



# The Arboretum for Educators

## Resources for Teachers, Students, and Families

December 2024

### Dead Plant Material in the Schoolyard



In December the outdoor landscape is settling into its quiet period, but that doesn't mean natural processes aren't happening! **Decomposing leaf litter and organic matter** enrich the soil and create invertebrate habitats. Found dead plant material from the schoolyard can be used in fun projects before being allowed to break down naturally over the winter months.

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**PreK–Grade 5: Using Dead Plant Material**

If your schoolyard hasn't yet been cleaned, bring students to areas where leaves and dead perennials/annuals are gathering. Often you will find invertebrates hiding in between moist leaves and in crevices, and students enjoy searching for them. Bring journals and pencils for sketching the discoveries!

When done exploring the animals, let children shred the leaves by hand or scissors (great fine motor skills) and spread them over the planting beds as mulch. Students can also shred newspaper to spread over planting beds. This will enrich the soil as the organic matter decomposes during the winter.

Another use for plant debris is to make **homes for invertebrates** to overwinter in your schoolyard. Different materials and locations attract a variety of animals, and students may enjoy recording the location of these "homes" and checking periodically to see who has moved in.

Gather pinecones and create **natural bird feeders** to hang on your bare trees. Be sure to avoid peanut butter and use Crisco shortening or sunflower butter instead. Keep the mess outdoors by creating the feeders outside!

Who doesn't love a fairy house? Bring students outdoors and let them collect plant material from the ground (sticks, acorn tops, leaves, berries or other fruits, maple seeds, rocks) and build shelters that blend into the landscape.

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## **Middle–High School: X Marks the Spot for Decomposition**

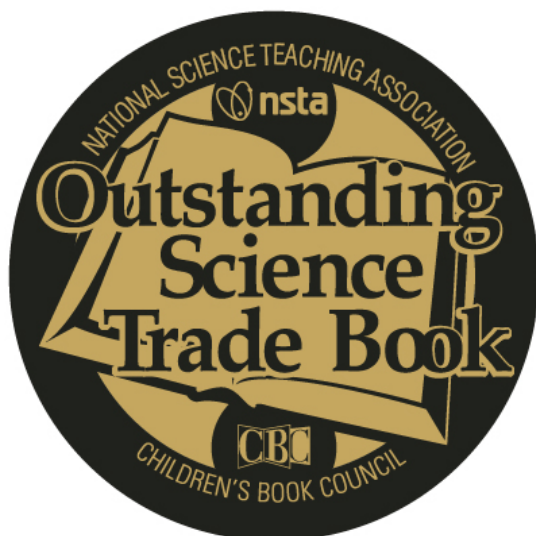
**Creating a Treasure Map** is a fun way to engage students when their minds are wandering towards winter break, and it gets them outside multiple times! Start by having students measure and map out their schoolyard or outdoor space to create a scaled map on graph paper. Use Google Earth or Google Maps resources to help students understand how maps work: aerial views, landmarks, and navigation using Street Views.

Once the map is in hand, students plan where buried treasure is to be found and write clues using measured distances, compass directions, and schoolyard landmarks. They need to test their clues repeatedly to refine their directions before creating a final version of both the map and the clues.

Finally, let the treasure hunting begin!

Want to bring in more science? Bury organic matter (apple cores, banana peels, old cucumbers, etc) in compostable bags where X is and check back every week (use the treasure maps!) to gauge the rate of decomposition. Check out [Litter Bags](#) for a more in depth science experiment on this subject.

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## Outstanding Science Trade Books for Students K-12

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