

CONTINUOUS DISTANCE LEARNING LESSON

Lesson Title: Bird Feathers Middle School

Feather Types and Purposes

Go to the Cornell University Bird Lab [All About Feathers](#) website.



There are **6 sections** on the website. You can move between the sections by clicking on the numbers in the upper right hand corner (see screenshot below). You will use sections 1-5.

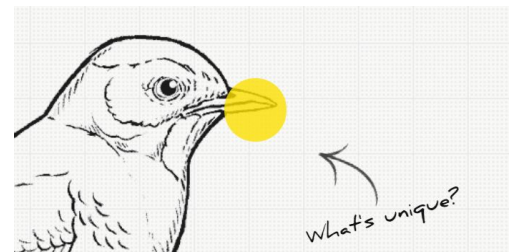


Section 1- What is **Unique** about Birds?

Click on each of the yellow circles to learn what is unique about birds. Then, fill in the table below.

Unique = the only of its kind

Characteristic = a trait or feature



Characteristics	List other animals that share this characteristic.	Is this characteristic unique to birds? Yes or no?
Beak		
Wings		
Bipedalism bi = 2 ped = foot		
Feathers		
Eggs		

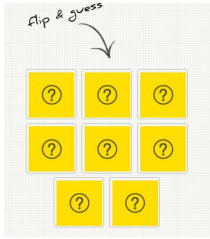
Section 2- How are Feathers Built?

1. Wing feathers are **asymmetrical** (the sides are different lengths). What is the purpose of this shape? (Read the information in the **yellow box** on **Wing Feathers**.)
2. Click on “Zoom to see it in Action” under #1 (Pennaceous Region) and #4 (Plumaceous Region). Compare and contrast these 2 feather types.



Pennaceous	Plumaceous

3. What does the tail feather do?
4. What do the contour feathers do?
5. What is the purpose of the semiplume feathers?
6. What is the function (job) of the down feathers?



Section 3- What feathers do

Play the Flip & Guess Game to figure what each of the feathers is for: insulation, waterproofing, display, camouflage, and flight.

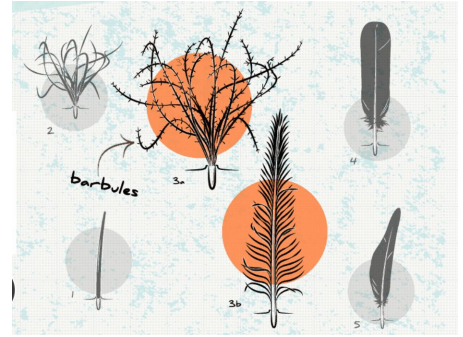


Feather	What it does (is it for waterproofing, insulation, display, camouflage, or flight) and EXPLAIN how the feather does this.
<i>Down feathers</i> of a young Mute Swan	
<i>Tail feather</i> of a King Bird-of-Paradise	
<i>'Horn' feathers</i> of a Great Horned Owl	
<i>Crest feathers</i> of a male Wood Duck	
<i>Contour feathers</i> of the Common Loon	
<i>Contour feathers</i> of the Common Potoo	
<i>Contour feathers</i> of the male Eclectus Parrot	
<i>Wing feathers</i> of the Roseate Spoonbill	

Section 4- Feathers through Time

Read each section, clicking on “Next Page” to go to the next page when ready. Answer the questions as you read. Click on the **Yellow Question marks** as you go along.

1. Which is the oldest fossil found that shows the impressions of modern-day feathers?
2. What were the first feathers to evolve like? Describe them.



3. What is dino fuzz?

4. Click on the yellow circles to dress up your dino! Snip a picture of your dressed up dino and copy and paste it below.

Section 5- Meet a Feather Scientist

Watch the 6 short videos and answer the questions below.

1. What is unique about the Club-winged Manakin?
2. How does the bird make the sound?
3. What is stridulation?
4. How are the 1498 beats per second created?



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