Draw What You Know

Before you read this book, think about what you know about eggs.

Draw an animal that hatches from an egg.

Write a sentence about your drawing.

Tell about other animals that hatch from eggs.
Vocabulary Strategy

Find the words below in this book.

<table>
<thead>
<tr>
<th>egg</th>
<th>incubate</th>
</tr>
</thead>
<tbody>
<tr>
<td>hatch</td>
<td>metamorphosis</td>
</tr>
</tbody>
</table>

Make a word box like the one shown for each word.

<table>
<thead>
<tr>
<th>Definition</th>
<th>Give Examples</th>
</tr>
</thead>
<tbody>
<tr>
<td>Use the word in a sentence.</td>
<td>Draw a picture.</td>
</tr>
</tbody>
</table>
Do you understand?

*Write* your answers.

1. Why do many animals try to hide their eggs?

2. How is a chicken egg different from a ladybug egg?

3. How can bird eggs be different from one another?

4. *Write* About Science
   Choose an animal from this book.

*Write* about the animal’s eggs.

*Tell* what it does to protect them.
Living things grow in different ways. Different kinds of plants and animals have different life cycles.

Every life cycle has different stages. Plants grow from seeds. They begin to sprout when they get enough water.

Some animals lay eggs. Others do not. Animals look different as they grow and change. Mammals are animals with hair or fur. When they are young they look a lot like their parents. They change size as they get older.

Insects are animals with three body parts and six legs. Some insects begin as an egg. When they hatch they are a larva, or young insect. The larva becomes a pupa. Out of this hard covering comes an adult insect.

Amphibians spend part of their life on land and part of it in the water. A frog is an amphibian. Its life cycle also starts with an egg. When the egg hatches a tadpole swims out.

This book is about many different kinds of animal eggs. You will learn about the kinds of animals that lay eggs, how some animals keep their eggs safe, and how eggs hatch.
All About Eggs

Eggs keep the young animals that are growing inside them safe. They also provide food. When the young animal inside the egg is ready to hatch, it breaks out of the shell.

Birds, fish, reptiles, and amphibians lay eggs. Most insects lay eggs too. Different kinds of animals lay their eggs in different environments. Young animals can grow safely inside the eggs.

Eggs come in many different shapes, sizes, and colors. Some animals lay just one egg at a time. Other animals lay many eggs at once.

Bird eggs have a hard, protective shell. Many bird eggs are oval shaped. They may be a solid color or have spots on them.

Most frogs lay their eggs in water. Frogs lay a lot of eggs. Their eggs stay held together in a glob of jelly. Insects such as moths and butterflies usually lay their eggs in clusters. They will sometimes lay them on leaves.
Growth And Development

Eggs need to be kept still and warm. Otherwise, the young animals inside them will not be able to develop and hatch. Birds incubate, or warm, their eggs by sitting on them. Most eggs get incubated in a nest. A hen incubates her eggs for twenty-one days before they hatch. The emperor penguin holds its eggs on top of its feet, under the feathers of its belly.

Many animals do not incubate their eggs. Instead they find a sheltered spot to lay their eggs. Eggs will often be laid beneath a rock or log.

Most turtles lay eggs in nests that they have dug. They throw soil on the nest to hide it. If a predator does not find the nest, the young turtles inside the eggs will develop and hatch.

A hen keeps her eggs warm.
Protection

Animals have many ways to keep eggs safe from predators or bad weather. Some animals use their bodies to shelter their eggs. Male seahorses carry their eggs in a pouch on the front of their bodies.

Crabs, shrimp, and lobsters are animals with many legs and a hard shell-like covering. They carry their eggs on their bellies and keep them safe until they hatch.

Some animals make nests to protect their eggs. Some birds use twigs, leaves, and grass to make nests. Birds such as woodpeckers drill nests with their beaks. The northern bobwhite camouflages its nest with grass.

Some eggs cannot be seen by predators because of their color or pattern. These eggs often look like rocks, stones, or other things in their habitat.
Hatching Out

While a mother or father bird is busy keeping its eggs warm, the young bird inside is growing. It feeds off the egg white and egg yolk. For the first two weeks, the young bird eats the egg white. After that, it eats the egg yolk.

A duckling has begun to hatch.

The duckling uses its beak to break through the shell.

A newly hatched duckling is wet.

Young birds use their beaks to break out of their shells and hatch. Many chicks have a special tooth called an egg tooth. This hard, sharp bump helps the chick break through the eggshell. The egg tooth falls off after the chick hatches.

This duckling is two days old.
Bird Eggs

Bird eggs come in many shapes and sizes. Ostrich eggs are round. Their shells are thick. Ostriches lay the biggest bird eggs in the world. Each egg weighs about three pounds! Hummingbirds lay the smallest eggs. A hummingbird egg is about the size of a pea.

Bird eggs come in many shapes, sizes, and colors.

The color and shape of bird eggs may be adapted to their environment. Some birds lay their eggs on the ground. The eggs of these birds have spots. The spots camouflage the eggs.

Some birds, such as the guillemot (GIL-uh-mot), nest on cliffs. Their eggs are pointy at one end. This pointy shape keeps the eggs from rolling off the cliffs.
Reptile Eggs

Most reptiles lay eggs. Some reptiles lay only one egg at a time, but others lay hundreds! Many reptiles dig nests or hide their eggs. Some reptiles remain near their eggs. Other reptiles, such as tortoises, leave their eggs to hatch.

After a tortoise has laid her eggs, they usually take a few months to hatch. The young tortoise grows up inside the egg. When the young tortoise is ready, it uses its beak to break the shell. It takes about ten hours for a tortoise to fully hatch.

Alligator and crocodile eggs are hard, like bird eggs. Snake eggs have tough, leathery shells. The eggshells stretch as the young snakes grow.

Young snakes have a special tooth on their upper jaw. Like some birds, they lose their special tooth after they hatch.
Amphibian Eggs

Most amphibians lay their eggs in water or moist ground. Amphibian eggs are held together in a glob of jelly. Most amphibians hatch as larva. When larva turn into adults they change a lot! This big change is called metamorphosis.

Newts hatch as larva in water. When they change into adults they can live on land.

Most amphibians lay a lot of eggs all at once. Large bullfrogs may lay as many as forty-five thousand eggs at the same time!

A lot of amphibians do not stay with their eggs. Some frogs and toads, such as the male midwife toad, lay their eggs on land. They carry their eggs to water to hatch. One kind of Australian frog swallows its eggs. When the eggs hatch, the adult opens its mouth to let the young frogs out.

A male midwife toad carries its eggs until they hatch.
Insect Eggs

Insect eggs are very small. They come in many different shapes and colors. Most insect eggs are oval or round shaped. The eggs are usually white, or close to white, in color.

Some newly hatched insects look like their parents, only smaller. They are called nymphs. Others look different from their parents. These young insects are called larva. Their look changes as they grow into adults.

Insects lay many eggs at a time. Termites can lay up to thirty thousand eggs a day! Different insects lay their eggs in many places, often on or near food. When the young hatch, their first meal is nearby.

Some wasps chew plants to make paper. They use the paper to build nests. Then they lay their eggs in the nest.
Fish Eggs

Some fish eggs are light. They are so light that they float on the top of the water. Other fish eggs are heavy and sink to the bottom of the water. Many fish eggs become food for hungry predators.

Some fish grow into adults in minutes. Others take years to become adults.

Cod, herring, and many other fish do not stay with their eggs. However, some kinds of fish keep their eggs safe.

Trout cover their eggs with gravel before they leave them. Sticklebacks guard their eggs until they hatch. Brown bullheads will protect their young after they hatch. Some kinds of fish even carry their eggs in their mouths until they hatch.

A goldfish takes four years to become an adult.
Many Different Eggs

Eggs come in many different sizes, colors, and shapes. Animals lay eggs in many different places. They lay eggs in water, in nests, below the ground, or on the ground. Some eggs are held in a glob of jelly. Others have a hard covering, such as a shell.

Some animals stay with their eggs until they hatch. Birds incubate their eggs so the young will grow.

Some animals guard their eggs to keep them safe. Many young animals hatch on their own.

Eggs contain the food a young animal needs to live. For many animals, an egg is the perfect place to grow.
Glossary

**egg tooth**  a special tooth that helps some young animals break out of their egg

**hatch**  when a young animal breaks out of its egg

**incubate**  keep warm to help hatch

**metamorphosis**  changing from a nymph or a larva into an adult

**nymph**  a young insect without wings that looks like the parents

**oviparous**  egg-laying
Did you understand?

Make a chart like this one. Think about what you learned about each kind of egg. Fill in the chart with some details about each kind of egg. Share your chart with a partner.

<table>
<thead>
<tr>
<th>Kinds of Eggs</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>bird eggs</td>
<td><img src="nest.png" alt="Nest" /></td>
</tr>
<tr>
<td>reptile eggs</td>
<td><img src="snake.png" alt="Snake" /></td>
</tr>
<tr>
<td>amphibian eggs</td>
<td><img src="lizard.png" alt="Lizard" /></td>
</tr>
<tr>
<td>insect eggs</td>
<td><img src="bee.png" alt="Bee" /></td>
</tr>
<tr>
<td>fish eggs</td>
<td><img src="fish.png" alt="Fish" /></td>
</tr>
</tbody>
</table>
Make an Egg Book

Fold three sheets of paper in half to make a book.

Make a cover for your egg book.

Draw and write about a different kind of egg on each page of the book.

Show your book to the class.
Egg Problems

Solve the problem.

A hen lays 6 eggs.
2 of the eggs hatch one day.
2 eggs hatch the next day.
How many eggs are left to hatch?

Tell the answer to the problem.

Write the number sentence to show the answer.
<table>
<thead>
<tr>
<th>Genre</th>
<th>Comprehension Skill</th>
<th>Text Features</th>
<th>Science Content</th>
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<tbody>
<tr>
<td>Nonfiction</td>
<td>Infer</td>
<td>Call Outs, Captions, Labels, Glossary</td>
<td>Living Things</td>
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