

METAMORPHOSIS OF A FROG

by Lanny and Marilyn Johnson

One summer day, the Jones family was exploring a shallow pond near their home when Billy said, "Come and look! I found some baby fish."

Peering over Billy's shoulder, his sister Mary laughed and said, "Those aren't baby fish. Those are baby frogs."

"No way! They don't look anything like frogs. They're not frogs, are they, Dad?"

"Well, Mary is right, but at this stage of a frog's life, they are called tadpoles, or, as I used to call them when I was your age, pollywogs."

"I still think they look like baby fish!" Billy persisted.

"I agree, but they are frogs. The kind of frog found in this pond is called a bullfrog."

"The life cycle of a frog goes through four stages of life: egg, larva (tadpole), froglet, and adult. As the frog grows, it changes in a process known as metamorphosis."¹

"The first stage of a frog's life begins as an egg. Usually, in the early spring, a female frog lays thousands of eggs in a clump, most often in or near water. This cluster of eggs is known as frogspawn and is surrounded by a slippery, jelly-like substance that protects the eggs. As the fertilized eggs mature, the yolk in each egg

splits into more and more cells and begins to take the form of a tadpole, the larva of a frog. A small circular mouth, tail, gills, and other organs begin to form in the embryo. After spending about 21 days eating the yolk of their egg, the tadpoles hatch out of the frogspawn."^{2,3}

"See Billy, even though tadpoles look like baby fish, they really are baby frogs," Mary teased.

"Okay, I guess you are right."

"The tadpole is the second stage of a frog's life cycle. It has a slender body, a long tail for swimming, and gills it breathes through. For the first week or two, a tadpole doesn't move around very much; it's still absorbing food from the yolk of its egg. Once the yolk

is gone, however, tadpoles feed on plant matter they filter from the water or small pieces they tear off with their mouth. As the tadpole grows, the hind legs and the front legs begin to grow. Over time the lungs form, and the tadpole begins to breathe at the water's surface. Its mouth widens, its gills begin to mesh into skin, and the tail begins to be gradually absorbed by the body. This amazing transformation continues as a tongue forms, nostrils develop, and bulging eyes migrate around the head."^{4,5,6,7}

"The tadpole is now called a froglet, the third stage of a frog's life cycle. It can now walk

on land yet does not require anything else to eat because it uses the nutrients in its tail for food. Once the tail and gills are gone, the froglet reaches the last and fourth stage of the metamorphosis and is now a frog."⁸

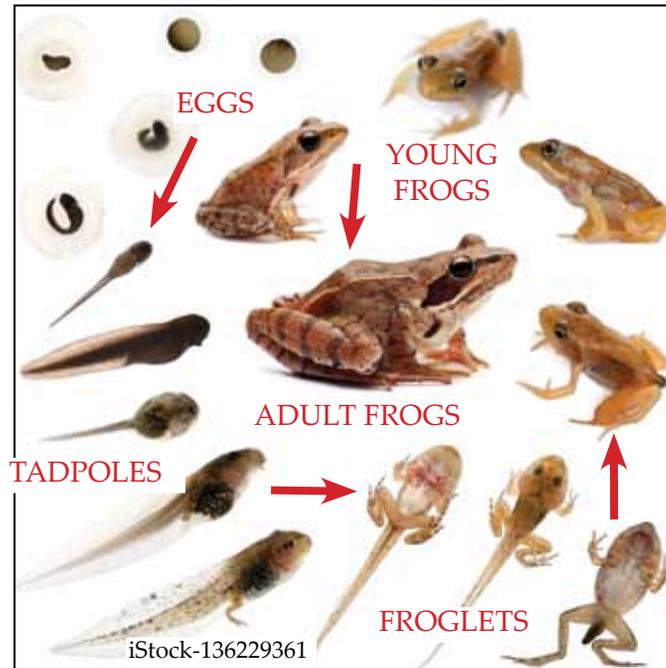
"The young frogs will leave the water and spend most of their time on land. They now eat many kinds of bugs, rarely eating plants as they did as tadpoles. It can take several years

for young frogs to reach maturity. Adult frogs now have sexual organs, which means they can reproduce their own kind.

"Adult frogs will mate, and the female will lay her eggs in water where the life cycle of a frog begins again. The changes seen in metamorphosis require careful planning and design, not chance and accident.

"Metamorphosis is an incredible process that can't be explained by evolution. I believe that every time a tadpole

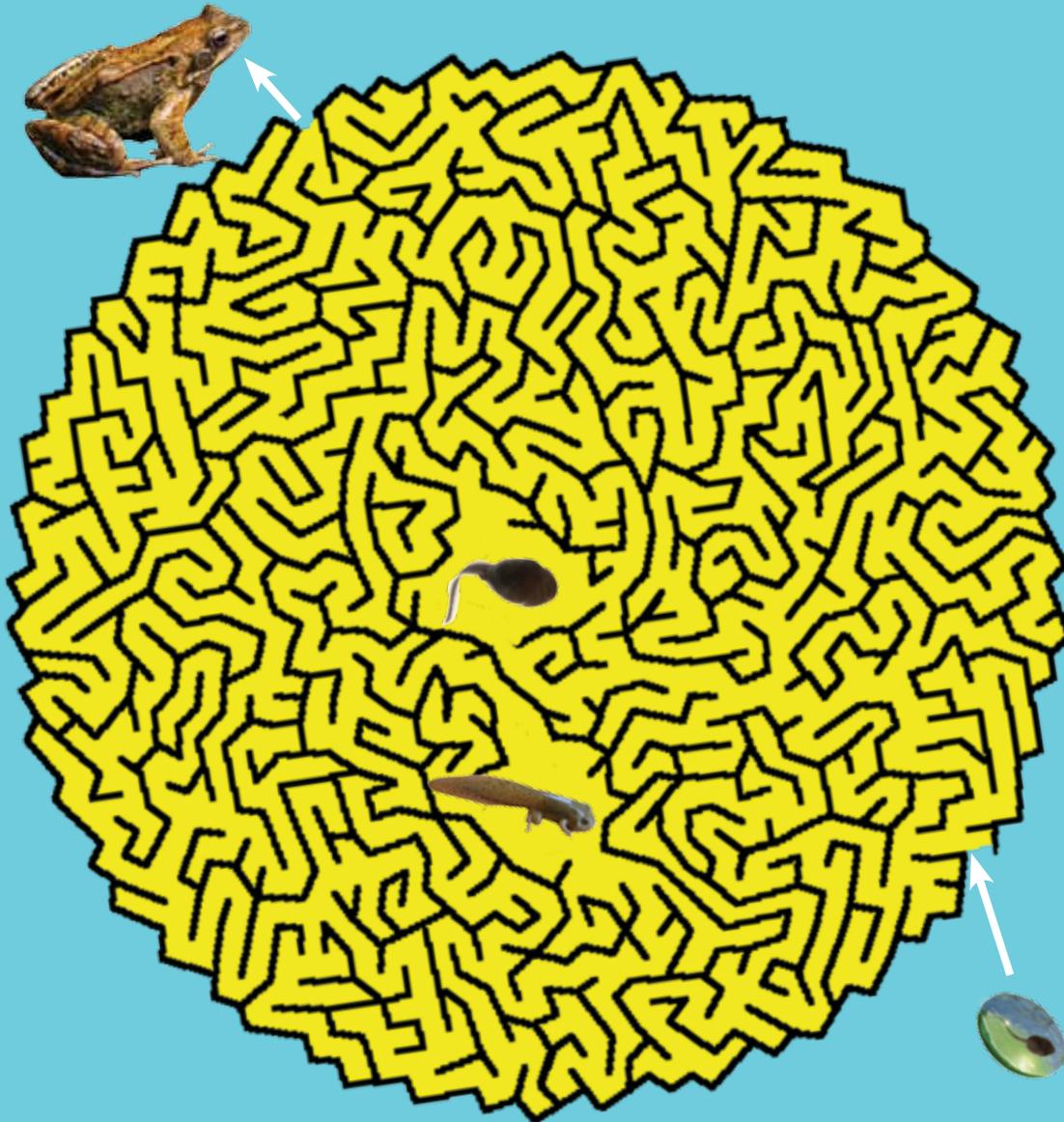
changes into an amazing frog, we are witnessing a miracle designed by an intelligent Designer. That Designer is God!" Mr. Jones concluded.



References

- 1 <https://smartclass4kids.com/life-cycle-of-a-frog/Scroll>
- 2 <https://www.thoughtco.com/life-cycle-of-a-frog-130097>
- 3 <https://critter.science/metamorphosis-the-life-cycle-of-a-frog/>
- 4 <https://www.natgeokids.com/uk/discover/science/nature/frog-life-cycle/>
- 5 <http://creationwiki.org/Metamorphosishttps://critter.science/metamorphosis-the-life-cycle-of-a-frog/>
- 6 <https://critter.science/metamorphosis-the-life-cycle-of-a-frog/>
- 7 <https://creation.com/from-a-frog-to-a-frog>
- 8 <https://smartclass4kids.com/life-cycle-of-a-frog/Scroll>

Find the path through the maze of the different stages of the Life Cycle of a Frog, from Egg, to Tadpole, to Froglet, to Frog. (Not to scale)



Puzzles by Lanny Johnson © AOI 2022
Mazes adapted from krazydad.com/puzzles

WORDSEARCH

Look for the words from the WORD LISTS below. The hidden word might be up, down, sideways or slanted, but not backwards.



WORD LIST

ADULT CYCLE EGG FROG FROGLET
FROGSPAWN GILLS LARVA LUNGS
METAMORPHOSIS POLLYWOG TADPOLE
TAIL TEXTURE YOLK

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