



20 ideas to Get Outdoors in the Winter!

There are many things to teach and learn about during the winter months. Check out some of the ideas below.

- 1. Go for walk to observe nature in winter.** Try a winter nature scavenger hunt walk such as a paint chips scavenger hunt. Go outdoors to find as many colours of paint chips found in nature. You can find paint chips at your local paint store.
- 2. Participate in winter bird watching.** Winter is a great time to set up a bird feeder and observe our feathered friends. Learn to identify common backyard birds in your area and discover which foods they prefer. Participate in a citizen science project with some winter bird watching in Project FeederWatch: feederwatch.org/learn/educational-and-homeschool-resources/feederwatch-in-the-classroom.
- 3. Build a snow cave or quinzhee.** Check the temperature inside and outside your cave or quinzhee. Design an experiment to test the insulating properties of snow.
- 4. Create winter habitats** with a brush pile for smaller wildlife to use as a shelter through the winter.
- 5. Keep active outdoors** with a game of duck, duck goose to see how some animals are able to move in the winter. Hold a Winter Olympics, with events including the long jump, snow bank high jump, and snowball toss. Learn to juggle snowballs. Make snow mazes. Invite others to try to find their way through your maze.
- 6. Look for tracks or make some!** Make a cast of tracks found in the snow or mud. Identify who made them. How do animals move in or on the snow? Make your own animal track shoes by tracing animal tracks onto large, thick pieces of foam. Hot glue to the bottom of flip flops or shoes. Go for a walk and make some tracks. In honour of Canadian artist, Maskull Lasserre: <https://maskullasserre.com/section/296524-Outliers-Collection-of-Mus-e-national-des-beaux-arts-du-Qu-bec.html>

7. **Build coloured frozen water sculptures** or paint with icicles. Use nontoxic tempura paints to colour with or make your own colours with natural ingredients. Paint with icicles on construction paper. The paper is fairly porous so the water shows up right away and dries so you can paint all over again!
8. **Make an ice wreath** with natural items frozen within, or using invasive plants, such as ivy or scotch broom.
9. **Decorate trees outdoors with ice ornaments.** Gather natural items such as leaves, twigs and winter berries on to pie plates. Fill with water and put a long string partway into the water. Lay the plates flat and freeze. Use the string to tie onto a branch.
10. **Identify plants in their winter stages.** Use cards with photos of bark textures, evergreen leaves, winter twigs, or cones.
11. **What are the characteristics of water in its different forms?** Make some predictions, gather data and find out!
 - What freezes faster, hot or cold water?
Shallow or deep water? Salty water or tap water?
 - Make a snow gauge to measure snowfall.
Bring the snow indoors and compare the volume when it is melted.
12. **Make instant snow.** Try this lesson: Steps to Inquiry Lesson Outline, Instant Snow http://smarterscience.youthscience.ca/sites/default/files/documents/smarterscience/IC.instant.snow_.pdf



13. **Catch a snowflake.** Place some black construction paper in the freezer for at least two hours or at least until it is below or the same as the temperature outside. Let students catch their snowflakes and look at them up close using magnifier glasses. Are you teaching patterning and symmetry? Check out snowflakes and their natural symmetry. <http://www.snowcrystals.com/guide/guide.html>
14. **Why are there different types of snow? Track atmospheric conditions** to find out how we get different types of snow. Check this activity out here: https://www.sciencebuddies.org/science-fair-projects/project-ideas/Weather_p012/weather-atmosphere/how-does-atmospheric-temperature-affect-the-water-content-of-snow#background
15. **Conduct an experiment** to learn about how blubber keeps seals and whales warm.
 - Make a “blubber glove” by filling a ziplock bag half full with shortening or lard—the blubber.
 - Put your hand in a second plastic bag or a plastic glove (so it won’t get messy), then insert it into the blubber bag, spreading the shortening around so it covers the inner bag.
 - Try putting your hand into a snowbank or a bucket of icy water. Compare how this feels by putting your hand in two layers of plastic bags without the “blubber” bag.

16. Design a shelter that helps keep an imaginary creature warm in the winter. Give every pair of students a small container with a tight-fitting lid (pill bottle, yogurt container). Make jello (don't let it set!) and partially fill each container with the liquid jello. The jello represents an imaginary creature that must find a shelter that will help it to survive the winter.

- Have the students go outside and make or look for a shelter for their imaginary creature. They can use insulating materials that are on hand, such as dried grass, leaves, or snow.
- Leave the creature in its shelter for 10 to 15 minutes.
- Then remove it, open the lid and see if the creature stayed warm enough and survived the winter (if the jello didn't set). Any frozen critters can be eaten!
- Modification: Can snow act as an insulator? Measure the temperature of water in two containers. Place one container in a mound of snow and the other one left in the open for an hour. Measure the temperature of both containers after an hour.

17. Learn about chemical reactions by making biodegradable, non-toxic homemade handwarmers. Go outdoors and test them out! www.education.com/activity/article/warm-hands-iron-rusts

18. Explore the science of friction! Challenge to see what slides best across ice.



19. Look for the shapes of letters of the alphabet hidden in tree branch patterns, on tree bark or from objects emerging out of the snow.

20. Discover plant galls and the insects within.

Some insect larvae spend the winter sheltered in abnormal plant growths called galls. Some of the most common ones are described here: www.discoverwildlife.com/how-to/identify-wildlife/how-to-identify-plant-galls