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# Young Explorer



TEACHER'S GUIDE—GRADE 1

# Frog Parents: Overview

## Summary

- Frog parents take care of their young. They make sure their babies have food and a safe place with water so they can grow and survive.

## Curriculum in This Article

### Common Core State Standards

- Identify basic similarities in and differences between two texts on the same topic. (RI.1.9)
- Write opinion pieces in which they introduce the topic or name the book they are writing about, state an opinion, supply a reason for the opinion, and provide some sense of closure. (W.1.1)
- Know final -e and common vowel team conventions for representing long vowel sounds. (RFS.1.3.c)
- Use commas in dates and to separate single words in a series. (L.1.2.c)

### Next Generation Science Standards

- Disciplinary Core Idea: Growth and Development of Organisms—Adult plants and animals can have young. In many kinds of animals, parents and the offspring themselves engage in behaviors that help the offspring to survive.

## Materials Needed

- "Animal Parents" poster
- National Geographic video "Tad Pad Dad" at: <http://kids.nationalgeographic.com/videos?videoGuid=a0360408-f47e-410b-b4ce-ee1f71244a36>
- one age-appropriate book about an animal and how it cares for its babies

## Additional Resource

- Learn more about poison dart frogs:
  - ▶ <http://kids.nationalgeographic.com/animals/poison-dart-frog/>

To access the projectable edition of this article, go to the For Teachers tab for this magazine at: [ngexplorer.cengage.com](http://ngexplorer.cengage.com).



Go to the For Teachers tab at [ngexplorer.cengage.com](http://ngexplorer.cengage.com) to access the free interactive whiteboard lesson for this article.



# Frog Parents: Background

## Fast Facts

- Strawberry poison dart frogs live in tropical rain forests of Nicaragua, Costa Rica and Panama.
- Like some other species of poison dart frogs, the strawberry poison dart frog cares for its young.
- After a female strawberry poison dart frog lays her eggs, the male returns to the clutch every day to make sure the eggs don't dry out
- Adult strawberry poison dart frogs tend to live on plants near the forest floor. However, their tadpoles live within cup-shaped leaves in trees. Once the eggs hatch, the tadpoles wiggle onto a parent's back. The parent carries the tadpoles one at a time up into trees and places them in water-filled leaf-cups of plants that grow in trees. Tadpoles need water to survive.
- The female frog provides food for the tadpoles to eat while they complete their metamorphosis. It typically takes the tadpoles of a strawberry poison dart frog six to eight weeks to change into a frog.
- A female strawberry poison dart frog returns regularly to the water-filled leaf-cups to provide food for her tadpoles. The food is unfertilized eggs from the female's body.
- These unfertilized eggs are spiked with the same chemicals that make the mother frog so poisonous. This is the first time an animal has been found to pass along a chemical defense to its offspring.

# Frog Parents: Prepare to Read and Science

## Activate Prior Knowledge

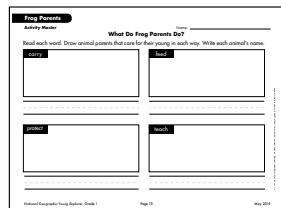
### Thinking About Parents and Babies

1. Brainstorm with students a list of things parents do to help their young. Tell the class that the parents and young they explore can be human or any type of animal they know about.
2. Write students' ideas on the board. Then ask: *What do all of these things have in common?* Guide students to recognize the patterns in the behavior of parents and offspring that help the offspring survive.

## Explore Science

### What Do Animal Parents Do?

1. Display the "Animal Parents" poster. Focus students' attention on each photo and caption to examine what these four animal parents do to care for their young. Encourage students to identify other animal parents they know about that do these same things.
2. Display the projectable edition. As you view each image, discuss what it shows. Challenge students to find examples of how frog parents carry, feed, and protect their young. Discuss whether or not frog parents also teach their young.
3. Give each student a copy of the Activity Master. Using the poster as a guide, encourage students to draw an animal parent caring for its young in each way described on the poster. Tell them to write each animal's name on the line below their drawing. When students are finished, invite them to show and tell about the different ways animal parents care for their young.



Activity Master,  
page T5

*Poster correction: Alligator young are called hatchlings, not hatchings. If you teach with the poster, please add the missing "l" to the word. We apologize for the error.*

### See Frog Parents in Action

1. Prior to conducting this activity, download the National Geographic video "Tad Pad Dad" at: <http://kids.nationalgeographic.com/videos?videoGuid=a0360408-f47e-410b-b4ce-ee1f71244a36>.
2. Display the video for the class. Encourage students to compare what they saw in the video to what they read in the article. What additional facts did they learn about how frog parents care for their young?

## Extend Science

### Explore a Frog's Life Cycle

1. Using the information in the article, guide students as they diagram the life cycle of a strawberry poison dart frog.
2. Examine the finished diagrams with the class. Identify points at which frog parents care for their babies. Challenge students to recognize where that care ends. (after the mother gives food to the tadpoles)
3. Guide students to recognize that animal parents care for their young for different lengths of time. To ensure that students understand, share examples of the lengths of time different species care for their young:
  - alligator: a few months to a year;
  - woodpecker: about 18 to 30 days;
  - grizzly bear: about 2 to 3 years;
  - bobcat: about 8 months to a year.



# Frog Parents: Language Arts

## Explore Reading

### Comparing Two Texts on the Same Topic

1. Prior to conducting this activity, gather one age-appropriate book about an animal and how it cares for its young.
2. Display pages 2-3 of the projectable edition. Invite a volunteer to read aloud the headline and text. Ask students what this article is about and how the image and text are connected to that idea.
3. Read the article as a class. As you do, take time to discuss how each photo helps explain the text on the page. Examine descriptions and labels. Encourage students to comment on how frog parents keep their young safe as they grow.
4. Then read the book in this same manner. When you finish reading, guide students as they compare the article and the book. Challenge students to identify ways the two texts were alike and how they were different.

## Explore Writing

### Write Opinions About Frog Parents

1. Display and review the projectable edition with the class. As you do, highlight details that tell how frog parents care for their young.
2. Divide the class into small groups. Encourage groups to discuss other animals and how they care for their young. Challenge them to identify animal parents that they think are most and least like frog parents in the way they care for their young.
3. Instruct groups to use information from the article and what they know to write one paragraph about an animal parent they think is most like the frog parents and one paragraph about an animal parent they think is least like frog parents. Remind students to state their opinions clearly and to give reasons to support each comparison. Instruct them to add a final sentence that wraps up their thoughts.

## Explore Foundational Skills

### Investigating Long Vowel Sounds

1. Create a chart like the one below on the board:

safe	need	ride	pole	use

2. Invite volunteers to read each of the words aloud. Challenge the class to recognize what the five words have in common. (long vowel sounds) How are they different? (Each has a different long vowel sound.)
3. Examine how the words get their long vowel sounds. Guide students to recognize that four of the words have a final -e. Which one doesn't? (need)
4. Give students a moment to scan the article in their magazines. Which of these words are in the text? (safe, need, (tad)pole) Invite volunteers to read sentences containing those words aloud.
5. Then brainstorm additional words that have each long vowel sound. Invite volunteers to write the words in the chart. Examine each word to see why it has a long vowel sound. Challenge students to use each word in a sentence that tells about frog parents and their young.

## Explore Language

### Using Commas in a Series

1. Display page 5 of the projectable edition. Zoom in on the block of text. Challenge students to count how many commas they see. (three) Invite a volunteer to highlight the sentence that has the most commas.
2. Explain to the class that these commas are used to separate single words in a series. Review what that means.
3. Encourage students to examine the rest of the article. Where can they find another example of commas used in this way? (page 6)
4. Guide students as they write more sentences about frog parents that use commas to separate words in a series.

### What Do Frog Parents Do?

Read each word. Draw animal parents that care for their young in each way. Write each animal's name.

carry

feed

protect

teach

Read each question. Fill in the circle next to the correct answer.

1. What does a mother frog lay on a leaf?  
Ⓐ food  
Ⓑ tadpoles  
Ⓒ eggs
  
2. Why does the father frog watch over the eggs?  
Ⓐ to make sure they hatch  
Ⓑ to keep them safe  
Ⓒ to give them food
  
3. What do frog parents do to care for new tadpoles?  
Ⓐ Take them to water.  
Ⓑ Put them in a sunny place.  
Ⓒ Put them under leaves.

### What Do Frog Parents Do?

Read each word. Draw animal parents that care for their young in each way. Write each animal's name.

carry

Students should draw pictures of animal parents that care for their young in each of the four identified ways. Remind them to write each animal's name below the appropriate picture.

feed

protect

teach



Read each question. Fill in the circle next to the correct answer.

1. What does a mother frog lay on a leaf?  
☐ Ⓐ food  
☐ Ⓑ tadpoles  
☒ Ⓒ eggs
  
2. Why does the father frog watch over the eggs?  
☐ Ⓐ to make sure they hatch  
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3. What do frog parents do to care for new tadpoles?  
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