

Why the World Goes Quiet When It Snows

Name: _____

Date: _____

Class: _____

Read the lesson at myweatherrock.com/journal/explainers/why-snow-is-quiet (or the printed copy), then answer below.

Remember

Fresh snow is mostly air: a loose pile of six sided crystals full of tiny pockets and passages. Sound waves that wander into those pockets bounce around and get soaked up instead of reflected, so a snow covered street works like the padded wall of a recording studio. The hush is temporary. As the snow settles, melts, and refreezes into a hard crust, the surface turns reflective and the world gets loud again, often louder than before the storm.

Questions

1. Why does fresh snow make the world quieter?

- ☐ A. Cold air cannot carry sound
- ☐ B. Its air pockets trap and absorb sound waves instead of reflecting them
- ☐ C. Everyone stays inside

2. Which snow makes the deepest hush?

- ☐ A. Fresh, dry, fluffy snow
- ☐ B. Old snow with a refrozen crust
- ☐ C. Snow that has been plowed

3. A few days after the storm, distant sounds seem louder and clearer than normal. Why?

- ☐ A. Your ears adjusted to the quiet
- ☐ B. The crusted snow now reflects sound, and warm air over cold ground can bend sound back down
- ☐ C. Snow amplifies sound as it melts

4. Compared with rain, falling snow is:

- ☐ A. About equally noisy
- ☐ B. Noisier, because flakes are bigger than drops
- ☐ C. Nearly silent, because flakes are light, slow, and soft

5. The world outside has gone noticeably muffled. As an observation, that suggests:

- ☐ A. Fresh dry snow is down or still falling
- ☐ B. The snow has turned to ice
- ☐ C. The temperature is rising quickly

In your own words

Explain why the world sounds muffled during a fresh snowfall, and why the same street can sound louder than normal a few days later, after a thaw and a refreeze.

Answer key (for the teacher)

1. Why does fresh snow make the world quieter?

B. Its air pockets trap and absorb sound waves instead of reflecting them — A loose pile of snowflakes is mostly air, riddled with pockets. Sound that enters bounces around inside and gets absorbed, the same trick acoustic foam performs in a studio.

2. Which snow makes the deepest hush?

A. Fresh, dry, fluffy snow — The hush belongs to fresh loose snow, when the pockets are open. Age, settling, and refreezing close the pockets and end it.

3. A few days after the storm, distant sounds seem louder and clearer than normal. Why?

B. The crusted snow now reflects sound, and warm air over cold ground can bend sound back down — A hard icy surface returns sound instead of absorbing it, and on cold mornings a warmer layer aloft refracts rising sound back toward the ground. Together they extend everything's range.

4. Compared with rain, falling snow is:

C. Nearly silent, because flakes are light, slow, and soft — Rain announces every drop on every surface. Snowflakes land without comment, so a snowstorm silences its own precipitation while carpeting everything else.

5. The world outside has gone noticeably muffled. As an observation, that suggests:

A. Fresh dry snow is down or still falling — Muffling means open pockets, which means fresh loose snow. Your ears are reporting the surface conditions before your eyes bother to check.