

Ames Public Library @HOME Activities

Snow and Ice

Snow and ice are made of the same material: water. But snow is composed of crystals with regular shapes, while ice forms as sheets or solid chunks. To learn more see a related video on the Library's YouTube Channel at <http://bit.ly/APLvideos>.

Books and Media:

Title	Author / Performer	Call Number
<i>Snow</i>	Cox-Cannons, Helen	ETR 551.57 COX
<i>Snow</i>	Rivera, Andrea	ETR 551.57 RIV
<i>Exploring Kitchen Science: 30+ Edible Experiments & Kitchen Activities</i>	(Lucie Parker, senior editor)	J 507.8 EXP
<i>Experiments with Heating and Cooling</i>	Thomas, Isabel	J 536 THO
<i>Ice: Chilling Stories from a Disappearing World</i>	Buller, Laura	J 577 BUL
<i>Ice!: The Amazing History of the Ice Business</i>	Pringle, Laurence	J 621.5 PRI
<i>Ice Cream</i>	Cooper, Elisha	J 637.4 COO
<i>How to Make Ice Cream</i>	Greve, Tom	J 641.862 GRE
<i>Snow Play: How to Make Forts & Slides & Winter Campfires Plus the Coolest Loch Ness Monster and 23 Other Brrrilliant [i.e. Brilliant] Projects in the Snow</i>	Ralston, Birgitta	J 790.1 RAL
<i>From Milk to Ice Cream</i>	Taus-Bolstad, Stacy	J KIT 637 TAU
<i>Hands-on Science and Math: Fun, Fascinating Activities for Young Children</i>	Davis, Beth	J PC 372.35 DAV 2015

Websites:

URL	Notes
https://www.nationalgeographic.org/encyclopedia/ice	<i>This link leads to great resources about ice, including some spectacular photography</i>

Take Away Kit: Ice Ornament

Bag Contents:

- Paper plate
- Assorted objects
- Yarn

To put together your ice ornament you can follow the directions below and/or watch the @Home Activity video on the library's YouTube Channel at <http://bit.ly/APLvideos>.

- The paper plate has a hole punched on it, use the yarn and thread it and tie the ends together so that the plate hangs down.
- Arrange the provided objects on the plate. Don't spend too much time on arranging them as they may float when you add water to it. You can also add objects in your home if you wish.
- When you are done, place the plate with its contents outdoors where the surface is relatively flat. At this time add water to the plate.
- Leave the plate to freeze overnight, this will give you the best results.
- Once the liquid water is frozen solid, hang the ornament outside and enjoy!

Liquid water freezes at 32 degrees Fahrenheit. As the overnight temperatures in the month of February are consistently below this mark, leaving the plate outside should result in a well frozen ice ornament.

You can also experiment using colored water or juice to see what results you get.

Vocabulary

Avalanche – A large amount of ice, snow, and rock falling down the side of a mountain.

Blizzard – A violent winter storm, lasting at least three hours and may combine subfreezing temperatures and very strong wind.

Dry Ice – Is frozen carbon dioxide, it is unique as it melts directly into a gas, skipping the liquid stage.

Freezing Point – Is the temperature at which liquid water starts to turn into solid ice. The freezing point of water is 32 degrees Fahrenheit.

Glacier – A large mass of ice that moves slowly.

Hoarfrost – Is the deposition of ice crystals on a surface when it is very cold.

Ice – The solid form of water.

Iceberg – A very large mass of ice that floats in the sea.

Ice cap – A thick layer of ice that permanently covers an area of land.

Precipitation – The water that falls from the clouds towards the ground as rain or snow.

Snow crust – Hard snow surface lying upon a softer layer, formed by sun, rain, or wind.

Snowflakes – Are single ice crystals or clusters of ice crystals that fall from a cloud.

Snowstorm – A storm that features large amounts of snowfall.

Snow cups – Refer to a pattern of shallow, bowl-shaped hollows that form during intense sunshine.

Snow line – The level on a mountain above which snow is found for most or all of the year.

Thaw – To change from a solid, frozen state to a liquid or soft one, because of an increase in temperature.

Source : <https://www.nationalgeographic.org/encyclopedia/ice//>