



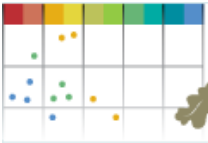


Smithsonian Biodiversity Science in the Classroom

Teach, Learn, Explore, Observe *and* Inquire.












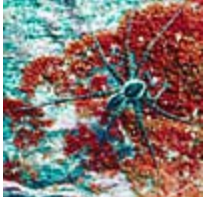

IS THERE LIFE IN A DECOMPOSING LOG? Student Handout: Classes and Characteristics of Log Decomposition

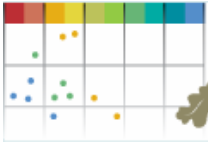
CHARACTERISTICS	CLASS 1	CLASS 2	CLASS 3	CLASS 4
				
Shape	Log has just fallen to the ground. It is round and has parts of its branches attached.	Round and branches have decomposed.	Log isn't round; it breaks into pieces like a puzzle.	Can't see shape of log; only bits and pieces breaking down into small soil-like particles.
Bark	Bark is attached to the log.	Bark is starting to peel off of the log.	Bark has completely fallen off the log.	Bark has broken into very small pieces that look like soil.
Texture	Very hard; can't break off branches or bark.	Can pull off the bark and break off small pieces of wood from the outside of the log.	Can break off large pieces of wood from the log.	The bits and pieces are soft to touch and break apart very easily with your fingers.
Species found	No species or very few species are found.	A few species are found around and on the log.	A variety of species are found on, inside, and around the log.	A variety of species are found living and feeding on bits and pieces of the log.



IS THERE LIFE IN A DECOMPOSING LOG?

Student Handout: Common Species Found on Decomposing Logs

DECOMPOSERS			
			
Beetle	Insect larva	Termite	Sow Bug
			
Snail	Slug	Fungus	Millipede
CONSUMERS			
			
Ant	Salamander	Centipede	Spider
PRODUCERS			
	<p>ABOUT PRODUCERS AND DECOMPOSING LOGS: Moss is one of the few producers you will commonly find on a rotting log. Occasionally, birds and other animals drop seeds of other kinds of plants which may sprout and take root on the decaying log.</p>		
Moss			
<p>NOTE: Some organisms may be both consumers and decomposers. For example, snails and slugs eat both decaying wood and live plants. Beetles eat other animals, decaying wood, and live plants. So, snails, slugs, and beetles really are consumers AND decomposers. Ants eat fruit, seeds, and eggs, so they are consumers. But some species of ants also eat carrion (dead animals) so THOSE particular ant species are both consumers AND decomposers.</p>			



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IS THERE LIFE IN A DECOMPOSING LOG? **Student Worksheet: Building Background Knowledge**

In your classroom, work in small groups to share your knowledge of decomposing logs and the communities of organisms that live in a decomposing log. You will look at your written answers on this worksheet again after viewing the video and after the outdoor activity.

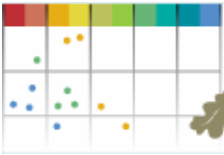
What are the characteristics of a decomposing log?

What helps a log decompose?

What producers, consumers, and decomposers would you find in a log?

What are the benefits to the ecosystem of a decomposing log?

What would happen if there weren't any decomposers?



IS THERE LIFE IN A DECOMPOSING LOG?
Student Worksheet: Decomposing Log Data

Name(s) _____

Date _____

Step 1: Observe, measure, describe, and draw your decomposing log.

1. Describe the characteristics of your log.

Shape:

Bark:

Texture:

Organisms:

2. Describe the characteristics of the habitat where your log is located (example, wet or dry, shady or sunny, lots of leaves around the log, etc.).

3. Determine the class of decomposition using the student handout "Classes and Characteristics of Log Decomposition."

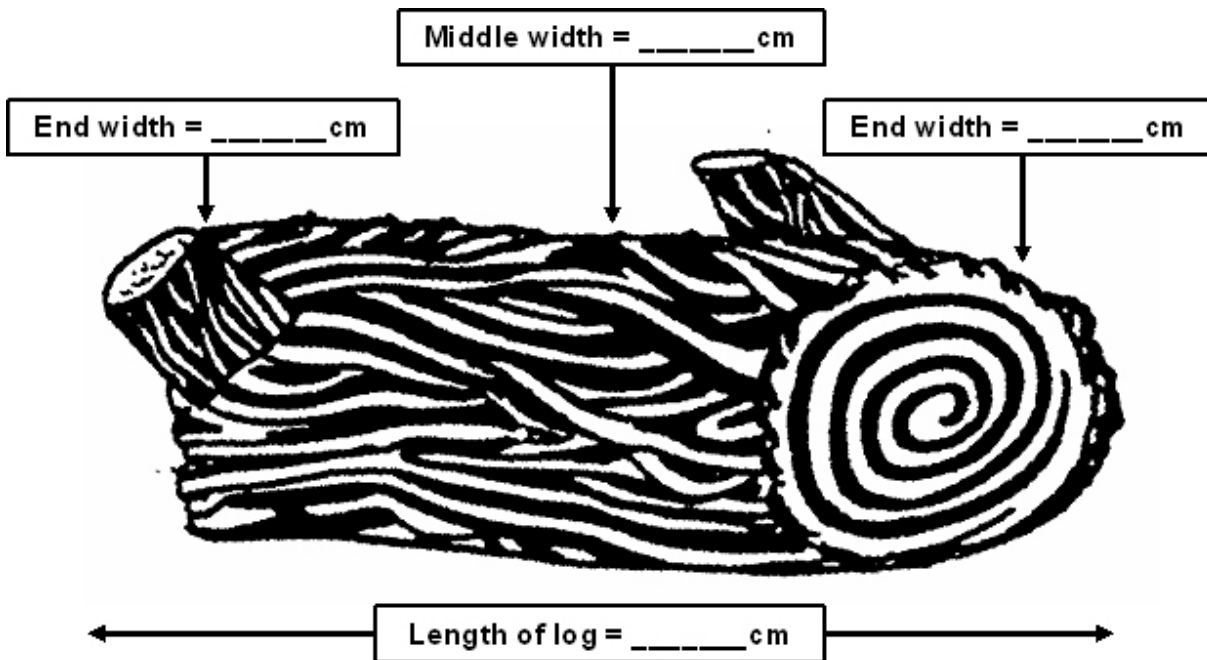
Class 1

Class 2


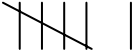
Class 3

Class 4

4. Fill in the blanks with metric measurements for the length and three widths of your log.



Step 3: Document and describe the species found in your decomposing log.

	Check where the species was found	Describe the species	Draw the species	Tally the number of individuals observed	Total number of individuals observed	Category
Ex.	<input type="checkbox"/> On surface <input type="checkbox"/> Under bark <input type="checkbox"/> Inside log <input checked="" type="checkbox"/> Underneath	<p>6 legs, black carapace with ridges, pincers, spiny legs, antennae</p> <p>I think it is a: <u>beetle</u></p>			6	<input type="checkbox"/> Producer <input type="checkbox"/> Consumer <input checked="" type="checkbox"/> Decomposer
1	<input type="checkbox"/> On surface <input type="checkbox"/> Under bark <input type="checkbox"/> Inside log <input type="checkbox"/> Underneath	I think it is a: _____				<input type="checkbox"/> Producer <input type="checkbox"/> Consumer <input type="checkbox"/> Decomposer
2	<input type="checkbox"/> On surface <input type="checkbox"/> Under bark <input type="checkbox"/> Inside log <input type="checkbox"/> Underneath	I think it is a: _____				<input type="checkbox"/> Producer <input type="checkbox"/> Consumer <input type="checkbox"/> Decomposer
3	<input type="checkbox"/> On surface <input type="checkbox"/> Under bark <input type="checkbox"/> Inside log <input type="checkbox"/> Underneath	I think it is a: _____				<input type="checkbox"/> Producer <input type="checkbox"/> Consumer <input type="checkbox"/> Decomposer
4	<input type="checkbox"/> On surface <input type="checkbox"/> Under bark <input type="checkbox"/> Inside log <input type="checkbox"/> Underneath	I think it is a: _____				<input type="checkbox"/> Producer <input type="checkbox"/> Consumer <input type="checkbox"/> Decomposer
5	<input type="checkbox"/> On surface <input type="checkbox"/> Under bark <input type="checkbox"/> Inside log <input type="checkbox"/> Underneath	I think it is a: _____				<input type="checkbox"/> Producer <input type="checkbox"/> Consumer <input type="checkbox"/> Decomposer
6	<input type="checkbox"/> On surface <input type="checkbox"/> Under bark <input type="checkbox"/> Inside log <input type="checkbox"/> Underneath	I think it is a: _____				<input type="checkbox"/> Producer <input type="checkbox"/> Consumer <input type="checkbox"/> Decomposer
7	<input type="checkbox"/> On surface <input type="checkbox"/> Under bark <input type="checkbox"/> Inside log <input type="checkbox"/> Underneath	I think it is a: _____				<input type="checkbox"/> Producer <input type="checkbox"/> Consumer <input type="checkbox"/> Decomposer