

# Plants and Animals In Winter

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The *Animals in Winter* activity part of this lesson (in box) can be used as a stand-alone, quick lesson to get students thinking about how different life forms cope with seasonal changes. For a more thorough lesson, start with observation and discussion about both animals and plants, as described below.

**Objective:** Students will consider how different life forms cope with seasonal changes, and learn about different strategies used by plants and animals to survive the winter.

**Time/location:** The entire lesson can be done in 40-60 minutes. The Animals in Winter game can be played separately in 15 minutes. The plants section can be done separately in 20 minutes. All parts can be done outdoors or indoors. A large space is ideal for the Animals in Winter game.

## Materials

For plants section:

- Book, *Plants In Winter*, by Joanna Cole. (There is a copy in the Haldane garden shed.)
- A variety of evergreen clippings, ideally more than one per student. The more variety the better—clippings with buds, with berries, with cones, with small leaves and big ones, with thorns, etc. It is fine to have several pieces of each type. (If the lesson is outdoors, students could find the clippings themselves, or just walk around pointing out evergreens.)
- A plain tablecloth or blanket on which to spread the clippings.
- Optional: additional books about plants in winter to be left in the classroom for several days.

For Animals section:

- Two pillowcases
- A variety of stuffed animals, toy animals, or pictures (on heavy paper) of animals, with a few per category: migrators, adaptors, hibernators, nappers-and-snackers.
- Optional: A globe (for discussing migration.) I keep an inflatable or stuffed one handy.
- Optional: additional books about animals in winter to be left in the classroom for several days.

## The Lesson:

-Gather the students and ask them about what animals do in winter. Discuss briefly. Then ask them about what plants do in winter. Briefly discuss their answers.

-Read the book, *Plants in Winter*. Annotate while reading as needed. The book mentions bulbs so you can talk about the class' amaryllis plant, or flower or garlic bulbs they may have learned about in the fall.

-If outdoors, have students look around and point out different types of evergreens. Older students can take some clippings themselves. Regardless, have a bunch of clippings prepared for the next step.

-Lay out the blanket and spread out the evergreen clippings on top. Students should sit or stand with hands behind their back, and look only, not touch yet. Have students raise hands to share observations such as different kinds of leaves (flat leaves and needle leaves), buds, berries, size differences, leaf appearance (shiny or dull) etc.

-Next, each student can reach forward and take a branch that is near them, and examine it closely, including texture and smell, everything.

-Guide students through the different kinds of leaves, returning to and reading aloud again the part in the book that explains why evergreen leaves are tough and waxy. The teacher can review how berries hold seeds and why one must

NEVER eat a berry, or any plant, without adult permission. Discuss about buds and how, like some animals, they hibernate in winter. The book tells us that deciduous trees hibernate in winter too. Etc etc...

-Next, move on to Animals in Winter...

### ***Animals In Winter game***

Ask the students again about how animals deal with winter. This can relate to what they just learned about plants.

Distill the answers into four distinct categories:

- ***Hibernators*** stuff their bellies and hunker down for the winter. *Bears, turtles, frogs, groundhogs, bats...*
- ***Migrators*** swim or fly to warmer environs. (At this point you can show the students a globe, review what the equator is, and let the students see why critters in the Northern hemisphere migrate South, and vice-versa.) *Geese, monarch butterflies, whales, salmon...*
- ***Nappers-and-Snackers*** stay local, but sleep a lot more and only get active to eat. *Racoons, chipmunks, squirrels, skunks, beavers...*
- ***Adaptors*** grow a warmer coat to stay warm. Most domesticated animals are adaptors. Humans are adaptors—we stay in warm places and wear warmer clothes. Most nappers-and-snackers grow a warmer coat, too. But we like the students to understand the distinction. (We separate the groups since animals like sheep and horses are adaptors but not technically nappers-and-snackers, though they do sleep and eat more in winter, just not exclusively.) *Horses, sheep, rabbits, cats, dogs, humans...*

Tell the students that you are assigning a “station” for each category. Choose four spots that are equidistant from where you are gathered with the group, and point them out. A baseball diamond works great for this, but four corners of a classroom carpet is fine, too. One corner is Adaptation Station. The others are Migration Station, Hibernation Station and Nappers-and-Snackers Station

Students take turns blindly reaching into the pillowcase and pulling out a toy or picture of an animal. The teacher counts to ten whilst the students run to whichever station they think is appropriate for the animal, and act it out. (For a bear, most students would run to Hibernation Station and pretend to sleep. Some may run to Adaptation Station and rub their imaginary warm coats.) When all the students are at stations, the teacher reviews which groups each student has chosen, ending with the appropriate one, and affirming, i.e., “Bears are hibernators. You guys got it!” Then the students assemble and do it again. As stated above, many nappers-and-snackers do adapt with a warmer coat, too, so the teacher can affirm that. “Raccoons are nappers-and-snackers, but they do grow a warmer coat, too, so they adapt as well.”

I keep an extra pillowcase to put the animals in after the kids have pulled them out, so the same one doesn’t get chosen twice. When all the critters have been chosen, you can start over with the other pillowcase.

-Play the Animals in Winter game for the remaining class time. If possible you can leave the pillowcases and props so the teacher can play the game with the students in the coming days. Books about plants and animals in winter can also be left in the classroom for students to peruse during free reading time.