

## Ornithology: The Study of Birds

Bird watching (or birding) is the observation and study of wild birds. The behavior of wild birds is what makes them so fascinating to watch. The best place to **try bird watching** is in your own backyard. With this science kit, you will make a few bird feeders and watch the reactions as birds begin to come to your feeders.

Ask yourself these questions as you watch your birds-

Where do birds live?

What do birds eat?

How do birds fly?

Why do birds sing?

What kind of bird is that?



A great place for more information (and a source of information and discussions used in this science kit) is the website:

<http://www.a-home-for-wild-birds.com/bird-watching-for-kids.html>

Here is what we'll do as we get started with bird watching!

1. Learn about different types of common birdseeds
2. Talk about different bird feeders and what birds like to eat
3. Make a bird house and some different types of bird feeders to put in your back yard!

### **This kit includes:**

1 wooden bird house kit

2 chenille sticks

1 popsicle stick

1 bag cereal

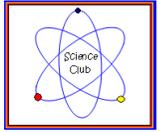
1 bag of thistle seeds (tiny black seeds)

1 bag of sunflower seeds

1 portion of suet (**CAUTION-** may contain peanuts!)

### **Other things you will need:**

String and scissors from your basic kit, a plate or container for bird seed, a pine cone, and a small hammer to put your wooden bird house together with, crayons or colored pencils to decorate your bird house with. If you use paint, you may want to spray your finished house with a clear acrylic spray to protect it from rain.



Types of Wild Bird Seed,  
Taken from the website:

<http://www.a-home-for-wild-birds.com/wild-bird-seed.html>

**Black Oil Sunflower Seed**

**This bird seed really delivers.** If you are having trouble attracting wild birds or are putting out a wild bird feeder for the first time then this is the wild bird seed for you.



Most seed eating birds love black-oil sunflower seed. You can **attract many species of wild birds** with black-oil sunflower seed including: woodpeckers, finches, goldfinches, northern cardinals, evening grosbeaks, pine grosbeaks, chickadees, titmice, nuthatches, and grackles. You can purchase black-oil sunflower seed with or without the shells. The birds will crack open the seeds and eat the inside but leave the hull. Using **hulled seeds will produce less mess.**

**Nyjer Seed (Thistle)**

Nyjer seed is a specialized type of wild bird seed. It requires a specific type of bird feeder called a finch feeder or thistle feeder. It will have smaller openings for the **tiny seeds** to flow through.



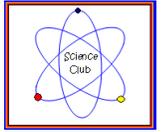
It can be used to attract American Goldfinches, Lesser Goldfinches, House Finches, and Common Redpolls.

**Suet Bird Food**

Suet bird food attracts many species of **tree clinging birds**, such as: woodpeckers, nuthatches and chickadees.



You can purchase commercial **suet cakes**. They are available in many varieties, and can attract wild birds that like seeds, nuts, fruits or insects.



## DINNER? IT'S FOR THE BIRDS!

Taken from the website: <http://www.osweb.com/kidzcorner/feeder.htm>



What we can do to help provide the birds with food? Bird feeding isn't just a winter activity; it might surprise you to learn that even in spring, food is still scarce for our feathered friends. The temperatures are usually cool enough that many insect populations haven't emerged, and that's sad news for those birds who eat insects. Also, the fruit eating birds won't see their favorite foods naturally appearing until harvest! Plus, since everyone is always so eager to get outdoors as soon as spring arrives, it is the perfect time to get yourself involved with bird feeding and bird watching.

Then, by the time winter arrives, those birds who spend the winter in your area will know where the food is.

**Of course, it will be up to YOU to keep their dinner table supplied!**

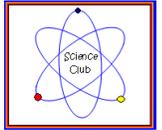
TIP: Remember to check out the bird books at your local LIBRARY for specific details on birds, their favorite foods, and favorite styles of dining table.

## You don't need to buy fancy bird feeders to feed your backyard friends!

You can:

- Set a pie tin on a stool or flat topped tree trunk or hang it in a hanging plant hanger; dump it out after a rain, or punch drainage holes in it, and elevate it a little by placing small rocks or twigs beneath it. (Good for all birds, specially Juncos, Cardinals, Jays, Sparrows)
- Punch holes on either side of a plastic pop bottle, stick a twig all the way through with its ends sticking out for perches and poking more holes nearby for the birds to pull the seeds out. Then hang the bottle by tying a string around its neck. (Finches really like these!)
- Coat a pine cone with **peanut butter**, roll it in **birdseed**, and hang it from a tree branch;
- Stick a piece of **bread**, a doughnut, or half of an **orange**, on a twiggy branch of the tree (The Orioles will LOVE the **orange**!)



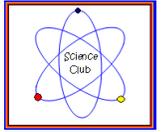


Ornithology: 4

- Tie a string around the neck of a baby food jar and fill with **orange juice**. Hang it from a tree. (It will hang tilted, but Orioles will perch on the rim and take dainty sips).
- Scatter **bread** crumbs on the ground.

### WHICH BIRDS USE WHICH FEEDERS?

BIRDS	Ground Feeders	Raised Feeders	Hanging (Suet)	Hanging (Seed)
Blue Jay		X		
Chickadee	X	X		X
Cardinal		X	X (if seed is in it)	X
Finches		X		X
Grackle	X	X		
Junco	X	X		
Dove	X			
Mockingbird		X		
Sparrow	X	X		
Woodpecker	X	X	X	
Wren		X		
Yellow Bellied Sapsucker		X	X	



## Photos of Common Feeder Birds:



Chickadee



Nuthatch



Cardinal



Sparrow



Junco



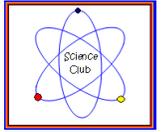
Mourning Dove



Tufted Titmouse



Woodpecker



## Bird feeder #1: Suet Pine Cone Feeder

Photo taken from the Illinois Department of Natural Resources:

<http://www.dnr.state.il.us/lands/Education/birdfeeder.htm>

What you need:

- 1 portion of suet
- 1 pine cone, collected from your yard
- String

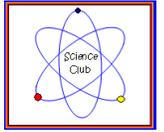
What to do:

1. **CAUTION!** The suet contains nuts, so ask your parents if you can handle it!
2. Do not open the bag with the suet. Use your hands to very gently knead the suet, until it becomes soft like peanut butter.
3. When the suet is nice and soft, take it out of the bag and squish it onto the pine cone, like in the photo. You will not have enough to cover the whole pine cone, so try pressing small blobs onto the "leaves" of the cone to spread it out.
4. Tie a string around the top of the pine cone.
5. Take your suet pine cone feeder outside and hang it in a tree or from another object where the birds can find it but your pets can't.
6. You can also make a suet pine cone feeder by spreading cold lard on the pine cone and rolling the cone in bird food.



You can also try this variation from the Illinois Department of Natural Resources (but these materials are not included in your kit):

Put several layers of newspaper on a flat surface where it won't hurt to get messy. Pour some bird seed on the newspaper. Obtain some suet or lard - lard may be easier to use. Place the suet or lard in a saucepan on a burner on your stove. Set the burner temperature to low. Melt the suet or lard. Watch it carefully as it melts. Once the suet or lard has melted, turn the burner off. Remove the pan from the burner. Dip a pine cone in the suet or lard, using a spoon to help you completely cover it. Now roll the pine cone in bird seed. Tie a string around the top of the pine cone. Take your suet pine cone feeder outside and hang it in a tree or from another object where the birds can find it.



## Bird Feeder #2: String Treats

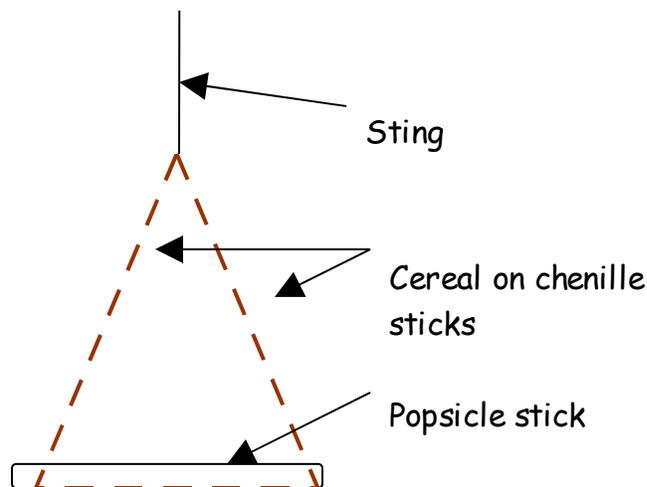
Adapted from: <http://ezinearticles.com/?Crafts-for-Kids:-Homemade-Bird-Feeders&id=120210>

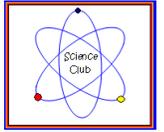
What you need:

- A small amount of Cheerios, Fruit Loops, or other similar cereal
- A popsicle stick
- Two chenille sticks
- String from your basic kit

What to do:

1. Take the two chenille sticks and twist one chenille stick around each end of the popsicle stick. This will provide a base for threading the cereal on to the chenille sticks.
2. Thread the cheerios onto the chenille sticks- try to use the same amount on each side.
3. Twist the two chenille sticks together at the top, making a triangle with the popsicle stick.
4. Tie another string to the two chenille sticks, so you can tie the bird feeder to a tree branch.
5. Hang your feeder outside, and wait to see who comes for dinner!





### Bird Feeder #3: A Simple Ground Feeder

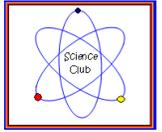
This is the simplest feeder of all!

Ask your parents for a small dish, cup, or container you can place outside. A disposable pie plate works great. If you use something very light, like a paper plate, weigh it down with some rocks (nothing too tiny a bird might try to eat!) so it will not blow away. Place the sunflower seeds from your kit on the feeder, and put it outside, on the ground or on your patio. Watch to see who comes to dinner!

### Bird Feeder #4: Build a Bird House

Your kit contains the parts and instructions you need to build a small bird house (the instruction sheet is with the parts for the bird house). In addition to this kit, you will need a small hammer, and some crayons, colored pencils, and maybe paint or stickers to decorate your house- whatever you have! If you use paint or stickers to decorate your house, you may want to ask your parents to spray it with a clear acrylic spray to protect it from the rain when you put it outside. If you use crayons and colored pencils, you won't need to worry about this.

When you are finished building the house and are ready to hang it, put the thistle seed, included in your kit, on the ledge outside the house and on the inside of the house to attract a bird. Place your new house somewhere you will be able to check on it. Hopefully you will get a bird to build a nest!



## Recycle! Other bird feeders to try

From the website:

[http://birding.about.com/od/buildfeeders/How\\_to\\_Build\\_Bird\\_Feeders\\_Free\\_Plans.htm](http://birding.about.com/od/buildfeeders/How_to_Build_Bird_Feeders_Free_Plans.htm)

### Milk Carton Birdfeeder

Wash and dry a half gallon cardboard milk carton.

Using a ruler, measure and mark a line  $2\frac{1}{2}$ " up from the bottom of the carton on two adjoining sides. (See illustration)

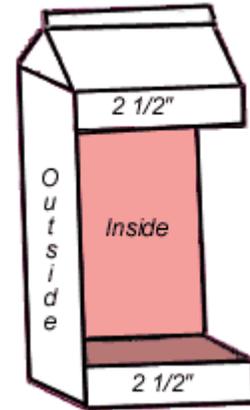
Using a ruler, measure and mark a line  $2\frac{1}{2}$ " down from the top edge of the carton on two adjoining sides. (See illustration)

Cut the sides off between the marked lines on the two adjoining sides.

Using a small hole punch, make two small holes in the very top edge of the carton.

Put string through the holes.

Hang the feeder from a branch or post. Fill it with seed, suet or mealworms. Watch the birds enjoy the feast!



### 2 Liter Soda Bottle Birdfeeder

Remove all the labels and stickers from the soda bottle.

Wash and dry the bottle.

The bottom of the bottle will be top of the feeder.

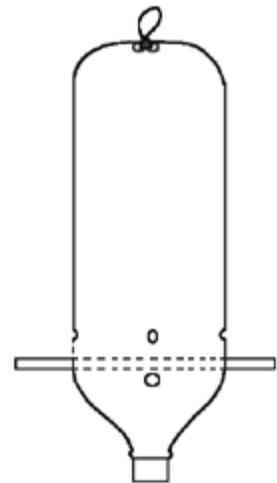
Drill two small holes in the bottom of the bottle. Thread wire through one hole and out the other. Twist the ends of the wire together to make a loop for hanging the feeder. Use a small piece of duct tape or caulk to seal the holes so rain can not get into the feeder.

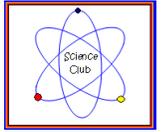
Using a drill, make  $\frac{5}{16}$ " holes that are on opposite sides of the bottle. Insert 8" - 9" by  $\frac{5}{16}$ " dowels into the pairs of holes.

Repeat the above step to make several more perches.

If you want a thistle (nyger) seed feeder, make  $\frac{1}{4}$ " by  $\frac{1}{8}$ " slots  $1\frac{1}{2}$ " above the perches.

If you want a sunflower seed feeder, make  $\frac{5}{15}$ " holes  $1\frac{1}{2}$ " - 2" above the perches. <http://www.homeschoolzone.com/pp/crafts/birds-eggcarton.htm>





## Other Useful Sources of Information on Bird Watching

### 1. Birds of North America:

[http://whatbird.wildbird.com/mwg/\\_/O/attrs.aspx](http://whatbird.wildbird.com/mwg/_/O/attrs.aspx)



### 2. National Birdfeeding Society

<http://www.birdfeeding.org/>

3. [Cornell Lab of Ornithology \(http://birds.cornell.edu/\)](http://birds.cornell.edu/): favorite site for backyard birding, and home of Project Feederwatch. When you join Feederwatch, you become a citizen scientist with opportunities to contribute real data about the birds you see at your birdfeeder. They also send you a full-color poster to help you identify birds and other cool stuff.

### Bird Watching Especially Sites for Kids

Here are bird sites written especially for kids - your kids will love to look at these sites alone or with a parent or friend.

Enchanted Learning - for younger kids who can read a little:

<http://www.enchantedlearning.com/subjects/birds/>

Bird biology and observation for older kids and families:

<http://www.tpwd.state.tx.us/adv/birding/beginbird/kidbird.htm>

An online book about birds and how they fly: <http://wings.avkids.com/Book/Animals/beginner/birds-01.html>

Read about common species: <http://aviary.owls.com/>

### Tennessee Ornithological Society <http://www.tnbirds.org/>

This site is designed to be the internet source for information on birds and birdwatching in Tennessee. Use it to learn about recent bird sightings, plan your next birding trip, or plan your attendance at the next TOS event. The Tennessee Ornithological Society was founded in 1915 to promote the enjoyment, scientific study, and conservation of birds. The TOS publishes a quarterly journal, *The Migrant*, and a newsletter, *The Tennessee Warbler*, and holds statewide meetings. It is also a federation of [local chapters](#) which hold regular meetings and field trips.



**Northern Mockingbird- State Bird of Tennessee**