

Austin Nature & Science Center
School Programs
Pre-Packet

Frogs & Toads

Austin Nature and Science Center

Program Description:

Frogs have smooth skin and toads have rough skin. Meet some live amphibians and learn other interesting facts about their characteristics and life cycles. Discover how amphibians are different from reptiles and use your voices to join in an orchestrated frog chorus.

The Frogs and Toads program incorporates both science and language arts skills and specifically addresses the following **Texas Essential Knowledge and Skills:**

Scientific Principles:	2a(K)-ask questions 2d(K)-explanations based on information 2e(K)-communicate findings 3a(K)-make decisions using information
Systems:	5a(K)-properties of objects and characteristics of organisms 5b(K)-observe and identify patterns 8a(K)-group living organisms and nonliving objects 9a(K)-identify external characteristics of plants and animals that allow basic needs to be met 9c(K)-identify ways Earth provides resources for life
Properties, Patterns, and Models:	5a(K)-properties of objects and characteristics of organisms 8a(K)-group living organisms and nonliving objects 9a(K)-identify external characteristics of plants and animals that allow basic needs to be met 9b(K)-compare examples of ways organisms depend on each other and their environments
Constancy and Change:	5a(K)-properties of objects and characteristics of organisms 7d(K)-observe and record stages in life cycles
Form and Function:	9a(K)-identify external characteristics of plants and animals that allow basic needs to be met 9b(K)-compare examples of ways organisms depend on each other and their environments

Teacher Resources:

Frogs and Toads: A Whole Language Resource Guide for K-4

by Seddon Kelly Beaty and Irene Fountas (Addison-Wesley Publishing Co., 1997)

Living Amphibians of the World

by Doris M. Cochran (Doubleday, 1967)

How to Know the Amphibians and Reptiles

by Royce E. Ballinger and John D. Lynch (Brown, 1983)

Children's Books:

The Salamander Room

by Anne Mazer (Dragonfly Books, 1991)

Ask Me If I'm a Frog

by Ann Milton, Jill Chambers (Illustrator) (Stemmer House Pub., 1998)

A First Look at Frogs, Toads, and Salamanders

by Millicent E. Selsam and Joyce Hunt (Walker, 1976)

Creepy Crawly Things: Reptiles and Amphibians

(National Geographic Society, 1974)

All About Frogs

by Larry Block, Molly Mullet, L. Henderson (Illustrator) (Four Seasons Pub., 1998)

AUSTIN NATURE CENTER

TEACHER PRE-PACKET

FROM TADPOLE TO FROG

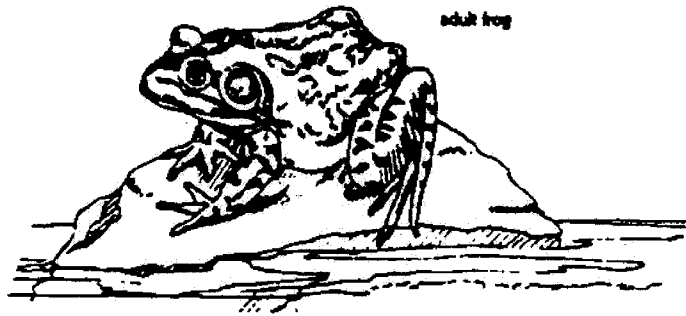
Program Description:

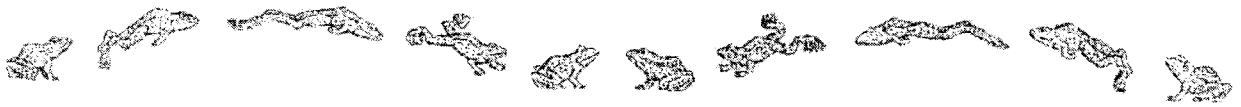
The Amphibian Program at the Austin Nature Center can supplement your science lesson and study of amphibians by offering students a close-up encounter with our resident amphibians.

Students will meet a live amphibian while learning about its basic characteristics and life cycle; and see how amphibians are different from reptiles. Then students will listen to recorded frog calls and use their voices to join in an orchestrated frog chorus.

Please have your children wear nametags.

Suggested Nametag Pattern:





Tadpole Transformation

(Art, Science)

Students make a paper tadpole puppet that turns into a frog and learn the meaning of the term *metamorphosis*.

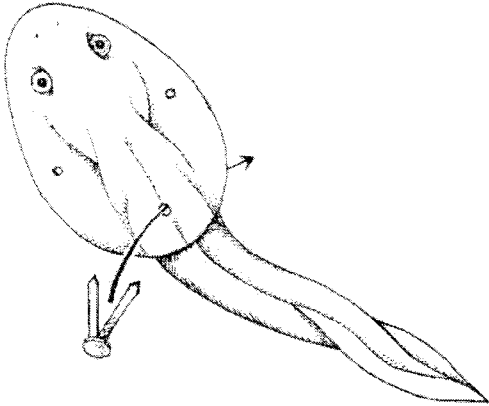
Make a copy of page 23 for each student. Begin by discussing a frog's metamorphosis, the process of changing from a larva (tadpole) into an adult (frog). *Meta* means "change" and *morph* means "shape." Show students pictures of frog eggs, tadpoles in various stages, froglets, and full-grown frogs.

Explain that once the tadpoles hatch from the eggs, they have gills to breathe with and a long tail. Eventually, the tadpole transforms into a froglet, a small adult frog with four legs, no gills, and no tail.

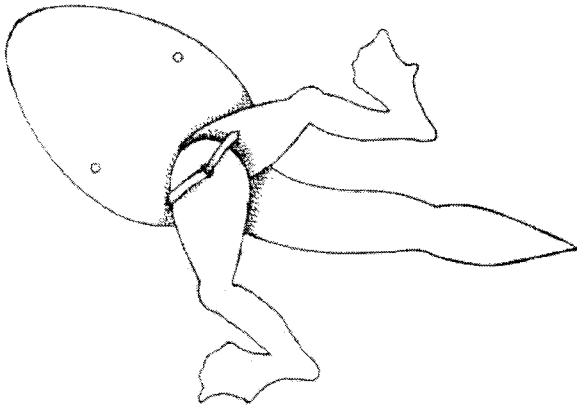
After kids have colored the frog and tadpole body parts on page 23, help them fill in the blanks to spell *metamorphosis*. Then help them cut out the pieces along the solid lines. (To make the pieces sturdier, glue them to thin cardboard before cutting them out.) The spots marked with an asterisk show where to punch holes for the paper fasteners. Guide students through the stages of assembling the tadpole and frog:



1 Attach the tail to the body as shown to make the tadpole.

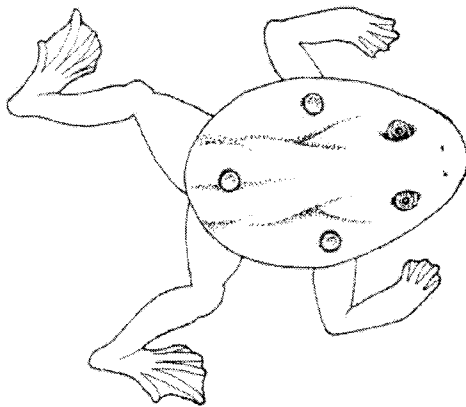


2 Attach the two hind legs in the same place as the tail.



3 Attach the two front legs.

4 Remove the tail to make the froglet.



Invite students to arrange puppets in various stages of frog development and line them up in the correct sequence.



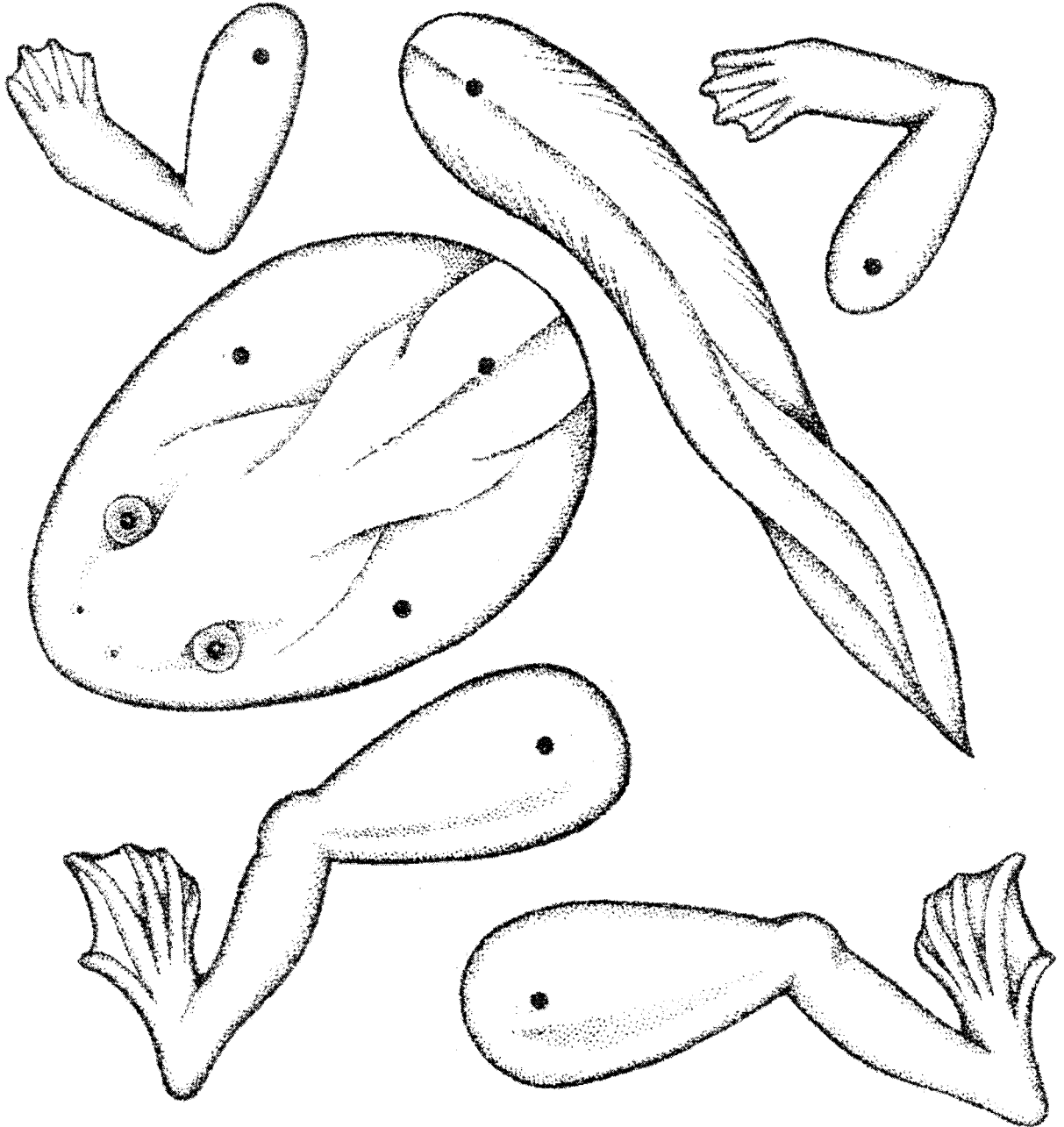
Frogs (First Discovery Book) by Daniel Moignot (Scholastic, 1997) will come in handy when discussing metamorphosis. The see-through pages and detailed art make the progression from egg to tadpole to frog easy for children to follow.



Name _____ Date _____

Tadpole Transformation

Color the pieces and cut them out.



Frogs Scholastic Professional Books

When a tadpole changes into a frog,
the process is called _____