



Young children naturally build knowledge by being curious about the world around them.

As winter approaches, some families spend more time indoors. But children enjoy the outdoors in all sorts of weather and the whole family will benefit from outdoor activity. Celebrate the winter weather!

How to get most out of your explorations:

- **Dress for the mess**
Science explorations can be messy.
- **Take your time**
Play for as long as the activity holds your child's interest. Don't rush towards the "right" answer.
- **Be curious**
Ask "what would happen if..." and then find out. Let your child's questions guide you.



Winter Walk

As the weather gets colder, animal footprints are easier to notice in the mud and in the snow.

What to do

You can use a magnifying glass for this exploration or just observe.

1. Go for a walk and look for footprints made by people or animals.
2. Close your eyes and get your friends or family to make footprints. Can you tell who made which prints?
3. Later, when you're home, make prints in play dough or paint using plastic animals.

Key Questions

- Who made these footprints?
- How are these footprints different from yours?
- Whose footprints are bigger?

What next?

- For more footprint activities, see Super Sleuths at scienceworld.ca/bslh
- Read the book, *The Snowy Day* by Ezra Jack Keats. Can you make tracks in the snow like Peter does in the story? Can you make animal tracks in the snow?
- Create a winter scavenger hunt. For example, look for pine cones, leaves, sticks, stones and other natural objects. Use photos or clip-art drawings to guide small treasure hunters. How are the things you find different in winter?



Books, Resources, Games and Shows

The Snowy Day by Ezra Jack Keats (ISBN 978-0140501827)

Footprints in the Snow by Mei Matsuoka

Footprints in the Snow: Counting by Twos by Michael Dahl

Winter Nature Activities for Children by Irmgard Kutsch, Brigitte Walden

Explore Winter: 25 Great Ways to Learn about Winter by Maxine Anderson

Take a Winter Nature Walk by Jane Kirkland

Websites

sesamestreet.org/playlists#media/playlist_685



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Snowstorm in a Jar

Stuck inside during a storm? Make your own snowstorm in a jar. In this exploration, you'll see that water (in this case, white paint and water) doesn't mix with oil. The oil is lighter than the water, so the water sinks to the bottom of the jar. The Alka Seltzer® reacts with the water to make bubbles, which float up through the water and oil, pulling some of the white liquid along with them.



What you need

- A jar or similar container (a small canning jar works well)
- Baby oil
- White paint
- Water
- Iridescent glitter
- Alka Seltzer®

What to do

1. Fill the jar $\frac{3}{4}$ of the way with baby oil.
2. In a bowl mix together very warm water and white paint to make an opaque, white liquid. You will need enough of this mixture to fill the jar the rest of the way to the top.
3. Pour the white liquid into the jar and sprinkle in glitter.
4. Wait for the glitter and water to settle to the bottom of the jar.
5. Once the water settles, it is time to make the snowstorm! Take an Alka Seltzer® tablet and break it into pieces. Drop the pieces into the jar and watch what happens.

Key Questions

- Does the paint mix with the water?
- Does the white liquid mix with the baby oil?
- Which liquid is on top?
- What happens when you add Alka Seltzer® into the jar—does it float or sink? Does it dissolve?

What next?

- Visit shops that have snow globes. What kinds did you find?
- Glue the toy animals to the inside of a lid and fill a jar with water and glitter to make your own snow globe. (Make sure the jar seals well!)
- For more preschool chemistry explorations, see *Mysterious Mixtures* at scienceworld.ca/bslh



Books, Resources, Games and Shows

The Snow Globe Family
by Jane O'Connor and S Schindler
(ISBN 978-0142412428)