

## ACTIVITY: POTATO LIFE CYCLE AND ACTIVITIES

Potatoes are a great plant to grow for children unfamiliar with what a growing potato plant looks like. There are few plants that have the capacity to surprise during harvests than the humble potato and never fail to produce squeals of delight. They are also easy to grow!

**When to Plant:** Potatoes can be grown from spring through to autumn, or from summer to late autumn depending on the variety (see plant lifecycle diagram).

**Where to plant:** Potatoes are best grown in the ground but can be grown in containers to reduce pest infestations.

Potatoes are a good plant for improving the soil – the fibrous roots break up heavy clay soils. They can also be planted straight into a new ‘no dig’ bed.

**Uses:** There are many varieties of potato, each is categorised by its type (earlies, second earlies, maincrop and Christmas) and its qualities for cooking (Boiling, roasting, Jacket.)

The activities with potatoes are:

- Chitting seed potatoes (for earlies)
- Planting the tubers
- Earthing up
- Harvesting

### ***Group Activities:***

#### **1. Chitting early potatoes**

You will need:

- Egg boxes
- Seed potatoes
- Labels

Set the potatoes in the depressions in the egg boxes with the biggest shoots facing upwards towards the light. Keep them in a cool (but frost free) room, near a window. Label each box with the variety and the date, plus the student's name if appropriate.



Leave for about 4-6 weeks until the shoots have grown short and strong. By then conditions should be warm enough to plant them. (min soil temperature 10 degrees C)

## 2. Planting Potatoes

You will need:

- soil thermometer
- chitted potatoes (for earlies)
- String and 2 spikes
- trowels or spades
- large labels
- watering can or hose.

Check the soil temperature at a depth of 50mm. If the class is interested in monitoring the change, take soil temperature each week and plot the temperature on a graph. If you don't have a thermometer, check the soil with the back of your hand. 10 degrees is cool but not cold. Mark out your row using the 2 spikes and string

**Trowel method for No Dig-** scoop out holes about 5cm to 8 cm deep 60cm apart; place one potato in each hole with shoots facing up. Refill the holes after all the potatoes are planted. Doing so makes it easier to check that every hole has a potato in it!



**Trench method.** Dig a trench about one spade width wide and a similar depth. Place the dug material to both sides of the trench. Place potato tubers in the bottom of trench 60cm apart. Fill the trenches with half of the soil you have dug out. Reserve the rest for covering the emerging leaves and earthing up into a ridge – see below.

Label the rows of potatoes. Give the plants a good watering. Normally they will not need any further watering, unless the weather is very dry.

## 3. Looking after Potatoes

They require very little intervention apart from earthing up around the plants. Also check for weeds and remove persistent weeds

### Earthing up

You will need:

- spade,
- either compost, or soil to pile up around the foliage to about 15cm above the surrounding ground level.



The purpose of earthing up is to keep light from the developing tubers. If the potatoes 'see' the light they start to go green, to photosynthesis and green potatoes are poisonous.

## 4. Harvesting

Potatoes are ready to harvest when they have flowered and / or the foliage starts yellowing. The number of weeks since planting is also a good way to check when to harvest – see graphic below

You will need:

- a dry day
- fork or hand trowel
- great care to avoid spiking potatoes with a fork prong!

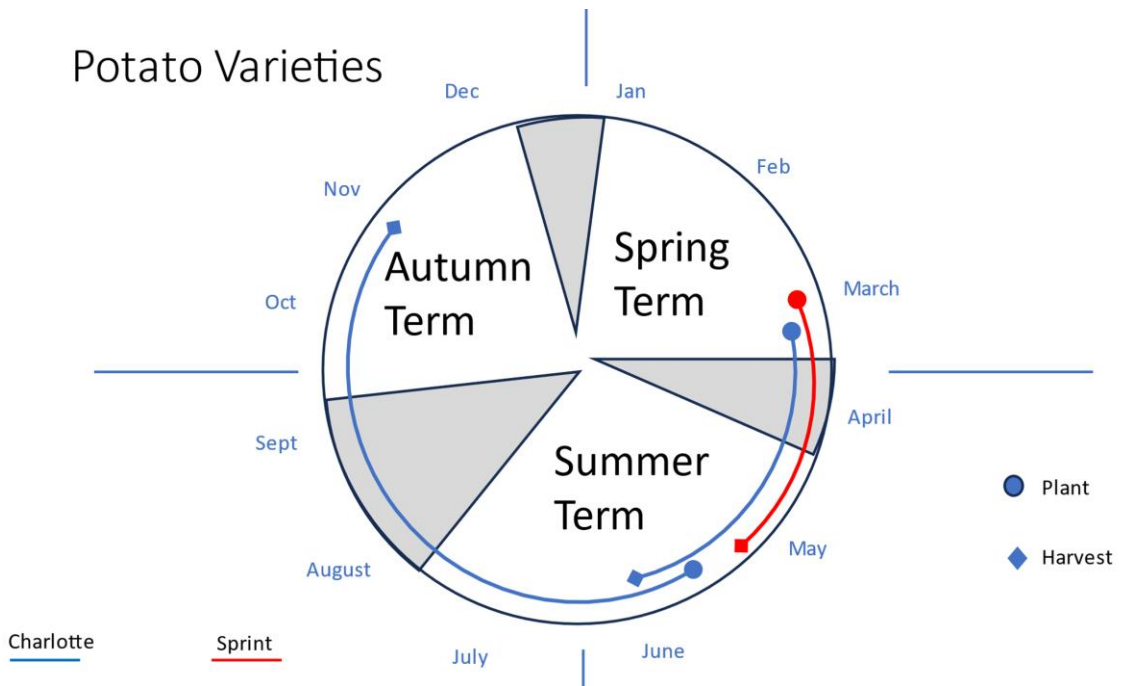
Start removing soil well away from the plant (0.5m). Gradually work towards the plant. To avoid putting fork prongs through the potatoes, work from loosened soil to undisturbed soil. Ideally use your hands once a hole has been created near the plant.



Lay harvested potatoes on the soil to dry out for a few hours after harvesting, rub off any excess soil, but do not clean them completely. The dry skin helps the potatoes to store for longer. Store potatoes in triple brown paper potatoes sacks or a thick cardboard box, in a cool dry dark, but ventilated place.

**Crop rotation** If using crop rotation, follow potatoes either with legumes or brassicas (3 yr rotation), or onions / root crops (4 yr rotation)

ACTIVITY: POTATO LIFE CYCLE AND ACTIVITIES



Source for timings and varieties; Charles Dowding. Organic Gardening The Natural No dig Way

Photo credits: RHS - Gardening Know How - BBC Gardeners World - Tinygardenhabit.com

