



## Cause and effect

Reading Comprehension Worksheet

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**Cause and effect** are about how one thing can cause something else to happen.

The **cause** is *why* something happened.

The **effect** is *what* happened.

Read about what causes snow again, and think about **cause** and **effect** as you read.

## What Causes Snow?

We know that it is not just the cold that causes it to snow. There are many cold wintery days without snow. And sometimes even when the temperature is below freezing, we have rain instead of snow. So what causes snow?

Snow starts the same way that rainstorms start. A large mass of warm air and a large mass of cold air come together high above the earth. Sometimes the warm air is stronger, and it pushes the cold air up. Then we have warmer weather on the ground. Other times the cold air is stronger and it pushes the warm air up. Then we have colder weather on the ground. And when that happens, the clouds in the warm air get colder and colder as they are pushed higher and higher. This causes something very interesting to happen.

Clouds are made when water vapor in the air is warmed. As it cools, the water vapor changes into droplets of water so tiny that they are invisible, but we can easily see the cloud that they form. In warm air, when enough of these tiny droplets collect in a cloud they gather into larger drops that are heavy enough to fall as rain. But when a warm cloud gets pushed up into very cold air, the water vapor changes directly into ice, instead of changing into water first. (The opposite process would be heating an ice cube so hot and fast that it turned into water vapor without turning into water first!) When enough of



these tiny pieces of ice are formed, they gather into the form of snowflakes that become heavy enough to fall to the ground.

If the air under the snow cloud is cold enough, the snowflakes fall all the way to the ground. If the air is both cold and dry, the snowflakes fall as the small powdery flakes that don't stick together. If the air is cold and damp, the snowflakes begin to melt around the edges and stick together as they fall. These snowflakes fall to the ground as large flakes that stick together easily, and are ideal for making a snowman!

## What is the **effect** of each **cause**?

- 1. A cold air mass pushes a warm air mass upward.
  - A. Clouds in the warm air mass get colder.
  - B. Clouds in the warm air mass get warmer.
  - C. Clouds in the cold air mass get colder.
- 2. Water vapor that forms a cloud becomes extremely cold.
  - A. Tiny bits of ice are formed.
  - B. Tiny drops of water are formed.
  - C. Large flakes of snow are formed.
- 3. Bits of ice gather together into snowflakes heavy enough to fall.
  - A. The cloud rises higher.
  - B. The cloud moves lower.
  - C. Snow begins to fall.
- 4. Snow falls down through cold, dry air.
  - A. Snow falls in large, wet flakes.
  - B. Snow falls in small, dry flakes.
  - C. Snow falls in large, dry flakes.

5. Here is a **cause**: Snow falls down through very warm air. What is the **effect**?



## **Answer Key**

- 1. A
- 2. A
- 3. C
- 4. B
- 5. The snow changes into rain.