

Snow and Ice - 2hrs

How much water is in snow? How does snow act as an insulator? How thick is river ice? Are there common patterns in snowflakes? Students hypothesize the answers to these and other questions related to snow and ice, then divide into field groups to discover the answers through experiments and direct observation of the Center's winter environment.

Before you go

Inform students that they will be visiting Carpenter Nature Center to learn about the different properties of snow and why it is important to study. Remind students that a majority of time will be spent outside and that they should dress appropriately.

While you are here

After the introduction the group will split up into smaller groups to do a series of experiments

- 0:00-0:30 Introduction—What is snow and what are some unique properties of it as well as talking about the experiments we will be doing and creating hypotheses
- 0:30-1:45 Small group time—Insulation experiment, critter experiment, ice and water, snowflake investigation, and snow depths and winter temps
- 1:45-2:00 Conclusion—How did our results compare to our hypotheses?

After you leave

Have students create their own snowflakes to decorate the room.

Wisconsin Standards

Carpenter Nature Center address and partake in performance standards to help meet content standards. Additional classroom activities may be needed to complete performance standards.

Code	Performance Standard	Code	Performance Standard
A.4.1	When conducting science investigations, ask and answer questions that will help decide the general areas of science being addressed	C.4.2	Use the science content being learned to ask questions, plan investigations, make observations, make predictions, and offer explanations
A.4.2	When faced with a science-related problem, decide what evidence, models, or explanations previously studied can be used to better understand what is happening now	C.4.4	Use simple science equipment safely and effectively, including rulers, balances, graduated cylinders, hand lenses, thermometers, and computers, to collect data relevant to questions and investigations
A.4.4	When studying science-related problems, decide which of the science themes are important	C.4.5	Use data they have collected to develop explanations and answer questions generated by investigations
B.4.1	Use encyclopedias, source books, texts, computers, teachers, parents, other adults, journals, popular press, and various other sources, to help answer science-related questions and plan investigations	C.4.7	Support their conclusions with logical arguments
C.4.1	Use the vocabulary of the unifying themes to ask questions about objects, organisms, and events being studied	C.4.8	Ask additional questions that might help focus or further an investigation
		D.4.3	Understand that substances can exist in different states—solid, liquid, gas
		D.4.4	Observe and describe changes in form, temperature, color, speed, and direction of objects and construct explanations for the changes



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