

STUDY QUESTIONS

TO “10 SIGNS OF SPRING”

Study and learn facts and ideas based on this Young Naturalists nonfiction story in *Minnesota Conservation Volunteer*, March-April 2025, www.mndnr.gov/mcvmagazine.

Minnesota Conservation Volunteer magazine is your guide to wild things. Every other month, six times a year, the magazine arrives in your school library. Each one has a story for Young Naturalists like you. **Are you curious about wild things?** Young Naturalists tells true stories that can answer all kinds of questions such as these—

Have you ever heard of a purple wartyback? How about a pink heelsplitter, pimple-back, or monkeyface? All are Minnesota freshwater mussels. Read Young Naturalists stories to learn which species (kinds) of critters live in Minnesota—frogs, salamanders, snakes, wild cats, wild dogs, weasels, mice, and rabbits.

Want to **peek inside the den of a red fox** and see how the kits grow up? Are you a rock hound searching for agates? Have you ever wondered what’s alive under snow? How animals see? Why is a bluebird blue? How birds fly?

Would you like to hear the true story of **giants of the ice age**? Young Naturalists also tells you about the underground universe. You can read the story of a tiny owl that went to a hospital with an injured wing. Find out about a boy who worked in a logging camp. Read the story of Ojibwe children today hunting and gathering like their ancestors did.

Learn how to get started **camping, snowshoeing, ice fishing, or canoeing**.

Find these stories and more online at www.mndnr.gov/young_naturalists.

Your knowledge of wild things helps you explore and enjoy the outdoors. Have fun!

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1. WHICH SPECIES IN THE STORY IS MIGRATORY?

- a. Monarch
- b. Morel
- c. Chickadee
- d. Snow flea

2. NAME TWO DETAILS FROM THE STORY THAT SUPPORT THE AUTHOR'S DESCRIPTION OF DANDELIONS AS BEING "HERE TO STAY."

Dandelions thrive in all kinds of conditions, from soggy summers to dry droughts. A single flower can contain up to 20,000 seeds.

3. TRUE OR FALSE: IF YOU SEE REDDISH BULGES ON THE TIPS OF SILVER MAPLE BRANCHES, THE GROUND IS PROBABLY STILL FROZEN.

False. As the ground thaws, sugary sap rises from the roots of the tree through tubes in the trunk to the tallest branches. The energy the sap provides allows the tree to produce the flowers that blossom out of the reddish bulges.

4. WHICH SIGN OF SPRING DOES THE AUTHOR DESCRIBE AS BEING HELPFUL TO NATURE?

Snow fleas! They help by decomposing dead leaves and other organic material, making nutrients available for new plant growth in spring.

5. WHICH TWO SIGNS OF SPRING ARE VERY IMPORTANT TO MINNESOTA'S BEES?

- a. The call of the chorus frog and the movement of snow fleas
- b. The blooming of dandelions and silver maple blossoms
- c. The blossoming of pussy willows and the emergency of the morels
- d. The blooming of dandelions and blossoming of pussy willows

6. A HUNDRED YEARS AGO IT WOULD HAVE BEEN UNLIKELY TO HEAR OR SEE THE RETURN OF SANDHILL CRANES IN THE SPRINGTIME. ACCORDING TO THE STORY, WHAT ARE THE TWO REASONS FOR BEING ABLE TO SEE AND HEAR THEM AGAIN?

A law protecting migratory birds and an increase in open spaces helped bring them back.

7. WHAT SPECIES IN THE STORY HAS A NAME THAT MEANS "LION'S TOOTH"?

- a. Dandelion
- b. Morel
- c. Pussy willow
- d. None of the above

8. TRUE OR FALSE: ON WARM DAYS IN MARCH, SNOW FLEAS EMERGE FROM THE SNOWPACK, USING TINY WINGS TO PROPEL THEMSELVES THROUGH THE AIR.

False. Snow fleas do not have wings. They propel themselves by snapping a forked tail-like structure called a furcula. This is why they are sometimes called springtails, due to their ability to catapult through the air.

9. LIST THREE SIGNS OF SPRING FROM THE STORY THAT ARE WETLAND SPECIES

Pussy willows, red-winged blackbirds, and boreal chorus frogs.

10. WHICH OF THE FOLLOWING IS A TOOL THAT A PHENOLOGIST MIGHT LIKELY USE?

- a. Scissors
- b. Calendar
- c. Microscope
- d. Microphone

CHALLENGE QUESTION:

WHAT DO THE BLACK-CAPPED CHICKADEE, RED-WINGED BLACKBIRD, AND BOREAL CHORUS FROG HAVE IN COMMON, BESIDES BEING ONE OF THE 10 SIGNS OF SPRING HIGHLIGHTED IN THE STORY?

MINNESOTA COMPREHENSIVE ASSESSMENTS PRACTICE ITEMS

1. WHAT GENRE IS “10 SIGNS OF SPRING?”

- a. Fiction
- b. Historical Fiction
- c. Nonfiction
- d. Realistic Fiction

2. WHAT CAN WE INFER FROM THE AUTHOR’S STATEMENT, “LOVE THEM OR HATE THEM, DANDELIONS ARE HERE TO STAY.”

- a. Climate change will not affect dandelions
- b. People help spread seeds of dandelions when they pick and blow dandelions, making them likely to stay in Minnesota for a long time.
- c. Not all people feel the same way about dandelions.

3. WHAT DETAIL IN THE STORY SUPPORTS THE AUTHOR’S DESCRIPTION OF SPRING AS A GRADUAL PROCESS (“WHEN NATURE AWAKENS FROM A LONG WINTER’S NAP, IT’S A GRADUAL PROCESS.”)?

VOCABULARY

Phenology – the study of seasonal changes

Boisterous – noisy, energetic, cheerful and rowdy

Dormant – temporarily slowed down or inactive

Furcula – the forked tail-like structure that helps a snow flea propel itself through the air

Amplify – to enlarge or expand; to make a sound louder

Mycelium – a root-like structure of fungus consisting of a tangled network of vegetative threads

Emerge – to appear or become known

Elongated – stretched out; something that is longer or thinner than usual

Metamorphose – to change or transform