

Science reports  
and original artwork  
for and by students



**BirdSleuth**  
**INVESTIGATOR**  
**2015**

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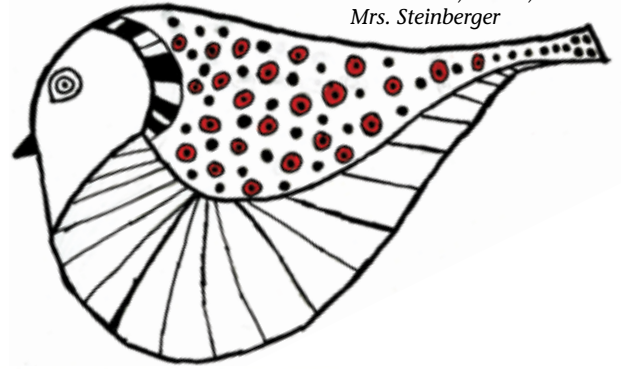
# Dear Students

This has been an exciting year for *BirdSleuth Investigator*. We received more entries than ever before—young people watching, observing, and experimenting both at school and at home. And what a wonderful variety of art you'll find in these pages! We've included pencil, watercolor, marker, sculpture, wood working, photography; and, for the first time ever, our cover features digital art.

We particularly enjoyed reading about your unexpected results as well as some lovely stories of bird behaviors observed during these otherwise controlled experiments.

Overall, this wonderful collection of student work celebrates how young people just like you are paying attention to the mystery, detail, and beauty of the natural world. We hope that you are inspired to share your own investigations, observations, creative writing, and art with us for next year's *BirdSleuth Investigator*.

by Ryan, Grade 7  
FDR Middle School, Bristol, PA  
Mrs. Steinberger



Sincerely,

Stacie Mann  
Editor, *BirdSleuth Investigator* 2015

**Front Cover:** by Arne, Grade 7, Minnehaha Academy, Minneapolis, MN,  
Mrs. Humason

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This picture is of two Cardinals, a male and a female. The male is the one on the left that is red and the female is the one on the right that is a light brown. Cardinals stay at the feeder when eating. Unlike the Tufted Titmouse they do not move off the feeder to eat, they stay on the feeder and just keep eating the seed. Cardinals were the most common bird seen at my feeders. By Katherine, Grade 7, New Canaan Country School, New Canaan, CT, Mr. Maliakal

## Small things are big things



Photo of Zara, Kindergarten  
Educator submission for Investigator's contest

**BirdSleuth says:** "There's no substitute for a direct relationship with nature."

## Do Birds Like Feeding On the Ground More than the Feeder?

by Amrit, Grade 6  
New Canaan Country School  
New Canaan, CT  
Mrs. Frey

### Purpose

The objective of this study was to determine if birds like feeding on the ground more than the feeder.

### Hypothesis

I believed that the birds would like feeding on the ground because the ground has more room so the birds would not just get a quick peck in the feeder.

### Variables

#### Independent Variable:

Location of the seed

#### Dependent Variable:

The number of birds feeding

Conditions to keep constant:

- Type of feeder
- Type of seed
- Amount of seed on the ground
- Make sure feeder is full and there is seed on the ground

### Materials

Black Oil Sunflower seed, Tube bird seed feeder, Binoculars, Journal, and Pencil

### Methods

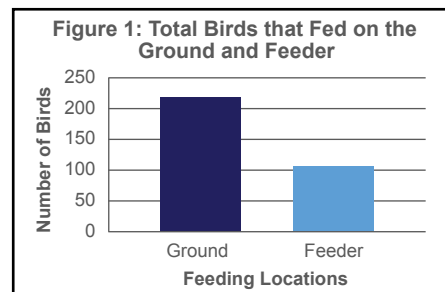
This experiment was conducted at my house. The observations were near my house in my front yard. This location had some bushes, trees, grass and a huge yard. My feeder was hung on a tree in the middle of the yard. The feeder was about 5 feet high. The type of feeder was a tube feeder and the seed was

black oil sunflower seed. In this experiment, there was seed on the ground, too. The seed on the ground was placed in the front, far away from the area the feeder was. About 1½ cups of seed were placed on the ground and the seed was put on the ground at the same time that the feeder was filled.

Sometimes I observed in my house but mostly I observed outside with binoculars. I observed after school and during the weekend. Every observation was 10 minutes long and my study ran 2–3 weeks. I recorded how many birds fed on the ground and on the feeder.

### Results

A total of 12 observations were made. As you can see in Figure 1, more birds prefer feeding on the ground than the feeder. There were some out of the ordinary results that are worth mentioning. For example, on my first observation, I had barely any birds visit. However, on observation 2, I observed many birds. Another example was that more Dark-eyed Juncos fed on the ground more than any other species. Lastly, there were factors that I did not measure that might have affected my results. For example, on observations 6 and 10, there was some snow.



### Discussion

After conducting this experiment, I have learned that most birds seem to prefer feeding on the ground rather than the feeder. As you can see in Figure 1, 218 birds visited the ground and 106 birds visited the feeder. For example, 1 Dark-eyed Junco fed on the feeder but 78 fed on the ground.

While most birds followed this pattern, Red-bellied Woodpeckers, Tufted Titmice, and Black-capped Chickadees fed on the feeder more than the ground. For example, 15 Tufted Titmice fed on the ground but 35 fed on the feeder. I believe birds visited the ground more because it had a bigger area compared to the feeder because birds would have to fight to get a spot on the feeder. Also, the birds did not need to peck at the seed quickly on the ground like they did on the feeder.

There were some possible sources of inaccuracy in my study. For example, missing or misidentifying a bird. This was important to my study because my question was if birds like feeding on the ground more than the feeder. Also, while I was doing my first observation and my 8<sup>th</sup> observation no birds came because a Coopers Hawk and a Turkey Vulture were in the area.

There are some factors that I could improve if I were to do this experiment again. The first area of improvement was that I could have filled the feeder prior to each observation so that the level of seed was consistent. The second area of improvement was that I could do my observations at the same time each day. An important area of improvement is that I would avoid distractions. An additional area of improvement is that each observation should have similar weather conditions. Lastly, I would have made my studies stronger by conducting longer observations. It would be interesting if I tested another type of location, like in bushes. Also, it would be interesting if I tested a different type of seed.



## Would Woodpeckers Prefer Oranges to Suet in a Suet Feeder?

by Charlie, Grade 6  
New Canaan Country School  
New Canaan, CT  
Mr. Maliakal

### Purpose

The purpose of this experiment was to determine if woodpeckers would prefer to eat oranges or suet out of a suet feeder.

### Hypothesis

I predicted that woodpeckers would prefer oranges to suet because oranges are sweet compared to suet.

### Variables

**Independent variable:** Food in suet feeder

**Dependent variable:** Number and species of birds seen eating at each feeder

**Conditions to keep constant:** Location of feeders and amount of food

### Materials

2 suet feeders, suet, oranges



by Leila, Grade 3, Heart Pine Waldorf School  
Gainesville, FL, Mrs. Foster

### Methods

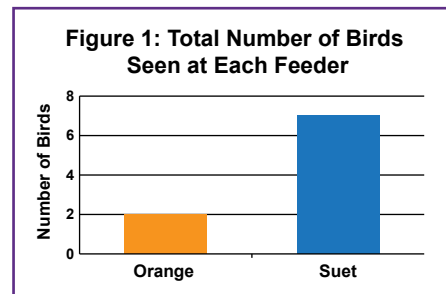
This experiment was conducted at home in Darien, CT. The feeders were about 20 feet from any building. The feeders were 6 feet in the air on a post and were 3 feet apart. Five feet behind the feeders was a dense line of 35-foot tall spruce and hemlock trees that most of the birds nested in. In this experiment, the separate feeders were filled with either suet or oranges. The feeders were otherwise identical and hung at equal height from the ground.

Observations were made from 25–30 feet away. Observations were conducted 3 or 4 times a week for 3–4 weeks. Observations were made at 3–4:30 for at least 10 minutes. Each time a woodpecker came, its feeding behavior was recorded.

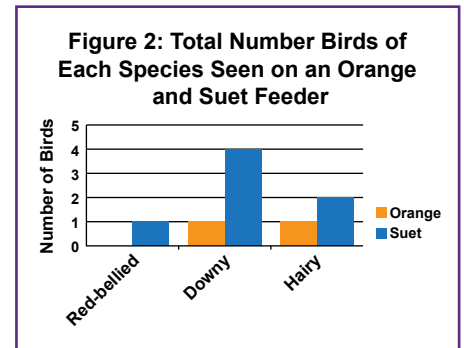
### Results

Over the course of 3 weeks, 10 observations were made under the conditions described above. The number and type of bird was recorded and the following graphs display the variety of birds and their feeding preference.

In total there were 9 birds tracked and they were of 3 different types: Downy, Red-bellied, and Hairy Woodpeckers. Figure 1, “Total Number of Birds Seen at Each Feeder,” shows how many birds came to each feeder without distinguishing



by type. Two birds were seen at the orange feeder and 7 at suet feeder. All of these birds were woodpeckers. Figure 2, “Total Number Birds of Each Species Seen on a Orange and Suet Feeder,” shows what type of bird came to each feeder and how many. The Downy Woodpeckers



outnumbered all of the other woodpeckers and 4 of 5 of the Downy Woodpeckers fed at the suet.

There was a huge 5 bird difference between the orange feeder and the suet feeder. Half the birds that went to the orange feeder were Downy Woodpeckers and the other half were Hairy Woodpeckers. (The Red Bellied Woodpecker did not feed at the Orange feeder.)

### Discussion

After conducting this study, it seems that most birds prefer suet. I think the reason the results turned out the way they did is that the fat may have been tastier than the oranges.

To fix the problem with oranges, one should do observations in spring, summer, fall, or anytime it is above freezing. If the food runs out, the observer could make sure to fill the feeders before an observation. To get rid of disturbances, he or she could tell the neighbors or family to be quiet just for 10 minutes. To expand the study size, more feeders could be set up and more observers could watch. The study could also go longer in time until an adequate sample size was presented, but that might introduce weather variables. One question the results raise is what was the effect of the weather, including the frozen and snow covered ground. Another question would be if migratory patterns affected the type of woodpecker showing up. Woodpeckers who do not usually migrate might move during a very cold winter, which this was.

## How Birds React to Predator's Calls

by *Gwenna, Jacob, Brandon*  
Grade 6

Hebron Station School  
Hebron, ME

Mrs. Eusden  
in collaboration with  
Headwaters Science Institute  
Soda Springs, CA  
Spencer Eusden

### Introduction

We chose this bird experiment because it was different from almost every other experiment done in our 6th grade classroom. We did not want to do something common, like what birds would rather eat. Also, the name of our experiment group was the Predators.

### Hypothesis

Our hypothesis is that Short-eared Owl calls would not scare the birds at our classroom feeders away as much as Bald Eagle, Peregrine Falcon, or Merlin calls. We came up with this theory because owls are birds that are nocturnal and hunt at night. The other three bird species are diurnal and hunt during the day.

### Materials

Ipad (something that can get an app), music speaker, bird feeders, bird food, (sunflower seeds, peanut butter, suet), paper, pencil, cardboard box, clipboard.

### Methods

First we went outside and put a cardboard box on the snowy ground. We placed the iPad and the speaker on this box. We tried to put the box directly under the feeders.

We sat where we could see the bird feeders on the east side of our Hebron Station School. Brandon told us there were three birds

feeding at the bird feeders. I wrote that down and then Jacob started to play the Short-eared Owl call first. We played this same call three times, one right after the other. After the last time we played the call, I wrote down how many birds were remaining at the feeders.

We did this three more times - with the Bald Eagle, Peregrine Falcon and Merlin calls. Also, we observed that the weather was slightly windy and 26°F on this day March, 13th 2015.

### Results

10							
9							
8							
7							
6							
5			X				
4			X				
3	X		X			X	
2	X		X		X	X	
1	X	X	X		X	X	
0				X		X	X
	Bald Eagle	Short-eared Owl	Peregrine Falcon	Merlin			

- In the first vertical bar is the number of birds at the feeders.
- In the next vertical bar is the number of birds that were left after the predator call was played.

### Analysis

We noticed the Red-breasted Nuthatches did not react to the bird calls when they were played. Also, the Black-capped Chickadees left the feeders first. The American Goldfinches winced but did not leave right away. After about 10 seconds, the American Goldfinches left. We observed that the Short-eared Owl had the most effective predator call and scared the most birds away. The Bald Eagle was the least effective call and scared the least amount of birds away. The Bald Eagle and the Peregrine Falcon scared two birds away but the

Peregrine Falcon only had two birds feeding to begin with. The Bald Eagle call began with three feeding birds and lost two.

### Discussion/Conclusion

In our hypothesis, we thought there would not be as much of an effect from the owl predator call but when we did the experiment, our hypothesis was proven wrong. Based on the data our group collected, the Short-eared Owl was the most feared bird call to the birds feeding at the Hebron Station School second story feeders. The Bald Eagle was the least feared call by the feeder birds.

Now we know that some bird calls are feared even if they might not sound very scary. For instance, the Short-eared Owl call does not sound scary to our group. Apparently, to the birds at our Hebron School feeders, this owl call is very scary, even more scary than the Bald Eagle call.

### Works Cited

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by Kiley, Grade 7, FDR Middle School  
Bristol, PA, Mrs. Steinberger

## The Effect of Temperature on Hummingbird Energy Requirements

by Madison, Grade 8  
Kennett Middle School  
Conway, NH  
Mrs. Frankel

### Introduction

Hummingbirds are found only in the Western Hemisphere, from southeastern Alaska to southern Chile. Also, the Ruby-throated Hummingbird is the only species of hummingbird found east of the Mississippi River. Ruby-throated Hummingbirds have a 3 to 4 inch wingspan and an average weight of 3.4 grams.<sup>(1)</sup> All hummingbirds have a high wingbeat frequency, typically around 50 times per second, and a heart rate up to 1,300 beats per minute.<sup>(2)</sup> In order to provide for their extremely high metabolism, they visit thousands of flowers each day, often eating 1.5 to 3 times their bodyweight.<sup>(3)</sup>

The average temperature of Earth's atmosphere has risen between 0.4 and 0.8 degrees celsius in the past 100 years.<sup>(4)</sup> Hummingbirds may eat less on warmer days than cool days. They would not need as many calories to fuel and heat their bodies. Their energy demand might be lower. Meaning higher average temperatures may be reducing overall hummingbird activity. This

could then impact plants and flowers that rely on hummingbirds for pollination.

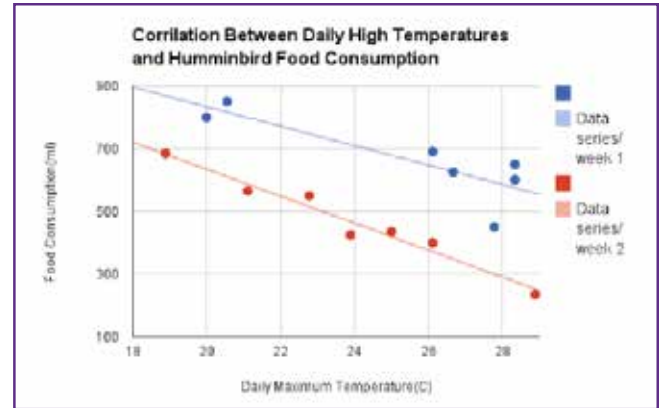
In this study, I investigated the correlation between temperature and hummingbird food consumption. I tested the hypothesis that higher temperatures would reduce Ruby-throated Hummingbird energy requirements, causing a reduction in their food consumption.

### Methods

I conducted my experiment in Madison, New Hampshire during the month of August 2014. I chose the month of August so that I could be more certain of a stable population of fully fledged and actively feeding hummingbirds. A few weeks prior to the experiment, I filled and hung a glass cylinder hummingbird feeder outside on my porch, on the south facing side of the building, in a fixed location, to attract a population of hummingbirds. I drew accurate milliliter markings on the feeder from top to bottom. A day before the experiment I observed how many hummingbirds were visiting the feeder at a time. I determined there was an approximate population of 25.

Hummingbirds are attracted to nectar with high sugar content. A solution of one-part sugar, four-part water (1:4) ratio is used in feeders and is similar to concentrations in nectar produced by many plants.<sup>(5)</sup> A (1:4) concentration was used in my experiment.

Data collection began on August 8<sup>th</sup> (week 1). At 12pm, I recorded how many milliliters of sugar solution were in the feeder. 24 hours later I recorded the amount of solution in the feeder, and calculated how many milliliters were consumed. I recorded the amount of solution



consumed and the air temperature at the feeder location at 12 pm every day for seven days, refilling the feeder at 12pm during data collection if necessary.

I repeated this seven day process again starting on August 20th (week 2). For this data series I determined that there was an approximate population of 16 birds—nine fewer individuals than in week one.

### Results

The hummingbirds in my study consumed much lower amounts of food in both data series as temperature increased. For example, during data series 2, on a day with a daytime high temperature of 28.9 C, the hummingbirds consumed 235 ml of food. On a 18.9 C day, the hummingbirds consumed 685 ml, an increase of 450 ml.

### Discussion

In my study, hummingbird food consumption decreased as temperatures increased, supporting my hypothesis. Earth's atmosphere is predicted to increase between 1.4 and 5.8 C by 2100.<sup>(4)</sup> If average temperatures continue to increase at this rate, pollination by hummingbirds may begin to notably decrease. This could cause a major problem for plants and flowers in North and South America that rely on hummingbird pollination for reproduction.

(cont.'d on page 7)



(cont.'d from page 6)

The Red Buckeye, Red Columbine, Spotted Jewelweed, and Canadian Lily are examples of flowers that are primarily pollinated by hummingbirds.<sup>(6)</sup> If plant species like these are being pollinated less due to decreased hummingbird activity, then these plant and flower species may decline. Further study on this topic could include more data collection to provide a more accurate correlation.

## Resources

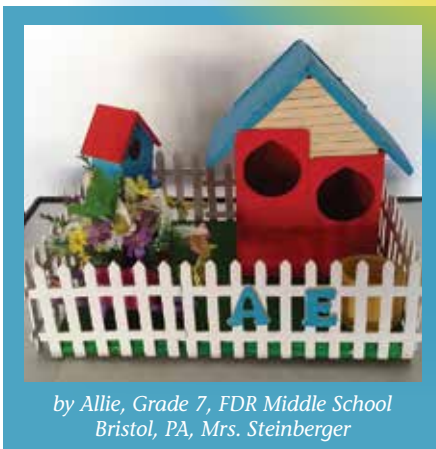
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by Hailey, Grade 7, FDR Middle School, Bristol, PA, Mrs. Mueller



by Gwenna, Grade 6, Hebron Station School  
Hebron, ME, Mrs. Eusden



by Allie, Grade 7, FDR Middle School  
Bristol, PA, Mrs. Steinberger



by Luke, Grade 7, Minnehaha Academy  
Minneapolis, MN, Mrs. Humason



by Taylor, Grade 7, FDR Middle School  
Bristol, PA, Mrs. Steinberger

## In the World of Rain

by Ciya, Grade 8  
Dalton, GA

I hear the drops beating down on every imaginable surface. Out the window, I can see children scuttling back inside to run away from the rain. I have the exact opposite plan. I move toward the door.

“You’re going to stand in the rain again?” I hear my sister ask. I know she thinks I’m crazy, a lot of people would, but there’s no sensation quite like the feeling of little water beads plummeting down hundreds of feet, and hitting your skin.

As I step onto my back porch, I am met by a flood of cool. We interrupt this unbearable heat to give you some nice, decently cold temperatures, I imagine the rain saying.

I walk to the swing set and sit on one of the swings. Slowly, I pump my legs back and forth.

I concentrate on the rain, nothing else. I clear my mind of everything else, and just think about what it feels like in this moment. The rain washes away my problems, at least for the moment. There’s no homework or play script, no band music to pass off, no people to deal with. It’s just me and nature.

I hear the gentle song of a bird close by. I catch a glimpse of his brown and orange body in a nearby tree. “You decided to stay too, huh?”

The bird continues making beautiful, peaceful, soft noise.

“Dang it, you’re just reminding me that I have an ornithology project due for my biology class tomorrow.”

The bird cocks his head to the side as though I am saying something foreign to him.

“Everything’s done, but oral presentations aren’t exactly my favorite. I always seem to embarrass myself. However, I am talking to a bird, so I don’t exactly know how much worse it gets.”

We continue to stare at each other as the rain drips down my body. At this point, my hair is completely soaked and laying limply on my shoulders like a puddle of muddy brown.

The bird flies away, meaning I can’t talk to him anymore, which might just be beneficial.

“Time to go inside,” I say aloud. I guess talking to myself is just as crazy as talking to the bird...or crazier. At least with the bird there was actually something else there.

The rain slows as I make my way to the door. Good timing.

I take one last glance at the rain. I know that I’ll get to come back out the next time it rains, so I guess leaving the storm is bittersweet.



by Menka, Grade 8, Calgary, Alberta



by Iris, Grade 4, Selden, NY



by Cayla, Grade 4, Selden, NY



## Life of Chris the Crow

by Sam, Grade 7  
 Minnehaha Academy  
 Minneapolis, MN  
 Mrs. Humason

The life of Chris the Crow was the best life a bird could ever live. Chris was born in an amazing nest in a beautiful forest. His mom always took care of him when he was a little baby. Every day she would go all the way to the other end of the forest just to get food for him. She would go all the way to the end of the forest just to get his favorite food.

One day something special happened to Chris. His mother said that he would start flying! Chris was very nervous. He knew that his mother could fly very well, but he had no idea how he could be able to fly. He had wings that weren't fully grown yet, but he knew that he could get off the ground a little bit, but not fly. Now was the real time to start his flight, while his mother was watching him. He tried with all his might to get off the ground, and he did! Not a lot, but he did! He went back to the ground, tried again, and got higher, and higher, and higher! Now he was really flying! His mother was so proud of Chris that he had his first flight while she was watching.

It had been about 15 years since Chris's first flight, and now he was flying like a pro. Something even better happened to Chris, he had a wife! His wife's name was Charlotte the Crow. He even had baby crows! He had one boy named Sam, and one girl named Samantha. They were just starting to fly too!

Chris now was getting very old. He was the oldest a crow could ever live to at age 20. One day Chris thought about his younger days, about his flight, his mother, and his wife and babies ....the best life a bird could ever live.

## A Revolting Bird

by Serena, Grade 7  
 Minnehaha Academy  
 Minneapolis, MN  
 Mrs. Humason

The crow is a disgusting bird  
 with their dry, raspy calls  
 And their dreary, plain plumage  
 They infest garbage dumps, woodlands,  
 and anywhere people dwell  
 Swarming in murders to  
 pillage our trash for what they want  
 A class of aves with no class  
 At all  
 Maybe crows aren't as disgusting as some  
 like to believe  
 Maybe they're simply misunderstood  
 They do display a simplistic elegance  
 And their calls are somewhat refreshing in  
 a way  
 From the common, somewhat annoyingly  
 sweet,  
 cries of a songbird  
 and we throw away so much that may still  
 have use  
 So perhaps the crow is searching for some-  
 thing that we have overlooked  
 Something they can use or see as a tool  
 of some sort  
 A crow could be a  
 fine  
 feathered  
 fowl  
 friend

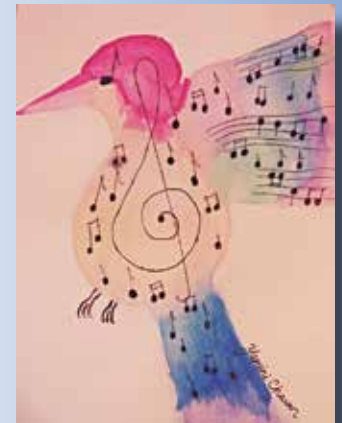
## Remembrance of Spring

by Jordan, Grade 11  
 Macon, GA

May the birds still sing when the time comes for spring  
 Let the flowers bloom and fly away  
 Still, leave their memory here to stay  
 Wondrous nature all year long  
 Everything so alive singing a beautiful song  
 Something that never fades away  
 The love I feel from this will always be here to stay



by Kyle, Grade 12, Morton, IL



by Yamini, Grade 12, Milton, GA

## Do We Have More American Robins Outside than Other Birds?

by *Kemen, Grade 4*  
(with help from 4<sup>th</sup> graders *Trinity & Ivan*, 5<sup>th</sup> grader *Kimberly*, and *Ms. Solchenberger & Ms. Kornell*)  
*Lincoln Elementary School*  
*Madison, WI*  
*Ms. Solchenberger*

### Purpose

The purpose of this experiment is to see if I see more robins than other birds outside at school.

### Introduction

I always see robins in the grass outside my window at home. The robins keep eating something in the yard. I saw a robin with a worm once. I asked my teacher, Ms Solchenberger, "What birds are the most outside? I think robins."

### Hypothesis

I predict I will see mostly robins outside. I believe this because I see lots of robins at my house. There was a digger machine in the yard at my house when we were planting seeds. The digger machine dug up the grass. We saw some worms and the robins ate the worms. We have a berry tree at my house, too. robins don't eat many berries, but they sit in the tree sometimes.

### Methods

At first I thought we would get all the birds together in one place and count them. Ms S. said, "But we can't do that, so what else?" I said, "I mean in Madison. All the birds in Madison. We could count all the birds each at a time, like first all the robins then let them go, then count the other birds and let him go." Ms S. said, "But we can't really do that either, right?" I said, "No." Ms S. said, "What CAN we really do?"

I said, "We can go outside and sit and watch for birds. Put some seeds out, some worms."

Then I made my prediction: I think I will see more robins than other birds outside school. I sorted the BirdSleuth bird cards into three piles:

1. Yes, we'll see these;
2. Maybe we'll see these;
3. Nope, we won't see these.

Then I put back Chimney Swift, Northern Cardinal, European Starling, Grackle, Dark-eyed Junco, and Brown-headed Cowbird because I had too many cards in the "yes" pile. I think I might see: Black-Capped Chickadee, House Sparrow, Peregrine Falcon, House Wren, American Crow, American Goldfinch, Barn Swallow, American Robin, Red-Winged Blackbird, Mourning Dove, and Rock Dove (pigeon).

Ms S. helped me make a chart to collect data. It has all the bird names we might see on it. It has "other" in case we see a bird we do not know.

Next I had to plan when to watch birds. We decided Thursday, Friday, and Monday. Then I had to decide what time to watch birds. We decided to try for three morning times. After we collect data, we will look at it, add it up, talk about it, and type about it.

### Materials

I need a clipboard, 5 pieces of paper (in case someone runs out), pencil, seeds, binoculars, bird flashcards.

### Results

On Day 1, we saw more robins than any other species of bird.

My data shows: 2 Black-capped Chickadees, 2 House Sparrows, 1 Crow, 1 American Goldfinch, 3 American Robins, 1 Mourning Dove, 2 Unknown Birds.

On Day 2, we saw more House Sparrows than any other species of bird. My data shows: 1 Black-capped



Chickadee, 3 House Sparrows, 2 Crows, 2 American Robins.

On Day 3, we saw more House Sparrows again than any other species of bird.

My data shows: 2 Black-capped Chickadees, 10 House Sparrows, 1 Crow, 2 Barn Swallows, 1 American Goldfinch, 4 American Robins.

### Conclusion

My data shows House Sparrows are usually the most birds outside. That's the weird thing: there are more House Sparrows and I only see American Robins a lot, but all the robins disappeared. I did this experiment at school. I think it would be different if I did this experiment at my house. Robins go into my garden a lot and eat stuff and fight. I think maybe robins do not like the playground as much as my garden.

### Questions I Still Have

I wonder why there were less birds our second day? Maybe the birds were scared of the kids running around. My cockatoo is nervous of people. He puts his crest up when he is nervous or scared, too.

I wonder will birds be in their home more because it's a windy day? I learned they were not in their homes more when it's windy, because on Day 3 there were lots of birds outside and it was windy!

I wonder how many different species of birds there are in the world.

## Bird Banding Adventure

by Ananda, Grade 5  
Homeschool  
Arlington, VA

We were all amused to watch the innocent Downy Woodpecker unsuspectingly hop into the trap, his eyes fixed on the delicious sunflower seeds inside. “Click!” went the trap as the door shut behind him.

I was attending a bird banding session led by Mr. Fred Atwood. He is the leader of the Northern Virginia Teen Bird Club, which is co-sponsored by the Flint Hill School and the Audubon Society of Northern Virginia. We had banded several birds that day, including a Tufted Titmouse, a Chipping Sparrow, and a Dark-eyed Junco. While those birds had very mild personalities, we caught a Northern Cardinal who did NOT. He had been banded before, and bite marks were visible on his metal band. The bird struggled and screamed as Mr. Atwood carefully removed him from a mist net, and he bit Mr. Atwood’s finger so hard it almost bled. Then the Cardinal put up a huge fuss throughout the banding process. But still, Mr. Atwood said that the Cardinal was relatively “nice”! The Downy Woodpecker, by comparison, had an amiable demeanor, and I liked him the best of all.

We caught the birds in mist nets, a net made of an almost invisible material, and in traps, like the one that caught the Downy. Mr. Atwood had an array of three nets and five or six traps. The nets were each about twenty feet long and were opened the day of the banding, whereas the traps were cleverly set up by Mr. Atwood weeks in advance. He tied the doors of the traps up and turned them into feeders, and birds like the Downy had become accustomed to eating from them. So on the day we were banding, the trap doors were untied and a few birds were caught. Surprisingly, another Downy that

came later avoided capture by carefully picking seeds through the bars of the trap, rather than entering it. Perhaps she understood that something was amiss?

After we caught a bird, we’d take it to Mr. Atwood’s van and band it. To band a bird, the leg’s thickness has to be determined. Then a band of the matching size has to be fitted on the leg. Afterwards, the bird’s band-number, gender, wing length, fat, parasites, and weight are recorded. To find wing length, the bird’s wing has to be measured with a ruler. The fat is found by blowing on the bird’s furculum feathers (an area just above the chest). Parasites are found by examining the bird closely, studying the inside of the wing, and gently blowing in the bird’s ears. Finally, to check weight, the bird is put in a paper bag, and the bag is put on a scale.

Sometimes we would catch a bird that had been banded before. If that was the case, we would refer to a past chart and see if the weight, parasites, or fat had changed. Birds that had been banded days, months, or even a year before would show up.

After we were done with the bird, we would let him fly away into the woods. Just one last thing would be recorded: if the bird chirped. The birds almost always chirp as they are released, and Mr. Atwood doesn’t know why. Perhaps it is a warning call, or maybe a cry of relief or happiness. Mr. Atwood says that some bird species are more likely to chirp than others, and is trying to figure out if flocking birds chirp more often than solitary ones.

When we were done with the Downy Woodpecker, Mr. Atwood gave him to me so that I could release him. He was the first bird I ever held, and he was as light and delicate as the air. How could such a fragile animal bore holes into hard wood, fly for miles and evade predators? I let the bird go. He opened his sails and rode on the wind, and chirped as he flew away.



Ananda holding a Downy Woodpecker

A. ATHAVALE

## Blackburnians

by Michael, Grade 3  
Wesley D. Tisdale School  
Ramsey, NJ  
Mrs. Dunne

I like them.

Ask me why.

Because they eat mayflies and budworms.

Because they have tiny little black masks.

Because they lay four to five brown eggs.

Because their nest can be between five to eighty feet above the ground.

Because the male has orange spots and the female has yellow spots.

Because they mix with other flocks.

Because they live in nests made of twigs.

Because they have high-pitched songs.

Because its nickname is “Firethroat.”

Because.

Because.

Because.

I like Blackburnians.

## Bird Watching

by Parker, Grade 9  
 Fueled Education Online/Young  
 Birders of Central Oregon  
 Bend, OR  
 Ms. Gilbertson

When I was thirteen I started birding. First I started looking at birds around my house and neighborhood. Then I started a bird journal, drawing pictures of birds and writing down details about the date, where I saw it and what the weather was like. I started looking at the easy to recognize birds like the American Robin. Then I began looking at more difficult birds like Californian Quail and House Finch. They were all different in color, shape and size. At first I could identify only a couple of birds by their calls and songs. To get better I listened to the birds more

and asked experts for help. I wanted to see different birds so I started to go around town looking for birds. At the river I saw ducks and geese. A special sighting I had was a Cooper's Hawk in my back yard. One of the best bird encounters was going out of town to see a Snowy Owl that is not normally seen near where I live. I started going with organized tours from my local Audubon Society. Going with them helped me learn quickly since there were always expert birders in the groups.

One of the trips I went on with the local Audubon organization was on a warm and sunny winter day. We stopped at a marsh that had trees lining each side. The group walked down the road hoping to see some waterfowl. When we got to the end of the road we hadn't seen any birds. So we started to walk back to the cars, when suddenly, on the left side of the road there was a male Downy Woodpecker! I recognized

it from books and the field marks it had. I identified the small beak, the red spot on its head, and the black and white patterns on its back (Sibley 2014, 316). That was the best sighting I had ever seen of a Downy Woodpecker.

Bird watching is a great activity. You can sit in your back yard and watch birds. Bird watching is also a great excuse to go around the world looking for birds, or just to get out of town. So go try it out! Get some binoculars, a field guide, and start watching birds!

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by Maggie, Grade 7, Minnehaha Academy  
 Minneapolis, MN, Mrs. Humason



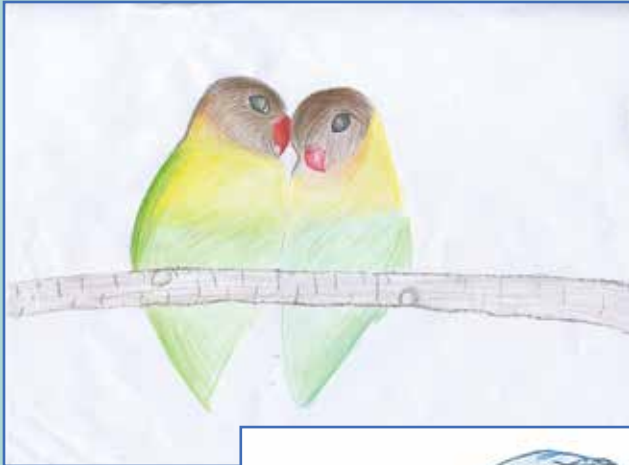
by Avery, Grade 7, Minnehaha Academy  
 Minneapolis, MN, Mrs. Humason



by Will, Grade 7, Minnehaha Academy  
 Minneapolis, MN, Mrs. Humason



by Abbi, Grade 7, Minnehaha Academy  
 Minneapolis, MN, Mrs. Humason



by Jordan, Grade 7  
Minnehaha Academy  
Minneapolis, MN  
Mrs. Humason



by Clara, Grade 7  
Minnehaha Academy  
Minneapolis, MN  
Mrs. Humason



by Daniella, Grade 5  
URI 4-H Tech Wizards  
Cranston, RI  
Mrs. Pond



by Alexandra, Grade 7, Minnehaha  
Academy, Minneapolis, MN, Mrs. Humason



by Joseph, Grade 3, Wesley D. Tisdale School  
Ramsey, NJ, Mrs. Dunne



by Oliver, Grade K, Regina District  
School Board Home Educator  
Regina, Saskatchewan  
Ms. Wotherspoon

**Chur-lee, Bluebird**

Emma, Grade 6  
Riveredge Nature Center  
Newburg, WI  
Ms. Henderson

On the edge of the forest  
You may see  
An eastern bluebird  
Who looks just like me.  
Wings of grey blue and  
A breast of gold  
That is how  
A female may be told.  
A male is blue with  
An orange breast,  
And black or white  
Fills up the rest.  
My song is a trill  
You can hear  
From up on my hill.  
But is not a whippoorwill.  
A streak of orange and blue,  
Is what you'll see  
When I fly by you.  
My sweet melody  
Of chur-lee, chur-lee  
Is what you'll hear  
When you see me.  
Chur-lee, chur-lee.



by Pacey, Grade 7  
FDR Middle School  
Bristol, PA  
Mrs. Mueller

**Fly Away**  
Allison, Grade 7  
FDR Middle School  
Bristol, PA  
Mrs. Steinberger

Do you ever look at the birds in the sky?  
How beautiful they are  
Flapping their wings to fly.  
Then you look at yourself  
And wonder why  
You are still on the ground.  
Why, why can't I fly?  
You see flying is not simple.  
You think more and more while time goes by.  
I want to be free like them.  
But it is impossible for me to fly.  
The birds are free. I am not.  
I want to fly, fly away  
And be free.



by Gabrielle, Grade 8, Homeschool  
Blaine, MN, Mrs. Brounstein

**Symphony**  
Genevieve, Grade 7  
Minnehaha Academy  
Minneapolis, MN  
Mrs. Humason

Walking on the edge of the sidewalk  
you hear,  
but do not see  
a soft  
chick a dee dee dee dee  
back and forth,  
as if communicating.  
Quickly more and more birds join in,  
as if creating a symphony  
all blending together  
into one big song.



by Langston, Grade 7, Minnehaha Academy  
Minneapolis, MN, Mrs. Humason

**Haiku**  
Adam, Grade 7  
Minnehaha Academy  
Minneapolis, MN  
Mrs. Humason

Soaring through the sky  
On brilliant wings of freedom  
Master of the wind



by Leila, Grade 3, Heart Pine Waldorf School  
Gainesville, FL, Mrs. Foster



by Emani, Grade 7, FDR Middle School  
Bristol, PA, Mrs. Mueller



by Leila, Grade 7  
FDR Middle School  
Bristol, PA  
Mrs. Mueller



by Trace, Grade 7, Minnehaha Academy  
Minneapolis, MN, Mrs. Humason

### Winter Seeds

Jessica, Grade 7  
Minnehaha Academy  
Minneapolis, MN  
Mrs. Humason

Cluck, flutter, scratch.  
The birds swoop and soar  
through  
the air, foraging through the  
seeds  
laying abandoned on the  
ground.  
Cluck,  
the birds start to quarrel over  
which seed is rightfully theirs.  
Flutter, the birds fly high  
into the bare branches of the  
spindly trees  
to munch on their prized  
possessions.  
Scratch, they sift through the  
cold snow,  
searching for the next  
seed-victim.



by Brandon, Grade 7, FDR Middle School  
Bristol, PA, Mrs. Steinberger

The Cornell Lab of Ornithology  
**BirdSleuth K-12**

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Volume 4, Fall 2015

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## Dear Educator

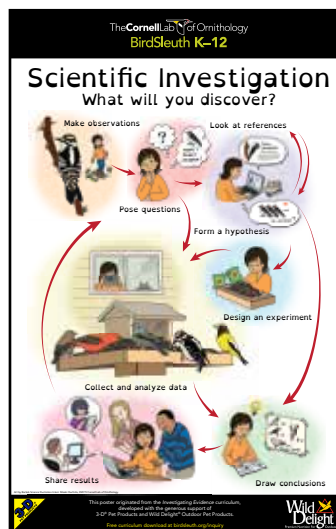


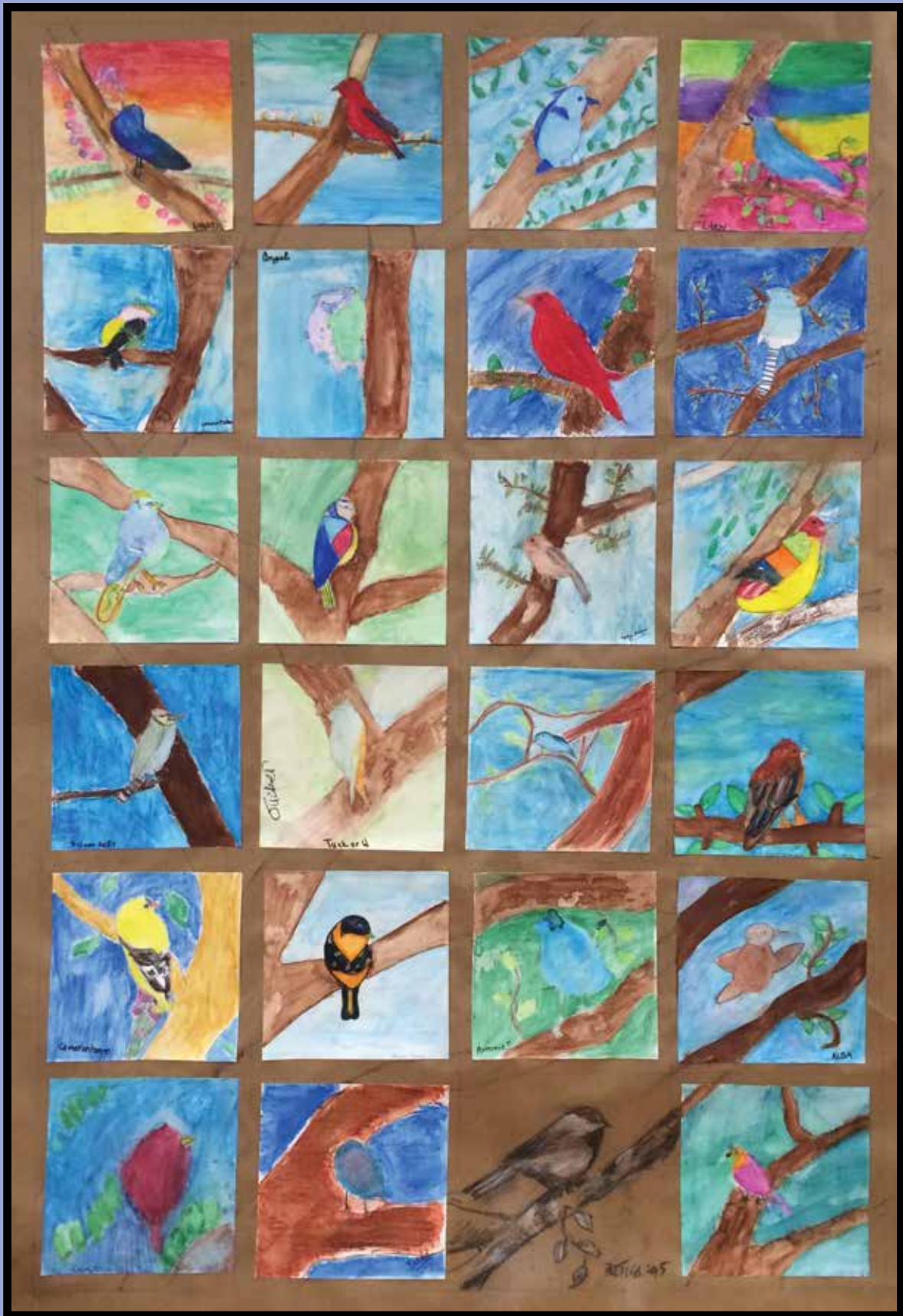
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*"Bird Tile Composition," Grade 5, St. Theresa School, Phoenix, AZ, Ms. Garcia-Dubus*



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