



Spring into Science

EGGS

JOIN US AS WE DISCOVER ANIMAL EGGS!

An egg is a safe place for a baby animal to develop, or grow. Nearly everything a developing animal needs can be provided by its egg including food, water, air and protection from dangers in the environment. A developing animal gets food and water from the liquid inside the egg. The outside layer of the egg protects the animal and also allows air to come in and out of the egg.

Eggs come in different sizes and shapes. Bird eggs have a hard shell and are mostly an oval shape. Amphibian and fish eggs are usually round and jelly-like. Insect eggs can be round or long and oval and their size and color is different depending on the species. Most reptiles, like snakes and turtles, lay eggs with a soft, leathery shell.

Spring is a season when many animals lay eggs, though some animals lay eggs in different seasons or year-round. In the spring, plants grow which provide nesting materials and food for many animals and baby animals when they hatch. Warmer weather also makes it easier for young animals to survive and grow.

Let's do an eggs-periment, make a hatching egg craft and play a game about eggs as we spring into science!

LET'S READ

Find a comfortable spot and read about animal eggs and babies! Here are some ideas to get you started:

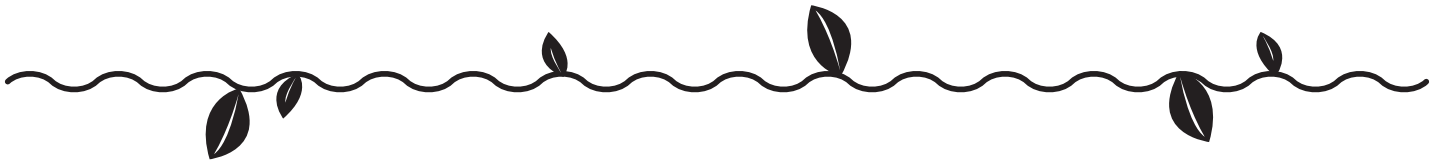
- *An Egg is Quiet* by Diana Hutts Aston
- *A Photographic Story of Hatching* by Robert Burton, Jane Burton
- *Eggs* by Paul Eve
- *Egg: Nature's Perfect Package* by Steve Jenkins
- *Eggs, Eggs, Eggs* by Barbara Armstrong

You can download digital copies of these books for free from openlibrary.org. Here is how:

1. Go to openlibrary.org.
2. Click the blue "sign up" button on the top right to create a free account. You will be sent a confirmation email.
3. Sign in.
4. Type the book title and author into the search bar.
5. Find your book and click the blue "borrow" button.
6. Don't forget to return your book when you are finished reading it!

KEEP GOING:

Set up an online reading group with some of your friends or family. You can read the same book, then talk about what you learned, or you can read different books and share cool egg and animal facts.



A FANTASTIC EGGS-PERIMENT!

Have you ever seen a bird egg before, either in a nest or in the grocery store? Birds lay eggs with hard shells. Since most birds incubate, or keep eggs warm, by sitting on them, the eggs need to be strong enough to hold the weight of the bird and keep the growing chick safe inside. Larger birds usually lay eggs with thicker shells. How strong are bird eggs? Let's find out with an eggs-periment!

Before you start, you should have:

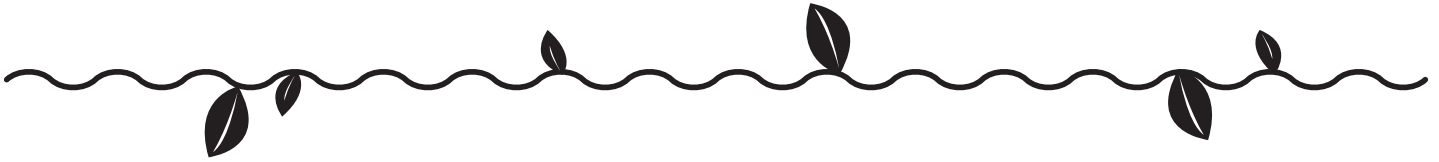
- Four chicken eggs
- A plate
- Clay or playdough
- Wax paper, tinfoil or plastic wrap
- Five to 10 books, boxes of dried goods or other flat objects to add weight to the eggs

GET STARTED:

1. Observe the eggs. How do they look and feel? Are the shells hard or squishy? Smooth or bumpy? (Note: chicken eggs that are bought at the store do not have babies in them. They are raised specifically as food for people.)
2. Make a guess: How many books do you think the eggs will be able to hold before cracking?
3. Make rings out of clay or playdough. They should be small enough to place the eggs on so that the eggs can stand upright in them.
4. Place the rings on the plate in the shape of a square wide enough to hold the largest book or other flat objects.
5. Place one egg in each ring. The eggs have a wide end and a thinner end. Place the wide end up, keeping the eggs vertical.
6. Place the plastic wrap, tin foil or wax paper on top of the eggs so that they don't get the books or other flat objects messy if they crack.
7. Place the books or other flat objects one at a time on top of the eggs. Listen for cracks and stop once you hear any. If you don't hear any cracks, keep adding objects.
8. What happened: How many objects were you able to put on the eggs before they cracked?
9. When you are finished, remove the books or other flat objects and have an adult help you throw away the cracked eggs and clean up any liquid that came out of the eggs. Be sure to wash your hands after the experiment.
10. Share with someone! Did you think an eggshell would be that strong?

KEEP GOING:

Try laying the eggs horizontally on the rings and perform the experiment again. Did the eggs hold as many objects before cracking? Why do you think so?



MAKE A HATCHING EGG

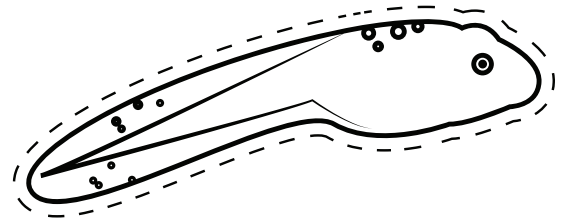
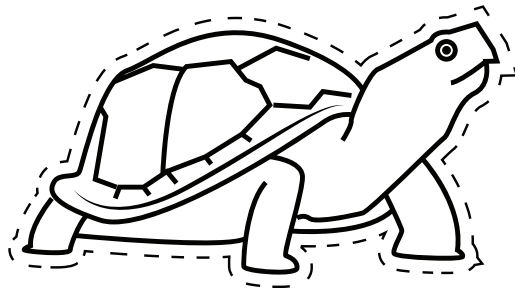
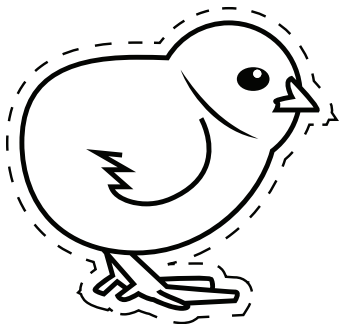
Hatching out of an egg is hard work. Birds must peck away at the hard shell of their egg, while frogs and toads wiggle out of their jelly eggs. Some animals have an egg tooth, or a sharp part on their beak or snout, to help them break out of their eggs. Let's make a baby animal hatch from its egg!

Before you start, you should have:

- Paper (you can use construction paper, color copy paper or white paper)
- Scissors
- Glue or tape
- Art supplies such as markers, crayons or colored pencils
- Pictures of a baby animal

GET STARTED:

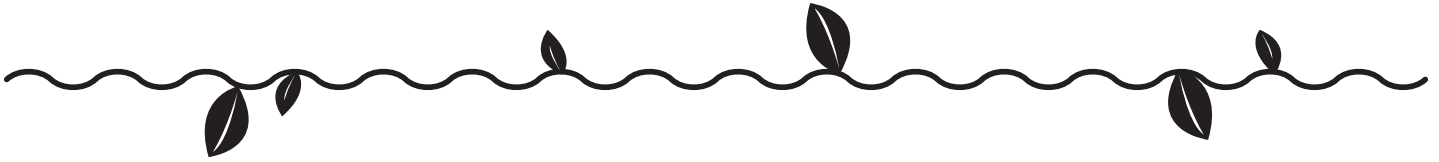
1. Print one of the baby animal images provided or draw your own.



2. Cut out the picture and glue or tape it to a piece of paper. Color the picture any way you want to.
3. Cut out an egg shape from another piece of paper (large enough to entirely cover the baby animal) and decorate the egg with crayons, markers or colored pencils.
4. Add glue along the outside edges of the egg, or tape it down over the baby animal.
5. Carefully tear away parts of the inner part of the paper egg so that you can see the baby animal inside. It will look like its hatching from the egg!

KEEP GOING:

Draw an environment for your egg on the rest of the paper. If you made a tadpole or a turtle, draw the pond around the egg. If you made a bird, make its nest.



LET'S PLAY: HIDE THE EGG

Eggs protect the developing animal inside. Adult animals can also hide or camouflage their eggs to help keep predators away. Birds may lay eggs in a nest in the trees, on a cliff or in tall grasses. Turtles bury their eggs in the ground to hide them. Amphibians may lay their eggs in algae on the edge of a pond, and insects may lay their eggs under a leaf to hide them. Find a buddy and have fun hiding and seeking the egg with a game that you can play inside or outside!

Before you start, you should have:

- A small ball or other round object to be the egg
- A space indoors or outdoors
- A partner

GET STARTED:

1. Find a place to hide the egg.
2. Have your partner close their eyes or wait in a place where they can't see you hide the egg.
3. Hide the egg. Pick a place that they will be able to see (not in something or totally covered).
4. Have your partner try to find the egg. Give hints if they're having trouble.
5. Take turns with your partner hiding and finding the egg.
6. Pick places animals may lay or hide their eggs: on top of something, on the ground or in a "nest."

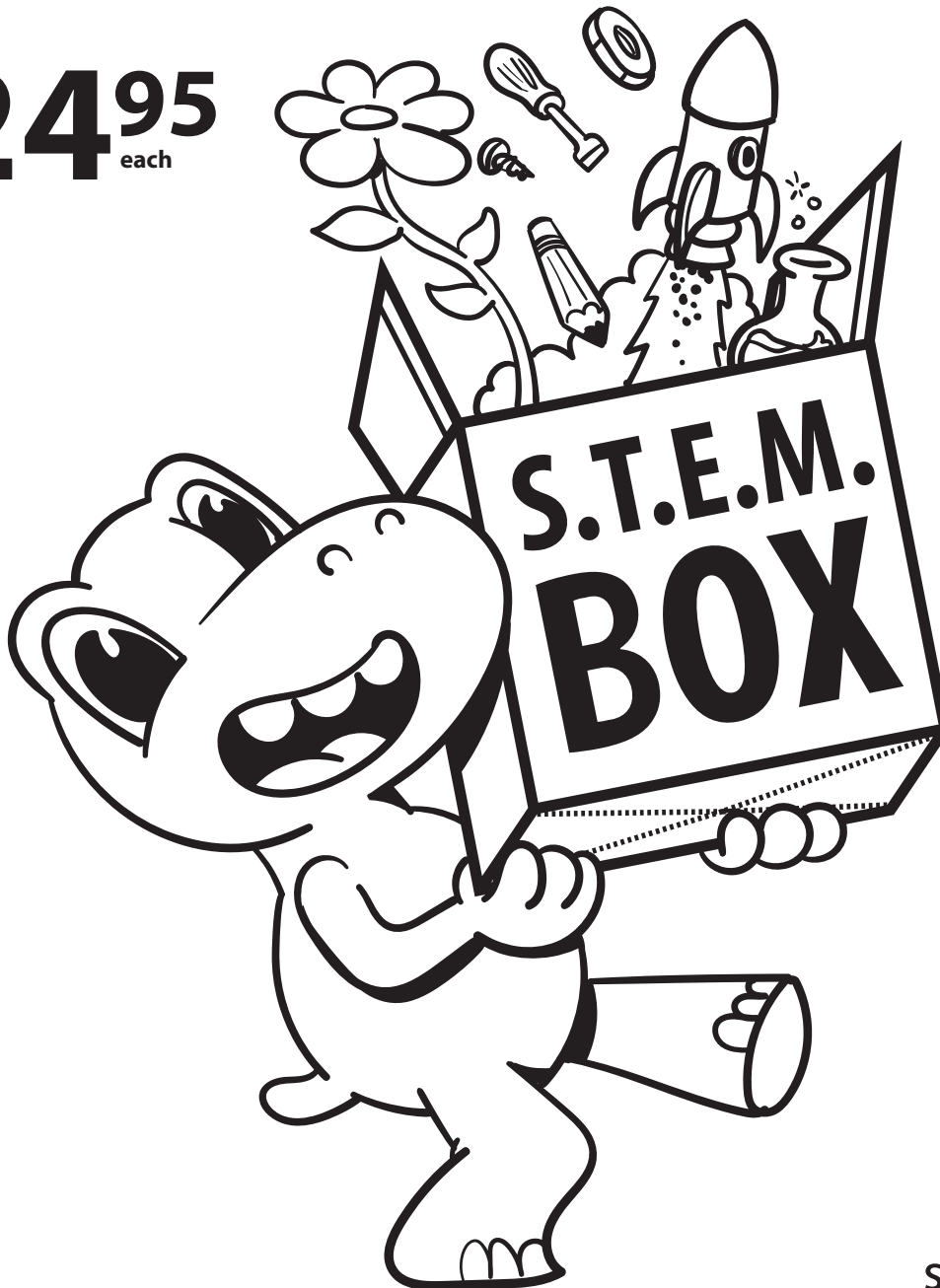
KEEP GOING:

- Find some more balls or round objects to be the eggs and hide multiple eggs to find.
- Ask another partner to hide the egg while you both try to find it. Who can find it the fastest?

The Sam Noble Museum brings the excitement of science discovery to learners at home with STEM Boxes.

Each themed box contains step-by-step directions and supplies needed to complete two or more hands-on activities that meet Oklahoma Academic Standards (OAS) and Next Generation Science Standards (NGSS) for grades K to 5.

\$24⁹⁵
each



Sam Noble Home