KidsPost

EVER WONDERED how it snows?

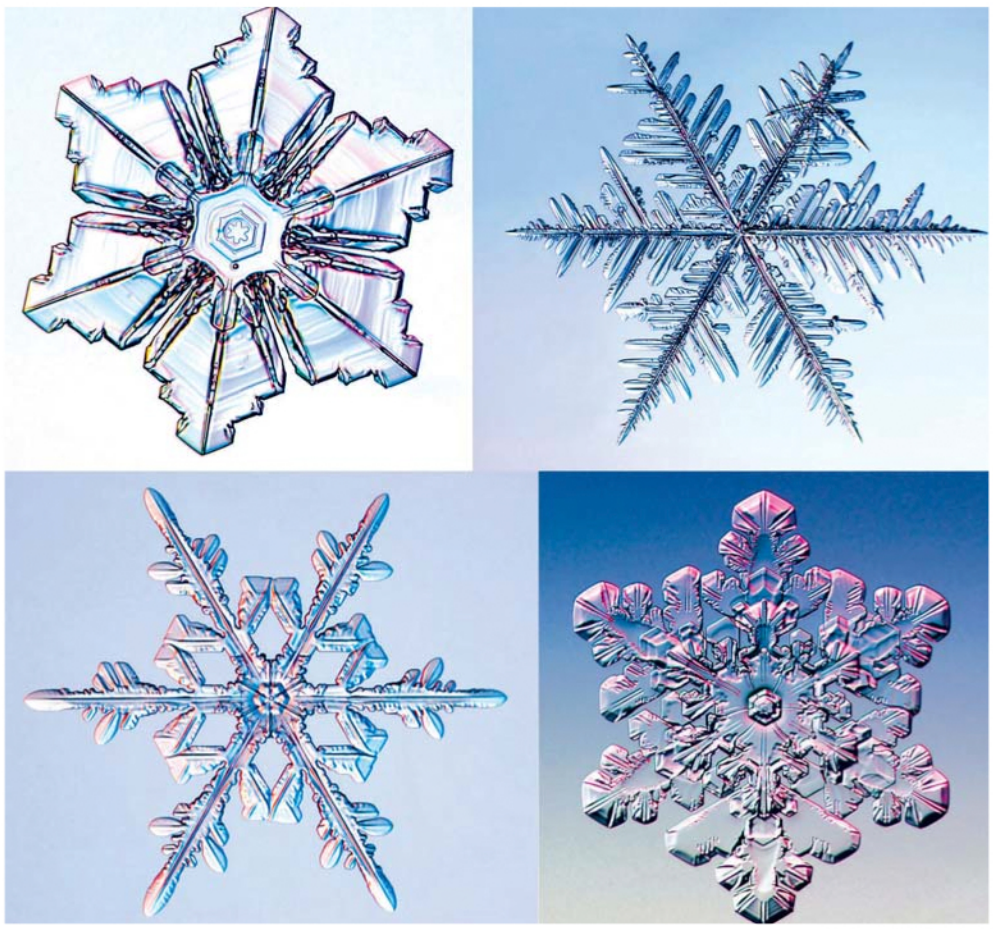
"Cumulonimbus" or "nimbostratus" may sound like names for your big brother after he steals your iPod and loads it with songs you don't like, but they are actually the names of clouds that most often bring snow.

Clouds are made of drops of water attached to foreign particles such as dust or pollen. When the temperature reaches 32 degrees or colder in a cloud, the droplets turn to small bits of ice. As the ice particles move through a cloud, they bump into other ice particles, creating snowflakes. When the snowflakes get heavy, gravity pulls them down. If it's cold enough below, they will hit the ground as snow.

It has snowed in every state, even Hawaii! But since it has to be cold to snow, it snows mostly in northern climates and places that are at high elevation. Elevation is how far above the sea a place sits. Mount Rainier in Washington state has an elevation of more than 14,000 feet. It's the snowiest place in the United States, getting about 680 inches (about 57 feet) a year. In the area around Washington, D.C., it usually snows about 17 inches a year — although we've already had more than that this winter!

It is never too cold to snow, but prime snow conditions are often associated with milder temperatures. That's because very cold air is usually dry, meaning it doesn't contain much water. If there is no water in the air, then there is no potential for snow.

It's true that no two snowflakes are identical, but they are all hexagonal, meaning they have six sides. In 1951, the International Commission on Snow and Ice began classifying snowflakes into 16 categories.



KENNETH G. LIBBRECHT

No two snowflakes are identical, but all have something in common: a hexagonal shape.

Most snowflakes are less than half an inch across, but some measure almost two inches. No one knows for sure how big snowflakes can be. (Can you *imagine* trying to measure all the snowflakes that fall in the world? That would be a big job!) A California physicist named Ken Libbrecht does study snowflakes, however. On his Web site (*www.snowcrystals.com*), he encourages people to use a magnifying glass to check out flakes for themselves. He calls snowflakes "remarkably complex and beautiful structures."

For adults who don't get the day off when it snows, snow can be a pain. For you, snow can mean no school, sledding and hot chocolate. And that is truly beautiful, too!

— Moira E. McLaughlin