

TEACHERS GUIDE

to “Stranger than Science Fiction”

Multidisciplinary classroom activities based on the Young Naturalists nonfiction story in *Minnesota Conservation Volunteer*, September-October 2026, mndnr.gov/mcvmagazine.

Minnesota Conservation Volunteer magazine tells stories that connect readers to wild things and wild places. Subjects include earth science, wildlife biology, botany, forestry, ecology, natural and cultural history, state parks, and outdoor life.

Education has been a priority for this magazine since its beginning in 1940. “One word—Education—sums up our objective,” wrote the editors in the first issue. Thanks to the MCV Charbonneau Education Fund, every public library and school in Minnesota receives a subscription. Please tell other educators about this resource.

Every issue now features a Young Naturalists story and an online Teachers Guide. As an educator, you may download Young Naturalists stories and reproduce or modify the Teachers Guide. The [student portion of the guide](#) includes vocabulary cards, study questions, and other materials.

Readers’ contributions keep *Minnesota Conservation Volunteer* alive. The magazine is entirely financially supported by its readers.

Find every issue online. Each story and issue is available in a searchable PDF format. Visit mndnr.gov/mcvmagazine and click on *past issues*.

Thank you for bringing Young Naturalists into your classroom!

“Stranger than Science Fiction”

Multidisciplinary classroom activities based on the Young Naturalists nonfiction story in *Minnesota Conservation Volunteer*, September-October 2026, mndnr.gov/mcvmagazine.



SUMMARY. Weirdly wonderful, slime molds are worth a closer look! Minnesota is home to many kinds of slime molds. Readers of “Stranger than Science Fiction” will be introduced to several of them, while learning more about these fascinating beings and the roles they play in the web of life.

SUGGESTED READING LEVELS. Third through middle school grades

MATERIALS. Young Naturalist story and study guide; additional optional resources for extension activities as noted.

PREPARATION TIME. 5–10 minutes, not including extension activities.

Estimated instruction time. 45–60 minutes, not including extension activities.

MINNESOTA ACADEMIC STANDARDS APPLICATIONS. “Stranger than Science Fiction” and its accompanying Study Guide, may be used to support the following Minnesota Department of Education English Language Arts (ELA, 2020) standards for students in grades 3–8. **For additional story-related opportunities to support Minnesota Academic Standards across subject areas, see the “Extension Activities” section of this guide.*

Reading benchmarks: 3.1.1.3, 3.1.4.1, 3.1.5.2, 3.1.7.1, 3.1.8.2, 4.1.1.3, 4.1.4.1, 4.1.5.2, 5.1.1.3, 5.1.4.1, 5.1.5.2, 5.1.5.3, 5.1.8.2, 6.1.4.1, 6.1.5.3, 6.1.8.2, 7.1.4.1, 7.1.5.3, 7.1.8.2, 8.1.4.1, 8.1.5.2

Preview. Introduce students to the Young Naturalists' story using the "4 Ps" (Preview, Predict, Prior Knowledge, and Purpose). First, invite students to preview the article's text features, such as the title, headings, and images, for clues as to what the story will be about. Then, based on the text features, ask students what they predict they will learn. Next, help students make connections to their *prior knowledge and experiences* by asking questions such as, What do you already know about shrews? Do the images and headings remind you of anything you have experienced, seen, or read? What would you like to learn about Minnesota's shrews? Finally, invite students to think about the author's intended *purpose* for the story. The following questions may be helpful: Why do you think the author wrote this story? What do you think the author hopes you will think about or do after reading this?

VOCABULARY PREVIEW. Using the Study Guide, introduce students to the story's vocabulary words, indicating that these words may be unfamiliar to them but will appear in the story. Invite them to look at each word, think about its meaning, and then write down a possible definition for each. As your students encounter these words in the Young Naturalist story, you may want to encourage them to infer meaning using context clues, such as other words in the sentence or the story's illustrations. Students can compare their inferences with their earlier guesses and with the suggested definitions shown below.

VOCABULARY LIST.

Hand lens – a small tool with a glass or plastic lens used to make tiny things look bigger

Decaying – to slowly rot and break down

Fungus – a group of living things that are neither plants nor animals, such as mushrooms, mold, and yeasts

Fruiting bodies – the part of a fungus that grows above ground that makes and releases spores

Spores – tiny special cells that help many living things, like fungi and slime mold, reproduce

Mulch – a layer of wood chips, chopped leaves, or straw that creates a protective layer over the soil

Habitat – a natural home that provides living things exactly what they need to survive, grow, and reproduce

Crevice – a narrow crack, split, or thin opening in a hard surface

Prey – an organism that is being hunted and eaten

Bacteria – microscopic, single-celled organisms that live in the soil, as well as in other places all around and inside of us

Protist – a tiny, living thing that is not an animal, plant, or fungus

Ecosystem – all the living things in a given area, interacting with each other, and with their non-living environments

Food web – a map that shows who eats whom in an ecosystem

STUDY QUESTIONS OVERVIEW. Preview the study questions with your class before you read the article. Then read the story aloud. Complete the study questions in class, in small groups, or as an independent activity, or quiz. Answer Key: 1. D; 2. False; 3. A; 4. C; 5. B; 6. D; 7. C. 8. False; 9. C; 10. D; Challenge answer: Answers may vary. They like the same growing conditions (damp places, decaying wood), and they both have fruiting bodies that make and release spores. Slime mold cells are not made of the same thing as fungi cells. Slime molds are also different because they engulf and eat their food and they can move around.

ASSESSMENT. The completed vocabulary and study questions on the Study Guide can serve as an assessment of students' learning. Additionally, the Study Guide includes MN Comprehensive Assessment (MCA) practice items. (*MCA Practice Items Answer Key: 1. B; 2. B; 3. A; 4. D; 5. A; 6. D; 7. C; 8. A*). Other assessment ideas include: (1) Have students write their own true or false questions based on the story for a class quiz. (2) Use a 3-2-1 Summarization: Have the reader write down 3 things they learned, 2 interesting facts, and 1 question they still have. (3) Have students create a main idea and detail web, where they write the main topic in a center circle and draw or write supporting key details in the outer bubbles. (4) Have students write one of the main ideas from the story, along with several supporting details. Then have students "share and compare" their work with a partner to self-assess their learning. As they share, students can think about or respond to questions such as: How were the summaries alike and different? What ideas did you include that were different from your partner's?

EXTENSION ACTIVITIES. The following activities provide examples of how to make connections between the story and related topics while supporting academic standards and/or benchmarks. They can also be used to deepen or extend the learning of individual students, small groups, or the entire class.

1. Go hunting for slime mold! Review the story for clues as to where to look for slime molds. Using the photos in the story, photos from Conservation Volunteer Story, [The Elegance of Slime Molds](#), and [iNaturalist](#), aim to identify the various ones you find. As students find slime mold, have them record their findings in a chart that has three columns: 1) Name of Slime Mold; 2) What It Is Growing On/Near; and 3) Interesting Observations. Older students might include an additional column for noting evidence of interactions. Using this information when they return to the classroom, help students summarize observations as pattern statements. Then encourage students to review their observations for any that don't fit patterns. Use this to talk about why scientists look for patterns and how patterns can help us make sense of the natural world. [Science (2019). Dimension 1: 4. Analyzing and interpreting data, 8. Obtaining, evaluating, and communicating information; Dimension 2: 1. Patterns; Dimension 3: LS2. Ecosystems]

2. Slime molds with their unusual colors and structures have captured people's imaginations, as indicated by their descriptive common names: wolf's milk, yellow tinder blossom, dog vomit, Japanese lantern, bubble gum, spaghetti, red raspberry, chocolate tube, wasp nest, and tapioca. Invite students to look at photographs in the story. If they had the opportunity to assign a common name to each of the featured slime molds, what would they name them? Then ask students to share what they know about common names v. scientific names. Using the MN Conservation Volunteer Story, [What's in a Name](#), as helpful background, ask students to brainstorm the advantages and disadvantages of common names and scientific names for slime molds, as well as organisms more broadly. [Science (2019). Dimension 1: 1. Asking questions, 8. Obtaining, evaluating, and communicating information; Dimension 3: LS4. Biological Evolution: Unity and Diversity]

3. Invite students to re-read the section, "Unexpected Lessons" on pages 54 – 55. Within that section, the author states, "Until recently, slime molds didn't seem particularly useful to humans." Often when we encounter a living organism that is unfamiliar to us, we may ask, "What is it useful for?" Invite students to consider whether slime molds would still be "tiny treasures" if there were no human uses for them. Then ask students to write an argument, using valid reasoning or evidence to support their argument, in response to the question of human usefulness as a measure of an organism's value or worth. Alternatively (or additionally), students could be prompted to think, write, or discuss how usefulness to humans could be harmful or helpful to an organism, such as a slime mold, or organisms in general. [English Language Arts (2020). Writing: 4.2.4.1, 5.2.4.1, 6.2.4.1, 7.2.4.1, 8.2.4.1; Listening, Speaking, Viewing and Exchanging Ideas: 3.3.1.1, 4.3.1.1, 5.3.1.1; Science (2019). Dimension 1: 7. Engaging in an argument from evidence]

4. For many years, scientists have moved slime molds from one category to another, calling them plants, animals, or fungi. But since none of those categories fit, scientists have decided that slime molds are their own thing—protists. This category acts as a catch-all category, or an "odds and ends drawer," for a wide variety of life-forms. Sometimes protists are described as "misfits" because they don't fit into any other major category. Invite students to research other plants and animals in nature that have been described as misfits, not for being in the category of protists, but for other reasons, and how being a misfit in nature can be surprisingly advantageous. Here are a few to get them started: Velvet Bentgrass, Hoatzin Bird, Peppered Moth, and the Aye-Aye. Older students can be asked to read about the [three-spined stickleback](#), which can be a springboard for learning about how variations in characteristics among individuals of the same species may provide advantages in survival. [Science (2019). Dimension 1: 1. Asking questions, 7. Engaging in an argument from evidence, 8. Obtaining, evaluating, and communicating information; Dimension 2: 6. Structure and Function; Dimension 3: LS4. Biological

Evolution: Unity and Diversity]

5. Using information from the story and supplemental online research, have students create a Venn diagram (or another model of their choosing) that shows the similarities and differences among slime molds and fungi; older students' diagrams could include slime molds, fungi, and plants. [Science (2019). Dimension 1: 2. Developing and using models, 8. Obtaining, evaluating, and communicating information; Dimension 2: 6. Structure and function; Dimension 3: LS4. Biological Evolution: Unity and Diversity]

6. Using the slime molds featured in this story and those featured in [The Elegance of Slime Molds](#), have students make a 3-D model of their slime mold using clay or Play-Doh. Combine these creations for a classroom slime mold museum that could be shared with other students or school guests. Students could prepare information about their particular slime mold that could be displayed or orally shared with the museum visitors. [Arts (2018). Visual Arts: 5.3.2.3.1, 5.3.3.5.1, 5.4.3.5.1, 5.6.3.5.1, 5.7.3.5.1, 5.8.3.5.1]

7. Show students the PBS video, [Are You Smarter than a Slime Mold?](#) One of the slime molds featured, the Dictyostelium, is particularly fascinating. When it runs out of food, it groups together to form a multicellular slug. Then this slug builds a fruiting body, and ends up sacrificing itself as stalk cells so spore cells can survive and disperse. In the video, this is described as altruistic behavior, or acting for the good of the group. Biologists define animal altruism as a behavior by an animal that reduces its own chances for survival or reproduction while increasing another's. There are other examples mentioned in the video. Invite students to think about how altruism in the animal world may be different from when humans act altruistically. Then introduce students to other examples in this [short reading](#) about different types of altruism in the natural world and how they are different from altruism in humans. Invite students to think about and discuss ways they have experienced altruistic behaviors at home or at school. What things can they do in their classroom or home that would be acting for the benefit of others? How can altruism help make communities stronger? [Social Studies (2011). Citizenship and Government: 3.1.1.1.1; Science (2019). Dimension 1: 7. Engaging in an argument from evidence, 8. Obtaining, evaluating, and communicating information; Dimension 2: 2. Cause and effect; 6. Structure and Function]

WEB RESOURCES

MINNESOTA DNR WEB PAGES

GENERAL TEACHER AND STUDENT RESOURCES

[Minnesota DNR Teachers' Resources](#)

[DNR Just for Kids Page](#)

MINNESOTA CONSERVATION VOLUNTEER STORIES

[Life in a Jar](#)

[Fungus Among Us](#)

[The Elegance of Slime Molds](#)

[The Secret Lives of Fungi](#)

VIDEOS

[Are You Smarter than a Slime Mold?](#)

[The Slime Minder](#)

OTHER SUPPORTING RESOURCES

[Minnesota's Slime Molds \(Minnesota Seasons\)](#)

[Slime Mold \(University of Minnesota Extension\)](#)