Campbell Creek Science Center

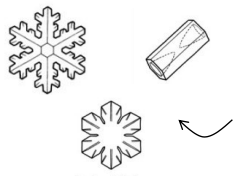
Exploring Snow and Ice Crystals

Snow and ice crystals come in many different forms. Use these statements as you study the crystals: "I notice.... I wonder.... It reminds me of.... "

Directions

Snow Crystals

1. Make a snow pit: Dig a hole in the snow all the way to the ground using your digging tool or gloved hand.
2. Use your hand to tap the snow at the bottom of the pit and again near the top. How does it compare? Which part of the pit do you think is the oldest snow?
3. Sprinkle some of the snow from the bottom of the pit onto the back of your glove and take a close look. Use a magnifying glass if you have one. What do you notice?
4. Observe the snow crystals from two other spots in your snow pit, one near the middle and another at the top. How do the crystals compare? What do the crystals remind you of?
5. Next time it snows, study the new crystals. How do they compare with your previous observations? What do you wonder about the new crystals?



Temperature and humidity help shape new snow crystals.

Crystal shapes change over time.

Materials

- Magnifying lens or hand lens (optional)
- Shovel or other digging tool (optional)

Questions

1. What conditions affect the shapes of snow and ice crystals?
2. What do you notice? What do you wonder? What do the crystals remind you of?

Ice Crystals

1. Look for ice crystals on trees, blades of grass, fences, and other surfaces. Take a close look at the crystals you find.
2. Draw and write your observations. Where do you find ice crystals? What do they look like? How do they feel? How do the crystals differ from one spot to the next? How do they differ from the snow in your snow pit?

Ice crystals on plant stem.

Snow crystal picture and drawings: Ken Libbrecht, Caltech

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