

## Snow Imprints

*contributed by Jeff Reading, Fish Creek Environmental Learning Centre*

### Objective

This simple activity will produce imprints of snow flakes that can be viewed under a microscope and classified.

### Materials

- flat glass microscope slide
- clear spray lacquer
- microscope
- falling snow

### Teacher Preparation

This is an "opportunistic" activity in that teachers must be prepared to do this activity when it is snowing. To prepare for this activity gather all the required equipment (slides and spray lacquer) and store them in the refrigerator. This will ensure they are cold when the students go outside. Warm slides will cause the falling snow flakes to melt.

### Activity

While it is snowing, go outside with your students.

Place the flat glass microscope slides all together on a surface that can be spray lacquered, such as a old piece of cardboard.

Spray a thin even layer of lacquer onto a class set of flat glass microscope slides.

Distribute the slides to students. **Note:** It works best if students use bare hands to hold the slides. Gloves and mittens leave marks in the wet lacquer.

Instruct the students to hold the slides flat and collect falling snowflakes in the wet lacquer before they hit the ground. Try to aim where the snowflakes land so that they don't land on top of each other.

Collect as many snowflakes as possible.

Leave the slides outside to dry. Bringing them inside will cause the snowflakes to melt.

Once the slides are dry they can be viewed under a microscope. This provides an opportunity to view the crystals, classify the types of flakes, explore the different colours that are visible and marvel in how intricate, details and unique each snowflake is.

### Clean-up

The snow imprint slides can be preserved indefinitely. If you wish to re-use the slides, the lacquer can be easily peeled off the slides.

### About this activity ...

The SNOW IMPRINTS activity is from the WINTER ECOLOGY field study at Fish Creek Environmental Learning Centre. Grade 4 - 7 teachers can craft an Alberta curriculum connected full day exploration that explores the winter season and the winter environment. Activities, similar to the one described above, that focus on concepts such as animal and plant adaptations for winter, the properties of snow and how humans can better prepare for winter activities, can be selected and molded into a full day field study that is complemented by preparatory and post activities.