Name:

My World Without Decomposers

Consequences of Disappearing Decomposers:

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Name_____

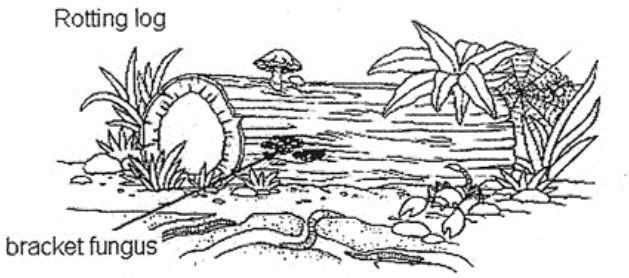
My World Without Decomposers: How Scary!

Cartoon Rubric

	Possible Points	Your Points
Cartoon character(s) : Can be biotic (consumer, producer, decomposer, herbivore, carnivore, predator, scavenger) or abiotic (rocks, dirt, air, sun, water) that clearly show where they are in an ecosystem (or specific habitat) and what they are doing	20	
Speech bubble/dialog box(es): telling what character(s) are thinking	15	
Scary! Cartoon should portray a scene that is scary and catches the reader's attention.	15	
Consequences of Disappearing Decomposers Your short paragraph should describe more fully what is happening in your cartoon. Use at least three vocabulary words (see below) to show your understanding of the role decomposers play in an ecosystem.	50	
Total Points	100	

Ecosystems Vocabulary:

ecosystem, habitat, population, community, biotic, abiotic, physical environment, predator, prey, producer, consumer, decomposer, fungi, herbivore, carnivore, omnivore, scavenger, energy, adapt, competition, cooperation, temperate forest ecosystem



Name_____

Nature's Recyclers: A Log's Log

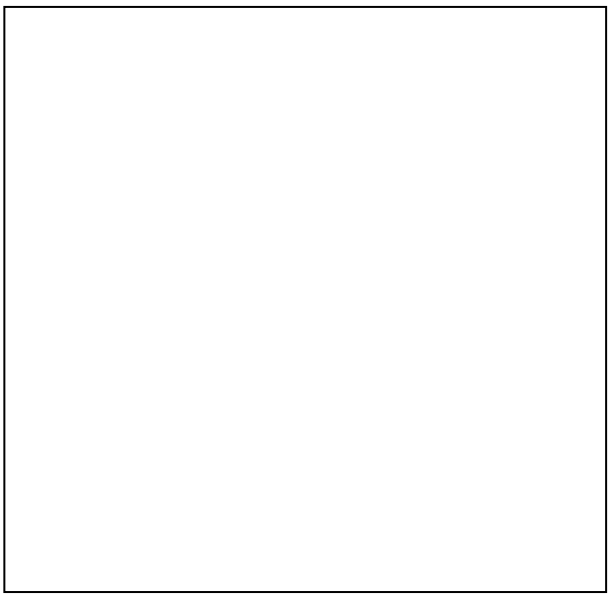
Today we will find a rotting log to observe some of nature's recyclers: decomposers! Treat the log gently and follow the instructions below.

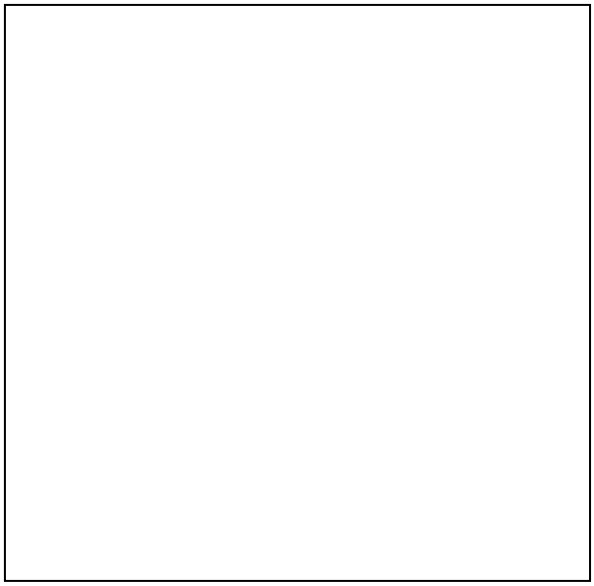
Stay with your group and adult helper. Share the zip lock bag of supplies. Be careful to return all supplies back to the bag to be used again.

Step #1: Approach the log quietly and observe it before touching it. Can you see how the decomposers are changing the log? Look for roots growing through the wood, holes bored by animals, scat, nesting materials. Notice moss, ferns, fungi or creatures crawling in or on the log.

Sketch the log below, adding details that you see. Add labels.

Step #2: Now you can touch the log! Carefully roll it back, just enough to see under it. Draw and label 2 decomposers that you see. You can use your pencil or a small twig to place them on index cards or in the containers to view them better. (Safety hint: Its' best to just observe and not handle spiders, as they can bite)





Step #3: Use a stick to dig up a small sample of soil underneath or next to the log. Study its contents. Describe the soil:

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Step #4: Describe the role the log plays in this forest ecosystem?

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Field Trip Safety Preparation

The following strategies should be considered in part of the lesson planning for field experiences:

School Policy: The very first thing to do before considering a field experience is to check the board of education policy of out-of-lab learning activities either on or off-site.

Pre-Visit: Teachers should always visit potential out-of-doors areas to review safety hazards prior to students carrying out activities.

Chaperones: In most cases, the ratio of adult chaperones to students should be around 1:10. However, if there are younger students, students with special needs or other situations requiring closer supervision, a smaller ratio like 1:5 or in extreme cases 1:1 should be considered.

Behavioral Expectations: A list of acceptable behaviors is a must. The standards must be shared and also the consequences of not following the rules!

Hazardous Chemical Exposure: Keep clear of out-of-doors areas when may have been treated with pesticides, fungicides and other hazardous chemicals. Check with the school district's facilities director to make sure no chemical applications have been made in the areas where students will be working. In the location is off school property, attempt to secure pesticide and any other hazardous chemical application information from the owners or operators of the site.

Use of PPE: When working out-of-doors, students should use appropriate personal protective equipment or PPE including safety glasses or safety goggles (when working with hazardous chemicals), gloves, close toed shoes, hat, long sleeve shirt and pants, sunglasses and sun screen protection. When working near deep water, use life preservers or other floatation devices.

Exposure to Allergens: Caution students relative to poisonous plants (ivy, sumac, etc.), insects (bees, wasps, ticks, mosquitoes, etc.) and hazardous debris (broken glass, other sharps, etc.). Show pictures of poisonous plants so students can easily identify them. Review habitat locations where ticks and/or mosquitoes are likely to be found; e.g. leaves, ponding water, etc.

Trip/Fall Hazards: Caution students about trip/fall hazards like rocks, string/rope, etc. when walking out-of-doors. Also use caution for impalement instruments such as rusty nails, sharp sticks, etc. Make sure students are warned about climbing trees, standing too close to the edge of a cliff, etc.

Signed Acknowledgement Forms: Teachers need to inform parents in writing of field trips relative to potential hazards and safety precautions being taken. Require parents and students to sign the acknowledgement forms and keep the forms at least for the balance of the year.

Medical Issues: Teachers need to check with the school nurse relative to student medical issues; e.g., allergies, asthma, etc. Be prepared for medical emergencies. The teacher again should let parents know and secure permission to administer appropriate medication should an emergency develop requiring it.

Communications: Teachers need to have a form of communications available such as a cell phone or two-way radio in case of emergencies. Always test the communications equipment ahead of time to make sure they are operational and within range.

Hand Washing: Wash hands with soap and water after completing activities dealing with hazardous chemicals, soil, biologicals (insects, leaves, etc.) or other materials. If soap and water are not available, use appropriate hand-wipes.

Contact Administration: Be certain to contact be main office prior to bringing classes out of the building for science activities.