

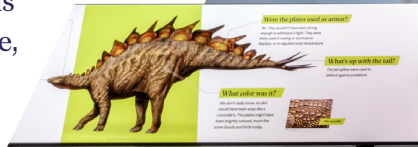
# EDUCATOR'S GUIDE

# APEX

A SPECTACULAR *STEGOSAURUS*

[amnh.org/apex-educators](http://amnh.org/apex-educators)

Apex is a fossil skeleton of an adult *Stegosaurus*. It is 150 million years old. Apex is one of the largest, most complete, and best-preserved *Stegosaurus* specimens ever found.



## Teaching at the Exhibit

### Comparative Anatomy

**TIP:** Students can use the **worksheet** (next page) to observe and sketch the fossil.

Students can examine the size and shape of the features highlighted below in the skeletal structure of Apex to *Construct Explanations (SEP)* about *Structure and Function (DCI; CC)*.

### How did Apex get food?

**BEAK AND TEETH:** Students can observe Apex's jaw to explain how paleontologists know this animal was an herbivore. Guide students to make inferences about its feeding behaviors: Apex likely used its beak at the front of its jaw to forage on plants like ferns and moss that grew close to the ground; it then used its small, leaflike teeth at the back of its jaw to slice the leaves.



### How did Apex defend itself or get attention?

**TAIL SPIKES:** Students can observe Apex's tail, equipped with four sharp spikes, and infer how this animal might have used this body part. Have students think of animals alive today that also have spiky body parts (e.g. porcupines, hedgehogs, horned lizards). Students can compare them with this *Stegosaurus* and discuss what the defensive behavior of living animals can tell us about how Apex might have used its tail. Students may infer that Apex likely swung its tail like a spiky club to defend itself against other dinosaurs.

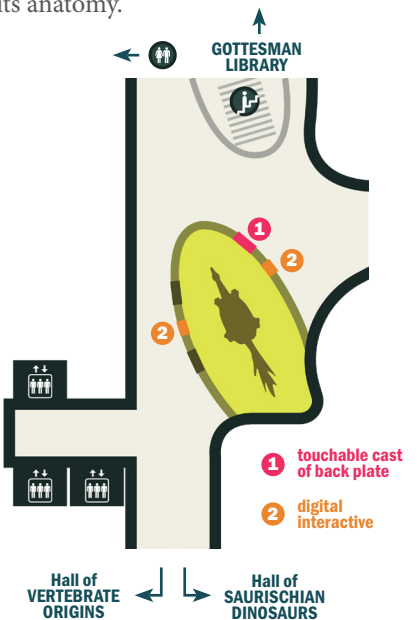


**BACK PLATES:** Students can observe that the row of back plates is not attached to the spine by fossilized bone and infer that they must have been attached by a material that did not fossilize. Tell students that the material that attached the plates loosely to the spine was keratin, which also makes up our fingernails. Then have students discuss whether they think Apex used its back plates for defense or to attract mates. Students can read the "anatomy" panel to discover that the plates were likely used in mating or dominance displays, or to regulate body temperature.



## Where is Apex?

Apex is located on the **4th floor** of the **Gilder Center**, where there is ample space for an entire class to gather and observe its anatomy.



## Explore More Fossils

After examining Apex, students can compare the anatomy of this *Stegosaurus* to that of other specimens on the 4th floor.

### CREDITS

Apex and its associated scientific research and educational activations are made possible by Kenneth C. Griffin and Griffin Catalyst.

**GRIFFIN  
CATALYST**

### IMAGE CREDITS

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# STUDENT WORKSHEET

## Part 1: Getting Food

**1. Observe** the Apex fossil closely.

Think about:

- How did this *Stegosaurus* get food?
- What body parts helped it get food?

**2. Sketch** one body part that helped Apex get food.

**3. Note** in your sketch how Apex might have used this body part to get food.

## Part 2: Defending Itself or Getting Attention

**1. Observe** the Apex fossil again.

Think about:

- How did this *Stegosaurus* defend itself or get attention?
- What body parts helped it do that?

**2. Sketch** one body part that helped Apex defend itself or get attention.

**3. Note** in your sketch how Apex might have used this body part to do those things.

## Part 3: Talk About It!

Talk to a partner or partners about what you noticed, observed, and sketched.

## Part 4: Explore the Digital Interactive

Find out what scientists think about how *Stegosaurus* got food, defended itself, and got attention.