

NATURAL RESOURCES

Activity NR02

Theme

Class activity (CA). The class investigate food as a resource and consider what food they can grow in an Irish climate.

Objectives

Encouraging thought about where food comes from and the environmental impact of food travelling long distances, and teaching the basic skills of gardening and growing food.

Curricular Strands

SESE, Science–Living things; Plant and animal life

SESE, Science and Geography–Environmental awareness and care

SPHE–Myself; Taking care of my body; Food and nutrition

Skills

Questioning, observing, predicting, sorting, identifying

Time

20 minutes for introductory activity; 40 minutes to prepare for potato growing, followed by regular watering/observation trips over the season

Links to Green Schools

Improving your school environment

Grow your own!

→ WHAT FOODS CAN BE GROWN IN IRELAND?

WHAT YOU NEED

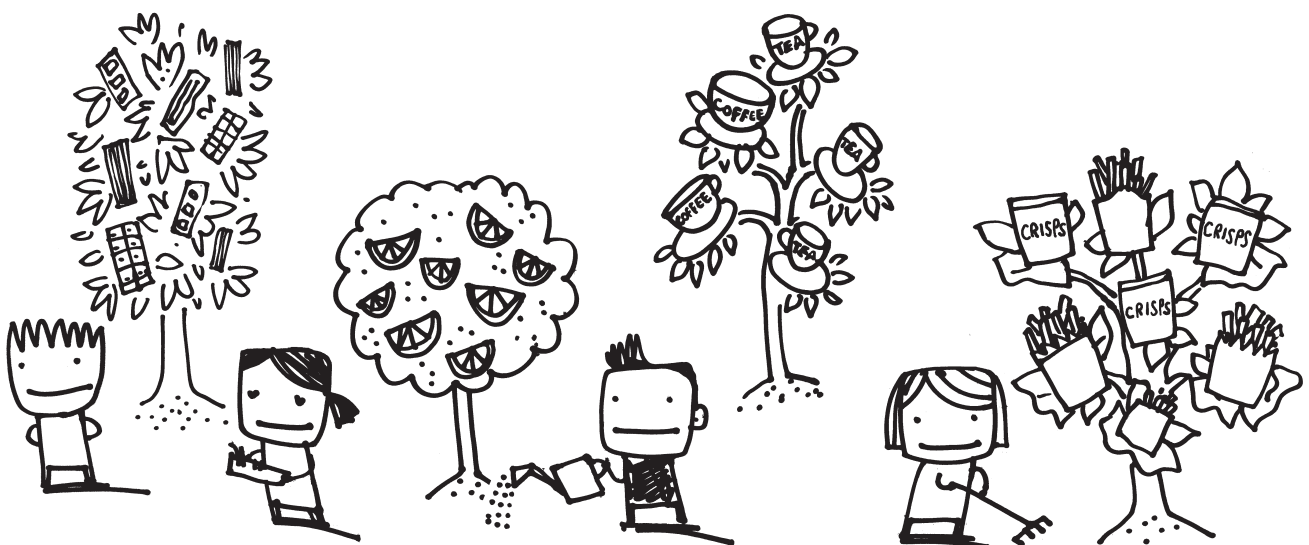
- Coffee beans
- Bag of rice
- Bananas
- Potatoes
- Cabbage
- Oranges
- Compost
- Seed potatoes to sprout
- Suitable container if required (see below for details)

WHAT YOU DO

Introductory activity

- 1 Place the coffee beans, bag of rice, bananas, potatoes, cabbage, oranges and tomatoes on a table. Ask students to identify which of the foods could be grown in the school grounds.
- 2 Students can brainstorm with the teacher, offering suggestions why we cannot grow coffee beans, rice, bananas or oranges.

- 3 Ireland's climate is considered temperate. This means we have four seasons that are not extreme—neither too cold in the winter nor too hot in the summer. We get rain all year round, very little snow and no intense heat.
- 4 Our climate is suited to growing certain types of food. Crops such as potatoes and cabbage grow well in Ireland.



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Continued →

5 We can buy all of the foods listed above in the local supermarket but we can only grow two or three here in Ireland. Can the class think of any other crops we can grow in Ireland? The students could also ask their grandparents about the kind of foods they ate as children. Did they have the same choice of foods that we have today?

Gardening activity

- 1** The task for the class is to grow their own vegetables—in this case potatoes.
- 2** If an area of soil is available in the school grounds the vegetables can be grown there. If not, a large deep pot, a raised bed made from old bricks or wood, or even an old car tyre or tractor tyre can be used. The container should be filled with good soil or compost. A depth of 60–80cm is enough to grow potatoes.
- 3** The class can begin the activity in very early spring by placing a few potatoes (earlies) in an egg box.
- 4** The potatoes should be placed with the buds (or 'eyes') facing upwards in a dark, dry place until shoots appear.
- 5** When the first shoots appear the egg box can be moved to a warm window sill.

- 6** When the sprouts are 1–3cm long they are ready to plant. In Irish conditions it is best to wait until the danger of frost has passed before planting the potatoes out (usually to late April).
- 7** Plant the potatoes at a depth of 15cm in two rows in well composted soil. Make sure each potato is at least 20cm from any other tuber.
- 8** Potatoes can be 'earthed up' as they grow: this means covering the shoots with soil. This helps control weeds, prevents the tubers turning green, gives some protection against tuber blight and should also result in a higher yield.
- 9** The first 'earthing up' should occur when plants are around 15cm tall: leave a couple of inches of foliage showing. If you are growing in a container, you can build up the walls of the container (e.g. more bricks, or an extra tyre on top of the first one).
- 10** Potatoes should be earthed up again just before the foliage meets across the rows. With closer spacings, earthing up will not be possible, but the plants will shade themselves anyway.
- 11** Water the plants regularly—make sure to water the soil, not the foliage.
- 12** Potatoes should be ready to harvest in June (depending on the variety). When the plants

flower, the potatoes should be ready: you can check by digging up one or two potatoes.

- 13** Students can either bring some potatoes home or pick and cook them in school if possible.

Questions

- 1** How many potatoes did you harvest from one plant grown from one potato?
- 2** What is the average number of potatoes on your potato plants?
- 3** What area of ground did the plants cover? How many potatoes would grow in an area the size of a football field (a GAA pitch is about 13,000m²).

Go further

- 1** Connect the children's experience of growing potatoes to the famine in Ireland and the role of blight in the loss of the potato crop. Look at Natural Resources Activity 3 for some ideas on other plants to grow in Ireland and a discussion of the importance of crop rotation for preventing diseases such as potato blight.
- 2** Other food plants are easy to grow in school grounds or even in the classroom. Visit www.bbc.co.uk/gardening/children/ for ideas and guidance.