Tadpoles are extraordinary creatures, and go through a metamorphosis that never loses its magic. In the spring, children across the nation take joy in finding and observing tadpoles for both toads and frogs. Many people take this enjoyment a step further and take the tadpoles home to raise them.

Different frog varieties have different reproductive methods. Most species, however, start life as tadpoles and grow into adult frogs. Many people find this process fascinating to watch and raise tadpoles in captivity so they can watch the tadpole grow and change. It can take from 11 to 16 weeks for a tadpole to fully mature into a frog, depending on the frog species.

Read more: How Do Tadpoles Grow? | eHow.com http://www.ehow.com/about_6663378_do-tadpoles-grow_.html#ixzz27bsKb937

Eggs

- Before they are tadpoles, baby frogs are eggs. When most frog species reproduce, they do so with the male sitting on top of the female. The female release her eggs into the water and the male fertilizes them as they are laid. Many eggs are laid at once because the adult frogs do not stay and take care of the eggs. As a result, not all of the eggs will hatch because they will be eaten by ducks, fish and insects.

Newborns

- Tadpoles emerge from the fertilized eggs anywhere from three to 25 days after fertilization. To stay safely hidden from predators, a newborn tadpole immediately attaches itself to a plant in the water. At this stage, the tadpole is very small and looks like a head with a long tail attached to it. The newborn feeds on tiny algae plants that are drifting through the water. The tadpole breathes using gills and cannot leave the water at this stage of development.
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External Development

- It does not take long before tadpoles need to eat more food than what floats by the plant they are attached to. At about six weeks old, tadpole's tails become longer so that they can more easily swim trough the water to find food. At this point, the tadpole will begin to grow back legs, which are quickly followed by front legs. Eyelids and thicker skin also form. The tadpole's body starts to slowly

absorb the gills. After the legs are fully developed, the tadpole's longer tail will shrink and eventually be absorbed into the body.

Internal Development

- At birth, a tadpole is essentially a head with eyes and a tail. Many internal changes must occur before a tadpole is ready to be a land dwelling frog. As a tadpole grows, she will develop bones. Teeth and the long tongue frogs are known for form while a tadpole is transforming into a frog. The tadpole must also grow some new internal organs, the most important of which are the lungs. Unlike tadpoles, adult frogs live on land rather than in the water, making it necessary to trade gills for lungs.

Adulthood

- When all of the necessary changes and adaptations have been made, what was once a tadpole hops onto land as a fully formed adult frog. The mature frog will occasionally swim through water but will spend most of her time on land, feeding on insects. When mating season comes around again, the frog will find a mate and lay or fertilize another batch of tadpole producing eggs.

when Frogs mate, the male frog tends to clasp the female underneath in an embrace called *amplexus*. He literally climbs on her back, reaches his arms around her "waist", either just in front of the hind legs, just behind the front legs, or even around the head. Amplexus can last several days! Usually, it occurs in the water, though some species, like the bufos on the right mate on land or even in trees!
(photo courtesy of Emile Vandecasteele)
While in some cases, complicated courting behavior occurs before mating, many species of frogs are known for attempting to mate with anything that moves which isn't small enough to eat!

Spawn (egg-mass)

While in the amplexus position, the male frog fertilizes the eggs as they get are laid. Frogs tend to lay eggs single eggs in masses, whereas toads usually lay eggs in long chains.
Some frogs leave after this point, but others stick around to watch over the little ones. Some have very unusual ways of caring for their young. You'll learn about some of those later in this tour!.

Egg

Frogs and Toads tend to lay many many eggs because there are many hazards between fertalization and full grown frogness! Those eggs that die tend to turn white or opaque. The lucky ones that actually manage to hatch still start out on a journey of many perils.
Life starts right as the central yolk splits in two. It then divides into four, then eight, etc.- until it looks a bit like a rasberry inside a jello cup. Soon, the embryo starts to look more and more like a tadpole, getting longer and moving about in it's egg.
Usually, about 6-21 days (average!) after being fertilized, the egg will hatch. Most eggs are found in calm or static waters, to prevent getting too rumbled about in infancy!
Some frogs, like the Coast foam-nest treefrog, actually mate in treebranches overlooking static bonds and streams. Their egg masses form large cocoon-like foamy masses. The foam sometimes cakes dry in the sun, protecting the inside moisture. When the rain comes along, after developement of 7 to 9 days, the foam drips down, dropping tiny tadpoles into the river or pond below.

Tadpole

Shortly after hatching, the tadpole still feeds on the remaining yolk, which is actually in its gut! The tadpole at this point consists of poorly developed gills, a mouth, and a tail. It's really fragile at this point. They usually will stick themselves to floating weeds or grasses in the water using little sticky organs between its' mouth and belly area. Then, 7 to 10 days after the tadpole has hatched, it will begin to swim around and feed on algae.
After about 4 weeks, the gills start getting grown over by skin, until they

eventually disappear. The tadpoles get teeny tiny teeth which help them grate food turning it into soupy oxygenated particles. They have long coiled guts that help them digest as much nutrients from their meadger diets as possible.
By the fourth week, tadpoles can actually be fairly social creatures. Some even interact and school like fish!

Tadpole with legs

After about 6 to 9 weeks, little tiny legs start to sprout. The head becomes more distinct and the body elongates. By now the diet may grow to include larger items like dead insects and even plants.
The arms will begin to bulge where they will eventually pop out, elbow first.
After about 9 weeks, the tadpole looks more like a teeny frog with a really long tail. It is now well on it's way to being almost fullgrown!

Young Frog, or *Froglet*

By 12 weeks, the tadpole has only a teeny tail stub and looks like a miniature version of the adult frog. Soon, it will leave the water, only to return again to laymore eggs and start the process all over again!

Frog

By between 12 to 16 weeks, depending on water and food supply, the frog has completed the full growth cycle. Some frogs that live in higher altitudes or in colder places might take a whole winter to go through the tadpole stage...others may have unique development stages that vary from your "traditional" tadpole-in-the-water type life cycle: some of these are described later in this tour.
Now these frogs will start the whole process again...finding mates and creating new froggies.

Frogs typically lay their eggs in water. The eggs hatch into aquatic larvae, called tadpoles, that have internal gills and tails. They have highly specialized rasping mouth parts suitable for herbivorous, omnivorous or planktivorous diets. The life cycle is completed when they metamorphose into adults. A few species deposit eggs on land or bypass the tadpole stage. Adult frogs generally have a carnivorous

diet consisting of small invertebrates, but omnivorous species exist and a few feed on fruit. Frogs are extremely efficient at converting what they eat into biomass, which makes them an important food source for predators. Frogs are a keystone group in the food web dynamics of many of the world's ecosystems. The skin is semi-permeable, making frogs susceptible to dehydration, so they either live in moist places or have special adaptations to deal with dry habitats. Frogs produce a wide range of vocalizations, particularly in their breeding season, and exhibit many different kinds of complex behaviours to attract mates, to fend off predators and to generally survive.