

**Nature Study Hacking**  
**Birds**

**Created by Joy Cherrick**

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## Introduction to Birds | Lesson 1

Supply list:

1. Nature Journal
2. Pencil and eraser
3. Field guide or book about birds

**Step 1:** On the next BLANK PAGE of your Nature Journal, using a ruler, set up one page chart to tally the *different* birds you spot over the course of your birds study. (For instance, the robin in your yard counts as ONE tally mark even if you spot him 30 times over the course of your study.) Be sure to leave extra spaces at the bottom for you to add birds that you see unexpectedly. The chart will look something like the one on the next page.

**Step 2:** Now that you have your chart, fill in the birds that you know live nearby on the left column. If you go to the zoo or get to see other types of birds in person over the course of your study, you will want to add them to your birds chart!

**Step 3:** Choose ONE location that you will watch from a window over the course of your birds study. Set up a bird feeder there. Write down the common and Latin name of the birds who visit.

**Note:** Recommended Books: [Reader's Digest Book of North American Birds](#) and [The Folklore of Birds](#)

## Feathers | Lesson 2

Supply List:

1. Nature Journal
2. Pencil and eraser
3. Photograph of a hen

**Leading Thought:** Feathers grow from the skin of a bird and protect the bird from rain, snow, wind and cold. Some feathers act as a coat, keeping the elements out, and others act as underclothing.

**Method:** Using a photograph of a hen, answer the following questions. If you have access to a live hen, that is even better:

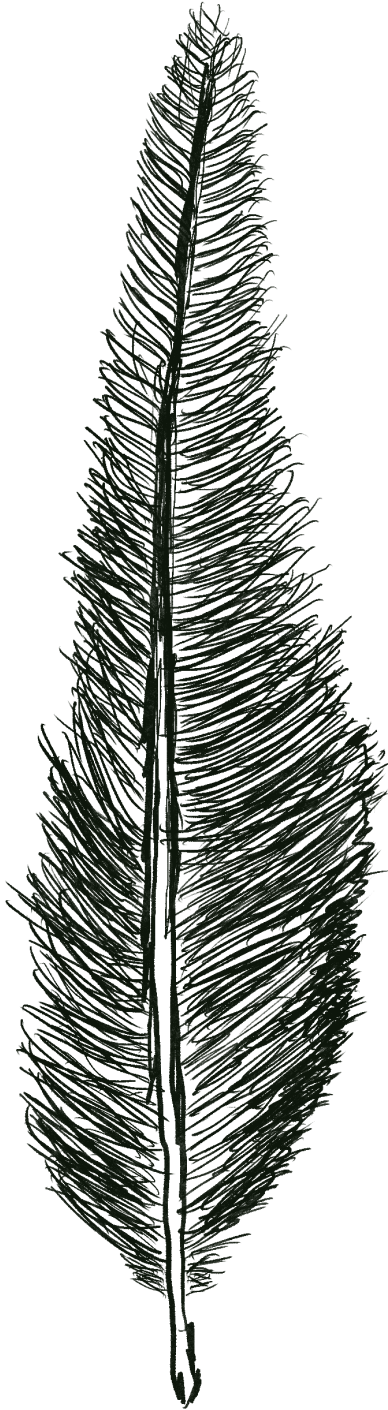
**Step 1:** How are the feathers arranged on the back of the hen? Are they like shingles on a roof? How are the feathers arranged on the breast? What is a pinfeather? Why do you think it is so called? How do hens keep their feathers oily and glossy so they will shed water? Where does the hen get the oil?

**Step 2:** Taking time to do your best work, draw the breast feather, tail feather and wing feather of a hen into your Nature Journal. (See next page for line drawings to copy into your journal.)

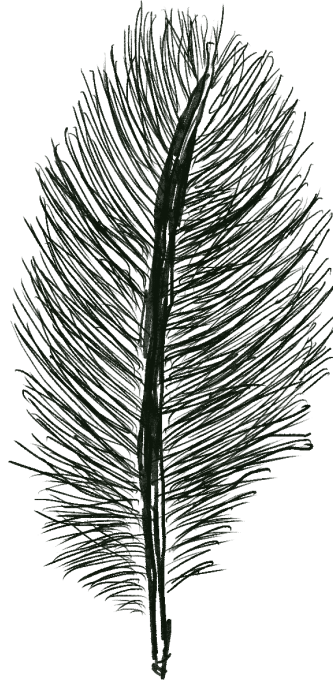
**Younger students:** For very young students, Parents/Teachers should help the child pick ONE feather to copy into their journal.

**Note:** This lesson may take two days to complete if students take care to draw their feathers. Keep the lesson to less than 20 minutes.

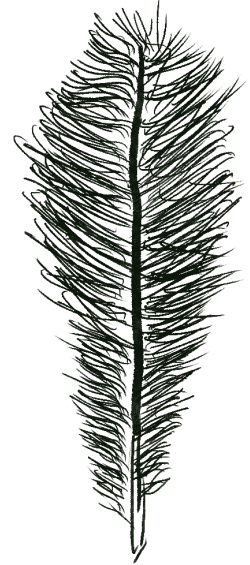
# Types of Chicken Feathers



Plume  
(Flight)



Contour



Semiplume



Down

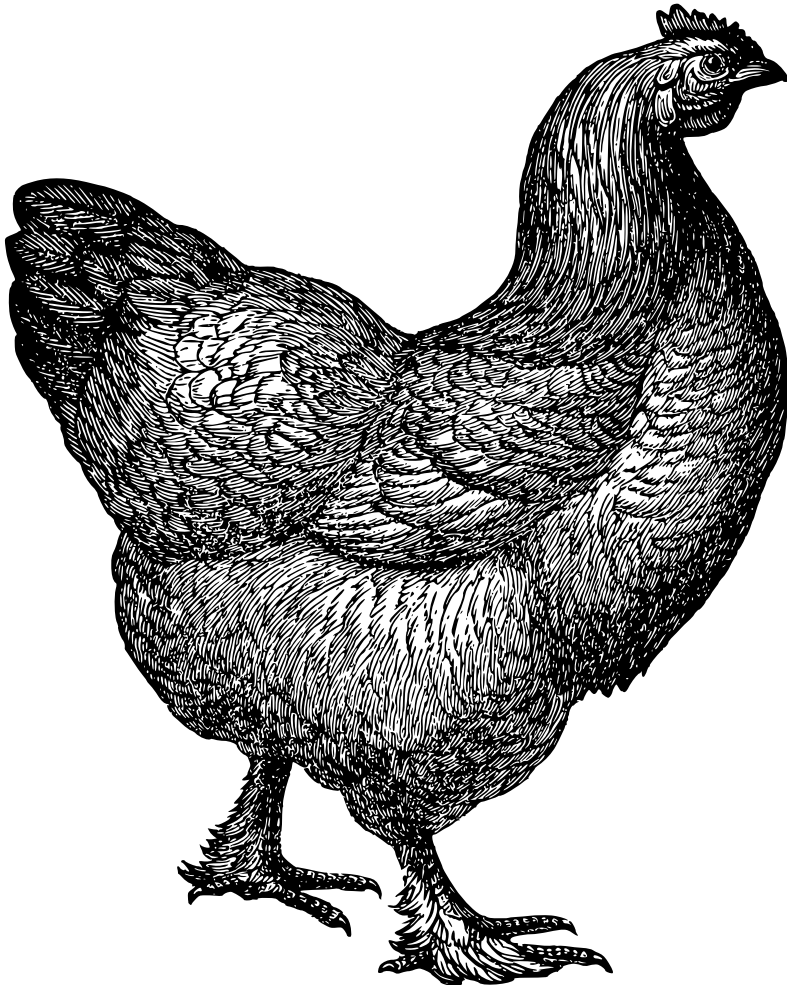
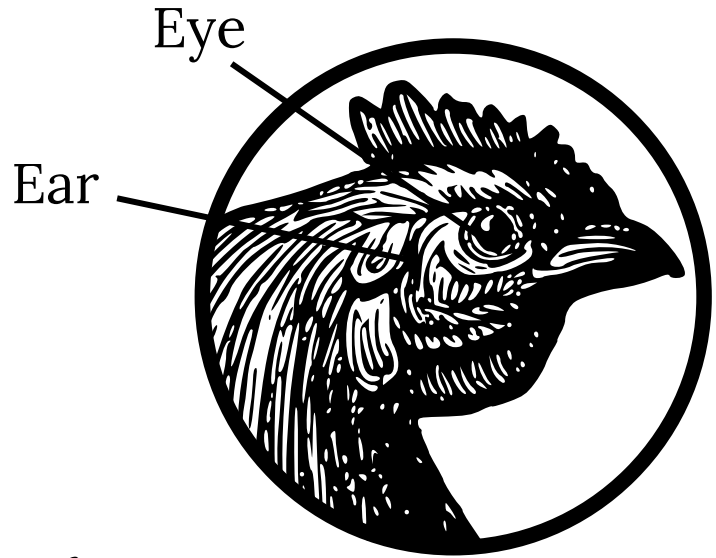


Bristle

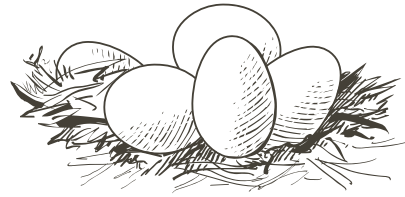


Filoplume

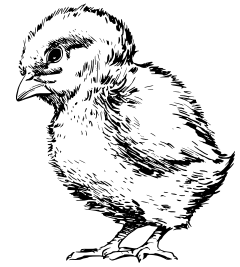
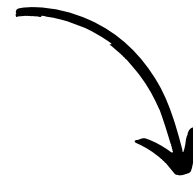
# Chicken Eyes and Ears



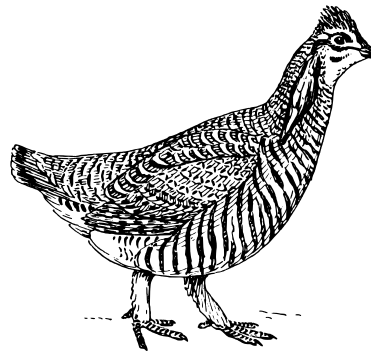
# Chicken Life Cycle



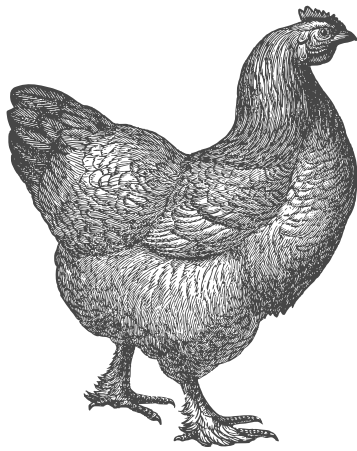
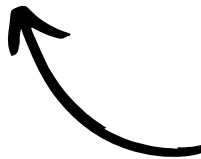
Egg



Chick



Pullet



Hen



## Poems about Birds

### Bird Song

by Laura E. Richards

The robin sings of willow-buds,  
Of snowflakes on the green;  
The bluebird sings of Mayflowers,  
The crackling leaves between;  
The veery has a thousand tales  
To tell to girl and boy;  
But the oriole, the oriole,  
Sings, "Joy! joy! joy!"

The pewee calls his little mate,  
Sweet Phoebe, gone astray,  
The warbler sings,  
"What fun, what fun,  
To tilt upon the spray!"  
The cuckoo has no song, but clucks,  
Like any wooden toy;  
But the oriole, the oriole,  
Sings, "Joy! joy! joy!"

The grosbeak sings the rose's birth,  
And paints her on his breast;  
The sparrow sings of speckled eggs,  
Soft brooded in the nest.  
The wood-thrush sings of peace, "Sweet peace,  
Sweet peace," without alloy;  
But the oriole, the oriole,  
Sings "Joy! joy! joy!"

### Daybreak

by Henry Wadsworth Longfellow

A wind came up out of the sea,  
And said, "O mists, make room for me."

It hailed the ships and cried, "Sail on,  
Ye mariners, the night is gone."

And hurried landward far away  
Crying "Awake! it is the day."

It said unto the forest, "Shout!  
Hang all your leafy banners out!"

It touched the wood-bird's folded wing,  
And said, "O bird, awake and sing."

And o'er the farms, "O chanticleer,  
Your clarion blow; the day is near."

It whispered to the fields of corn,  
"Bow down, and hail the coming morn."

It shouted through the belfry-tower,  
"Awake, O bell! proclaim the hour."

It crossed the churchyard with a sigh,  
And said, "Not yet! In quiet lie."

## Resources

### ***Nature Study Essentials:***

[\*Handbook of Nature Study\*](#) by Anna Comstock

[\*Nature Anatomy\*](#) by Julia Rothman

### ***Nature Lore Book List:***

[NatureStudyHacking.com/Birds](http://NatureStudyHacking.com/Birds)

### ***Reference books about Birds:***

[\*Reader's Digest Book of North American Birds\*](#)

### **Nature Drawing help for early elementary:**

[\*How to Draw Almost Everything\*](#) by Chika Miyata

### **PNEU Articles on Nature Study as inspiration:**

<https://www.amblesideonline.org/PR/PR07p332NaturalHistory.shtml>

<https://www.amblesideonline.org/PR/PR41p000CharmNatureStudy.shtml>

### **Handbook of Nature Study:**

Birds, p. 27-143

### **YouTube Playlist:**

[https://youtube.com/playlist?list=PLV\]k-S6aGim6JBXfkVnKJKR7xZ89ZK6-Z](https://youtube.com/playlist?list=PLV]k-S6aGim6JBXfkVnKJKR7xZ89ZK6-Z)

### **Supply List:**

1. Blank Journal -- [Minimalism Art sketchbook or Dot grid notebook](#) (This my favorite brand)
2. [Ticonderoga pencils and an eraser](#)
3. [Prismacolor colored pencils](#) (preferred for younger children)
4. Field guide to birds in your area
5. Book about the birds
6. Audubon App for learning about birds on the go
7. Merlin App for identifying birds by song

# Books in the Nature Study Hacking Series

Nature Study Hacking: Trees

Nature Study Hacking: Stars & Skies

Nature Study Hacking: Mammals

Nature Study Hacking: Weather

Nature Study Hacking: Cultivated Crops & Weeds

Nature Study Hacking: Insects

Nature Study Hacking: Birds

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