Subject(s): Body Parts of a Banana Slug Targeted Grade: 1st Grade

Teacher(s): Park Rangers (Education Staff)

School: Virtually from Howland Hill Outdoor School, Redwood National and State Parks

LESSON ELEMENTS

1a. California Common Core Learning Standard(s) Addressed:

First Grade Life Sciences: Plants and animals meet their needs in different ways. As a basis for understanding this concept:

A. Students know different plants and animals inhabit different kinds of environments and have external features that help them thrive in different kinds of places.

B. Students know both plants and animals need water, animals need food, and plants need light.D. Students know how to infer what animals eat from the shapes of their teeth (e.g., sharp teeth: eats meat; flat teeth: eat plants).

E. Students know roots are associated with the intake of water and soil nutrients and green leaves are associated with making food from sunlight.

1b. Next Generation Science Standard(s) Addressed:

First Grade LS1-1: Use materials to design a solution to a human problem by mimicking how plants and/or animals use their external parts to help them survive, grow, and meet their needs

2. Learning Target(s):

Students will understand that plants and animals meet their needs in different ways, and be able to demonstrate how different structures and corresponding functions help all living things survive in their environment.

3. Relevance/Rationale:

The content presented sets a strong foundation for understanding and being able to articulate content presented in future life sciences/biology classes.

In addition, this content will assist students in understanding how plants, animals, and humans are able to survive in their environments. Such knowledge can also later be applied to solving problems, even in engineering. For example, the aperture of a camera works in a similar way to the iris of a human eye.

4. Formative Assessment Criteria for Success:

Students will complete the activities will little to no assistance from the teacher.

5. Activities/Tasks:

1. Have students watch Park Ranger Video #1: Structure & Function. This video introduces the

students to Redwood National and State Parks, structure and function, and provides an example of different structures and their functions on the banana slug.

There are two activities you can do in person with your students along with or shortly after watching the videos.

Activity 1: Print and give each student a copy of the banana slug and the labels. Have the students color ant cut out the picture of the banana slug and the labels, then have the students label the structures of the banana slug. Have the students match the function with the structure. This is also a good opportunity for your students to practice writing: if they want to create their own labels, they can copy the words themselves.

Images of the slug and the labels are at the end of this document.

Activity 2: Work with the students to list animals that live nearby. Then, list a few structures that the animals have and the corresponding functions of those structures. The purpose is to help the students connect the information presented in the video about banana slugs in California to the animals that live whereever they do. All animals have different structures with specific functions, including humans! After making your list, consider taking a walk together to observe the animals your students listed in action, like a scavenger hunt. This works well with common animals like birds, squirrels, etc.

You can do a similar activity with any plants around the neighborhood or playground at school, as well. Plant structures and their functions are explored a bit deeper in a later video in our series.

Ex:

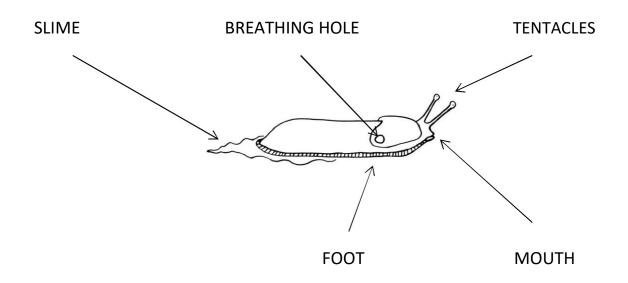
ANIMAL	STRUCTURE	FUNCTION
Dog	Tail	Helps the dog balance
	Paws	Used for walking

If you or your students have any questions about this activity, you can direct them to our park ranger staff by sending an email to:

<u>redw_howland_hill_reservations@nps.gov</u>, or visit the website where you downloaded this activity and click "email us". We respond to all questions as quickly as possible, and look forward to receiving them!

In-Class Activity: The Structure and Function of Banana Slugs

The correct labels for the structures of the banana slug are shown below. You can have your students label the structures with string, yarn, or marker and paste everything on to a larger sheet of paper. Or, you could have students color the banana slug but not cut it out, and paste all the structures and functions to that piece of paper. Or, you can do something entirely different to make this fit your curriculum and style.



The correct answers for the functions of these structures, also described during the video, are listed below:

SLIME – STAY SAFE

TENTACLE – FIND FOOD

FOOT – MOVE AROUND

MOUTH – EAT FOOD

BREATHING HOLE – BREATHE

