



Who Was Animal Eve?

Video Titles:

Sponges: Origins

Mitchell Sogin, Evolutionary Biologist: Proof of the First Animal

Activity Subject: Evaluating Evidence for the First Animal or “the Animal Eve”

Grade Level: 7 – 12 grades

Introduction

In this lesson students make a guess as to what was the first animal. The class watches the Sponge video from the shapeoflife.org and writes down what evidence they saw that sponges were the first animals. Then the class discusses what evidence they need to figure out what might have been the first animal. They watch the scientist video “*Mitchell Sogin, Evolutionary Biologist: Proof of the First Animal*” and write down the evidence that is presented for the sponge being the first animal. They consider what other evidence they would like to investigate and how their ideas have changed since they were first asked the question in the beginning of class.

Assessments

Written

Time

60 minute class period

Group Size

Varies; single student, student pairs, entire class

NEXT GENERATION SCIENCE STANDARDS

PERFORMANCE EXPECTATIONS:

Students who demonstrate understanding can:

MS-LS4-2. - Apply scientific ideas to construct an explanation for the anatomical similarities and differences among modern organisms and between modern and fossil organisms to infer evolutionary relationships.

HS-LS4-1 - Communicate scientific information that common ancestry and biological evolution are supported by multiple lines of empirical evidence.

LEARNING OBJECTIVES:

Through questioning, evidence gathering, discussion, and observing video, students evaluate evidence that supports which animal was the first to appear on Earth.



Who Was Animal Eve? Teacher's Edition - Page 2

Materials, Preparation and Procedure

Materials and Preparation:

- Science notebooks or Animal Eve worksheets
- Access to the internet. You will be referencing two videos:
 - Sponges: Origins* [Under Topics, click on Phyla, click on Sponges: Origins. (14:02 minutes)]
 - Mitchell Sogin, Evolutionary Biologist: Proof of the First Animal* [Under Topics, click on Scientist. Click on Mitchell Sogin, Evolutionary Biologist: Proof of the First Animal. (7:55 minutes).]

Procedure:

1. In their science notebooks or on their Animal Eve worksheet, students attempt to answer the question, "What was the first animal and how do we know?"

Students then pair share their answers with a partner.

The teacher next leads a class discussion focused on the question of the first animal's identity with an emphasis on "How do we know?"

2. Teacher introduces the *Sponges: Origins* video asking the students to look for any evidence that the sponge might have been the first animal. The class watches the sponge video from the shapeoflife.org.
3. In their notebooks or on their Animal Eve worksheet, students answer, "What evidence did you observe that the sponge might have been the first animal?"
4. Teacher introduces the video *Mitchell Sogin, Evolutionary Biologist: Proof of the First Animal*. After watching, students cite two pieces of evidence for that video's claim.
5. Students are told to write down other evidence they would like to investigate to determine the identity of the animal eve.
6. In summary, students write about how their ideas about the first animal have changed after watching these videos.



Who Was Animal Eve? Student's Edition

Materials, Preparation and Procedure

Materials and Preparation:

- Science notebooks or Animal Eve worksheets
- Access to the internet. You will be referencing two videos:
 - Sponges: Origins* [Under Topics, click on Phyla, click on Sponges: Origins. (14:02 minutes)]
 - Mitchell Sogin, Evolutionary Biologist: Proof of the First Animal* [Under Topics, click on Scientist. Click on Mitchell Sogin, Evolutionary Biologist: Proof of the First Animal. (7:55 minutes).]

Procedure:

1. In your science notebook or on your Animal Eve worksheet, answer the question, “What was the first animal and how do we know?”

Pair share your answers with a partner.
2. After watching the *Sponges: Origins* video, answer, “What evidence did you observe that the sponge might have been the first animal?”
3. After watching the video *Mitchell Sogin, Evolutionary Biologist: Proof of the First Animal* cite two pieces of evidence for that video’s claim.
4. Write down other evidence you would like to investigate to determine the identity of the animal eve.
5. Write about how your ideas about the first animal have changed after watching these videos.