

# Fresh Story | Carrots



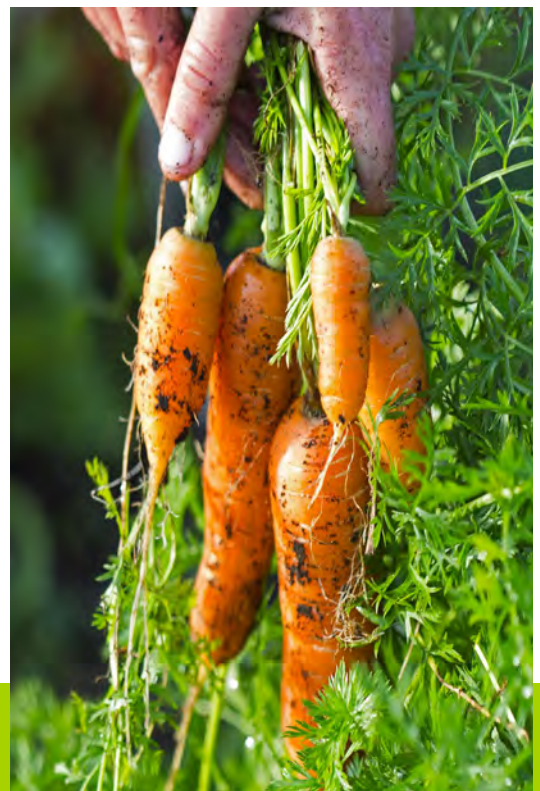
**Nova Scotia has a great climate for growing carrots.** They prefer loose well drained soil, which is common along coastal areas of the province. Farmers across the province cultivate a variety of different types. Emperor, Nantes, Chantenay and Danvers are all grown locally, and serve different purposes, depending on what they are being used for.



There are many farmers who grow carrots in Nova Scotia, including a few large-scale producers whose fresh carrots can be found in grocery stores and many smaller-scale producers who sell their carrots direct to consumers via farm stands, farmers markets, and Community Supported Agriculture weekly vegetable boxes. There are also a few large-scale producers who grow “slicer” and “dicer” carrot varieties exclusively for freezing, which allows us to enjoy the healthy vegetable year-round. This helps reduce the amount of food waste we make.

**Crop rotation is an important part of carrot growing.** A crop rotation means that a farmer will change what they plant in a field each year. This helps both the soil and the plants in a variety of ways and contributes to long-term sustainability and productivity of a growing system. When a farmer decides to grow carrots, it is important that they consider implementing a crop rotation because carrots are a very intensive vegetable to produce and growing them in the same place year after year could have negative environmental consequences. Crops that are commonly rotated with carrots in Nova Scotia are winter wheat (planted immediately after carrot harvest), corn and soybeans. On a small-scale vegetable farm, carrots will typically be rotated with other vegetables and soil-building cover crops like buckwheat. Benefits of crop rotation include:

- 1 Breaking up the soil** – carrots are harvested for their roots, which means that they tend to break apart the soil in both growth and harvest. This can lead to increased soil erosion – meaning that farmers must be mindful of soil maintenance.
- 2 Nutrient use** – carrots are big potassium lovers, so they can often drain the soil of this essential nutrient. By rotating what crops a farmer grows year to year, they can make a better balance of nutrients that each plant uses to grow.
- 3 Sustainability** – rotating crops can help break up pest cycles, which reduces reliance on pesticides, promotes biodiversity.



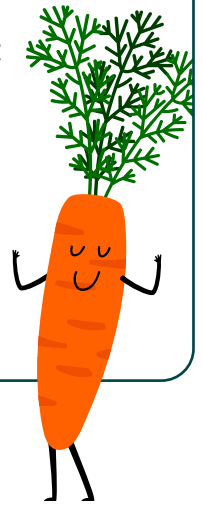


## Activities for P-3

**ENGLISH LANGUAGE ARTS** – Students can work on their poetry skills by creating rhyming couplets themed around carrots. For example, rhyming words can include sow & grow, or green & clean, or dirt & shirt. The teacher can either provide example rhymes for the students to use, or have students come up with their own depending on grade level.

**MATHEMATICS** – Cut the carrot pieces into “rods” and “cubes” to represent ten sticks and unit cubes. These manipulatives can then be provided to students to use in a math activity of the teacher’s choosing.

**SCIENCE** – Learners can investigate the different parts of a carrot – eg. Root, hairs, stem and leaves and discuss how a carrot might get its nutrients. Learners can label a simple diagram of a carrot and discuss the process of growth from seed to sprout to table. The teacher should ask guiding questions about topics such as sunlight, water, nutrients, soil and temperature.



## Activities for 4-6

**ENGLISH LANGUAGE ARTS** – Students can create an acrostic poem of the word “Carrot” or create a haiku about carrots and gardening. The teacher should challenge students to think outside the box with descriptive text and use of imagery.

**MATHEMATICS** – Students can practice using appropriate means of measurement for carrots. They can measure the length of a carrot using different units – Inch, centimeter, millimeter, etc. and then use their carrots length to estimate how many “carrots long” different materials are in their classroom.

**SCIENCE/ART** – Teacher can use leftover carrot pieces from snack program for this activity. Students should be engaged in a conversation about what they know about pigments, and how pigments are used in day-to-day life. The teacher should then blend the leftover carrots in a blender with a small amount of water until they are a puree. Once the carrot mixture has been liquified, students or the teacher can then filter the solution through a coffee filter into a cup to remove debris. The liquid collected in the cup will contain carotenoid pigments that can then be used to paint with. To add an extra step for a science class, rubbing alcohol can be added to the solution to separate the pigment from the water. Teachers can also use carrot pigment to create abstract art <https://alexandriacruz.com/vegetable-art-how-to-paint-with-vegetable-dye/>.

