

15 Evolution

2 Evidence of Evolution

TEKS 2(B), 2(C), 7(A), 7(C), 7(D),
7(E), 12(B)

REVIEW VOCABULARY

fossil

NEW VOCABULARY

derived trait
ancestral trait
homologous structure
vestigial structure
analogous structure
embryo
biogeography
fitness
camouflage
mimicry

MAIN IDEA

Write the Main Idea for this lesson.

Recall the definition of the Review Vocabulary term.

fossil

Use your book to define the following terms.

derived trait

ancestral trait

homologous structure

vestigial structure

analogous structure

embryo

biogeography

fitness

camouflage

mimicry

2 Evidence of Evolution (continued)

Student Edition, pp. 423–430

Reading Essentials,

pp. 172–175

Summarize the role that anatomy plays in teaching us about evolution by completing the table below.

Structure	What is it?	Example
Homologous structure		
Analogous structure		
Vestigial structure		
Embryo		

GET IT? **Explain** why vestigial structures are considered examples of homologous structures.

2 Evidence of Evolution (continued)

Compare similarities and differences between adaptations and non-adaptations by writing *yes* or *no* in the table. Then give an example of an adaptation and a non-adaptation

Characteristics	Adaptations	Non-Adaptations
inherited traits		
increase survival or reproduction		
by-product arising from other evolutionary changes		
Example:		

GET IT? **Compare** mimicry and camouflage.

Analyze how antibiotics can lose their effectiveness over time.

SUMMARIZE

Explain why fossils are important tools in understanding evolution.

2 Evidence of Evolution (continued)

REVIEW IT!

1. **MAIN IDEA** **Analyze and evaluate** how the fossil record provides evidence of common ancestry.

2. **Explain** what natural selection predicts about mimicry, camouflage, homologous structures, and vestigial structures.

3. **Indicate** how biogeography provides evidence of common ancestry.

4. **Analyze and evaluate** the morphological, biochemical, and developmental evidence supporting evolution.

5. **Hypothesize** Evidence suggests that the bones in bird wings share a number of features with the bones of dinosaur arms. Based on this evidence, what hypothesis could you make about the evolutionary relationship between birds and dinosaurs?

6. **Apply** Research has shown that if a prescribed dose of an antibiotic is not taken completely, some bacteria might not be killed and the disease might return. How does natural selection explain this phenomenon?
