



CANADA  
4-H Ontario

[www.4-hontario.ca](http://www.4-hontario.ca)

## 4-H ONTARIO PROJECT



## Pollinator Project

## RECORD BOOK



**CANADA**

4-H Ontario

## **The 4-H Pledge**

I pledge my Head to clearer thinking,  
my Heart to greater loyalty,  
my Hands to larger service and  
my Health to better living  
for my club, my community and my country.

## **The 4-H Motto**

Learn To Do By Doing

## **Project Resource Information:**

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Date: March, 2016

Thank you to the 4-H volunteers and members who piloted this project for us!

Huron 4-H Association

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Vicki Beard, Pollination Guelph

Adrienne Brewster, Cambridge Butterfly Conservatory

Karin Davidson-Taylor, Royal Botanical Gardens

Carol Dunk, Ontario Horticultural Association

Kimberley Fellows, Pollination Canada

Paul Hoekstra, Syngenta

Robyn McCallum, Ph.D. Student, Dalhousie University

Tarah Young, Organic Farmer

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All information presented in this Project Resource was accurate at the time of printing.

The development of this project resource was made possible through the support of Syngenta.

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# RECORD BOOK

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## Record Keeping – Why?

Record Books are to document time and money spent, what you have learned, your ideas, memories and what you liked and didn't like. Your Record Book also...

- Helps you set goals for this project
- Has space to record important dates, your elected executive and the names and contact information of your leaders and club members
- Is a great way to get and stay organized

Down the road when you look back on your 4-H projects these books will be able to remind you what you learned so you can use those skills later in life. It will bring back memories of the project, your 4-H friends, your story and thoughts at the time of the project. You will never forget because this book will act as a reminder! It will also be useful at the Achievement Program, when looking at your progress and when reviewing your accomplishments.

## How do I organize my materials?

1. Make your records neat and easy to read. This will make it easier to find information later on, and to share your information with others.
2. Use a three ring binder or duotang to hold your materials and divide your information into sections using dividers. This will keep things from becoming lost and will it easier to find what you need later on. This will also allow you to add extra pages later.

## How do I keep good records?

1. Keep track of activities throughout the meetings, as you complete different parts of the project. It's often difficult to remember things that happened in earlier meetings.
2. Make sure the information you write in your Record Book is complete and accurate. If you're not sure about something, ask your leader for help before writing it in your book. You can also consult people in your community or do some research on your own. If you borrow information from someone or someplace else, make sure you write down where you found it.

***Remember that this is YOUR Record Book so make it your own! And, remember to bring your Record Book to every meeting!***



**Who's Who**

Club President: \_\_\_\_\_ Ph. #/E-mail: \_\_\_\_\_

Vice President: \_\_\_\_\_ Ph. #/E-mail: \_\_\_\_\_

Secretary: \_\_\_\_\_ Ph. #/E-mail: \_\_\_\_\_

Treasurer: \_\_\_\_\_ Ph. #/E-mail: \_\_\_\_\_

Press Reporter: \_\_\_\_\_ Ph. #/E-mail: \_\_\_\_\_

Meeting Dates:

	<i>Date &amp; Time</i>	<i>Place</i>	<i>Notes: (Things to bring, remember, etc.)</i>
<b>Meeting 1</b>			
<b>Meeting 2</b>			
<b>Meeting 3</b>			
<b>Meeting 4</b>			
<b>Meeting 5</b>			
<b>Meeting 6</b>			

**Leader Name & Contact Information**


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## Member Expectations and Goals

Why did you join The Pollinator Project club?

What is one goal that you want to achieve in this project?

Do you have any ideas for fun things to do during the project?

Do you have any ideas for an Achievement Program for The Pollinator Project club? (Keep in mind that an Achievement Program should include the community in some way).

## Member Responsibilities

- Be a current paid member of 4-H Ontario
- Attend at least 2/3 of the meeting time allotted for this project
- Complete the Record Book for this project. Bring it with you to each meeting!
- Put your Record Book in a binder or duotang so you don't lose any of the pages.
- Complete any other projects as required by the club leaders.
- Remember the more you put into your 4-H club the more you will get out of it!

**Roll Calls – In my Opinion.....**

	<b><i>Roll Call:</i></b>	<b><i>My Answer:</i></b>
<b><i>Meeting 1</i></b>		
<b><i>Meeting 2</i></b>		
<b><i>Meeting 3</i></b>		
<b><i>Meeting 4</i></b>		
<b><i>Meeting 5</i></b>		
<b><i>Meeting 6</i></b>		

## Project Summary – The Pollinator Project

### A. Member Comments

1. What did you gain from taking this project?
  
2. Which meeting or topic was the most/least interesting? Why?
  - a. Most:
  
  - b. Least:
  
3. Comment and/or give suggestions for improvements on the overall project (eg. activities, tours, achievement program plans, member presentations, special activities, judging information).
  
4. What interests would you like to explore through future 4-H projects?

### B. Parent/Guardian Comments:

### C. Leader Comments:

**This project has been completed satisfactorily!**

Member:

\_\_\_\_\_

Leader:

\_\_\_\_\_

Date:

\_\_\_\_\_

Leader:

\_\_\_\_\_



## Activity #4 (Meeting #1)

### Neighbourhood Scavenger Hunt




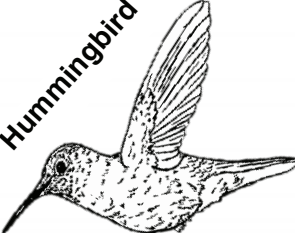
Scavenger Hunt Item	Did you find it? (put a check mark here if you found it)
Twig	
Small grey stone	
Feather	
Pinecone	
Tree bark (must be found on the ground)	
Maple key	
A piece of litter	
Clover	
Acorn	
Small white rock	
Maple leaf that has fallen on the ground	
Y shaped stick	
A flower fallen from a tree	

Add to the list but be sure not to pick anything that is growing or any insects or animals!

# Activity #5 (Meeting #1)

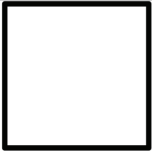


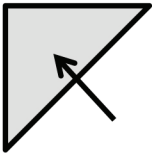

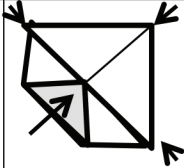
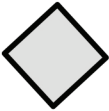

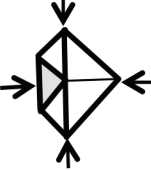

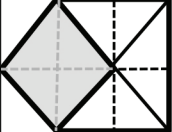



## Cootie Catchers

### Primary Pollinator Cootie Catcher

 <p><b>Butterfly</b></p>	<p><b>1</b></p> <p>Did You Know?</p> <p>Butterflies and moths are pollinators. <b>Fly like a butterfly.</b></p>	<p><b>2</b></p> <p>Did You Know?</p> <p>Bees collect nectar and pollen as food for the whole colony of bees. <b>Buzz like a bee.</b></p>	 <p><b>Bee</b></p>
<p><b>8</b></p> <p>Did You Know?</p> <p>Paper wasps, hornets and yellow jackets can give a painful sting if you get too close. <b>Hop like your foot got stung.</b></p>	<p>Did You Know?</p> <p>Hummingbirds sip nectar as they hover over flowers. They spread pollen on their travels. <b>Flap your wings fast.</b></p>	<p><b>3</b></p> <p>Did You Know?</p> <p>Insects move pollen accidentally from flower to flower. <b>Fly here and there.</b></p>	<p><b>4</b></p> <p>Did You Know?</p> <p>Flowers grow on plants before the fruits and vegetables grow. <b>Grow like a plant.</b></p>
 <p><b>Hoverfly</b></p>	<p><b>6</b></p> <p>Did You Know?</p> <p>Hoverflies look like bees. Look for them on flowers eating pollen and sipping nectar. <b>Pretend to be a hoverfly.</b></p>	<p><b>5</b></p> <p>Did You Know?</p> <p>Most fruits and vegetables have seeds to grow new plants. <b>Make yourself into a tiny seed.</b></p>	 <p><b>Hummingbird</b></p>

Written by Dawn Pierrynowski

## How to Make the Pollinator Cootie Catcher


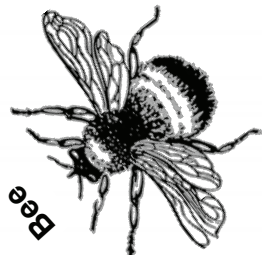
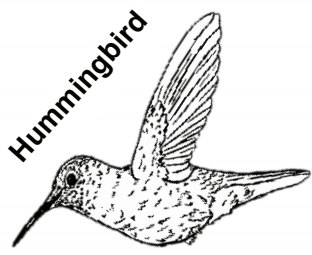
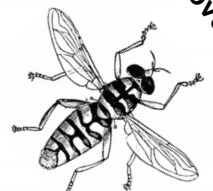
 Square pattern down	 Fold over Pattern up	 Unfold	 Fold the other way	 Unfold	 Fold 4 corners in	 Looks like this
 Flip it over	 Fold 4 corners in	 Flip it over. It looks like this.	 Enlarged with flap open	 Flip it over	 Fold in half	 Use thumbs and index fingers



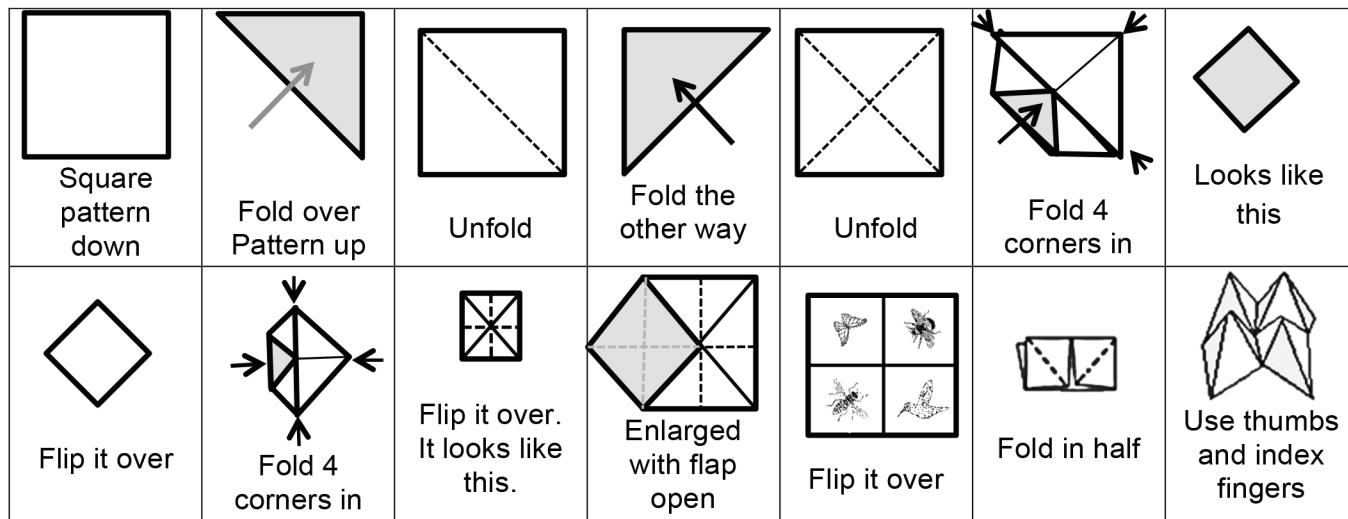
## How to Play

- Place your thumbs and index fingers into the pyramids of the cootie catcher.
- Ask a friend to pick one of the four pollinators on the outside.
- Moving the flaps in and out and from side to side as you spell out the name of the insect your friend selected.
- Open the cootie catcher to see the numbers.
- Ask your friend to pick a number.
- Move the flaps as you count to the number they selected.
- Ask your friend to pick another number and move the flaps to count out the number once more.
- Have your friend pick a third and final number.
- Open the flap and read what's inside.

Junior Pollinator Cootie Catcher

 <p>Butterfly</p>	<p>1</p> <p>Did You Know? Butterflies and moths are pollinators. They sip nectar from flowers and lay eggs on milkweed plants that hatch into caterpillars.</p>	<p>2</p> <p>Did You Know? Bees are pollinators. They collect nectar and pollen for food for the whole colony of bees.</p>	 <p>Bee</p>
<p>8</p> <p>Did You Know? Paper wasps, hornets and yellow jackets can give a painful sting if you get too close.</p>	<p>Did You Know? Hummingbirds sip nectar as they hover over flowers. They spread pollen on their travels.</p>	<p>3</p> <p>Did You Know? Flowers are pollinated as bees and other insects move pollen accidentally from flower to flower.</p>	<p>4</p> <p>Did You Know? After pollination flowers turn into the fruits and vegetables we eat.</p>
<p>7</p> <p>Did You Know? Hoverflies look like bees. Look for them on flowers eating pollen and sipping nectar</p>	<p>5</p> <p>Did You Know? Pollinated flowering plants make fruits with good seeds to eat for both humans and animals.</p>	<p>6</p> <p>Did You Know? Hoverflies look like bees. Look for them on flowers eating pollen and sipping nectar</p>	 <p>Hummingbird</p>
 <p>Hoverfly</p>	<p>9</p> <p>Did You Know? Pollinated flowering plants make fruits with good seeds to eat for both humans and animals.</p>	<p>Did You Know? Pollinated flowering plants make fruits with good seeds to eat for both humans and animals.</p>	<p>Did You Know? After pollination flowers turn into the fruits and vegetables we eat.</p>

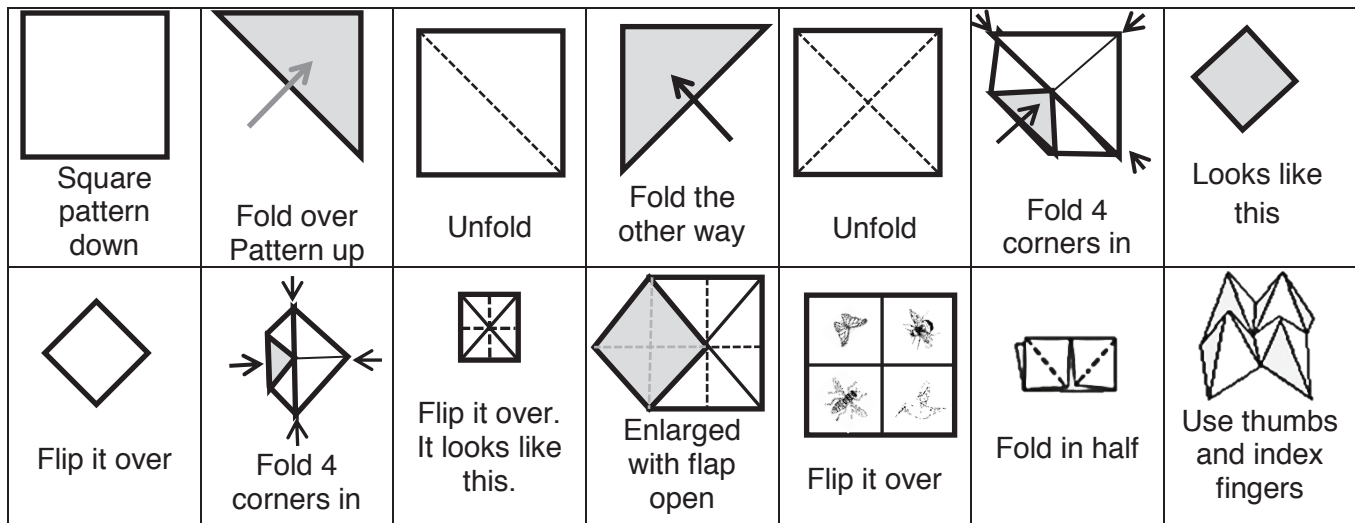
## How to Make the Pollinator Cootie Catcher



## How to Play

- Place your thumbs and index fingers into the pyramids of the cootie catcher.
- Ask a friend to pick one of the four pollinators on the outside.
- Moving the flaps in and out and from side to side as you spell out the name of the insect your friend selected.
- Open the cootie catcher to see the numbers.
- Ask your friend to pick a number.
- Move the flaps as you count to the number they selected.
- Ask your friend to pick another number and move the flaps to count out the number once more.
- Have your friend pick a third and final number.
- Open the flap and read what's inside.

## How to Make the Pollinator Cootie Catcher



## How to Play

- Place your thumbs and index fingers into the pyramids of the cootie catcher.
- Ask a friend to pick one of the four pollinators on the outside.
- Moving the flaps in and out and from side to side as you spell out the name of the insect your friend selected.
- Open the cootie catcher to see the numbers (have student add numbers and colour each numbered section).
- Ask your friend to pick a number.
- Move the flaps as you count to the number they selected.
- Ask your friend to pick another number and move the flaps to count out the number once more.
- Have your friend pick a third and final number.
- Open the flap and read what's inside.
- \_\_\_\_\_

**Suggestions for text ... ask the students about some things that they learned which impressed them the most and have them write those in, if they wish:**

Butterflies and moths are pollinators. They sip nectar from flowers and lay eggs on milkweed plants that hatch into caterpillars.

Bees are pollinators. They only collect and eat nectar and pollen for food.

Flowers are pollinated as bees and other insects move pollen accidentally from flower to flower.

After pollination, some flowers develop into the fruits and vegetables we eat.

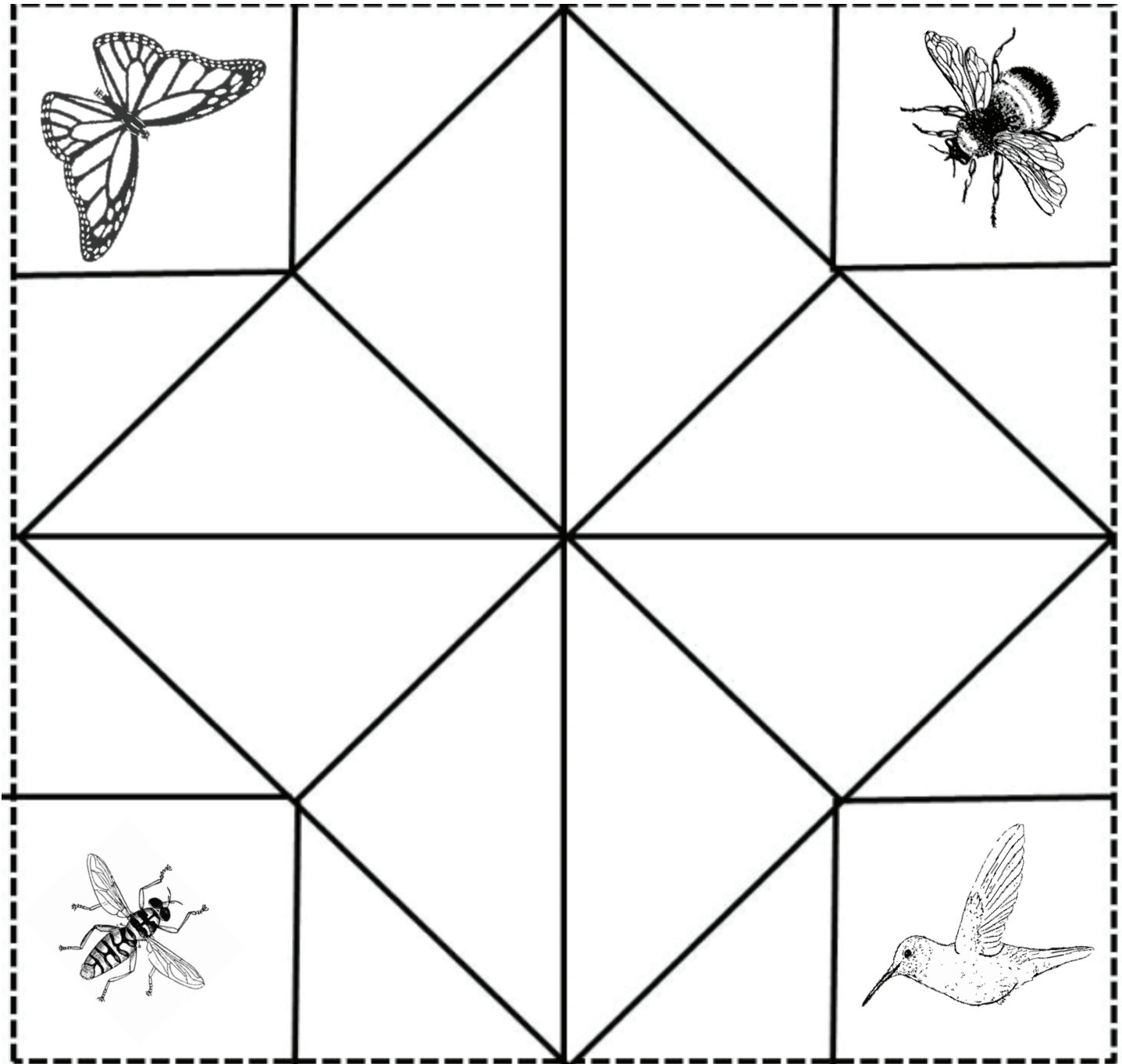
Pollinated flowering plants make fruits with good seeds to eat for both humans and animals.

Hoverflies look like bees. Look for them on flowers eating pollen and sipping nectar

Paper wasps, hornets and yellow jackets can give a painful sting if you get too close.

Hummingbirds sip nectar as they hover over flowers. They spread pollen on their travels.

### Junior Pollinator Cootie Catcher



# Take Home Activity #1 (Meeting #1)

## Backyard/Neighbourhood Walk

Take a walk in your backyard or in your neighbourhood (make sure to get your parent's permission first). Count how many pollinators you can find and what they are (e.g. bee, hummingbird, etc.). Record your findings below.

1. \_\_\_\_\_

2. \_\_\_\_\_

3. \_\_\_\_\_

4. \_\_\_\_\_

5. \_\_\_\_\_

6. \_\_\_\_\_

7. \_\_\_\_\_

8. \_\_\_\_\_

9. \_\_\_\_\_

10. \_\_\_\_\_





# Digging Deeper (Meeting #1)

## Geographic Global Picture of Pollinators

There are many pollinators world-wide, many of which are not native to Canada. Or, some pollinators, such as bats, might live in Canada but aren't the type of bat that pollinates. Bats however, are important pollinators in other parts of the world.

Choose a continent to focus on and find out what animals pollinate which crops on this continent.

Or, using a picture of the world, identify which animals pollinate in which geographic areas of the world and what types of crops these animals pollinate.

For example, midges are essential for pollinating cacao trees in Southern and Central America. Without midges there would be no more chocolate!  
Record your findings below.

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# Take Home Activity #1 (Meeting #2)

## **Pollinator Habitat Pictures**

Go for a walk in a rural area (make sure you get permission first if you don't own the land and!) or in a conservation area. Make sure an adult knows where you are and never go alone. Take pictures of any pollinator habitats you see and put the pictures below on this page. Add additional pages if necessary.

# Take Home Activity #2 (Meeting #2)

## Butterfly Pictures

Either go for a walk in your backyard and take pictures or look on the Internet for pictures of as many different kinds of butterflies as possible. Put the pictures below. Add additional pages if necessary. For each butterfly, research as to what kind it is and if it is native to Canada.

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# Digging Deeper II (Meeting #2)

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## Photo Hunt (Pollinator Pictures)

There are many pollinators in the environment where we live but getting pictures of them is sometimes a challenge! Some insects are quite small while others, like hummingbirds, never sit. Try to get as many pictures of different pollinators as possible, put the pictures below on this page and be prepared to share your pictures with the rest of the group at the next meeting.

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# Digging Deeper III (Meeting #2)

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## Beneficial Insects

Beneficial insects are insects which you can attract to your garden, which prey on harmful insects or their larvae. Some of these insects include:

- Wasps
- Ladybugs
- Nematodes
- Hover-flies
- Praying Mantis

Find out if there are other insects that are native to the area you live in that also provide natural pest control and add to this list. Determine which pests they control.

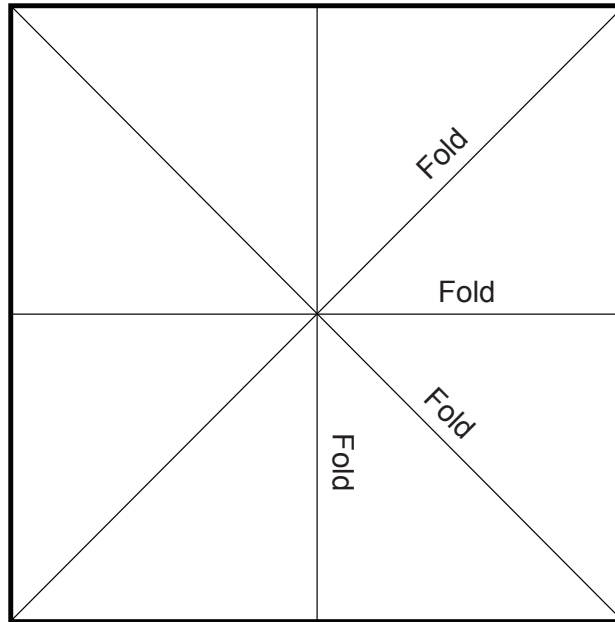
Once you have a list for your area, examine a garden close to where you live to see if it contains any of these pests and if there are any beneficial insects in the garden to help with controlling them. Document your findings and take pictures if possible. Record your findings below.

# Take Home Activity #2 (Meeting #2)

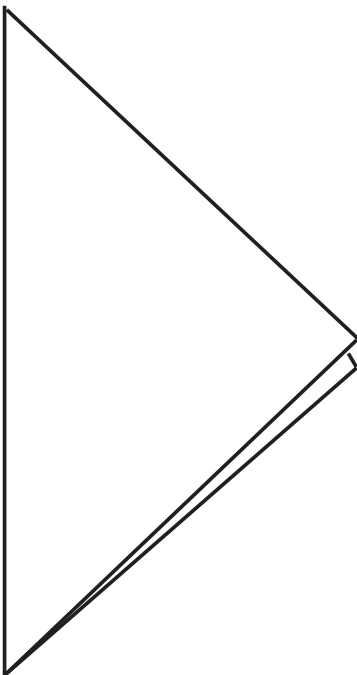
## Origami Butterflies

### Origami Butterfly

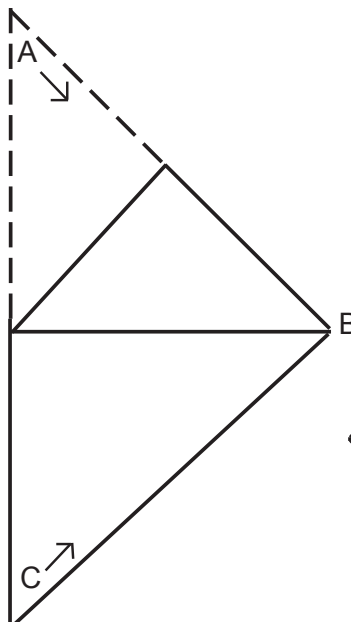
1. Using a square piece of orange copy or origami paper, fold your paper 4 times in the directions shown in the diagram.



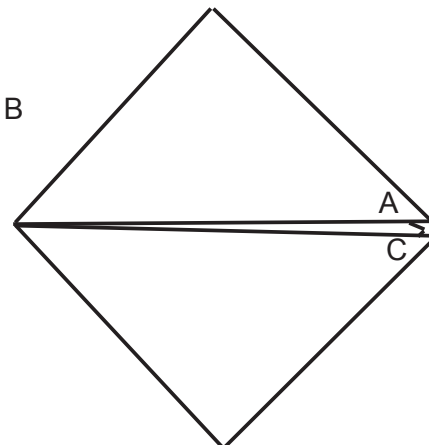
2. Fold your paper once to create a triangle like this.



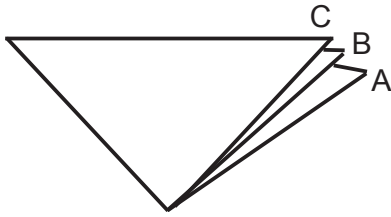
3. Fold the corner marked A toward B.



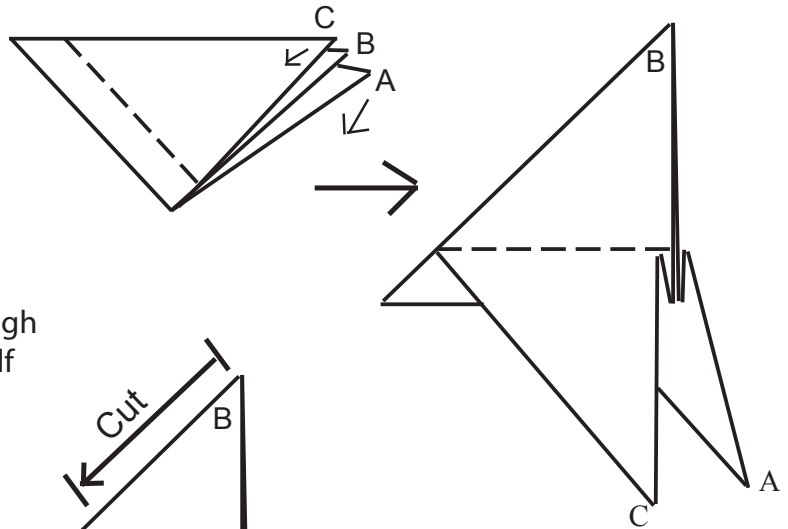
Then fold C towards B.



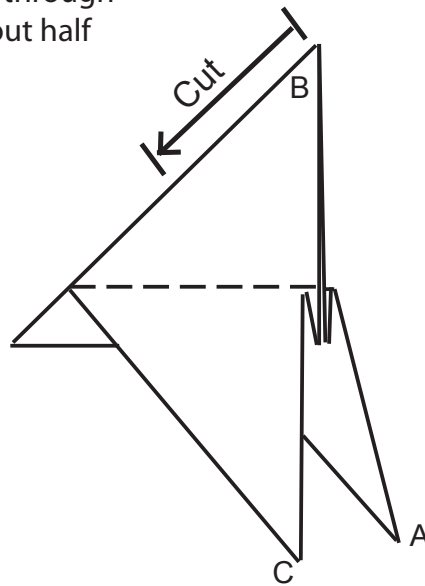
4. Fold in half along the line between A and C to make a triangle.



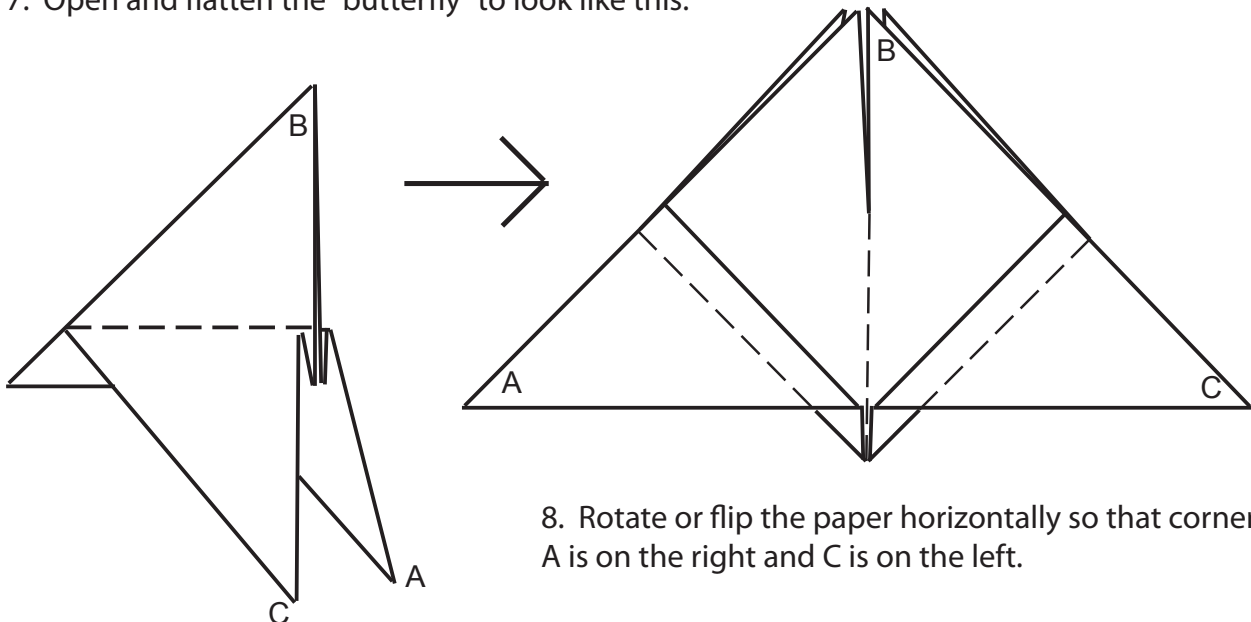
5. Then fold flaps C and A along the dotted lines to look like this:



6. Starting at the corner B, cut through both thicknesses of paper about half way along the diagonal.



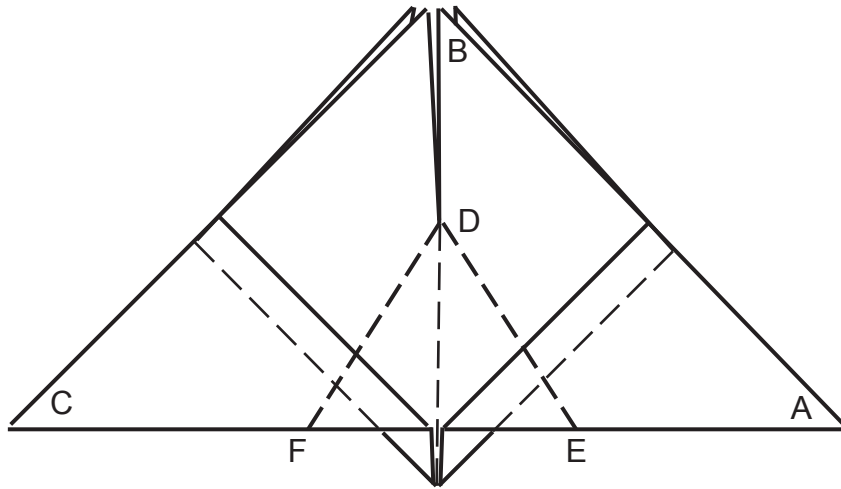
7. Open and flatten the "butterfly" to look like this:



8. Rotate or flip the paper horizontally so that corner A is on the right and C is on the left.

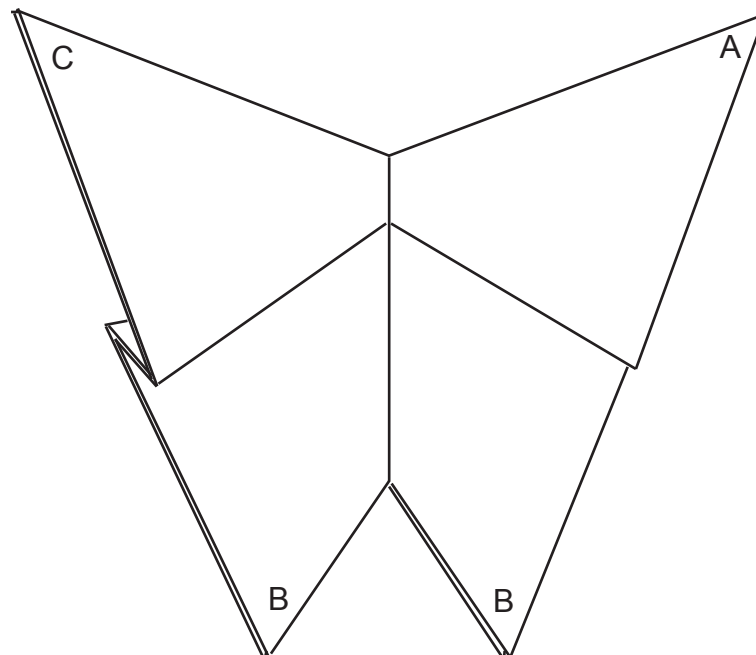


9. Make a crease along the heavy dotted line from D (the bottom of the cut) to E, and again from D to F.



10. Fold crease D-E towards crease D-F. This creates a flap in the back (much like the bottom of a paper airplane).

11. Rotate the butterfly 180° so that from the top, your butterfly looks like this (the flap is on the other side).



12. You can use a staple or glue on the back flap to keep the butterfly shape. Trim the wings to resemble the shape of monarch wings. Color the black areas with a black marker (permanent markers work better) and dot white areas with white tempera or other opaque white paint.

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# Take Home Activity #1 (Meeting #3)

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## Hummingbird Challenge!

Getting a clear picture of a hummingbird can be quite a challenge since they move so quickly. If you can get a picture, be sure to show it to the group at the next meeting and put the picture below here in your Record Book.

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# Take Home Activity #2 (Meeting #3)

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## Species of Butterflies

Different species of butterflies live in different areas of the world. Research to find out which species live in your area. Record your findings below and include pictures if possible.

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# Digging Deeper (Meeting #4)

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## Agricultural Crop Pollination

Pollination is extremely important to farmers for most crops. Without the pollination process, certain crops would experience low yields or would cease to exist completely. Because of this, some farmers use certain techniques to insure that there is an abundance of pollinators in the area when crops are flowering.

Find out what techniques are used in your area by either talking to farmers, crop specialists and/or agronomists, or by going to the library. Be sure to ask questions such as:

- Do you use any special techniques to attract pollinators to your crops?
- How long have you been using any special techniques?
- Which type of pollinators do you try to attract?
- Do you introduce pollinators specifically for your crop? If so, which ones?
- Have you witnessed any change in yield in your crop(s)?
- Is the economic return from attracting/introducing pollinators to your crop worth going to all of the extra work?
- Will you keep doing this in the future?
- How have your techniques changed over the years?
- Any other questions you can think of!

Record your findings here and be prepared to share them.

# Take Home Activity #1 (Meeting #4)

## Centre of the Flower

The centre of flowers, where pollination takes place, is a very delicate spot on the flower. In order to study the centre of a flower, we have to be very careful not to harm the flower. The best way to capture what the centre looks like is to try and take a picture. Choose a plant that has a fairly large flower. Take a picture, place it on this page and label the various parts of the centre of the flower.

# Take Home Activity #2 (Meeting #4)

## Who Pollinates Your Food?

Looking at the chart in this meeting that lists plants that require pollination, is there a food(s) that you like to eat that isn't on the list? Make a list of foods below and using the library or the Internet, find out if they require a pollinator in order to produce food and seed and if so, what type of pollinator(s) the plant requires.

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## Activity #27 (Meeting #5)

### What's For Breakfast?

List which foods in the picture require an insect pollinator in order to grow and reproduce.



*Pictures and information courtesy of Robyn McCallum, Ph.D. Student, Dalhousie University*

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# Activity #29 (Meeting #5)

## Judging Card

*Based on the list found on pg. 93 in the Reference Manual of Crops Grown in Canada the Depend on or Benefit from Insect Pollination, choose four of the same fruit or vegetable that could be purchased in a grocery store or farmer's market.*

### Criteria:

1. Does the food look fresh?
2. Is it the proper colour?
3. Is it the proper size?
4. Does it look natural?
5. Does it look appetizing?
6. Does it smell like it should?
7. Does it taste good? (only judge by taste if group is small)

Giving Reasons:

I place this class of \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_

I place \_\_\_\_\_ first because \_\_\_\_\_

I place \_\_\_\_\_ over \_\_\_\_\_ because \_\_\_\_\_

I place \_\_\_\_\_ over \_\_\_\_\_ because \_\_\_\_\_

I place \_\_\_\_\_ 4th because \_\_\_\_\_

For these reasons, I place this class of \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_

Official Placing



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# Digging Deeper I (Meeting #5)

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## The Pollinator Beat

It's time to put on your journalism hat and talk to the people who produce our food and horticultural products. It could be someone who grows crops for humans or for livestock, it could be someone who operates a market garden or a greenhouse, or it could be anyone else who is involved in the food or plant industries.

Before conducting your interview, make a list of questions you would like to ask. Questions could include:

- How much do you depend on pollinators?
- How concerned are you about pollinator health?
- Do you use managed bees as part of your farm operation?
- Do you depend on native pollinators for your crops?
- Do you have steps in place on your farm to help protect bees and other pollinators?
- Have you witnessed any change in yields of your crops over the last few years?
- Have you made any changes to your practice in recent years in regards to pollinator health?

Once you have conducted your interview, write an article to be shared at your next meeting. If possible (and with the permission of the person you interviewed), submit your article to a local newspaper.

Put the article you have written below. Add extra pages if necessary.

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## Digging Deeper II (Meeting #5)

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### Bee Friendly Farming

Pollinators are a key natural resource in agriculture and healthy ecosystems. Farmers and beekeepers are in the forefront for playing a critical role for their survival.

Visit: <http://pollinator.org/bff.htm> to learn more about Bee Friendly Farming. Find out what the criteria is to become Bee Friendly Certified, who governs this process and what benefits certification has for both the farmer, for pollinators and for the environment.

Record your findings below. If possible try to find a farmer in your area that has become Bee Friendly Farming certified. Ask him or her why they became certified and whether they would recommend this process to others.





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# Digging Deeper I (Meeting #6)

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## Pollination in the Media

Many issues surface in the media in relation to the pollination of plants and the insects and animals that pollinate these plants. Find a media article on this topic in the newspaper or on the Internet. Read through it and list the pro's and con's of the issue. When reading the article some question to keep mind could be:

1. Did I learn something new by reading this article?
2. How will this effect food production?
3. How will this effect pollinators and the pollination process?
4. How will this affect me personally?
5. Does it have implications for the economy?
6. How will this affect my community?
7. Is there something I can do to make a difference?

After creating your list of pro's and con's, have you thought of more questions that the article didn't answer? Try to find answers to your questions by researching the topic further.

Include the article, your list of pro's and con's and any research you have completed on this topic below.

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## Digging Deeper II (Meeting #6)

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### Pesticides and Pollinators

Much attention has been focused on the role that pesticides play in the health of pollinators and in particular, the health of bees. The issue appears frequently in the media but, in order to understand the role that pesticides play, we need to focus on scientific results to make informed, educated decisions. Whatever decisions are made, these decisions affect a great number of people, these decisions affect industry and jobs, these decisions affect the environment and most importantly, these decisions affect our pollinators.

Research is on-going in Canada, the United States and in Europe. Choose a pesticide that is in the media that people have raised concerns over because of its role in pollinator health. Examples include neonicotinoids, pyrethroids, foliar insecticides, etc. Research, either in the library or on the Internet, to find credible scientific studies that either prove or disprove the concerns. If possible, try to find studies that were conducted in Canada. Include the studies (if the study is quite lengthy, include the results of the study) here in this Record Book.

Write a short summary of your findings and how the results will affect pollinator health. Include your short summary below.

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# Digging Deeper III (Meeting #6)

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## Citizen Science

You and the members of your Pollinator club can be Citizen Scientists! Citizen Science is scientific research conducted, in whole or in part, by amateur or nonprofessional scientists. Coordinate a monitoring program for your Pollinator Club. Pick one of the following insects/animals.

1. Bees
2. Hummingbirds
3. Beetles
4. Ants
5. Wasps
6. Moths
7. Butterflies

You can get your fellow club members to look for and record where they saw this particular animal/insect. Before starting, have pictures to show club members exactly what they are looking for. Have members report back to you so you can make a comprehensive list of what is found in your area. Or, create a document that can be shared through the Internet that club members can add to when they have found something.

This could be done at a meeting that is held in a conservation area, wooded or vegetative area, etc. or over the course of weeks or months.

*NOTE:* Be sure to tell members to look and take pictures if they wish, but not to touch anything. Everything should be left as they found it!

For younger members, instill the importance of having an adult with them when they go looking.

Record the findings in your below. Add extra pages if necessary.

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# EXTRA ACTIVITIES

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## Activity #34

### *Walk in the Woods Memory Game*

Memory games are a lot of fun, especially at a party. Begin the game with the phrase, “When I go walking in the woods I would like to see.....” and finish the phrase by adding one item. As each person takes a turn they add a new item and then they must repeat, in order, the items other people have added. The items can be real or silly items. When a person makes a mistake, they are out of the game. It will be fun to hear the silly additions and even more fun to find out how many items members will see before the game ends.

## Activity #35

### *Pollinator Charades*

Have groups of 2 to 3 members imitate the appearance and actions of a pollinator while the rest of the group tries to guess which pollinator they are imitating. Examples include bees, hummingbirds, beetles, ants, wasps, butterflies, moths etc.

## Activity #36

### *Ball Toss*

This is a review exercise. Have everyone stand up and form a circle so that everyone is facing inwards looking at each other. Toss a foam ball or bean bag to a person and have them tell what they thought was the most interesting fact or idea that was discussed at the meeting relating to pollinators. They then toss the ball to someone else and that person explains what they thought was the most interesting fact learned. Continue the exercise until everyone has caught the ball at least once and explained an interesting fact or idea learned at the meeting.



## Activity #37

## Pollinator Word Search

R S E C H F D W Y I U H Q O X X F C W I  
 D A S W R A A I L H A O N Z U B P X J K  
 T F T U O W P D F P M R N B N Q M S H H  
 D D I C B F Z A R L E B E W A L U O I Q  
 S T N K E O R P E N M H B M N M L G J I  
 I R C G M N U G T G E T G I N R M O T H  
 F K L E O T M D T S L I H K Z E P F N C  
 F Z X S F G G E U I T C N O D H C E C M  
 T L T S K D P H B S N W D E M T H G R W  
 S N O I E O E L Y T S H I P R N S M O E  
 A E L W L E R U T L U C I R G A E P P I  
 S O L L E K B I C M H W G P C T J L S A  
 V K E B T R K N M K Q H H A S G E A W T  
 V N N Y A M S I C L G S F Y T H S N A P  
 M S F A K T N R H Q Y K S H L K P T C S  
 Y G E Y R G E W W K Q O T R E E S S X A  
 G Y F E B W J G S Q C U M D M J S V O W  
 T Y C I D X L C E E N E D R A G K A K K  
 C K R T Z S U J F V X I X F G R E A L N  
 T D G Y L Q O F I E O F I L A M E N T R

AGRICULTURE

ANTHER

ANTS

BEES

BUTTERFLY

CROPS

ECOSYSTEM

FILAMENT

FLOWERS

FRUIT

GARDEN

HUMMINGBIRD

MOTH

NECTAR

PLANTS

POLLEN

SEEDS

STIGMA

STYLE

TREES

VEGETABLES

WASP

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# Activity #38

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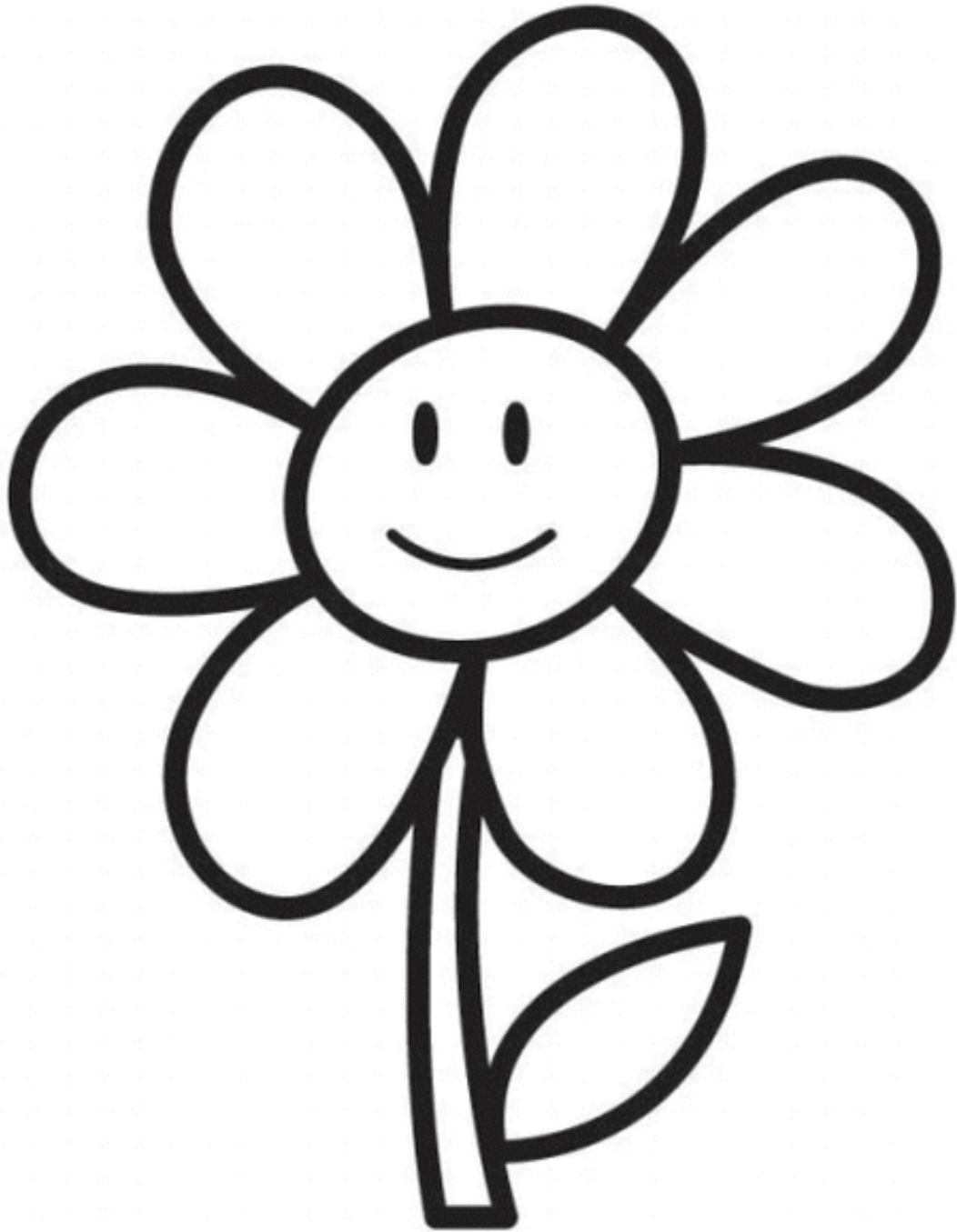
## Pollination Activity

### *Items Needed:*

- Brown paper bag (one per member)
- Cheezies
- Colouring picture of a flower (flower found on the next page)
- Scissors
- Glue

### Instructions:

1. Have each member cut out their flower and glue it to the front of their brown paper bag. Do not let members colour the flower!
2. Put a small handful of cheezies in each bag.
3. Set the bags in a circle around the edge of a table.
4. Have members for bag to bag, eating a cheezie from each “flower” (bag with cheezies in it). Make sure to tell members that they cannot lick or wipe their fingers. The cheese represents the pollen.
5. Once each member has visited each “flower” once, they need to visit the “flowers” of their friends and “land” on the flowers with their fingers.
6. Discuss how the cheese dust (pollen) was transferred from each flower to the other flowers.



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# ANSWERS

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## Activity #27 (Meeting #5)

### *What's For Breakfast?*

Items that require insect pollination

Cheese in the omelette

Red and green peppers in the omelette

Onions in the omelette

Tomatoes in the omelette

Watermelon

Cantaloupe

Blueberries

Multigrain flax bread toast

Butter for the toast

Apple juice

Cream in the coffee



*Pictures and information courtesy of Robyn McCallum, Ph.D. Student, Dalhousie University*