



Grades 3-5

## Theme: STEM

### LINK TO COMMON CORE LANGUAGE STANDARD 4 (Grades 3-5):

Determine or clarify the meaning of unknown and multiple-meaning words and phrases based on grade-appropriate reading and content.

#### OBJECTIVE:

Students will explore names of dinosaurs that contain Greek and Latin roots, including Stegosaurus.

#### MATERIALS NEEDED:

- *Stegosaurus*
- Drawing paper and art supplies, including paints and markers

#### VITAL VOCABULARY:

- Reptile
- Prehistoric
- Armored

# STEGOSAURUS

By Elaine Landau

## Before Reading



5 min

### 1. Hold up the cover of the book. Ask:

- What do the words on the cover tell you about the book? (*The words say "A True Book". We know it's a nonfiction, book about the Stegosaurus dinosaur. The word "revised" means the content or material was changed and most likely updated.*)

### 2. Read the table of contents. Ask:

- Use the chapter titles in the Contents to tell which one will be the most interesting. Which will be the least interesting? Explain your reasons. (*Accept all reasonable responses.*)

### 3. Point out the picture and caption facing the table of contents page. After you read the caption, ask:

- What are other meanings of the word "plates"? (*Answers will vary. Possible answers will be: a thin piece of metal, home plate in baseball, dishes on a table for eating, license plates on cars.*)

## During Reading



25 min

### 1. Read pages 4–8. Ask:

- When was the Age of the Dinosaurs? (*150 million years ago*)
- During the Age of the Dinosaur, you might have seen the Stegosaurus roaming in the area that is now what state(s)? (*Colorado, Utah, Wyoming*)
- How long was Stegosaurus? (*30 feet long*)

### 2. Read pages 9–15. Ask:

- What did Stegosaurus look like? (*It had a large, bulky body with four strong legs that looked like an elephant's legs; the body sloped forward from the hips to the head.*)
- What words describe Stegosaurus's brain? (*"tiny," "walnut"*)
- What does the word Stegosaurus mean? (*"roofed lizard"*)

### 3. Read pages 16–19. Discuss:

- Why is Stegosaurus known as an armored dinosaur? (*Its throat is covered in small bony disks that protect it.*)
- What color was Stegosaurus? (*Scientists are not sure.*)

## During Reading (continued)

### 4. Read pages 20–25. Ask:

- What does *herbivore* mean? (“plant-eater”)
- Are hind legs in the back or in the front? Use context clues. (*back*)
- What does *graze* mean? (“to eat all day long”)

### 5. Read pages 26–29. Ask:

- What types of meat eaters attacked in packs? (*Velociraptor*)
- How might Stegosaurus have used its spiked tail? (*to lash its enemy*)

### 6. Read pages 30–43. Ask:

- What activity can be compared to paleontologists putting fossil bones together? (*putting together a jigsaw puzzle*)
- Who named Stegosaurus? (*Othniel Charles Marsh, in 1877, in Morrison, Colorado*)
- Who is Bryan Small? (*a paleontologist who made a second discovery near Cañon City, Colorado, in 1992*)
- Why was this discovery important? (*The Stegosaurus skeleton was missing only its front legs.*)
- Did all dinosaurs become extinct at the same time? (*No, they did not.*)

### 7. Guide students in interpreting the information on the time line. Ask:

- When do scientists think dinosaurs first appeared? (225 million years ago)
- When do they think the Stegosaurus existed? (157–144 million years ago)
- When did the last dinosaurs become extinct? (65 million years ago)

**Remind students that for hundreds of years, scientists have been puzzled about why dinosaurs became extinct. Ask:**

- How do some paleontologists believe the dinosaurs became extinct? (*an asteroid crashed into Earth*)
- How long were dinosaurs on Earth? (*more than 10 million years*)

### CONNECT TO LANGUAGE ARTS: Make a New Dinosaur

1. Remind students that scientists use Greek and Latin

## After Reading



25 min

words to name animals based on their physical appearance or behavior. In this activity, students will use Greek and Latin roots to create their own dinosaur.

2. On chart paper, provide these common Greek and Latin roots. Have students choose one to combine with “-saurus” for their new creature. For example, a picrosaurus could have a pointy beak and pointy tail.

Root	Meaning
aero	air
biblio	book
mar	sea
alt	tall
ornitho	bird
gallo	chicken
picro	sharp
rid	laugh
soph	wise
tort	twist
luna	moon
rect	straight

3. When students have come up with a new combination, have them draw the dinosaur to match its name. Students should be prepared to describe the characteristics of their dinosaur, how big it was, what it looked like, what it ate, and what it sounded like.
4. Have students label their drawing, write a short descriptive paragraph, and present their finding to the group.

## wrap up



5 min

Review the things students remember most about reading *Stegosaurus*. **Ask:**

- What three facts about dinosaurs do you think are the most amazing?
- What did you learn about the Stegosaurus that you have never heard before?