

Kindergarten - Lesson K1.3

What Makes it Snow?

NGSS Alignment

Performance Expectations

K-ESS2-1: Use and share observations of local weather conditions to describe patterns over time.

Note: The lesson investigates the phenomena of snow by focusing on where and how snowflakes are formed. Students will gain a basic understanding of the connection between clouds, temperature, ice crystals and snow.

Disciplinary Core Ideas

K-ESS2.D: Weather and Climate

- Weather is the combination of sunlight, wind, snow or rain, and temperature in a particular region at a particular time. (K-ESS2-1)

Students see a video and an animation of snowflakes forming. They discover that a snowflake forms from an ice crystal in a cloud as it falls through the air and more water molecules attach to it.

Science and Engineering Practices

Analyzing and Interpreting Data

- Use observations (firsthand or from media) to describe patterns in the natural world in order to answer scientific questions. (K-ESS2-1)

Students see snowflakes forming and a variety of completely formed snowflakes to answer the question: What makes it snow? Students refine their understanding of the connection between clouds and snow by discovering that clouds can contain tiny six-sided ice crystals which fall and accumulate water to make snowflakes with six arms.

Crosscutting Concepts

Patterns

- Patterns in the natural world can be observed, used to describe phenomena, and used as evidence. (K-ESS2-1)

Cause and Effect

- Events have causes that generate observable patterns.

Students investigate the cause of snow and why snowflakes have six arms. Students see that a six-sided crystal results in a six-sided snowflake as water is added to and freezes on the crystal.