



Outdoor Learning Station Project Plan: Materials Budget and Construction Instructions for Log Decomposition Station

The rotting logs in a log decomposition station are a representation of what happens on a larger scale in real forests and even in your own yard. When a tree falls, it remains there as decomposers slowly consume it and return the nutrients to the soil. They do this by breaking down complex molecules in the log into simple carbon and nitrogen, as well as other minerals that living plants can use.

A forest is considered a major habitat and the fallen log is considered a microhabitat – a smaller habitat within a major habitat. The log provides the food, water, shelter, and places to raise young for the animals living around and within it. Producers, consumers, and decomposers can all live in a fallen log.

❖ Location Requirements:

- ☐ It is best to place your logs in an area with partial to full shade. Moist soil is important for the decomposers and decomposition process.

❖ Example Log Decomposition Station Pictures & Educational Sign:





Project Plan for Vermicompost Bin

❖ Materials List with Estimated Budget

**Listed prices are as of December 2024. They are subject to change.*

Example Log Decomposition Station (4 ft x 6 ft or larger)				
Station	Materials & Supplies	Estimated Cost	Source of Materials	Final Cost
Sm. Log	(3-6) logs - at least 10” in diameter by 2-3 ft long <i>*If you want to have a larger station where students can study decomposition rates, use a mix of hardwood and softwood)</i>	FREE	Donated or On Campus	
Sm. Log	(3-6) large yard bags filled with fallen leaves	FREE	Donated or On Campus	
Sm. Log	Educational Sign (explaining decomposition & decomposers)	\$75	Ask HLL Specialist	
Sm. Log	(1) 6 ft. U-Post for Fence (<i>for educational sign</i>) @~\$10.69 ea	\$10	Lowe’s Item #493054	
Sm. Log	(1) Hillman 1/4-in x 1-1/2 in Zinc-Plated Coarse Thread Hex Bolt (2-count) @~\$0.88 ea	\$5 total	Lowe’s Item #137634	
Sm. Log	(2) Hillman 1/4-in x 20 Zinc-Plated Steel Hex Nut @~\$0.10 ea		Lowe’s Item #63301	
Sm. Log	(2) Hillman 1/4-in Zinc-Plated Standard Flat Washer @~\$0.15 ea		Lowe’s Item #63306	
Total Estimated Cost: \$90				

❖ Construction Tools:

- ☐ Chainsaw (to cut logs to length)
- ☐ Gloves for moving logs and spreading leaves
- ☐ (1) or (2) Shovel(s)
- ☐ (1) Wheelbarrow
- ☐ (1) Drill for attaching signs to posts

❖ Construction Instructions:

- 1) Purchase/ gather supplies and have them on-hand for the Build Day.
- 2) Remove the grass from the station area (4 ft x 6 ft or larger) so that only soil is remaining.
- 3) Use the wheelbarrow to take the grass clumps to a pre-approved area for dumping.
- 4) Spread the leaves or forest floor material in a two to three-inch later in the exposed soil area.
- 5) Place the logs on top of the leaves and dampen the area if it is dry. You will want to moisten the area once a week if it does not rain. Place the logs far enough apart that groups of students can gather around each log without getting in each other's way.
- 6) Insert the educational sign post (u-post) in the ground near the station and attach the educational sign to it using the nuts, bolts, and washers.

