

# LESSON PLAN: LIFE CYCLE OF A BIRD

#### **Summary:**

Students identify life cycle stages of birds. Older students will learn threats birds face at different stages in their lives.

Grade Level: K-5

Subject: Science, Art

**Duration:** 1 hour



#### Lesson Objectives

Students can:

- ✓ List the stages in a bird's life cycle
- ✓ Describe what happens in each stage
- ✓ Discuss threats birds encounter at different times in their lives

#### Materials

- Construction Paper
- Scissors
- Tape or Glue
- White Paper Bags
- Pencil
- Crayons or Markers
- Copies of Life Cycle Activity Sheets
- Copies of Bird Threats Activity Sheets
- Nature Journals (optional)

#### **Background Information**

Birds are warm-blooded vertebrates and are the only animals with feathers. While all birds have wings, not all are able to fly.

The life cycle of a bird begins when a female lays her eggs. There can be anywhere from 2–3 eggs per nest, or as many as 15 depending on the species. Birds will sit on their eggs to provide protection and keep them warm during the incubation process. During this time, the baby is growing and developing inside the egg until they are ready to hatch. Incubation periods vary for different species. For songbirds, eggs may incubate for 12–15 days, while larger species like owls and hawks may take double the time.

When the baby is ready to hatch, they use what is called an egg tooth at the front of their beak to crack open their egg and emerge from the shell. During this time, babies are entirely dependent on their parents for food, protection, and warmth. As the babies grow and develop, they will move through the nestling stage where they are more active and have started to grow their feathers.

Birds will typically stay in their nest for 8-12 days before graduating to the fledgling stage where they jump from their nest and are on the ground until they are able to fly on their own.



At this stage, the parents will continue caring for the babies by feeding them and protecting them from predators until they can fly on their own. Fledglings can be on the ground anywhere from 1-2 weeks depending on the species until they are able to fly on their own.

The juvenile stage is where a bird has their adult feathers and can fly but does not have the same coloration as adult breeding birds. The subadult stage is where birds are developing and will soon reproduce. The final stage in the life cycle is when they bird reaches adulthood and can breed and lay eggs. The length of time for each of these stages varies greatly depending on the species.

#### Preparation

Gather a list and pictures of local birds in your area or have your students research local birds. A great resource to start is https://ebird.org/explore where you can search by county and state for recently spotted birds in your area, as well as look at the counts of each species reported.

Precut two rectangle shapes per student. These will be used to create the bird beak on their bird puppets.

#### Procedure

- 1. Ask your class what they know about birds. Their answers can range from identifying characteristics such as feathers or laying eggs to different species they may have seen in the wild or in captivity. Ask students what a life cycle is. Explain that the life cycle is a series of changes an animal goes through as they develop.
- 2. Review each stage of a bird's life cycle: egg, hatchling, nestling, fledgling, juvenile, subadult, and adult. What is the bird's main goal with each life stage? (Egg: growing and developing, fledgling: learning to fly, Adult: eating and reproducing.) Show pictures of each stage and have students follow along on the Bird Life Cycle activity sheet.
- 3. Tell students they are going to make their own bird. To make bird wings, have students trace each of their hands on a piece of paper. Fingers can be open or closed depending on what they want their wings to look like. Cut out hand shapes before moving onto next step.

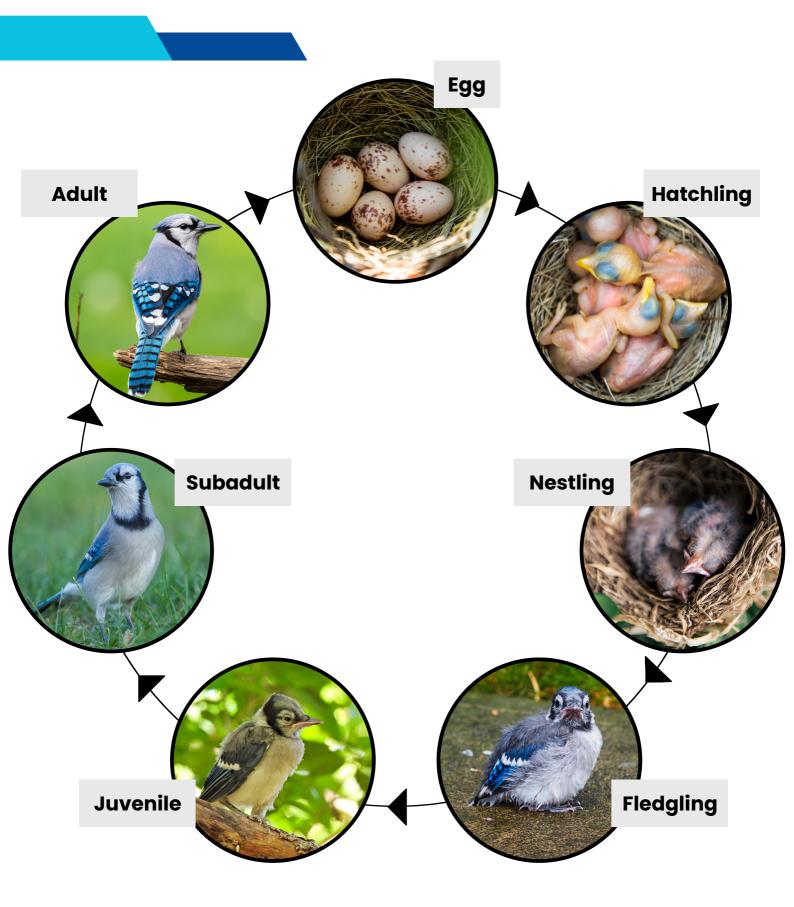
- 4. Students will now assemble their bird. Give each student two precut triangles and a paper bag. Explain the paper bag will be the body of their bird. They will glue on their hand shapes to create wings and triangle shapes to create their beak that opens when they place their hand inside the bag. Students can color their birds to look like one of the local species you discussed at the beginning of the lesson or design their own species of bird.
- 5. Optional Activity: Take students outside to see and look for local bird species that you discussed at the beginning of the lesson. Students can draw what they see in their nature journals to help identify which species were present. This activity can also be done at home and compared to the birds seen on your school grounds.
- 6. Pass out Bird Life Cycle Activity Sheet to students. For younger students, cut out the labels that correspond to each stage in the life cycle. For older students, cut out the labels and definitions and match them to the correct stage in the life cycle.

#### Modifications for Older Students

- 1. Ask students to brainstorm problems birds may encounter in the wild. How will these threats vary at different stages during their life cycle?
- 2. Give each student a copy of the Bird Threats activity Sheet. Cut out the Threat and Life Cycle stage cards.
- 3. Students should pair each stage of the bird life cycle with an appropriate threat. Threats may overlap with many life stages. Discuss as a group why they chose the pairings they did.



## **Bird Life Cycle Guide**





### LIFE CYCLE OF A BIRD

#### **TEACHER RESOURCE**

Using the descriptions below, explain each step of the life cycle of the bird to students.



#### **EGG**

Eggs are laid by female birds ranging from one to over 15 eggs per nest depending on the species. The activity in this stage is for the chick to grow and develop inside the egg until it is ready to hatch.



#### **HATCHLING**

A hatchling is a bird that has just hatched from the egg. At this stage, they are nearly featherless and are unable to care for themselves. The activity in this stage is to grow, eat, and develop down feathers.



#### **NESTLING**

A nestling is a bird that has grown some feathers and has started to open their eyes. At this stage, they are unable to leave the nest and will rely on their parents for food and protection. The activity at this stage is to grow, eat, and develop flight feathers.





#### **FLEDGLING**

A fledgling is a young bird that has left the nest but is still unable to fly. During this stage, the parents will continue to care for them while they are on the ground. Their activity at this stage is learning how to fly.



#### **JUVENILE**

A juvenile bird will have left the nest, is able to fly and is independent from the parents. They will look similar to the adult birds but with less defined markings. The activity at this stage is to eat and grow.



#### **SUBADULT**

The subadult stage is when the bird appears similar to the adult species but is not yet ready to lay eggs. The activity at this stage is to continue developing and reach adulthood.



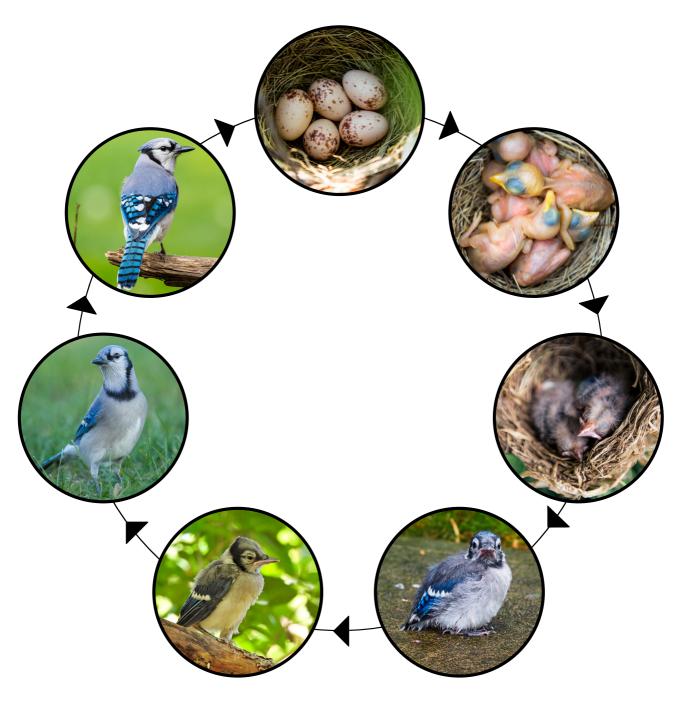
#### **ADULT**

Adults birds are able to reproduce and lay eggs. The have full adult coloration which may change depending on the time of year. The activity at this stage is to lay eggs and protect their nest.



## **Bird Life Cycle Activity Sheet**

Directions: Cut out the labels below and match them to the appropriate life stage in the photo.



EGG	HATCHLING	NESTLING
FLEDGLING	JUVENILE	SUBADULT
ADULT		



### **Bird Life Cycle Activity Sheet**

Directions: Cut out the labels and definitions below and match them to the appropriate life stage in the photo.





EGG	HATCHLING	NESTLING
FLEDGLING	JUVENILE	SUBADULT
ADULT		

At this stage, birds are ready to lay eggs of their own.

This stage is when the baby bird has just hatched and are unable to care for themselves.

This stage is when the chick is growing and developing until it is ready to hatch.

This stage is when the birds have left their nest and are independent from their parents.

At this stage, birds are unable to leave their nest. They will stay in this stage until they have grown their flight feathers.

While these birds look like adults, they are not yet ready to lay eggs of their own.

This stage is a young bird that has left the nest but is unable to fly.



### **Threats Activity Sheet**

Directions: Cut out the cards below. Match the threat to the appropriate life stage. Keep in mind that some life stages will have multiple threats.

Threat: Lawnmower

When yards need to be maintained, tall grass and other vegetation may camouflage wildlife on the ground.

Stage One: Egg

**Activity:** 

Growing and Developing

Stage Four: Fledgling

**Activity:** 

Learning to fly

Threat: Predator

Predators are animals that eat other animals. Predators may be other wild animals or pets are left

outdoors.

Threat: Tree Trimming

Tree trimming is done for cosmetic purposes and has no benefit to nature or wildlife.

**Stage Four:** Adult

**Activity:** Laying Eggs

Stage Four: Hatchling

**Activity:** 

Grow, eat, and develop down feathers

Threat: Flew into Window

As development expands, wildlife encounters human structures. Windows reflect the surrounding environment making it difficult for birds to determine where to fly.

Threat: Storms

Inclement weather can cause colder temperatures and damage to the environment, including tree branches breaking.

Stage Four: Nestling

**Activity:** 

Develop flight feathers



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