

## B IS FOR BLUEBERRY AND BRITISH COLUMBIA!



The blueberries you are enjoying today were grown by a berry farmer right here in BC and are from a highbush blueberry plant. Blueberry bushes need rich soil, a long growing season, and weather that's not too cold and not too hot. That's why the Fraser Valley and Vancouver Island are some of the best blueberry growing areas in the world.

Farm-grown blueberries are carefully planted in straight rows, while wild blueberries grow naturally on small bushes, called "lowbush," that grow close to the ground. You have to kneel down to pick a wild blueberry! First Peoples have been harvesting wild blueberries from Canada's forests, rocky hills, and boggy areas for thousands of years.

Farm-grown or wild, blueberries are a tasty, healthy snack.



## BIG OR SMALL, EAT THEM ALL

You can't tell a blueberry's ripeness or sweetness based on its size. As long as they're dark blue or purple, even small ones will be delicious.



Photo credit: Spring Advertising



## THANK YOU, BEES!

To grow blueberries for you, farmers need help from bees. A bee's favourite food is the sweet nectar hidden inside flowers. When she crawls into a flower in search of nectar, a yellow dust called pollen sticks to her back and legs. When she flies to the next flower, she shares the pollen from the first flower. This is called pollination.

Blueberries blossom in late spring. When a bee pollinates a blossom, a blueberry will start to grow. Lots of buzzing bees pollinating blossoms in the spring means ripe blueberries in the summer.



Thousands of honeybees live together in colonies in wooden houses provided by beekeepers. Inside these beehives every bee has a job.

### QUEEN BEE

The queen is the biggest bee in the hive. There's only one queen, and she is the mother of all the bees.



### DRONE BEES

A drone is a male bee. A drone has no stinger. His only job is to mate with the queen.

### WORKER BEES

All worker bees are female. They do all the work: collect food for the hive, build honeycomb, store pollen, carry water, make honey, feed larvae (baby bees), and guard the hive.

### SCOUT BEES

Scout bees are worker bees that search for food. When they find food, they report back to the hive to tell the other workers where to find it by doing a waggle dance. By dancing in a special figure 8 shape, they show them what they've found, how far it is from the hive, and how to get there. Dancing in a small figure 8 means food is very close, and a bigger figure 8 means it's further away. Dancing fast means the food is extra good.



Teamwork is a vital skill for bees and people! Learning and practising teamwork at young ages will help students develop communication skills and allow them to take responsibility for their actions throughout their lives.

## ACTIVITY: BLUEBERRY POLLEN GAME

Curriculum Connection: ADST - grades 1 to 3: Reflect on their ability to work effectively both as individuals and collaboratively in a group. Physical and Health Education - grades 1 to 3: Develop and demonstrate safety, fair play, and leadership in physical activities.

Play this game in the gym using bean bags to represent the nectar of blueberry plants, which the students/bees collect and then stack to create a honeycomb and hive.

Objective: How well does bee teamwork work? How many honeycombs (stacked bean bags) can the students make as random bees versus the amount that can be made using the teamwork demonstrated by the organized bees?

### Random Bees Pollen Game

1. Scatter the bean bags (nectar) across the gym floor.
2. Send the whole class out to randomly collect as many bean bags as each student can.
3. Have students stack the beanbags to create the honeycombs.

**Think/pair/share their ideas:** How many honeycombs did the individuals make in five minutes? How well did the random individual bees work?

### Organized Bees Pollen Game

1. Scatter the bean bags (nectar) across the gym floor, but this time, divide the class into groups of scouts, worker bees, and hive workers.
2. Send the scouts out to do their own version of the waggle dance to indicate to the waiting workers where the nectar is in the field.
3. Send the workers out to collect the nectar and bring it back to the designated hive area.
4. Have the waiting hive workers stack the bean bags to create the honeycombs.

**Think/pair/share their ideas:** How many honeycombs did the groups make in five minutes? How well did the organized bees work? How do they feel about playing their bee role as an individual versus working as a team member? What are the benefits of working as a team?

## MATH QUESTION

Curriculum Connection: Mathematics - grades 1 to 3: Develop mental math strategies and abilities to make sense of quantities.

Give the students the following math problem to practice addition by making groups of 10 in their heads.

How well can you add up the blueberries you received today in your head? Take a few blueberries from your serving, count them, write down the number, and then eat them. Take a few more and do the same thing until your blueberries are all gone. Find the sum. Look at your number equation and think of groups of 10. Then find your sum. Which way was easier for you?

e.g.:  $4 + 2 + 3 + 4 + 5 + 6 + 2 = 26$

think:  $4 + 2 + 4 = 10$     $3 + 5 + 2 = 10$     $+ 6 = 26$

$10 + 10 + 6 = 26$

### BOUNTIFUL BLUEBERRY VOCABULARY

**Nectar:** a sweet liquid produced in flowers that attracts pollinators and is collected by bees to turn into honey.

**Pollen:** tiny, yellow dust-like grains produced in the male part of a flower (the stamen) that fertilize the seeds.

**Pollination:** bees collect the nectar and pollen from a plant and bring it to another one. Plants need bees to pollinate so that they can reproduce.



### FAMILY CONNECTION

Have students ask their family members how they like to eat their blueberries. Fresh or frozen? Baked in a pie? In a smoothie?