Organic

School Gardening Resources

PRIMARY LEVEL

BORD BIA
IRISH FOOD BOARD

Growing Carrots in School

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| Time of Year | | April |

| Aim | | To demonstrate to children how to grow early carrots so they can be harvested and eaten raw before the summer holidays. |

| Resources Needed | | Organic seeds of early carrots such as 'Early Nantes', old plastic dustbin (this can be purchased in some hardware shops) or a raised bed, peat-free compost, garden compost, horticultural sand, stone-free soil (use a garden sieve to achieve this), empty plastic bottles, drill and 10cm flat bit, old plastic bag, pen and label, optional: soil thermometer, bionet. |

| Cross Curriculum Relevance | | **SESE:** Living things, exploring / research, recording, observing
Maths: Measuring, recording, active learning
Literacy: New words, writing, spelling
Art: Making signs, photos
Informal Curriculum: Food Dudes, Healthy Eating, Discover Primary Science |

Sowing

1. If you have a raised bed, you must first remove any weeds growing in it. Then you need to dig in plenty of home-made compost, vegetable compost or well-rotted horse-manure in the bed. This must be done in autumn because carrots don't like fresh organic matter. Cover with polythene over the winter.

2. In April fork over the bed removing small stones and breaking up lumps. If you have access to a soil thermometer, place in the soil and when a regular 10°C is monitored in the bed the carrots can be sown.

3. Use a line of twine tied to two straight sticks or canes to get straight lines around 20cm apart. Along these lines make drills 2cm deep and sow the seeds thinly along them. Cover and water well. They will take about 17 days to germinate.

Aftercare

When the seedlings are about 8cm tall and have at least one pair of leaves thin them to around 5cm apart. Water well before doing this. Compost the thinned seedlings immediately before the carrot root fly gets their scent. This fly lays her eggs in the soil and when they hatch into grubs, they tunnel holes in the carrots. She can be prevented from accessing the plot if wire hoops covered with Bionet are placed over it immediately after sowing. Bionet can be bought online from organic garden suppliers. Three or four weeks later thin again because slow to germinate seedlings will have grown in the thinned spaces.

Harvesting

The carrots can be harvested after about 10 weeks.

Growing in a bin

The carrot root fly can destroy carrots. However, she can't jump higher than 60cm, so a bin is ideal for growing carrots. Prepare a bin in February for sowing carrots in the classroom in March. Make drainage holes in the base with a 10mm flat drill bit. Fill to within 15cm to 20 cm of top with plastic bottles etc. to provide bulk. Cover this with polythene bag with drainage holes pierced in it.

A teacher and class could do a test on growing carrots in three different mediums if you have access to three bins.

Medium 1: Mix good soil (loam), peat-free compost and horticultural sand together in a ratio of 2:2:1 and place on top of the bag to within 2.5 cm of the rim.

Medium 2: Use good garden compost, which is well sieved, and fill as above.

Medium 3: Fill the bin with peat-free compost.

Leave it in the classroom. Insert a soil thermometer into the mixture. When the temperature of all the mixtures reaches 10 degrees sow early maturing carrot seeds thinly. Lightly cover with fine soil or vermiculite and water with a fine spray. They will take about 17 days to germinate. When the carrots have at least one pair of leaves thin as for the raised bed above. Never let the growing medium dry out. Leave the bins outside in April. You should be eating the carrots about 10 to 12 weeks after sowing.

Health and Safety

* Wash hands after sowing.
* Check harvested carrots before eating them raw to see if they have been attacked by the larvae of the carrot root fly.
* Wash thoroughly before eating them raw.
* Ensure tools are used and stored safely at all times.