

# SNOW

TINY CRYSTALS, GLOBAL IMPACT

*Snow: Tiny Crystals, Global Impact* offers learners ages 9–14 and their visitor groups the opportunity to explore all the ways this fundamental weather phenomenon impacts our lives!



From the wonder of snow crystals to the intrigue of snowpack to unique stories from the tundra, *Snow: Tiny Crystals, Global Impact* provides interactive learning opportunities that increase visitors' understanding of snow and the vital role that it plays in our global climate system and availability of water resources.

Peek inside the snowpack to discover how it changes over time and the animals that make their homes there. Walk through an interactive snowstorm to get an up-close look at the crystals that make up different types of storms. Learn about climate adaptation by balancing resources and making trade-offs.

The exhibit features four thematic zones:

FALLING SNOW



SNOWPACK



SNOWSCAPE



MELTING SNOW





## Entrance

This snowy scene magically changes when viewed from different angles. Look for sudden snowfall, kids at play, and fresh tracks across the snow.

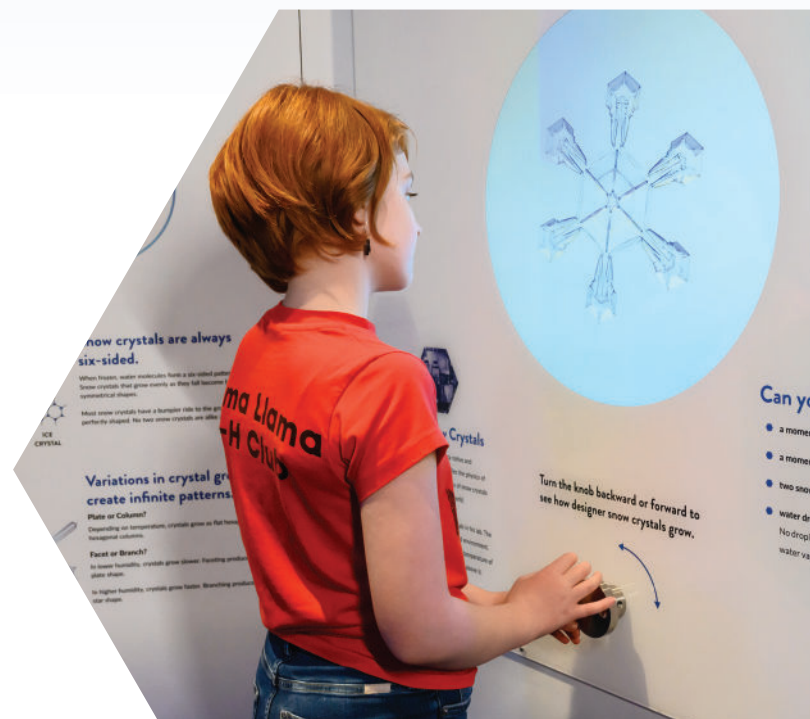


## Falling Snow

Experience the sights and sounds of three interactive snowstorms to explore the conditions that shape falling snow. Try to catch and identify six different giant snow crystals. Watch the animated thermometer and humidity gauge to see how changing weather conditions forms each kind of snow crystal.

## Watching Snow Grow

Watch snow crystals grow and shrink before your eyes. Play with remarkable videos of snow crystal formation created by physics professor Ken Libbrecht in his lab at Caltech. Look for examples of two kinds of crystal growth: branching or faceting.





## Making Sense of Snow Crystals

Learn how Japanese scientist Ukichiro Nakaya created a system for explaining snow crystal growth. His Nakaya Diagram shows how crystals grow under different temperature and humidity conditions. Match different kinds of crystals to the story of how they formed. Two sets of snow crystals are available to solve the puzzle: early photographs taken by Wilson Bentley and color micrographs by Ken Libbrecht.



## Snow on the Ground

Explore the layers in three different kinds of snowpacks: Maritime, Taiga, and Tundra. Pull out vertical cross-sections for a closer look at distinctive snow crystals found in Taiga and Tundra snow. Use a polarizing filter to view Maritime snow's metamorphism from wet grains to slush. Peer through peepholes to discover life hidden in the snow.





## Snow and Arctic Life

Watch oral histories recorded by Iñupiaq elders and culture-bearers to learn about life in the Arctic community of Kotzebue, Alaska. Listen to personal stories about their relationship to and knowledge of snow and how changing weather and climate impact their way of life.

## Snow Play

Play together to build and decorate your own special snow person. Stack up foam snowballs of different sizes and dress your person up with colorful bits and pieces. Find inspiration in our photo gallery of playful snow people from around the world.





## Storing Water for Later

Compare rain and snow falling on a mountain in winter. One side of the mountain shows snowfall; the other side, rain. Both provide the same amount of water. One side releases water right away, the other stores water and slowly releases it during warmer, drier months when we need it most.

## Snowmelt Journeys

Explore an interactive map of the Western U.S. to follow the journey snowmelt takes from high mountains to distant cities and farms. Trace the Colorado River through seven states and discover how its essential water supply is stretched to reach many hot, dry, and far away places.



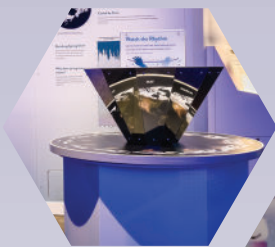
## Adapting Our Water Use

Discover how we use water in the U.S. and need to adapt to expected water shortages. Lift up raindrop-shaped blocks to compare major categories of water use. Each block activates lights in a bar graph to show its percentage of total water use. Explore ideas for conserving water for each category.



## Keeping Earth Cool

Feel the temperature difference between a white surface and a dark blue surface. Both are being warmed by heat lamps, but one stays cooler. Learn how bright white snow cools the Earth by reflecting light and heat from the sun.



## Changing Global Patterns of Snow

Spin the praxinoscope and look in the mirrors to see an animation of North America's annual snow cover. Watch how snow cover shrinks and grows in a yearly rhythm. Explore a nearby graph to learn how climate change is impacting snow, especially in the spring.


## Working Together for a Better World


Share your snow and climate stories. Cut out a simple snow crystal and write a response to a question about snow or climate change. Add your snow crystal to the collection bins to build up our snowpack of responses. Selected snow crystals are displayed for inspiration. Learn how others are taking action on climate.





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## TINY CRYSTALS, GLOBAL IMPACT


 \$50,000 for 3-month venue + inbound shipping

 2,500 ft<sup>2</sup> gallery space  
3–5 days estimated for installation and take-down  
110 VAC 15 amp power  
Minimum doorway dims: 48" W x 94" H x 108" L  
Minimum floor space to store carts: 400 ft<sup>2</sup>  
Minimum ceiling height: 10 ft.

 Designed to reach 9–14 year-olds, and their family, friends, and school groups.

 Shipped in (1) 53-ft. trailer

 Installation Manual  
Marketing Kit  
Education Guide

 OMSI's Traveling Exhibits Service  
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An interactive exhibit  
designed and produced by:



In collaboration with:



With support from:

