

# LESSON: All About Pumpkins

Ages 5 - 10 years

Grades K - 4

In this lesson, you'll learn:

- Living things have life cycles adapted to their environment
- Making exploratory observations using your senses, recording observations
- Learning about BC agriculture and seasonal crops

There's so much to explore about pumpkins, besides just carving them as Jack o' Lanterns for Halloween or using them as decorations in the fall.

Pumpkins were an important staple crop and were first introduced by the indigenous peoples to settlers to North America, however these plants are native to Central America and Mexico.

Pumpkins belong to the family *Curcubita* sp. which include squashes.

Winter squashes are harvested in the fall when the hard outer skins have matured and protect the flesh inside from decay or damage. Winter squashes can be stored in a cool, dry place after being harvested and can be enjoyed all winter long.

Some of the most common winter squashes include:

- Sugar Pie
- Butternut squash
- Orange Hubbard
- New England Cheddar (very sweet, great for pies)
- Delicata squash
- Acorn squash
- Turkish squash
- Kabocha (green skin)
- Red Kuri squash (firm and dark reddish-orange skin)
- Porcelain Doll (light pink or soft blue skin)
- Giant Mammoth



  
**LESSON/ACTIVITY**  
Pumpkins!



Image courtesy of Canva - Red Kuri, Butternut and Delicata squash



Image courtesy of Canva

## ***Are all pumpkins all orange and round?***

Pumpkins range in various colours (orange, pink, blue, green, white), shapes and sizes including tall, round, oblong and oval and often have large seeds which are quite tasty if you roast them in the oven with some salt and olive oil.

## ***What does a pumpkin taste like?***

A pumpkin (depending on the type) has a sweet flavour and is enjoyed in all kinds of recipes from soups, pasta, seasonal drinks, roasted with other veggies, made into desserts such as cakes, breads and the most popular being pumpkin pie!

## ***How big can pumpkins grow?***

It takes a lot of effort and patience to grow a very large pumpkin. In October, there are several competitions all over the world amongst avid gardeners and farmers who compete to grow the [largest pumpkin in size](#) and weight just for the honour of winning the top prize. A lot of planning and care goes into this hobby sport.

## The Life Cycle of a Pumpkin

The best month(s) to plant pumpkin seeds is in late spring or late May to early June. Plant some seeds inside in a seedling tray or small pot with seed starting or potting soil and water to ensure the soil doesn't dry out. Pumpkin seeds are quick to germinate and will start to emerge from the soil within 7-14 days.

Pumpkins require the warm temperatures and longer days of sunlight in summer to grow and some varieties of pumpkins can take up to 4-5 months before they are ready to be harvested. Pumpkins also require a large space as their vines will sprawl and take over and the pumpkins themselves can get quite large depending on the variety that you decide to grow.

If you have a pumpkin that you plan to carve for Halloween, clean and dry the pumpkin seeds from your pumpkin to plant next year!

As pumpkins grow, they produce flowers. A plant has both male and female flowers that look similar but are different. Male flowers have long and thin stems and female flowers are short and often have a fruit/ovary attached. Sometimes a plant will produce more male flowers as they take up less energy. The flowers might last a day or two before they wither and fall off, so pollination is a very important process.

### ***What role do pollinators play in helping pumpkins grow?***

Bumble bees and squash bees are the primary pollinators of the cucurbit family of plants (includes cucumber, squashes and pumpkins) and they help transfer pollen from the male flower to the female flower by visiting each flower to drink the nectar (a sweet sugar rich liquid located in the flower). As the bee drinks nectar it vibrates and moves its body around and in doing so, collects grains of pollen on the fine hairs of its body and in pollen baskets located in some species on their legs.

So the next time you see a pumpkin or carve it, thank a bee for all it's hard work!



1.



2.



3.



4.

1. Save those seeds! Clean out, wash and dry those pumpkin seeds to plant the following year in late spring!
2. Pumpkin seedlings planted from pumpkin seeds in early June when the soil has warmed to 10-15 C are starting to peek through the soil.
3. As pumpkins grow, they produce flowers. A plant has both male and female flowers that look similar but are different. Male flowers are tall and have long and thin stems.
4. Female flowers are short and often have a fruit/ovary attached which will be where the pumpkin will begin to grow if the female flowers are pollinated by the different species of bees.





5.



6.



7.



8.

5. A female flower that has been pollinated, a baby pumpkin grows!
6. The pumpkin continues to grow in size in the hot August heat!
7. Early September, the pumpkin is maturing and changing colour from green to orange. Soon, it will be ready to harvest.
8. Mid October, this pumpkin has over ripened and has not been picked. It is starting to decay/die in the pumpkin patch.

## ACTIVITIES

*Estimating weight* (RHS School Gardening)

*Pumpkin Math* (Little Bins for Little Hands)

*Pumpkin Investigation Tray* (Little Bins for Little Hands)

*Using all five senses to describe a pumpkin*

## RESOURCES

*Scholastic: Pumpkins in the Primary Classroom Curricular Unit (PreK - K, 1-2)*

*BCAITC: Blossom's Big Job: Growing pumpkin sprouts in the classroom*

*Gourds Growing KidsGardening*

## CHILDREN'S BOOKS

*Fall Harvests: Bringing in Food by Martha E. H. Rustad*

From Seed to Pumpkin by Wendy Pfeffer

Little Boo by Stephen Wunderli

Pumpkins by Robin Nelson

Pumpkin Jack by Will Hubbell

How Many Seeds in a Pumpkin by Margaret McNamara

*The Pumpkin Patch by Margaret McNamara*