

STEAM Activities:

Artistic Expression, Vocab Reinforcement & Research Practice

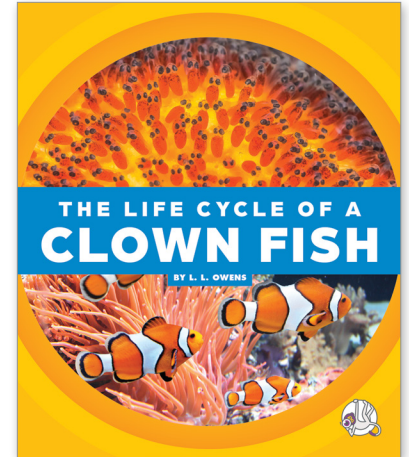
By Lisa L. Owens

Further exploration of factual topics, such as the information found within *The Life Cycle of a Clown Fish*, can help children view their newly acquired knowledge through slightly different lenses, everyday expressions and the natural world they're learning about.

Comic Strip Creation

Start by briefly discussing the word *clown* and what clown fish and circus clowns have in common. (Clown fish have brightly colored markings, humans performing as clowns might wear brightly colored clothing and hair/makeup, and so on.)

Next, have students draw a four-panel grid (as shown) on a blank sheet of 8.5" x 11" paper. Then ask them to create a comics-style scene featuring a clown fish reacting to meeting a circus clown. The comic can be wordless – with illustrations only – or it can include speech bubbles and/or captions.

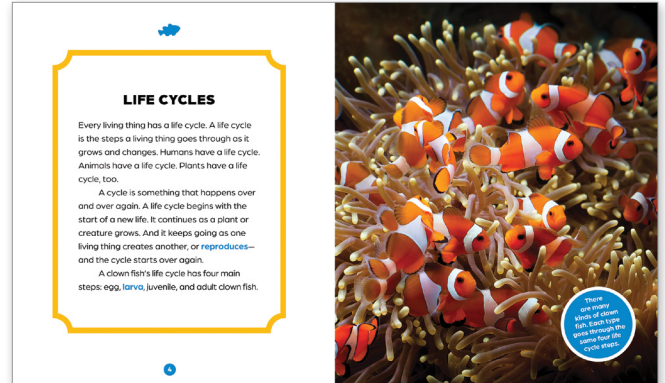


Fishing for Words

Conduct a classroom vocabulary search through *The Life Cycle of a Clown Fish*. Each clue below describes a word found in the book. Start by giving the first clue's page number and word description; then instruct students to find the vocabulary word in the text. If searchers need another clue, share the number of letters the word contains. Repeat the process for each clue.

1. **Page 4:** It happens over and over again. (5 letters)
2. **Page 8:** All the things clown fish eat. (4 letters)
3. **Page 9:** Living creatures. (7 letters)
4. **Page 15:** To drift. (5 letters)
5. **Page 26:** To observe. (5 letters)

Answers: 1. cycle; 2. diet; 3. animals; 4. float; 5. watch



Matters of Fact

Have students research and report on a living thing of their choice using classroom and library books, encyclopedias, dictionaries, and online resources available to them. Ask them to choose a plant or animal not covered in any Life Cycle series books they're studying. Reports should cover these basic elements:

- Name of living thing
- What it looks like
- Where it lives/grows
- Stages in its life cycle
- One other fun fact about it
- What sources were used.

About the Book

The Life Cycle of a Clown Fish (9781503858411) details the fish's fascinating journey from egg to larva to juvenile, and on to the adult clown fish stage that restarts the cycle. Striking full-color photographs support the text, and carefully constructed front and back matter increase comprehension and encourage further inquiry.

The Life Cycle of a Clown Fish is part of the Life Cycles series, published by The Child's World.

About the Author

Lisa L. Owens has written more than 100 books for young readers. Find her online at llovens.com, @LisaLOwens, and @llowriter.



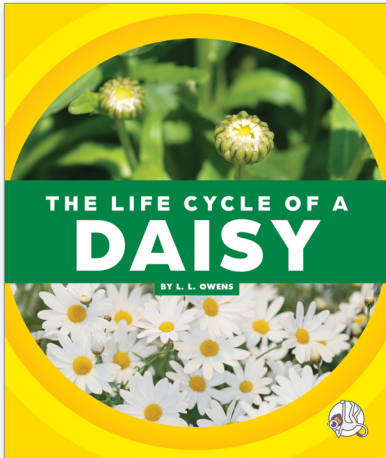
Wonder Books
Early Nonfiction Filled with Wonder

STEAM Activities: Fun with Figurative Language

By Lisa L. Owens

Books like *The Life Cycle of a Daisy* can inspire Language Arts–focused extensions that add depth to readers' knowledge. Try the following sequential activities with your students to help them explore connections between everyday expressions and the natural world they're learning about.

Discussion: The Concept of Simile



Display *The Life Cycle of a Daisy's* cover and have volunteers describe a daisy in their own words. Then explain that you'll use the daisy to introduce a figure of speech.

Ask students whether they've heard the saying "as fresh as a daisy." Explain that it's one example of *simile*, a figure of speech using "as" to compare two unlike things.

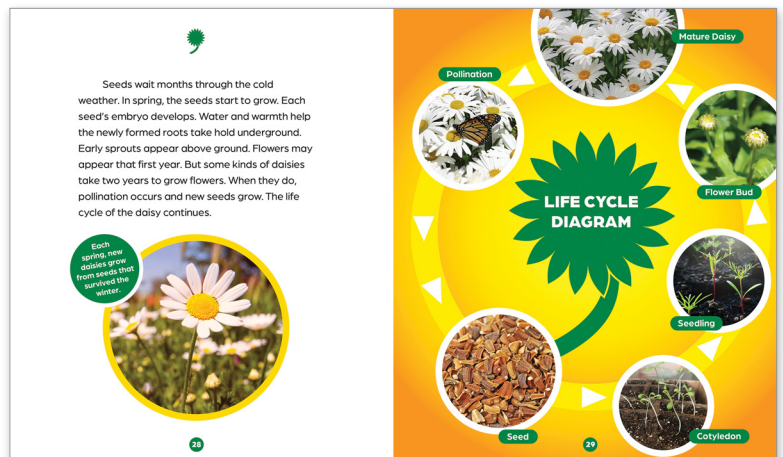
If students have already learned that "like" can also be used to form similes, acknowledge that, and note that for these activities they'll focus on similes formed with "as.")

Share in-context full-sentence examples of the daisy simile. For example:

- He felt as fresh as a daisy.
- The spring air smelled as fresh as a daisy.
- The puppy looked as fresh as a daisy.

Follow-up discussion questions:

- What does "fresh" mean to you? (new, clean, bright, shiny, cheerful, colorful)
- What's fresh about daisies? (They're bright/colorful/pretty, they're flowers, they bloom and re-bloom.)
- Why do you think "as fresh as a daisy" became a common figure of speech? (Most people have seen daisies, daisies make people smile, daisies are bright and cheerful, daisies grow all over the world.)



Game Time: Complete the Similes!

Guide the class in verbally filling in the blanks to complete familiar similes. As time permits, discuss additional thoughts about each simile.

1. As slow as a _____. (snail, sloth, turtle, tortoise)
2. As quiet as a _____. (mouse)
3. As busy as a _____. (bee)
4. As sly as a _____. (fox)
5. As _____ as a lion. (brave)
6. As _____ as an owl. (wise)
7. As _____ as an ox. (strong)
8. As proud as a _____. (peacock)



Independent Brainstorming: Create Your Own Similes

Have each student generate a list of 10 original similes. Challenge them to come up with ones they've never heard before.

For reference during the activity, display the original simile example and its stripped-down template:

As **fresh** as a **daisy**.

As _____ as a(n) _____.

Remind students that the first blank takes an *adjective*, or describing word, and the second blank takes a *noun*, or a person, place, or thing.

Time the activity and, at the end, encourage students to present some of their favorite new similes with the group.

About the Book

The Life Cycle of a Daisy (9781503858695) details the plant's fascinating journey from seed to mature daisy to the pollination process that restarts its cycle. Striking full-color photographs support the text, and carefully constructed front and back matter increase comprehension and encourage further inquiry.

The Life Cycle of a Daisy is part of the Life Cycles series, published by The Child's World.

About the Author

Lisa L. Owens has written more than 100 books for young readers. Find her online at llovens.com, @LisaLOwens, and @llowriter.



Wonder Books
Early Nonfiction Filled with Wonder

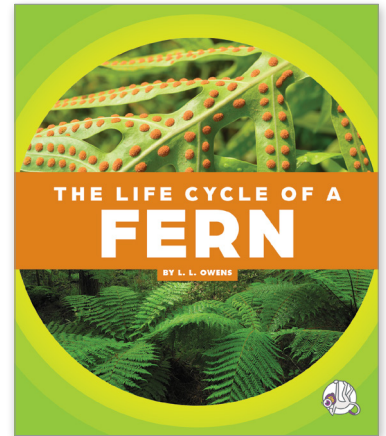
STEAM Activities: Ferns Across the Curriculum By Lisa L. Owens

Use these fun and easy activities to extend your classroom study of *The Life Cycle of a Fern*.

Writing Corner

Introduce the term botanist, explaining that a botanist is a plant scientist. Then have students write a short, creative adventure story in which they imagine themselves as a botanist studying ferns.

In their writing, students should use each of the following vocabulary words from *The Life Cycle of a Fern* at least once. Encourage them to refer to the book's glossary and index as needed to help them review any of the words in context.



Word List

species	caterpillars	wetlands
rain	erosion	habitat
fiddleheads	dinosaurs	nutrients

Antarctica Research

Show students an online image of Antarctica with snow-covered land and/or bundled-up humans. Have them recall that ferns can be found on every continent except Antarctica. Then entertain any guesses about why ferns and other plants might not grow there. (It is too cold and harsh to support certain forms of life.)

Invite interested students to research plant and animal life currently found in Antarctica and report findings in class.

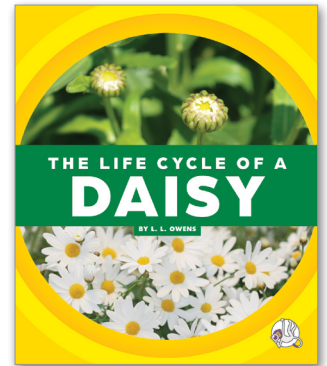
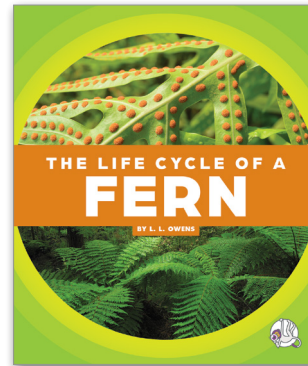


Alike and Different

Display the side-by-side cover images of *The Life Cycle of a Fern* and *The Life Cycle of a Daisy*.

Have volunteers offer responses to each of the following:

- Share an example of how ferns and daisies are alike.
- Share an example of how ferns and daisies are different.



Next, display the life-cycle diagrams in each of the two books and discuss similarities and differences between the two distinct cycles.



About the Book

The Life Cycle of a Fern (9781503858718) details the plant's fascinating journey from spore on up to the mature fern stage during which the full cycle restarts. Striking full-color photographs support the text, and carefully constructed front and back matter increase comprehension and encourage further inquiry.

The Life Cycle of a Fern is part of the Life Cycles series, published by The Child's World.

About the Author

Lisa L. Owens has written more than 100 books for young readers. Find her online at [llovens.com](http://lowens.com), @LisaLOwens, and @llowriter.



Wonder Books
Early Nonfiction Filled with Wonder

STEAM Activities: Wordplay & Conversation By Lisa L. Owens

Books of all types, including scientific nonfiction like *The Life Cycle of a Ladybug*, help expand young readers' knowledge in myriad ways. Use the following activities to foster information retention, creative vocabulary expansion, and curiosity about nonscientific cultural connections to the natural world.

Vocabulary Building: Compound Words in Practice and Art

Display this list of compound words found in *The Life Cycle of a Ladybug*. Invite volunteers to point out the two individual words in each compound.

backbone lifetime pinhead
adulthood dragonfly ladybug

Next, use or adapt the following sentences for a fill-in-the-blank exercise.

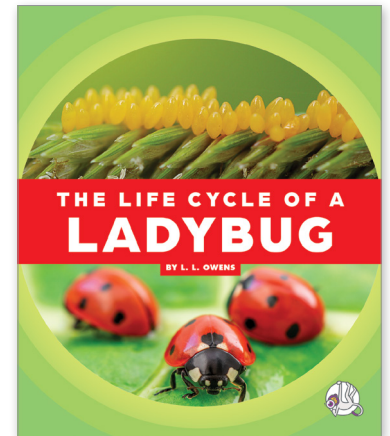
1. Antennae help a **ladybug** sense its surroundings.
2. Insects like ladybugs have six-legs but no **backbone**.
3. Metamorphosis refers to changes a ladybug experiences between hatching and **adulthood**.
4. A single larva is about the size of a **pinhead**.
5. The **dragonfly** is a ladybug predator.
6. During her **lifetime**, a female ladybug lays up to 1,000 eggs.

Finally, instruct students to choose one compound word from the list and sketch two side-by-side pictures, one representing each part of their word. Share the artworks in class.

Discussion: Lucky Ladybugs?

Lead an open-ended conversation about ladybugs as a symbol of good luck. Sample prompts:

- Have you ever heard that ladybugs bring good luck? What is "luck"?
- Some people make a wish when they see a ladybug. Others count the spots to see how many years of good luck they'll have. Do you think seeing a ladybug is good luck? Why or why not?
- What other good-luck signs have you heard about? (four-leaf clover, butterfly, rainbow, dandelion, cardinal, acorn, shooting star)
- Share one of your own experiences with a lucky sign.



Discussion: Lucky Ladybugs? (cont.)

Encourage interested students to investigate the history of ladybugs as symbols of luck and report interesting findings in class.

Writing Corner: Ladybug Acrostic

Guide students through writing an acrostic using ladybug as the base word. First, have them write “LADYBUG” down a blank page as shown. Explain that an acrostic is a type of poem. Each line in an acrostic poem starts with the corresponding letter from the base word. Any line can consist of a single word, phrase, or full sentence.

Before students tackle the writing, generate a few words and phrases that could fit this acrostic. For example, “L” might inspire “Lovely”; “Ladybug, ladybug”; “Legs of six”; or “Laying eggs is part of a ladybug’s life cycle.” Have students use the brainstormed list as creative inspiration while completing their acrostics. Remind them that the only must-do is starting each line with its assigned letter.

L _____
A _____
D _____
Y _____
B _____
U _____
G _____



About the Book

The Life Cycle of a Ladybug (9781503858725) details the insect’s fascinating journey from egg to larva to pupa before reaching the adult ladybug stage, in which the full cycle restarts. Striking full-color photographs support the text, and carefully constructed front and back matter increase comprehension and encourage further inquiry.

The Life Cycle of a Ladybug is part of the Life Cycles series, published by The Child’s World.

About the Author

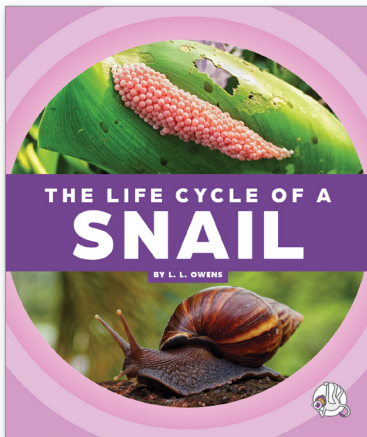
Lisa L. Owens has written more than 100 books for young readers. Find her online at llovens.com, @LisaLOwens, and @llowriter.



Wonder Books
Early Nonfiction Filled with Wonder

STEAM Activities: Building Observational Skills

By Lisa L. Owens



During classroom study of *The Life Cycle of a Snail*, try these activities to strengthen students' powers of observation and ignite ongoing curiosity about the natural world around them.

Field Trip: Snail Safari

Plan a snail-finding excursion on school grounds or at another convenient location. You might find snails in plants or trees; under rocks or garden pots; on park benches or fences; or near water.

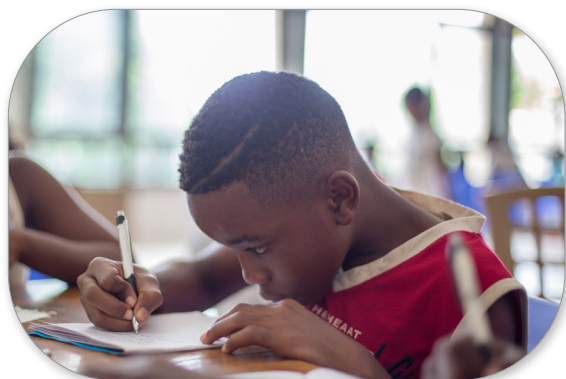
At the safari site, lead students on an investigative search. Emphasize the goal of observing snails in their natural habitat without disturbing them.

Discuss observations as you go. Note where snails are spotted (or not), what they look like, and what they're doing. Take snail photos to display in your classroom and spark additional conversations about life cycles and the Snail Safari experience.



Writing Corner: Snail Mail

Briefly introduce the activity with, "Today you'll each write a piece of snail mail to yourself! Who knows what the term *snail mail* means?" Invite guesses.



Explain that *snail mail* refers to mail delivered through the postal system instead of email. Point out that the "snail" part is a nod to physical mail moving more slowly than electronic email.

Have students draw a large snail shape on a sheet of 8.5" x 11" writing or construction paper. Then have them write a letter to themselves within the shape using the sample format as a guide.

Writing Corner: Snail Mail (cont.)

Date: _____

Dear Me,

I just read *The Life Cycle of a Snail* and learned that snails _____.

The most interesting thing I observed during our Snail Safari is _____.

One thing I'd still like to know about snails is _____. If I learn more, I'll tell you all about it!

Signed,

Me

Finally, have students fold their sheets inward in thirds to serve as self-containing envelopes. Ask them to address and “post” their snail mail to a designated collection spot. In a week or two, hand deliver the letters to students and discuss what they’ve learned or observed about snails or the life cycle of living things since writing their letters.

About the Book

The Life Cycle of a Snail (9781503858404) details the animal’s unique journey from egg to hatchling to the adult snail stage during which the life cycle begins anew. Striking full-color photographs support the text, and carefully constructed front and back matter increase comprehension and encourage further inquiry.

The Life Cycle of a Snail is part of the Life Cycles series, published by The Child’s World.

About the Author

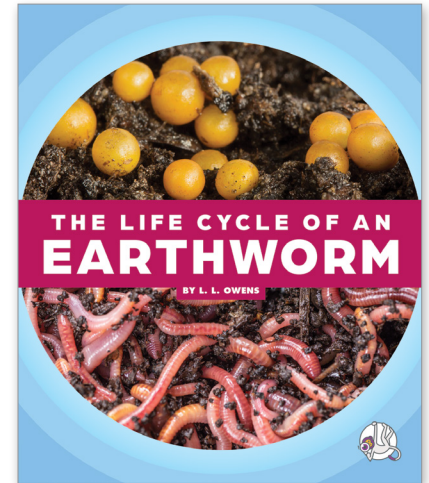
Lisa L. Owens has written more than 100 books for young readers. Find her online at llovens.com, @LisaLOwens, and @llowriter.



STEAM Activities: Poetry Inspired by Nature By Lisa L. Owens

Did you know that a South African earthworm can reach a length of up to 22 feet? That's awfully big!

It's cool, though, to picture a 22-foot earthworm wriggling around, minding its business, living its life. Help young readers imagine creating a poem, story, song, or other artwork with these STEAM-related activities for classroom use. Using nature-inspired poetry will encourage students' natural curiosity and their drive to channel that curiosity through creativity.



After-Reading Discussion



After the class has read *The Life Cycle of an Earthworm*, turn to page 21 and show the photo of a robin picking up an earthworm. Ask students what the scene illustrates. (Birds prey upon earthworms, birds hunt worms during the day, the robin is eating breakfast.)

Writing Corner: Creating Earthworm Poetry

Following the discussion, plan a low-stress poetry-writing session for later the same day or the day after. Explain that students will write original poems on the simple open-ended theme of earthworms. Then brainstorm a "favorites" list of earthworm traits, behaviors, and life-cycle facts. Assure students that the list will remain on display as they write.

To kick off the official writing session, have students first jot down pre-writing thoughts about their poems using these, or your own, targeted prompts:

- My poem is about _____.
- I want my poem to be _____. (Funny, sad, silly, realistic, scary, icky.)
- My poetry form is _____. (Rhyming, free verse, acrostic, bio poem, limerick, haiku.)

Next, start the clock on the writing session. Use whatever length of time works best for your class. Afterward, invite your young poets to share and celebrate their creations with the group.

About the Book

The Life Cycle of an Earthworm (9781503858398) details the animal's unique journey from eggs to juvenile earthworm to the adult stage during which the life cycle begins anew. Striking full-color photographs support the text, and carefully constructed front and back matter increase comprehension.

The Life Cycle of an Earthworm is part of the Life Cycles series, published by The Child's World.

About the Author

Lisa L. Owens has written more than 100 books for young readers. Find her online at llovens.com, @LisaLOwens, and @llowriter.

