# SCIENCE KS3 Interdependence





**Lesson: The importance of pollination and zero hunger** 



#### **ACTIVITY OUTLINE**



Lesson 1 of a 2 lesson sequence.

Students make any initial connections between the topics of bees, climate change and migration. This will be developed through the two lesson sequence so perhaps writing in pencil so changes can be made.

This lesson offers lots of opportunities for students to work with botanical specimens. Mounted needles, hand lenses and scalpels can be used if appropriate.

Students identify the parts of a flower by dissecting a real flower eg lily, daffodil or from the image on the ppt.

Depending on the time of year students may be able to examine pollen coming from trees or grass as well as from insect pollinated flowers.

Students examine some fruiting vegetables to see how seeds form following fertilization. This can include old daffodils or lilies, tomatoes, peppers, peas in pods, soaked beans can be used to see the emerging embryo.

Some wheat grains can be pre sown to show that they are plant seeds. Either in class or as homework. Students design a vegetable pizza and identify the role of insect pollinators such as bees in producing olives, tomatoes, aubergine, peppers, oregano.

You could discuss the role of wind pollination in producing the base and cheese!

Extension opportunities in onions as sexual reproduction and mushrooms as fungi.

Plenary: Students add to / edit their connections sheet.





Students will understand the interdependence of organisms in an ecosystem, including insect pollinated crops.

They can describe the importance of plant reproduction through pollination in human food security.

They can describe reproduction in plants and label flower structure.

They know that some plants are wind and insect pollinated.

# **SCIENCE KS3**





#### Lesson: The importance of pollination and zero hunger



### GLOBAL LEARNING OUTCOMES







Students know that hunger and malnutrition are issues in all countries of the world.



Students understand how food security is connected to other global issues.



Students can explain wider environmental issues that affect access to food and water.



Students can explain how and why climate change affects some places and communities more than others e.g. people in the majority world.



Students can describe in simple terms the connection between climate change and migration

SMSC/ British Values - Ability to recognise the difference between right and wrong and to readily apply this understanding in their own lives, and to recognise legal boundaries and, in doing so, respect the civil and criminal law of England.

## Action



Whether it's a plant pot, flowerbed, wild patch in your lawn or an entire meadow, sowing wildflowers provides vital resources to support a wide range of insects that couldn't otherwise survive in urban or built-up areas.

Throwing, breaking up or digging 'seed bombs' (or balls) into areas in your garden that need a little brightening up is a perfect way of spending an afternoon!

Go to wildlife trusts website to learn how to make a seed bomb:

https://www.wildlifetrusts.org/actions/how-make-seed-bomb