# LONGWOOD GARDENS

# **Pollinator Math**at Home



#### At a Glance:

Students will discover different types of pollinators while using math skills to calculate and problem solve.

#### Materials:

- Colored pencils
- Pencil

#### Objectives:

- Students will observe various pollinators in action.
- Students will record data and draw conclusions.
- Students will use math skills to solve word problems.

#### **Resources:**

www.arborday.org/celebrate www.fs.fed.us/wildflowers/ pollinators/index.shtml

#### **Directions:**

Search for pollinators in two different parts of your backyard. Spend 10 minutes in each area. Record your findings on each graph by shading in the boxes.

### Name of Area 1\_\_\_\_\_

	Nu	Number Observed												
Pollinator	1	2	3	4	5	6	7	8	9	10	11	12	13	14
Bee	1	2	3	4	5	6	7	8	9	10	11	12	13	14
Butterfly	1	2	3	4	5	6	7	8	9	10	11	12	13	14
Bird	1	2	3	4	5	6	7	8	9	10	11	12	13	14
Beetle	1	2	3	4	5	6	7	8	9	10	11	12	13	14
Fly	1	2	3	4	5	6	7	8	9	10	11	12	13	14

#### Name of Area 2

	Nu	Number Observed												
Pollinator	1	2	3	4	5	6	7	8	9	10	11	12	13	14
Bee	1	2	3	4	5	6	7	8	9	10	11	12	13	14
Butterfly	1	2	3	4	5	6	7	8	9	10	11	12	13	14
Bird	1	2	3	4	5	6	7	8	9	10	11	12	13	14
Beetle	1	2	3	4	5	6	7	8	9	10	11	12	13	14
Fly	1	2	3	4	5	6	7	8	9	10	11	12	13	14

1.	Which pollinator was observed the most in each area?
	Area 1
	Area 2
2.	Now look at your results for Area 1. How many bees did you observe in 10 minutes?
3.	How many bees do you think you would see in 60 minutes? Show your work.

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4.	How many flies did you observe in Area 2?
5.	If a fly visits 15 flowers in 10 minutes, how many flowers will it visit in one hour?
6.	If a honeybee flaps its wings 60 times per minute, how many times will it flap it's wings in 10 minutes?
	In one hour? (Fact: Honeybees flap their wings 11,400 times per MINUTE!)
7.	If a butterfly lands on a flower and has enough pollen to pollinate three flowers, how many flowers would get pollinated if:
	The butterfly collects pollen from five flowers?
	The butterfly collects pollen from 10 flowers?
8.	A bee can travel around 15 miles per hour and visit 75 flowers. How many miles could it travel in 12 hours?
	How many flowers would get pollinated in 12 hours?
9.	How many miles would a bee travel in a day?
	A week?