

# CONNECTING CLASSROOMS



## How can we feed a growing population?

Sustainable Development Goal 2 – Zero Hunger

## HOW CAN WE FEED A GROWING POPULATION?

### Sustainable Development Goal 2 – Zero Hunger

#### INTRODUCTION

The rapid increase in the world's population, combined with unprecedented levels of human consumption, present profound challenges for the future, unless food production is dramatically increased.

One of the United Nations Sustainable Development Goals is to end hunger, achieve food security and improved nutrition and promote sustainable agriculture. This theme encourages your pupils to think critically about this important issue, and introduces new techniques being introduced by schools and communities in different countries to tackle this problem.

#### CHALLENGE 2

To begin your project, watch the short film which was made by the Royal Society as part of Commonwealth Science Class materials on Global Food Security and discuss the issues raised by it: <https://schoolsonline.britishcouncil.org/classroom-resources/list/global-food-security-how-can-we-feed-growing-population>

Different parts of the world have different climates. Even within a single country, changes in altitude and other physical factors can lead to distinct sets of conditions which suit different types of farming, animals and crops.

Ask your pupils to investigate the most common farming methods, crops and animals raised in your country to feed the population and compare these with those of your partner school. Pupils should carry out research online and in books, ask questions to their partners via communication tools and share their findings.

Can they find out:

- Which crops are most commonly grown?
- Which animals are most common in farming communities? Are they raised for eating meat, eggs, or milk?
- Is this the same across the whole of the country or is there a lot of variation?
- What is the average rainfall in your country per year?
- How much land is occupied by farming in the country?
- What challenges do farmers in your country face today?

**Learning objectives:** To learn about SDG2, carry out research about agriculture in both countries and build a floating garden.

**Core skills:** Critical thinking and digital literacy.

**Subject links:** Science, English, geography, design and technology.

If your school has its own growing area in the school grounds or nearby, you could share photographs of the produce that is grown and your pupils' favourite recipes. A primary school in Japan worked with their UK partner school to find out how different climates affect the growth of traditional food products. Both schools grew daikon seeds (a Japanese radish) to investigate how well this traditional Japanese product grew in a different climate and compared the results. In Japan the radishes that were harvested by the pupils were much larger than those grown in the UK. Why might this be?

When you have completed your challenge and shared and discussed the results with your partner school, post a summary of your collaboration on [Twitter](#) using the hashtag **#foodsecuritychallenge2**. You can post text, pictures, or both!



### CHALLENGE 3

The Global Food Security film shows how pupils at schools in Bangladesh are learning to build floating gardens to combat the loss of agricultural land due to climate change and flooding. The Floating Garden Challenge by Practical Action has inspired this task. It challenges your pupils to design and build their own floating garden using a range of construction materials.

Lead a class discussion about how flooding can affect food production. Explain that more rain is falling now than before due to climate change and this has led to an increase in flooding in some countries. If land used to grow crops gets flooded on a regular basis, this contributes to food shortages. One answer being developed in countries including Bangladesh is the introduction of floating gardens. These are rafts made of natural resources, normally water hyacinths, and soil and cow dung. Crops are grown on the rafts, which then float when flooding occurs.

Organise your students into small groups and provide a range of equipment for them to design and build their own floating gardens.

They will need:

- construction and modelling equipment, such as plastic drinks bottles and small food trays
- straws
- string
- card
- yoghurt cartons
- plant material (e.g. vines)
- soil
- lollipop sticks or similar wooden sticks
- scissors, tape and glue.

The raft must be able to float on water in a sink or washing up bowl and be capable of growing seeds on top. They should also ideally have a way of being recycled, once they are no longer useful.



When designing their garden, ask your pupils to consider the following:

- Are the materials readily available?
- How might you dispose of the raft when it can no longer be used? Can it be recycled or used for compost?
- What size should it be and how well does it float?

Ask each group to present their raft to the class and then test them in a sink or washing up bowl. Compare your designs and see which was most effective. Discuss why this might have been. If your school has a pond or a water feature close by, your pupils could build a larger version of the most successful design and test it in the water. If you have suitable seeds such as cress seeds, your pupils could also try and grow plants on their floating gardens. They will need to ensure sufficient nutrients are available for the plants to grow.

Take pictures of your floating gardens and share these or short film clips of your floating experiments with your partner school on your chosen communication platform.

Compare and contrast the floating gardens made by your partner school and post some examples from each school with comments about what they learned and any challenges they encountered to [Twitter](#), using the hashtag **#foodsecuritychallenge3**.

To see the full materials of this unit from Commonwealth Science Class go to:  
[https://schoolsonline.britishcouncil.org/sites/default/files/resource/downloads/global\\_food\\_security\\_how\\_do\\_we\\_feed\\_a\\_growing\\_population\\_web.pdf](https://schoolsonline.britishcouncil.org/sites/default/files/resource/downloads/global_food_security_how_do_we_feed_a_growing_population_web.pdf)

