



## Fruit and vegetables

### Curriculum links:

- **Science** Living things  
Environmental awareness and care
- **Geography** Human environments
- **SPHE** Myself and the wider world

### Lesson objectives:

To revise material covered in previous modules. To introduce students to the concept of horticulture and the way that mushrooms and potatoes are grown in Ireland.

### Teacher guidelines

It is suggested that teachers ensure that students are familiar with the vocabulary and concepts introduced in the previous modules before starting this lesson.

### Keywords and concepts introduced in previous modules:

healthy fruit vegetables climate citrus greenhouses

Current guidelines recommend that we eat 5-7 servings of fruit and vegetables each day, as they are healthy foods. Fruits grow on trees and bushes and are generally sweeter than vegetables. In Ireland, the main fruits we grow are apples, strawberries and other berries. A vegetable is described by the part we eat e.g. carrots are root vegetables. The most popular vegetables are potatoes and mushrooms but, we also grow a wide range of other vegetables. The climate of a country determines the type of fruit and vegetables that can be grown e.g. citrus fruits like oranges and exotic fruits like bananas cannot grow in Ireland as they need a lot of sunshine.

After revision of the above, teachers could discuss the more detailed information below.

### Keywords for this lesson:

horticulture crops export disease plough fertiliser  
manure furrows blight The Great Famine

### Did you know?

In medieval Ireland, people thought mushrooms were umbrellas for Leprechauns!

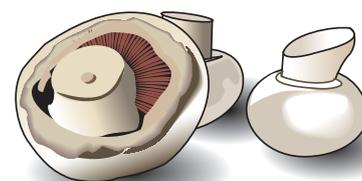
### Horticulture

'**Horticulture**' is the word used for the growing of **crops** such as vegetables, fruit, flowers, trees and shrubs.

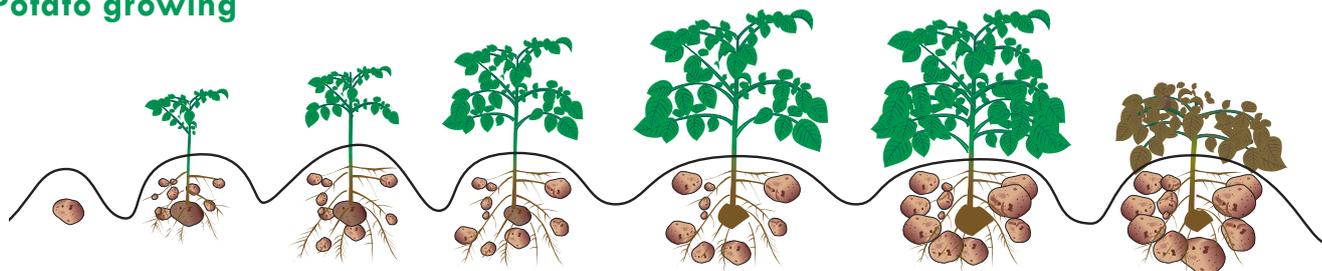
### Mushrooms

Mushrooms are a type of fungus. Unlike other vegetables, a fungus does not need sunlight to grow. They are one of the most popular crops grown in Ireland and are very important because we **export** (sell to foreign countries) a lot of mushrooms every year.

There are 2,000 different species of mushrooms eaten throughout the world, but the most common variety cultivated is the white button. The mushrooms that Irish farmers sell are grown in the dark in tunnels. Temperatures are controlled to prevent **disease**. This means that mushrooms can be grown anywhere in Ireland all year around. Wild mushrooms that grow in fields can often be poisonous and we must not eat them without checking that they are safe first.



## Potato growing



Potatoes are root vegetables. This means that they grow under the ground. The farmer must **plough** the fields in the autumn to break down large clumps of soil. In autumn, the farmer uses **fertiliser** like **manure** (animal dung) or chemical fertilisers made in factories to give the soil nutrients.

In the spring, when the weather is warmer, the farmer digs **furrows** (long narrow shallow trenches in the earth). He/she places the potato seeds along the raised rows and covers them over with soil again.

For a potato to grow, its root must be kept in the dark. While the potatoes grow under the ground, a green plant grows above ground. After the flowering season, the stem of the potato plant withers. Once the whole plant has withered, the potatoes are ready to be pulled out of the ground.

## The Great Famine

The potato has always been a very important crop in Ireland. In the 1840's, when the population of Ireland was totally dependent on potatoes, the potato crop failed a number of times due to a fungus known as **blight**. By 1847, more than one million people died and two million were forced to emigrate. This time is referred to as the **Great Famine**. The word famine means a drastic food shortage.

**Did you know:** You can make paper out of fungi? Paper is basically a flat mat of fibres. Although handmade paper is traditionally made with vegetable fibres, with fungi you are using a chitin rather than a cellulose base.

### Suggested activities

- Photocopy the activity sheet on page 48
- Ask the students to visit their local supermarket and make lists of:
  - The different types of potatoes on sale e.g. Kerrs Pink, Record, Rooster, Home Guard
  - The variety of different products made from potatoes that are available
- Discuss the fact that, in order to be healthy, everyone should eat five or more servings of fruit and vegetables in a day. Ask students to think about how they could do this (see Healthy eating, page 4)
- Research the traditional Irish dishes made from potatoes e.g. boxty and colcannon and desserts which use dried fruit e.g. fruit cake, Christmas cake, barm brack
- Do a class project on the Great Famine or famines that are occurring in areas of the developing world. Research the cause in other countries. What can we do to help?
- Interview a fruit/vegetable farmer. Find out the different times of year that they plant and harvest the different fruit and vegetables. Compile a illustrated seasonal chart in class showing these timelines
- Discuss the interrelationships and interdependence between people, animals and plants and the fact that we rely on farming for food. (see 'The Irish farmer', page 2)

## Learning outcomes:

At the end of this lesson students should understand the word horticulture and the ways that mushrooms and potatoes are grown in Ireland.

## Additional resources:

- [www.agriaware.ie](http://www.agriaware.ie)



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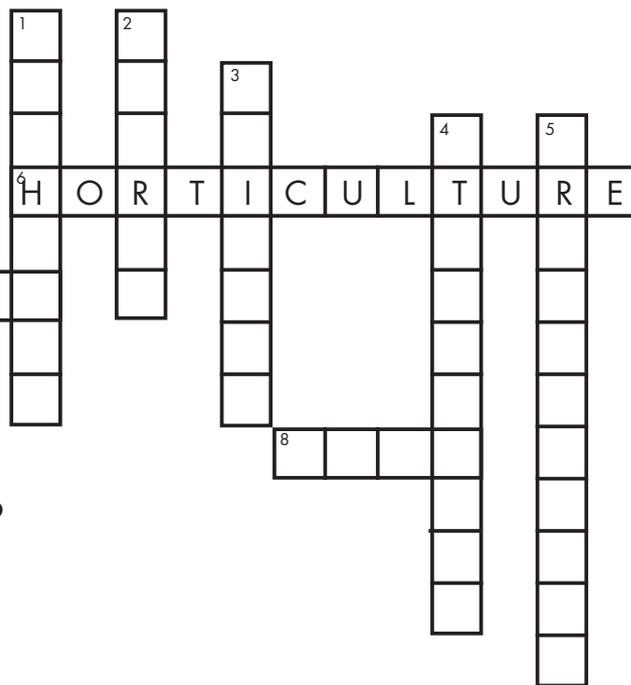
Name: \_\_\_\_\_

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**1 Use the words listed below to complete the crossword:**  
strawberry, climate, great famine, potato, five, mushroom, citrus

**Across:**

- 6. The word used for the growing of crops like fruit and vegetables (12)
- 7. Ireland's most popular root vegetable (6)
- 8. The number of portions of fruit and vegetables we should eat every day (4)



**Down**

- 1. This vegetable is a type of fungus (8)
- 2. The name given to fruits like oranges, lemons, grapefruits and limes (6)
- 3. Bananas cannot grow in Ireland as we do not have the right (7)
- 4. A fruit we grow in Ireland (10)
- 5. The name given to the time when the potato crop failed and millions died (5, 6)

**2 Look at the picture and answer the questions below**



- 1. Why are potatoes called root vegetables?  
\_\_\_\_\_
- 2. What must the farmer do to prepare the soil for the potato seeds?  
\_\_\_\_\_
- 3. How does the farmer know that the potato is fully grown?  
\_\_\_\_\_

\* To be used with teacher guidelines, page 16