

The Metamorphosis Project

In this activity, students will use clay and a simple stop-motion technique to show how a frog changes from a water-breathing hatchling to a land-dwelling adult.

The Four Scenes

To keep it organized, have students divide their workspace into four "sets."

Stage 1: The Egg Mass (Spawn)

The Build: Small clear or white clay spheres with a black dot in the center.

Scientific Fact: Frogs lay thousands of eggs at once because many will not survive to adulthood.

Stage 2: The Tadpole

The Build: An oval body with a long, flat tail. No legs yet!

Scientific Fact: Tadpoles have gills and must stay underwater to breathe, just like fish.

Stage 3: The Froglet

The Build: The tadpole now has back legs and small front legs, but it still has a shrinking tail.

Scientific Fact: At this stage, the frog is growing lungs to breathe air, but it still uses its tail for extra energy.

Stage 4: Adult Frog

The Build: A frog with four strong legs and no tail.

Scientific Fact: Adults are predators that eat insects and can live both on land and in water.

How to Film the "Stop-Motion"

You don't need fancy equipment—just a tablet or smartphone and a free stop-motion app (like Stop Motion Studio).





Steady the Camera: Tape the tablet to the desk or use a stack of books so the camera doesn't move.

The "Tiny Move" Rule: Students take a picture, move the clay just a tiny bit (like stretching the tadpole's tail), and take another picture.


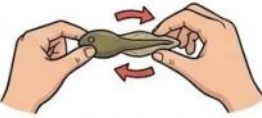
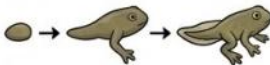

The Transformation: To show the tadpole "growing" legs, have students add a tiny piece of clay for the leg, take a photo, make the leg slightly bigger, and take another photo.

Play it Back: When they hit play, the clay will appear to grow and move on its own!

The "Molding Metamorphosis" Project: Stop-Motion Frog Life Cycle

Stage 1: The Egg Mass	Stage 2: The Tadpole	Stage 3: The Froglet	Stage 4: Adult Frog
Build: Small spheres, black dots	Build: Oval body, long tail, NO legs	Build: Four legs, shrinking tail	Build: Four strong legs, no tail
			
Fact: Thousands of eggs laid at once; few survive	Fact: Use gills, breathe like fish, stay underwater	Fact: Grow lungs, breathe air, tail gives energy	Fact: Predators, eat insects, land & water living

How to Film the "Stop-Motion"

- 1. Steady the Camera**

Tape tablet or use books so camera doesn't move.
- 2. The "Tiny Move" Rule**

Move clay just a tiny bit between each photo.
- 3. The Transformation**

Add tiny pieces of clay to show growth, like growing legs.
- 4. Play it Back**

Watch the clay appear to grow and move on its own!