How Do Tadpoles Grow?
A Research Project

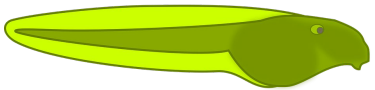
Ms. Grzych's '21-'22 class

Hypothesis: *What do we wonder?*

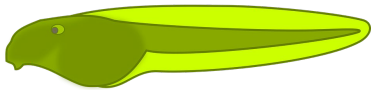
As a class, we discussed our wonderings about the tadpoles that were in our classroom. Below are some of the things we wonder!

- “When will they become frogs?”
- “What happens to the tadpole tails?”
- “Why do they eat?”
- “How big will they get?”
- “Are they boy or girl frogs?”

These questions led us to our <u>big wondering</u>, or *research question*, which was:

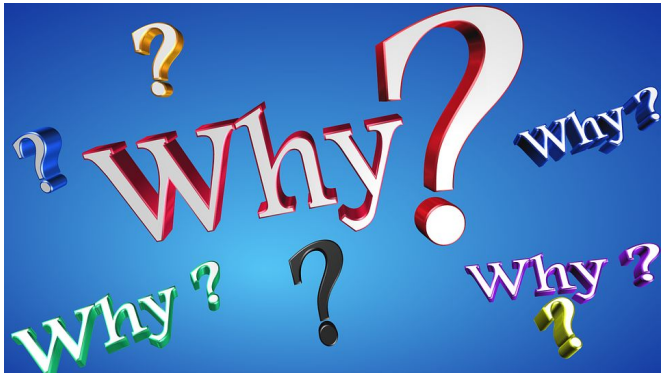


HOW DO TADPOLES GROW?



Introduction: *Why is this important?*

We asked our whole class to contribute as we brainstormed why it is important to know how tadpoles grow. Here are some of our answers!

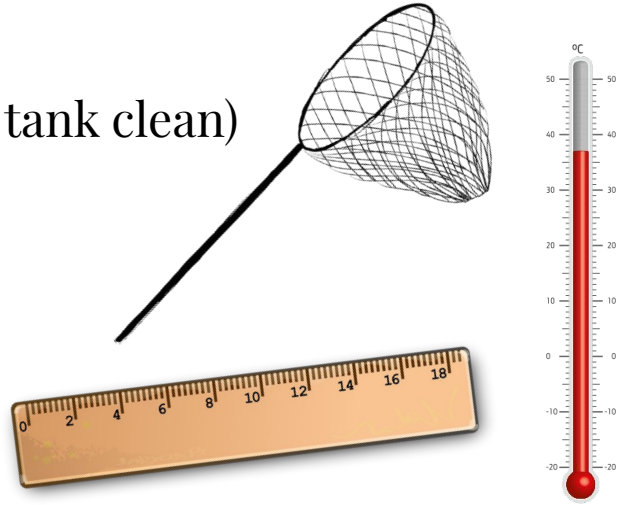


- “Because it’s nature”
- “To learn about their lifecycle”
- “So we know they’re healthy”
- “Because they eat food”
- “To see how they change”
- “To understand how the tails leave”
- “To know the temperature of water for frogs”
- “To know how they become frogs”

Methods 1: *How did we take care of our tadpoles?*

There was a lot to do to care for our tadpoles to make sure we could answer our big wondering question, or *research question.* Here are some of the ways we care for them!

- Feed them and scoop out the extra food (to keep tank clean)
- Give them more water
- Measure the water
- Measure the temperature of the water
- Measure the tadpoles
- Observe the tadpoles



These were our methods of care the whole time we had them in the classroom.

Methods 2: *How did we answer our big wondering question?*

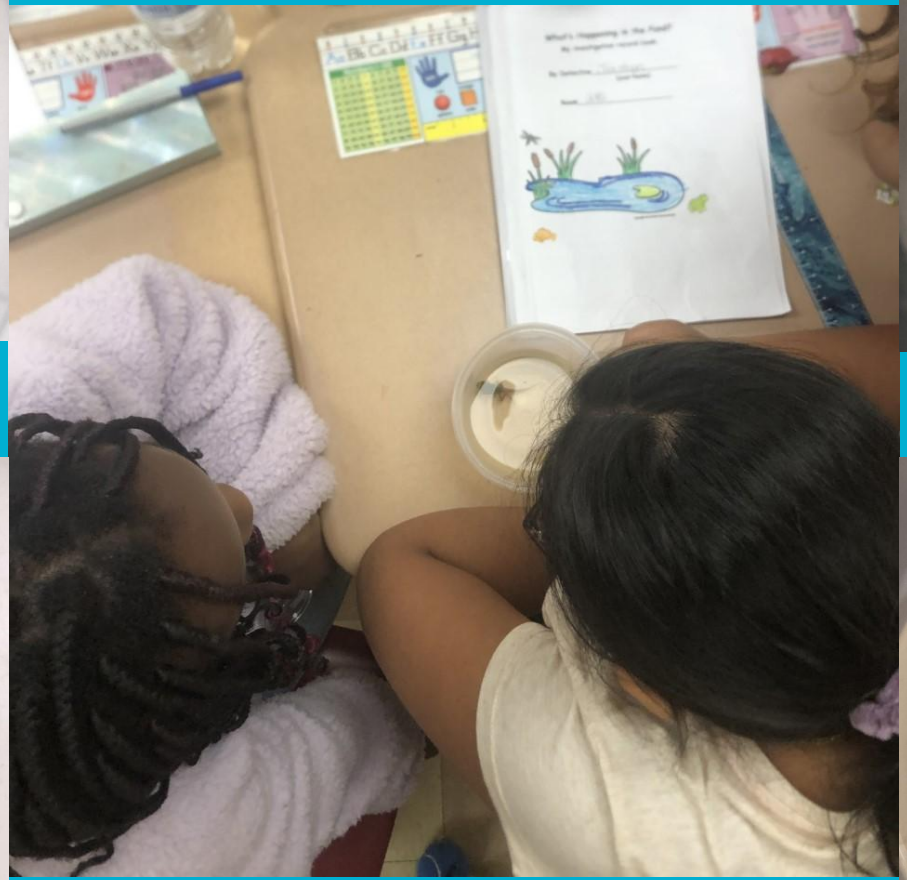
As a class, we discussed how we would know the tadpoles were growing. We decided to measure our tadpoles, and use centimeters instead of inches because they were so small at the beginning.

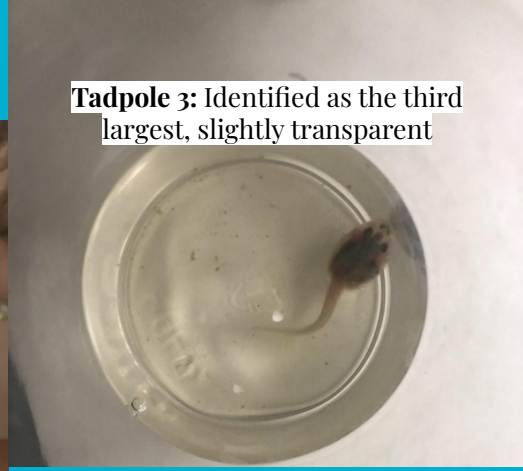
How Do We Measure?
After learning we should not take the tadpoles out of the water to measure with a ruler, we had to find a new method to get our measurements. We decided to put the tadpoles into small, clear, containers with a ruler underneath. We waited for the tadpole to swim into position along the ruler and near the bottom before looking down from above to take the measurement.

We identified our tadpoles by their traits, and called them Tadpoles 1, 2, 3, and 4.

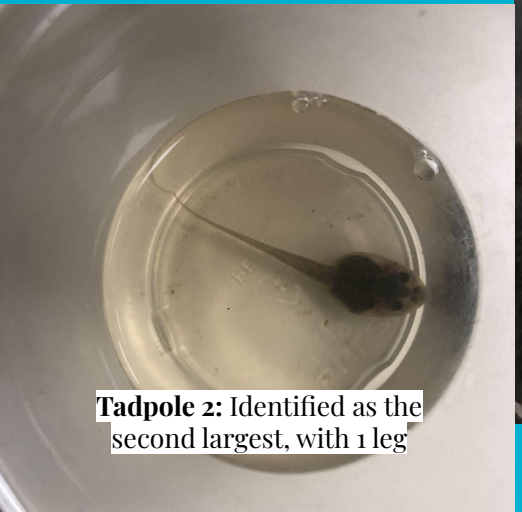
Measuring and Observation Method

Tadpole 1: Identified as the largest, with 2-4 legs

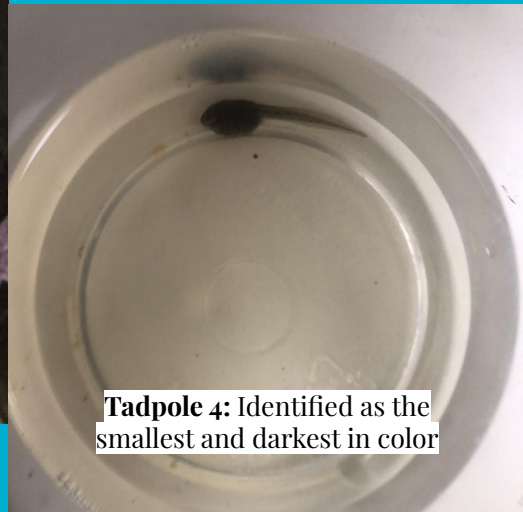




Tadpole 3: Identified as the third largest, slightly transparent



Tadpole 2: Identified as the second largest, with 1 leg



Tadpole 4: Identified as the smallest and darkest in color

Measurements & Data: *What measurements did we get?*

	Tadpole 1	Tadpole 2	Tadpole 3	Tadpole 4
May 28th, 2022	5cm *(2 legs)*	5cm *(1 leg)*	4cm	4cm
June 1st, 2022	6.75cm *(4 legs)*	5cm *(1 leg)*	5cm	3.5cm
June 10th, 2022	2.5cm *(frog - body only)*	5.75cm *(1 leg)*	5.5cm	~

Results & Conclusion: *What does our data tell us?*

By looking at the data, or measurements, that we collected, our class was able to see two clear patterns.

- We observed that the tadpoles had to get longer in length in order to grow, and the more they grew the closer they got to being a frog.
- Interestingly, we observed that once the tadpole turns into a frog, it becomes smaller in length. We believe this happens because the frog no longer has a long tail like a tadpole. Additionally, we only measured the frog's body, not including the legs.

Our results tell us that tadpoles have to grow bigger by eating food over time before they can turn into frogs!

Recommendations: *What next?*

Our class felt that this research gave them all the answers they wanted to know about our big wondering, or *research question*, of ‘how do tadpoles grow’. Here are some of the things that we would like to explore next!

- Will these frogs become leopard frogs?
- Cats
- Dogs
- Salamanders
- The human body
- Space
- Birds
- Bears

Hopefully we have lots of research ahead of us!

Thank you Ms. Sara for teaching us about frogs. We really enjoyed having live tadpoles in our classroom and watching it grow from a tadpole to a frog !!!

Jocelyn Fatima angelo Hannah Eric

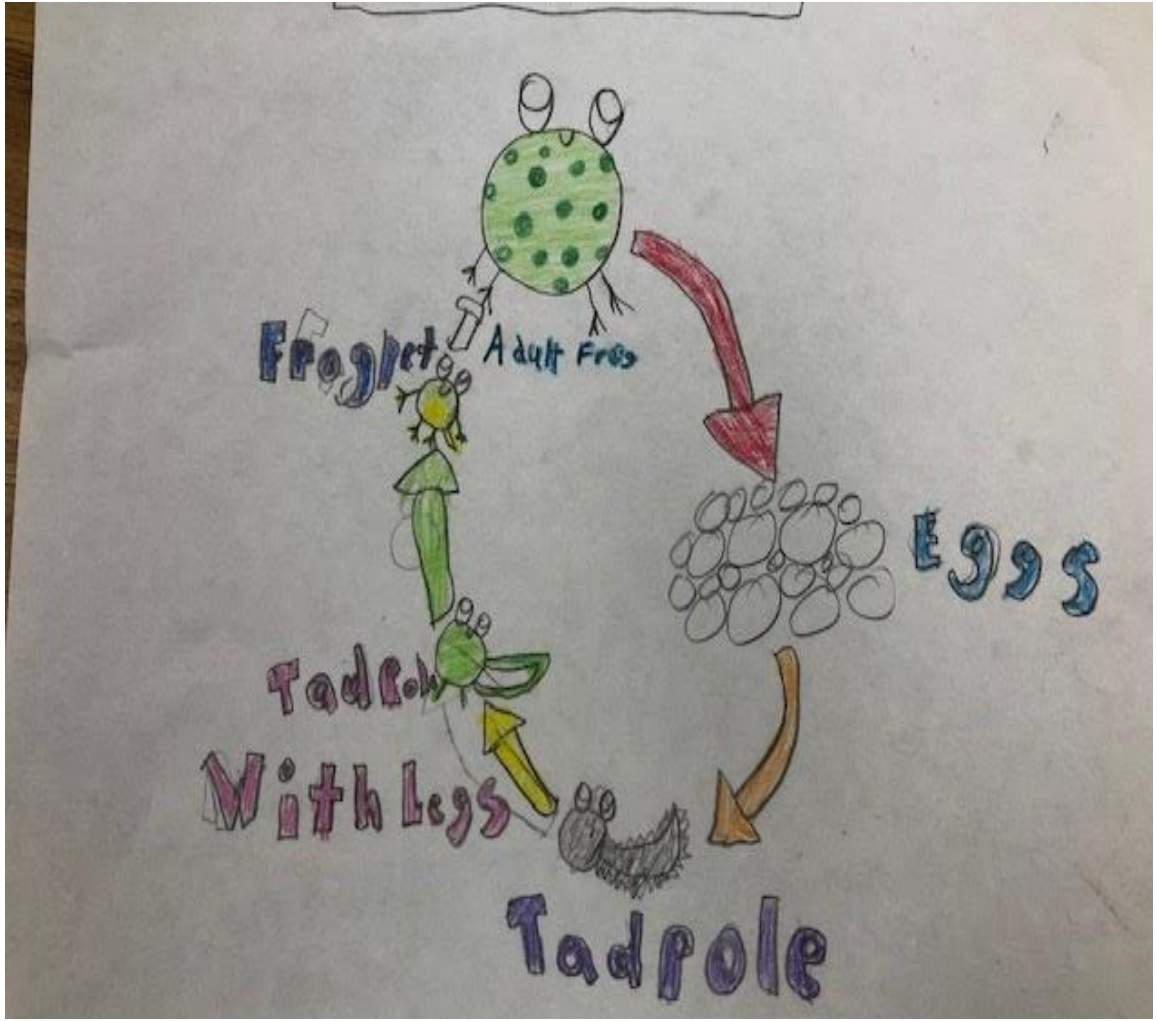
Benjamin Emerson Mia MAJOR Kelly

Nicholas Luis JAYDEN Noah Skyleen

King Elizabeth Meralee Jasmin Ailyn

Laylah Delany Jalyna Jeremiah Ediel

Life Cycle Diagrams


Froglet
Adult Frog
Eggs
Tadpole
With Legs
Tadpole