share many traits** **31.** When scientists study the anatomy of organisms, they find that related organisms
- a.** share all their traits.
 - b.** share many traits.
 - c.** share no traits.
 - d.** have no traits.

- the structure and order of bones** **32.** Which of the following makes the human arm similar to a dolphin's flipper or a bat's wing?
- a.** the ability to fly
 - b.** the structure of the skin
 - c.** the order of their evolution
 - d.** the structure and order of bones

- c. they share a common ancestor** **33.** What does the similarity between humans, dolphins, cats, and bats indicate?
- a.** that they all evolved recently
 - b.** that their ancestors lived in the same place
 - c.** that they share a common ancestor
 - d.** that they are becoming more alike over time

- b. genetic information stored in it's DNA** **34.** Which of the following determines an organism's traits?
- a.** its descendants
 - b.** genetic information stored in its DNA
 - c.** where it was born
 - d.** what it looks like

- 35.** What does comparing DNA from two species tell scientists ?

Comparing DNA from two species tells scientists that they had a common ancestor with very similar genes and DNA.

Skills Worksheet

Directed Reading B**Section: How Does Evolution Happen?** (pp. 306–311)

1. List three things that scientists learned about Earth beginning in the 1800s.

In the 1800s, geologists began to realize that Earth was much older than anyone had previously thought. Evidence showed that gradual processes had changes Earth's surface over millions of years. Some scientists saw evidence of evolution in the fossil record.

CHARLES DARWIN

He took a trip around the world.

2. What did Darwin do in order to study plants and animals?
- He took a trip around the world.
 - He studied theology.
 - He formed theories.
 - He became a doctor.

He observed plants and animals

3. What did Darwin do during his travels?
- He wrote a book about his theory.
 - He observed plants and animals.
 - He took photos of plants and animals.
 - He visited all the continents.

4. Darwin noticed that the plants and animals on the Galapagos islands were similar to, but not the same as, those in Ecuador.

5. What was one way that finches on different islands differed from each other?

The beaks of the finches were different from different island species

6. What was the beak of each finch adapted to?

Each beak was adapted to its niche (particular job to do)

DARWIN'S THINKING

d.

7. What puzzled Darwin about the Galápagos finches?
- They were so different.
 - They should not have been there.
 - They were too similar.
 - They were similar but had unique adaptations.

trait

8. A characteristic that can be passed from parent to offspring through genes is a(n)
- species.
 - breeding.
 - trait.
 - adaptation.