



25 min Pollination Patrol Grade 2 Facilitator Notes

Objective: To learn about the importance of bees in the food system, looking specifically at pollinating squash flowers. To build respect and awareness of the imperative role that bees have in growing our food.



Recipe Category: Food: "Outside the Box"

✓ **Level of Difficulty:** Grade 2



Cooking Time: 25 min



Recipe Ingredients:

Introduction:

- Picture of Pollinators Hard at Work
- Picture of bee anatomy

Introduction to Squash flowers:

- Picture of squash plant and flowers

Activity: Taste Testing

- Popsicle sticks (pre-cut into halves?)
- FoodShare honey
- Supermarket honey
- Simple or Maple syrup



Curriculum Links:

Grade	Subject Area	Ontario Curriculum Links
2	Science and Technology	<p><i>Understanding Life Systems:</i> Demonstrate an understanding that animals grow and change and have distinct characteristics (O)</p> <ul style="list-style-type: none"> 3.3 Identify ways in which animals are helpful to, and ways in which they meet the needs of, living things, including humans, to explain why humans should protect animals and the places where they live (S)

Introduction to Pollination: (3 mins)

- Today we're going to be learning about some of the reasons why bees are so important for helping to grow our food.
- Who here has ever seen a bee? What do they look like? Are they friendly?
 - Sometimes bees can seem unfriendly, like when they sting, but really they're just very busy with a very important job!
- So, what is it that you think bees are busy doing?
 - Making honey - honeybees have to visit LOTS of flowers to make honey
 - *For teachers, this is 80,000 flower trips to produce enough honey to fill one jar!*
 - Collecting pollen
 - Feeding on nectar from flowers
 - Pollinating flowers to make food
 - A lot of our food depends on the pollination from bees.
 - *For teachers, one third of the human food supply*
- "Poll-in-a-tion" (practice saying together) – what's that?
 - The carrying of pollen (the yellow powdery stuff in flowers) from flower to flower or within the same flower (Show flower picture)
 - To fertilize (practice saying together) the flower, creating a fruit
 - A "Poll-in-a-tor" is an insect that transports pollen – like a bee!

**Show the picture of Pollinators Hard At Work*

So, without bees, the flowers wouldn't be pollinated and our food wouldn't grow!

Introduction of Squash flowers: (2 mins)

Who here ever tasted squash before? *(With the exception of the first group, they should all have tasted squash at the Cooking & Tasting station)*

Squash can be all different sizes, shapes and colours. Can anyone name some colours of squash they've seen or eaten before?

So most of you have eaten some kind of squash before, but who here has ever seen a squash growing? Squash grow on a low, green vine. The squash actually start off as flowers before being pollinated and turning into fruits! Squash vines have both *male and female* flowers.

**Show picture of squash vine, flower and fruit*

For a flower to become a squash, the pollen that is produced by the male flowers must be carried to the female flowers. The pollen is moved between flowers by bees and other pollinators like butterflies and birds, who visit the flowers to collect nectar (sweet liquid) and pollen.

What do we call the transfer of pollen from flower to flower again?

- *Pollination!*

So, even if you're scared of getting stung by a bee, they are sooo important to us, we can't live without them!

Activity: Taste Testing (20 mins)

Set up three taste testing stations:

1. FoodShare Honey (Raw, Toronto Honey)
2. Supermarket Honey (blended, pasteurized honey, usually from Canada/Australia/Argentina)
3. Maple Syrup or Simple Syrup (from Maple trees, or sugar cane)

Students are to become honey judges for this activity.

Using the honey-tasting graph, ask students what they think the key judging criteria should be. For example, you could prompt them for the following:

- Colour
- Sweetness
- Stickiness
- Origin (where it was collected from)
- Texture
- Appearance... Write these on the graph once decided.

You'll need 3 identical honey tasting graphs, one for each tasting station.

Have students compare the different honeys by tasting each on their Popsicle sticks. They can have their say by placing a sticker on the graph, 1 being the least and 5 being the most (e.g. 1 would be not sweet at all, 5 would be very, very sweet).

Talk about where each of the products has come from, and which require animals to produce them. Establish if there are any favourites out of the three.



Serving Suggestions:



