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 Planning Assistance: See Daily Lesson Planning for scheduling.

A Class of Their Own

By Jessica Sprick and Marilyn Sprick Illustrated by Burgandy Beam



Vocabulary Words

habitat

A habitat is a special place where plants and animals live and grow.

adaptation

An adaptation is the special way an animal has for living in its habitat.

What We Think We Know

Frogs are interesting animals. What do you think you already know about frogs? Let's make a list.

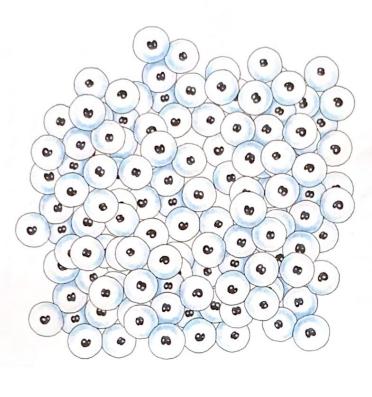
What We'd Like to Learn

Now, let's make another list about what we'd like to learn. I'd like to learn how tadpoles change into frogs. What would you like to learn?

From Egg to Frog

Predict what you are going to learn about in this section.

Look at the picture. What do you see? You are looking at hundreds of little frog eggs. What's inside the eggs?



The little black dots grow and grow.

What do you think the little black dots are?

In time, the dots become tadpoles. When the little tadpoles run out of food in their eggs, the eggs hatch.

After the tadpoles hatch, they live in water.



At first, the little tadpoles hide in the plants. Then, they start swimming. The little tadpoles breathe through gills.

Do you know another animal that breathes through gills?

Tadpoles seem like little fish. They spend their days eating, swimming, and hiding from hungry fish and birds. Tadpoles eat plants and insects with their tiny teeth. They swim by wiggling their tails.

What facts do you know about tadpoles?

From Tadpole to Frog

Predict what you will learn in this section.

Next, the tadpoles go through an interesting change. First, the tadpoles begin to grow back legs. Then, they develop lungs, so they can breathe air. At the same time, they also begin to grow front legs.

What do you think is happening to the tadpole?



The tadpoles are turning into frogs.

Let's stop and think. Can you tell yourself three things that happen to tadpoles as they change into frogs? Count three things on your fingers.

What should we do if we can't remember all three things? We can reread to see if we are right. Let's do that.

After the tadpoles turn into tiny frogs, they leave their home in the water. When they crawl onto land, the frogs still have a little tail left. As the frogs become adults, the tail disappears.

The Life Cycle

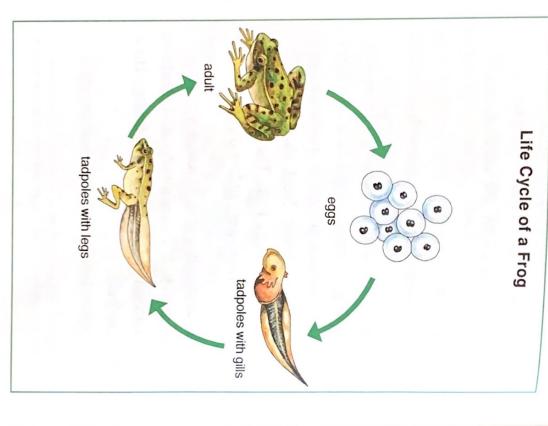
What do you think you're going to learn about in this section?

Wow! What a strange change! In the life cycle of a frog, there's an egg with a little black dot. The little black dot grows inside the egg and becomes a tadpole. Next, the tadpole hatches and lives like a fish. Then it grows legs and develops lungs so it can live on land.

The tadpole has gone through a metamorphosis. If I were a tadpole, I would be quite surprised to find I'd become a frog. How would you feel?

Look at the picture on the next page. It shows the life cycle of the frog from beginning to end.

What does the picture show?



Let's see if we can tell about each step in the life cycle of the frog. Touch the eggs. What do you know about the eggs? What happens next?

Fascinating Frog Facts

Let's look at our chart about frogs and review what we have learned.

Now let's look at the headings. They'll tell us what we are going to learn about. The headings may also help us think of other questions.

All Kinds of Frogs

There are over 4,000 kinds of frogs in the world. Some frogs are very large, and some frogs are very small. The goliath (go-ligh-uth) frog can grow up to 15 inches long. Use a ruler to see how big that is.



Have you ever seen a frog that big? The goliath frog lives in West Africa.

The smallest frog may be the gold frog. It is only about a half-inch long. Use a ruler to see how big that is. The gold frog lives in South America.



Frogs come in all different sizes and colors, but they are the same in many ways.

Look at the big goliath frog and the little gold frog. They are different sizes, but they are both frogs. How do you think frogs are all the same?

Frogs' Bodies

Frogs have no neck, short little front legs, and powerful back legs. Most frogs are great jumpers. Some frogs can jump 20 times the length of their body. That would be like you

jumping 70 feet!

toes. Frogs also have fascinating feet with long toes. Frogs that swim have webbed back feet. They use their feet like flippers. Tree frogs have suckers on the tips of their toes. They use their toes to stick to the slippery leaves and barks of trees.





I think a frog's toes are very interesting. Would you like to have webbed feet? What do frogs use webbed feet for? Would you like to have suckers on the ends of your toes? What do frogs use suckers for?

Frogs have no hair. They have thin, wet, smooth skin. As they grow, frogs shed their skin. The skin splits down their backs. After it splits, frogs pull their skin into their mouths. Then they eat their skin. Yuck!



What other animals shed their skin? Look at the picture of the frog. Let's see if we can describe a frog.

Frog Habitats

What is a habitat? Let's preview the headings and think of questions we may have about frog habitats.

Frogs live all over the world. They live in hot places, cold places, wet places, and dry places. Yes, frogs even live in hot, dry deserts!



Frogs in Dry Places

I hope we'll learn where desert frogs lay their eggs. What would you like to learn?

In each habitat around the world, frogs have developed special ways of living. In very dry places, frogs burrow underground. Some desert frogs sleep underground—up to seven years. When it finally rains, the frogs wake up and quickly lay their eggs.

Frogs in Cold Places

Frogs are cold-blooded animals. This means that a frog's body is always as hot or cold as the air around it. In places where it gets very cold, frogs quit eating and drinking for the winter. Then they go to sleep. Frogs hibernate, just like bears do. When the weather warms up, they wake up.

The only habitat in the world where frogs don't live is Antarctica. Antarctica is so cold all year that frogs die in the cold, cold weather. Frogs couldn't even hibernate to escape from the cold.



What would happen to a frog if it were in Antarctica?

Frog Adaptations

The special ways that frogs are able to live in so many places are called adaptations. Burrowing underground is an adaptation. Hibernating during a cold winter is an adaptation. Frogs have adapted so well to different habitats that they have been on Earth about 180 million years! Frogs were even around when the dinosaurs lived.

If the habitat is,	If the habitat is hot	Habitat
then frogs hibernate	then frogs burrow underground	Adaptation

How long have frogs been on Earth? How do frogs adapt to hot weather? How do frogs adapt to cold weather?

Toads

What are you going to learn about in this story?

Frogs and Toads

Frogs and toads are related. They both have no neck, no hair, and bulging eyes. But unlike frogs, most toads have thick, dry, bumpy skin.



Unlike frogs, toads have short back legs. So, toads do not jump, they hop.

How are toads different than frogs?

Toad Habitats

Toads are related to frogs. Where do frogs live? Where do you think toads live?

Toads live in most places all over the world. They live in hot places, cold places, dry places, and wet places. But, toads do not live in Antarctica. Do you know why?

Like frogs, toads are cold-blooded. This means their bodies are as hot or cold as the air around them. In Antarctica it is always cold, so toads would die. Like frogs, toads could not hibernate to escape from the cold.

Why don't frogs and toads live in Antarctica? Antarctica is too cold. Frogs and toads could not live there.

The Life Cycle of a Toad

What will toads go through? You already know about a frog's metamorphosis. Toads go through a metamorphosis, just like frogs. Once a year, toads return to their watery homes. Then, the mother toad lays strings of eggs in ponds or pools of water. She may lay 30,000 eggs at one time.

After the eggs are laid, small tadpoles hatch from the eggs. Then the toad tadpoles go through the same metamorphosis as a frog. The tadpoles grow legs. They develop lungs, and they lose their tails. After a few weeks or months, the tadpoles have become toads and are ready to live on land.

Look at the picture on page 8. It shows the life cycle of a frog from beginning to end. The toad's life cycle is the same.

Let's start with the eggs and see if we can explain how the toad develops

Frogs and toads are related. Some frogs and toads are so much alike that it is hard to tell whether they are frogs or toads. Some scientists say that the two types of animals are so much alike that there are froggy toads and toady frogs.



Look at the pictures. Can you tell which of the animals are frogs and which of the animals are toads? How? If you had to choose, which frog or toad would you want to be?

The Animal Kingdom

You've learned a lot about frogs and toads. Look at the classes of animals you've learned about in the chart below. Do you think frogs and toads fit into any of these classes?

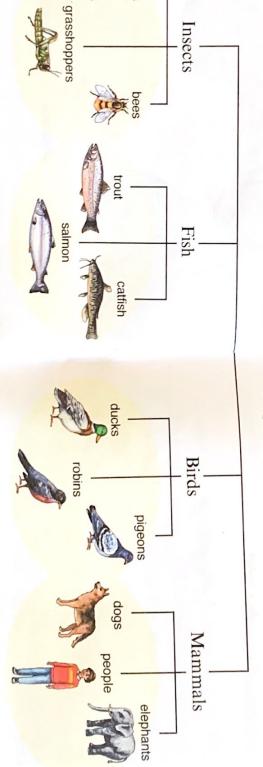
The animals of the world are called the animal kingdom. In the animal kingdom, each animal has a special group or class. Some of the classes are shown on the chart below.

Ants, grasshoppers, and bees are insects. Dogs, people, and elephants are all mammals.

What kind of animal do you think frogs and toads are? Do you think they are insects? Perhaps they are mammals. Are they birds? Perhaps they are fish.

Animal

Kingdom



ants

Are Frogs and Toads Insects?

Insects have three body parts and six legs. Frogs and toads do not have three body parts, and they do not have six legs. Frogs and toads are certainly not insects.



Are Frogs and Toads Birds?

Birds lay eggs. Frogs and toads lay eggs too. Perhaps frogs and toads are birds. Wait! Let's think about that some more. Birds have beaks, scaly legs, clawed toes, and feathers.

Close your eyes and imagine a frog. Does it have a beak? Think about the frog's legs and feet. Does the frog have scaly legs? Does it have clawed toes?

Now think about the frog's body. Does the frog have feathers? I think a frog would look very funny with feathers! What do you think?

Frogs and toads are certainly not birds!

Are Frogs and Toads Fish?

Many fish lay eggs. Frogs and toads lay eggs too. When frogs and toads are first hatched, they are tadpoles. Like fish, tadpoles swim through the water and breathe through gills. Perhaps frogs and toads are fish. Wait! Let's think about that some more.

Frogs and toads go through a metamorphosis. They develop legs and lungs, and they live on land. Frogs and toads are certainly not fish.



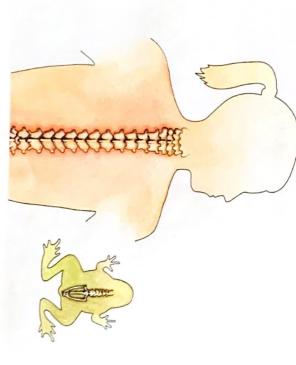
Frogs and toads are not insects, birds, or fish. What do you think they are?

Their Own Class

You've learned a lot about frogs and toads. In this passage, you are going to learn how frogs and toads are grouped or classified by scientists. We know that frogs and toads are not insects. What else do we know?

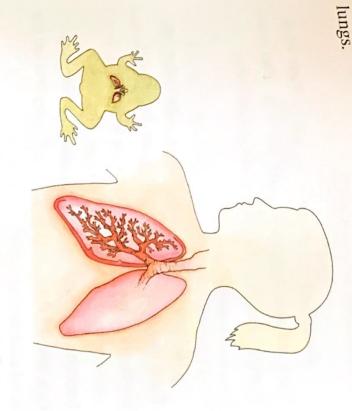
Are Frogs and Toads Mammals?

We know frogs and toads are not insects, birds, or fish. Do you think frogs are mammals? Like mammals, frogs and toads have backbones.



People, frogs, and toads all have backbones. People are mammals. Do you think frogs and toads are mammals?

Like mammals, frogs and toads have lungs. Frogs and toads both breathe air through their



People, frogs, and toads all have lungs. People are mammals. Do you think frogs and toads are mammals?

Mammals have hair or fur. Have you ever seen a frog with hair or fur? Frogs and toads are not mammals.

Scientists say that frogs and toads are in a class of their own.

Amphibians (Am-fib-ee-uns)

We know frogs and toads are not insects, birds, fish, or mammals.

Frogs and toads are in a class of their own. They are amphibians (am-fib-ee-uns). The word "amphibian" means both lives or two lives.

What does "amphibian" mean?

In their first life, amphibians are tadpoles. They live their life swimming and breathing through gills. Then tadpoles go through a metamorphosis. In their second life, they breathe air through lungs. Adult amphibians can live on the land. Sometimes, they live on the land and in the water.

Amphibians have no hair, but they do have backbones. Amphibians are also cold-blooded. That means that they are as hot or cold as the air around them. If a toad is in a hot place, it is a hot little toad. If a toad is in a cold place, it is a cold little toad.

What do you know about amphibians?

Salamanders are amphibians. What do you salamanders?

Salamanders? know about salamanders?



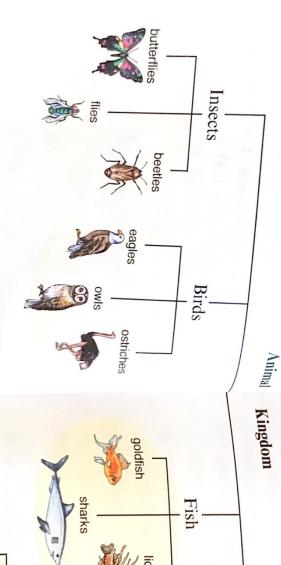
Look at the picture below. The animal is a caecilian (suh-SILL-yen). Isn't it strange? A caecilian is an amphibian too. What do you know about caecilians?



You named several things that make caecilians amphibians. Caecilians hatch from eggs in water. At first they have gills, but then they develop lungs. Like frogs, toads, and salamanders, most caecilians go through a metamorphosis. They also have backbones, and they are cold-blooded. Even though caecilians look like earthworms, they are amphibians.

The Animal Kingdom

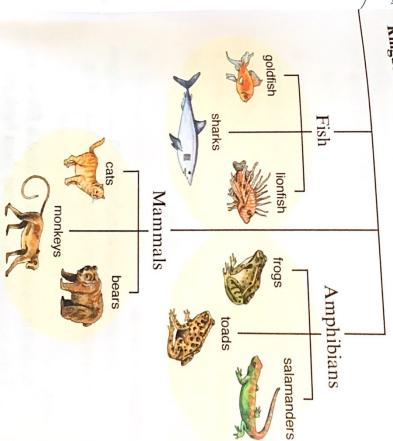
Scientists put animals in groups or classes. Just like scientists, you know a lot about animal classification.



Look at the chart. What are the groups or classes of animals that we know about? Let's see how many facts we can name about each class of animals.

Wow! Think of all you know. You have gotten very smart.

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Unit 45 Glossary

adaptation

An adaptation is the special way an animal has for living in its habitat.

amphibian

An amphibian lives in water when young and blooded and goes through a metamorphosis. An amphibian is an animal that is coldon land as an adult.

frog

wet skin and long back legs. A frog is an amphibian. A frog has smooth,

habitat

animals live and grow. A habitat is a special place where plants and

metamorphosis

through a metamorphosis to become a frog. A metamorphosis is a change. A tadpole goes

toad

but a toad has dry skin and short back legs. A toad is an amphibian. A toad is like a frog,

Storybook Decoding Review

Words you can sound out: use place largest <u>10ad</u> knew straw page livé known phone toad live

→ Words you can sound out: relative tadpole habitat amphibian scientist butterflies metamorphosis tropical family hibernate salamander

both Words you can read: picture large here group thought

over through

Phrases you can read:

Don't cry over spilled milk. You can't teach an old dog new tricks.

Sentences you can read:

Fact 1: Frogs and toads are amphibians.

a metamorphosis. Fact 2: Amphibians go through

Fact 3: Amphibians develop legs and lungs

Fact 4: Amphibians are cold-blooded.