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Zero Hunger

Tackling hunger through creative collaboration



















ZERO HUNGER

Tackling hunger through creative collaboration

WHAT YOU WILL FIND HERE

An example of how you can support the development of pupils' core skills such as critical thinking and problem solving, creativity and collaboration.

This learning unit is designed to explore the United Nations' Global Goals for Sustainable Development. This can be done in the context of English, citizenship, geography or other subjects. The materials can be used either with or without an overseas partner school. Tips on how to get the most out of the resources are provided throughout.

A planning template has been created which supports and assists in designing the learning unit, allowing for the adaptation of the materials to suit local contexts. This template also enables the evaluation of the collaborative project if two partner schools work together on this unit.

OVERVIEW

In 1990, one in five people around the world was undernourished. Significant progress has been made since then, but still today, one in nine are undernourished. Ethiopia is one country that has made strong progress. In 1993, three out of four people in Ethiopia were undernourished, twenty years later, this figure had dropped to one in three. Despite this progress, entirely ending hunger remains a huge challenge.

This may be a difficult topic to teach and discuss with pupils, as the scale of the problem may appear shocking or unsolvable. We would like to suggest that this topic can be framed in a positive and optimistic way. It is possible to focus on the progress that has already been made and the solutions that are proven to work.





Pupils can explore the multiple causes of malnutrition and learn about the solutions that exist to overcome it. They can design and implement a mini-project to support better nutrition in their communities.

The learning materials that have been created may be adapted to the context of each school and the needs of specific pupils. Some learning activities can be left out in order to enable deeper learning through other activities.

AGE RANGE

9-13 years

TIME

Ten lessons of 60 minutes each (core lessons 1-5, optional lessons 6-10).

LEARNING OBJECTIVES AND CURRICULUM ALIGNMENT

This unit is designed to support the development of both knowledge and skills. The knowledge is about the Global Goals for Sustainable Development and, in particular, the causes and potential solutions of hunger. Among the skills that can be learned through this unit are core skills such as critical thinking and problem solving, creativity and collaboration. We would recommend that each teacher identifies opportunities within their school's curriculum where this knowledge and these skills can be taught, whether it is in English, citizenship, geography or other subjects.

Draft Learning Objectives

Critical thinking: develop a good understanding of the multiple causes of and potential solutions to the challenge of hunger in different contexts.

Creative collaboration: work in teams to design a mini-project to support better nutrition in the community.

PLANNING THE UNIT AND COLLABORATING WITH COLLEAGUES

Summary

Here are the suggested steps for planning the unit and collaborating with other teachers in your school and/or internationally:

- 1. What do we want pupils to learn?
- 2. What would be the best way for them to learn this?
- 3. How will we know what they have learned?
- 4. What resources do we need?
- 5. What did pupils learn during the unit?
- 6. What other reflections do we have about the unit?

Please use the planning template to reflect further on these questions.

LEARNING MATERIALS THAT HAVE BEEN CREATED FOR THIS UNIT:

Lesson 1:

Introduction, what pupils already know about this topic, what we would like them to find out, what they will be learning during this unit.

Lesson 2:

Learning about how Ethiopia managed to significantly reduce hunger and malnutrition, exploring data about hunger and undernourishment.

Lesson 3:

Exploring a tool for critical thinking, used for identifying multiple causes and solutions and learning about the work of One Acre Fund in four African countries.

Lesson 4:

tackling hunger (in Bangladesh, Vietnam and in wealthy countries), using the worksheet of causes and solutions to summarise the case study.

Lesson 5:

Pupils finish a summary of their case study, describing the causes of hunger and the solutions that have been highlighted, then present the summary to the class.

Lesson 6:

Exploring what pupils can do to address hunger in their community, learning about Joshua's Heart Foundation. Pupils begin working with the Design for Change toolkit.

Lesson 7:

Pupils creatively imagine a variety of ideas around how the problem that they are addressing could be solved.

Lesson 8:

Pupils plan the steps for their project, including resources, budget, people and responsibilities, and prepare for implementation between lessons 8 and 9.

Lesson 9:

Pupils reflect on their project: what they learned about Pupils work individually to explore other case studies on the situation, about collaborating with teammates and about themselves.

Lesson 10:

Sharing the results of the mini-project.

PowerPoint Presentation:

These are referred to throughout the resource.



TEACHER'S PLANNING TEMPLATE

This can be used individually, in collaboration with colleagues in your school or with teachers teaching the same unit in another country.

Question	Notes	Your thoughts
1. What do we want pupils to learn?	Think about the most important learning objectives for this unit: Read through the materials that have already been created and consider what the most important things are for your pupils to learn. Reflect on the objectives suggested (around critical thinking, creativity and collaboration) and revise them if necessary. Consider the standards of your National Curriculum and reflect on which standards can be met through the Zero Hunger learning unit. Be realistic about the time that you have available for this unit and what can be achieved in that time.	
2. What would be the best way for them to learn this?	Given the learning objectives you have decided, think about the learning activities that would be most effective for your pupils, for example: What is the best way for them to learn about the current state of hunger in their community, country and internationally? How to learn about the facts (data) and personal experiences (stories) that illuminate different aspects of the current situation. How to learn about the various causes of hunger. How this could be used as an opportunity to practise critical thinking; for example, to think about an issue from multiple perspectives. How to learn about the potential solutions to tackle hunger, especially those that have been very successful in many countries. How to design a project that addresses hunger in their community	

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Question	Notes	Your thoughts
3. How will we know what they have learned?	Given the learning objectives you have decided, think about assessment: How will you find out what your pupils already know about this topic before the beginning of this unit? Consider what sort of evidence you would need to see that pupils have learned the knowledge, skills or attributes you would like them to learn.	
4. What resources do we need?	Given the learning activities you are planning, think about the resources you will need: People - who would you like to engage in the unit, so that pupils can learn more about the causes of hunger and potential solutions? Written materials, music, art - what additional materials would be beneficial to your pupils in this unit? Places - where would it be useful for your pupils to learn during this unit?	
5. What did pupils learn during the unit?	During and after the unit, think about what pupils learned as part of this unit: To what extent did pupils meet the learning objectives of this unit? What other, surprising things did pupils learn? What were pupils confused about?	
6. What other reflections do we have about the unit?	During and after the unit, think about what went well with this unit and what could have been done differently, for example: Which learning experiences were particularly valuable? Were the learning activities appropriate? What worked well? What would you do differently next time?	

Introduction

PUPILS WILL:

- see pictures about food and hunger around the world
- reflect on what they already know about this topic and discuss what they would like to find out
- analyse data about hunger and the progress that has been made in various parts of the world
- find out what they will be learning as part of the unit.



The first session is a great opportunity to share with pupils that this learning unit will be about core skills such as critical thinking and creative collaboration. Research evidence suggests that when pupils are learning features of critical thinking, it is helpful if the teacher makes it explicit. For example: 'In this unit, we will be learning about the problem of hunger, what it looks like in various countries and how some countries have been successful in tackling it. At the same time, we will practise how to think critically by looking at this issue from many different perspectives. We will explore this issue from the perspective of people who live in poor countries but also others who live in some of the richest countries.'





Step 1

- 1. Share with pupils pictures from around the world that are connected with food and hunger. If possible, print out the pictures. Pictures can be found on slides 2-8 of the accompanying PowerPoint presentation.
- 2. Create a Know, Wonder, Learn (KWL) chart. The template can be found on page 8.
- 3. Ask pupils what they already know about hunger and how the pictures represent the problem of hunger. Write down their ideas in the 'Know' column.
- 4. Ask pupils what they want to find out.
 Write down ideas in the 'Wonder' column.

Step 2

- 1. Share with pupils the one-page summary of data about undernourishment. Focus on the progress made in the past 25 years.
- 2. Write additional ideas in the 'Know' and 'Wonder' columns.
- 3. Depending on what questions pupils have already put forward, you may offer additional questions, such as: 'Why have some regions and some countries made much more progress in tackling hunger than others?' and 'Why does it appear that the problem has got worse in some countries?'.

Step 3

- 1. Discuss with pupils what they will be learning during this unit and how.
- 2. Share the expected learning objectives with pupils (slide 9) please update these if necessary:

Critical thinking: to develop a good understanding of the multiple causes of and potential solutions to the challenge of hunger in different contexts.

Creative collaboration: to work in teams to design a mini-project to support better nutrition in the community.

3. Discuss with pupils what these objectives mean:

What does critical thinking mean? Ask for pupil's ideas. You might suggest that it means we look at the issue of hunger from many perspectives; multiple causes of hunger; multiple solutions that are available and that have been proven to work; hunger in different contexts in various parts of the world, including poorer and wealthier countries.

What does creative collaboration mean? Ask for pupils' ideas. You might suggest that it means working in teams, coming up with a variety of potential ideas and solutions, and using these skills to design a project that tackles hunger in their community.

4. Share with pupils some ideas for mini-projects. What could pupils do? We will brainstorm specific ideas for tackling hunger in later lessons, but here are some examples of what pupils have done in other places:

Primary school project in India – freedom from addiction (YouTube video).

Primary school project in England – raising money for fresh water in Thailand (YouTube video).

Secondary school project in India - to motivate and teach illiterate people (YouTube video).

Potential collaboration with partner school

Discuss with colleagues in the partner school how to explore multiple perspectives on hunger. Perhaps pupils could:

- share pictures of family meals in their community, describe some of the most popular foods, explain the importance of family meals
- compile and share a summary about the problem of hunger in their country and read the summary that the partner school has created
- brainstorm questions about hunger in the partner school's country that they would like to find out about during the unit.



What do we already know about this topic?	What do we wonder about this topic? What questions do we have?	What have we learned about this topic?

UNDERNOURISHMENT AROUND THE WORLD

Vocabulary. To be **undernourished** means that the food you eat does not meet your energy requirements continuously.

In 2016, world population was 7.6 billion people.

- For every 100 people, 11 were undernourished.
- In Africa, for every 100 people, 20 were undernourished.
- In Asia, for every 100 people, 12 were undernourished.
- In Latin America and the Caribbean, for every 100 people, 6 were undernourished.
- In Oceania, for every 100 people, 7 were undernourished.
- In developed regions, for every 100 people, fewer than 3 were undernourished.

In 1990, world population was 5.3 billion people.

- For every 100 people, 19 were undernourished.
- In Africa, for every 100 people, 28 were undernourished.
- In Asia, for every 100 people, 24 were undernourished.
- In Latin America and the Caribbean, for every 100 people, 15 were undernourished.
- In Oceania, for every 100 people, 16 were undernourished.
- In developed regions, for every 100 people, fewer than 5 were undernourished.

Inspiring progress: Ethiopia

In 2016, for every 100 people, 29 were undernourished. In 1991, for every 100 people, 75 were undernourished.

Standing still: Namibia

In 2016, for every 100 people, 37 were undernourished. In 1991, for every 100 people, 36 were undernourished.

Going backwards: Iraq

In 2016, for every 100 people, 28 were undernourished. In 1991, for every 100 people, 8 were undernourished.

Hunger in the land of plenty: European Union (EU)

In 2017, for every 100 people, 8 were unable to afford a proper meal* across the EU.

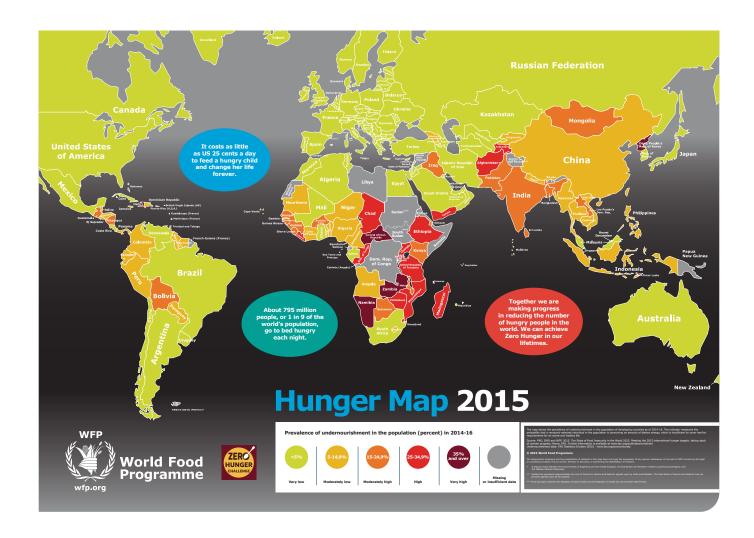
In 2016, for every 100 people, 1 was unable to afford a proper meal in Sweden.

*Data from the EU cannot be directly compared with data from other regions in the world. According to Eurostat, 'unable to afford a proper meal' means people are unable to afford a meal with meat, chicken or fish (or vegetarian alternative) every second day.

Source: The State of Food Insecurity in the World, 2016 by Food and Agriculture Organization of the United Nations; Eurostat



What's the problem?



PUPILS WILL:

- learn about how Ethiopia managed to significantly reduce hunger and malnutrition
- explore data about hunger and undernourishment in various countries and regions
- learn new words related to hunger and undernourishment
- learn about the Sustainable Development Goals
- prepare to observe how hunger affects their community.

Image credit: World Food Programme, 2016

NOTES ON CORE SKILLS

Critical thinkers make decisions based on evidence, instead of just emotions. Also, they are open to new evidence, even if it contradicts the beliefs they held previously. So for example, one may believe that hunger is a problem that keeps getting worse in the world. Actually, when exploring data, one would find that many countries have made very significant improvements in reducing hunger. This lesson is an opportunity to highlight the importance of gathering evidence first and then making up one's mind about an issue.

Step 1

- 1. Allow pupils to read the following case study about tackling undernourishment in Ethiopia (below) and show slide 11 about progress in Ethiopia.
- 2. After pupils have read the text, facilitate a conversation about the lessons learned. You might use some of the questions below:

What do you think about Ethiopia's achievement of reducing hunger?

Critical thinking involves considering an issue from multiple perspectives. There was no one single thing that enabled Ethiopia to reduce hunger. What were the different factors that contributed to the positive changes?

Are you surprised by any of the government's interventions to tackle hunger? Why?

What else would you like to find out about Ethiopia's efforts to tackle hunger?

3. Share with pupils the handout with the glossary page. They can use the glossary to find the meaning of certain hunger-related words they find in the text. For example, when the text on Ethiopia says that in 2016, for every 100 people, 29 were undernourished, what does that mean?

Step 2

1. Show the next slide, number 12, with the World Hunger Map in 2015 and share the handout with data about undernourishment (below). Tell pupils that they will be looking at some of the data about undernourishment in greater detail. Three tasks are included below. Feel free to come up with additional questions that pupils would find interesting and useful.

Columns two and three show the **proportion of undernourished people**, in percentage terms. This means how many people were undernourished out of every 100 who lived in the country in 1993 and in 2013. Try to find the country that made most progress and the country that made least progress.

The next column shows the **population** of each country in millions. Try to find one relatively large and one relatively small country that made good progress in reducing the proportion of undernourished people.

The final two columns show the **wealth** of each country in 1993 and 2013. Try to find one relatively poor country that made a lot of progress in reducing hunger and one relatively wealthy country that did not make much progress.

2. One potential activity is to think about how to visualise some of the data included on this handout. For example, how to visualise the amazing progress that some poor countries have made, far exceeding the progress that other richer countries made in the 20 year period. Here are two examples of visualisations: World Hunger Map 2011 and an infographic on Syria.

Step 3

 This part of the session is optional. Explain to pupils that ending hunger is one of the Sustainable Development Goals. Show <u>this video</u> about the importance of global goals. Here is an optional <u>30</u> <u>minute lesson plan</u> about the goals.

Step 4

1. Ask pupils to observe and think about hunger in their own community. How does it affect people? Who does it affect most? Why? These observations will be conducted by pupils over the next few days, and will inform the mini-project that they will be doing in the second half of the learning unit.

Potential collaboration with partner school

Perhaps pupils could:

- share with pupils in the partner school what they found most surprising when exploring data about hunger in various parts of the world
- share with pupils in the partner school further questions they came up with, having learned about the current state of hunger around the world.

Ethiopia, halving hunger in 20 years



An amazing achievement:

- In 1991, for every 100 people, 75 were undernourished.
- In 2016, for every 100 people, 29 were undernourished.

How was hunger reduced by more than half?

Ethiopia is Africa's oldest independent country and the second largest country in Africa in terms of population, with 107 million people living there. In 1991, the population of Ethiopia was 53 million. Major languages include Amharic, Oromo, Tigrinya and Somali. Major religions are Christianity and Islam.

A number of factors contributed to this success story. Firstly, Ethiopia's economy grew remarkably in this period. Out of 100 people working in Ethiopia, 80 work in agriculture. Ethiopia sells coffee, oilseeds and flowers to other countries. This has reduced poverty for many people over the past 25 years. However, this does not explain why the proportion of people who

were undernourished fell so much. There were many other African countries with big economic growth but less progress in tackling hunger, such as Uganda.

The second reason was that the government became much smarter about tackling hunger. In the past, as the country often experienced droughts, the government would respond with one-off humanitarian and emergency efforts. Since 2005, the government has adopted a better approach. They launched the Productive Safety Net Programme (PSNP) which provides cash and food to around 7.5 million vulnerable people in exchange for able household members participating in productive activities such as rehabilitating land and water resources.

Another important factor is how Ethiopia has brought healthcare to communities and households. Two health extension workers cover a population of about 5,000 people. They deliver preventive health and nutrition interventions, promote good practices and offer limited curative treatment.

HUNGER GLOSSARY



Hunger

Not having enough to eat to meet energy requirements.

Malnutrition

When a person's diet does not provide adequate nutrients for growth and maintenance.

Stunting

A child is too short for their age – a result of chronic malnutrition. It has severe consequences, not just the shortness of stature, but also physical health (immediate and long-term) and cognitive functioning (thinking).

Undernourishment

When a person's diet does not provide enough energy (in kilocalories).

Underweight

A low weight-for-age measurement. Underweight reflects both stunting and wasting.

Wasting

A child's weight is too low for their height – a result of acute malnutrition.

Micronutrient deficiency

A lack of one or more essential vitamins and minerals, such as vitamin A, iron, or zinc. It affects over 2 billion people worldwide.

Adapted from: World Food Programme's website and A Life Free From Hunger (2012) by Save the Children.

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Data about undernourishment (1993-2015)

The table includes data about a number of representative or particularly interesting countries from each region in the world. Due to limited space, not all countries are included in the table. Despite the existence of undernourishment in Europe, North America and Australia, comparable data for these regions was not found.

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\$1,912
\$1,809
\$3,133
\$13,570
N/A
\$34,178
\$5,757
\$10,368
\$15,073
\$13,353
\$5,057
\$4,696
\$6,875
\$11,080
\$15,252
\$5,555
\$19,117
\$14,703
\$22,517
\$1,651
\$11,770
\$8,478
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^{*}The wealth of countries is represented by Gross Domestic Product per person, using purchasing power parity and constant 2011 international dollars. Source (and data about other countries): http://data.worldbank.org/

Case study to explore causes and solutions



PUPILS WILL:

- explore a tool for critical thinking used for identifying multiple causes of, and solutions to, a problem.
- learn about the work of One Acre Fund in four African countries, and their solutions to the problem of hunger
- make a visual mindmap to describe the multiple solutions of One Acre Fund.

NOTES ON CORE SKILLS

As mentioned previously, critical thinkers are able to look at an issue from multiple perspectives. This lesson will be an opportunity to explore the multiple causes of hunger. As becomes clear, there is no one thing that causes hunger. One Acre Fund works in four African countries and they address a number of problems at the same time, for instance people often do not have money to buy high quality seeds or fertilisers; they often live in a remote location, which means they cannot buy high quality seeds and fertilisers even if they had money to do so; or they do not have the skills to make good use of them. It is helpful if the teacher makes it explicit that this lesson is about learning a new thinking tool: the analysis of multiple causes of, and solutions for, a problem.

Step 1

- Explain to pupils that when we think critically about something, we need to explore an issue from multiple perspectives i.e. many different viewpoints. Today, they can practise this when learning about an organisation called One Acre Fund. They will be exploring the reasons for hunger and malnutrition from multiple viewpoints: What are the various causes of this problem? What sort of solutions can be effective?
- 2. If possible, show the video about the work of One Acre Fund: https://vimeo.com/75982352
- 3. Ask pupils if anything surprised them about the video, what they learned and what, if anything, confused them.

Step 2

- 1. Ask pupils to read the case study about One Acre Fund on page 17.
- 2. When they have read the case study, they should write down their thoughts about two questions:

For what reasons was Robert not able to provide enough food for his family in previous years?

How did One Acre Fund help Robert?

Step 3

1. Show pupils the map of a village in rural Kenya on page 18. Ask them where local farmers got their farming inputs (such as seeds) before One Acre Fund started and how far they had to go for them.



Step 4

- 1. As pupils have already seen from the video and read from the case study, One Acre Fund is trying to address a number of reasons for hunger simultaneously.
- 2. Review slide 17 which explains the basic framework:
 - hunger is the issue
 - hunger depends on immediate causes, such as quality of food and nutrient intake
 - which, in turn, depend on various intermediate causes, such as access to nutritious food
 - which, in turn, depend on various underlying causes, such as poverty, and many others.
- 3. Ask pupils to look at the handout on page 19, which summarises various causes of hunger as well as potential solutions. Ask them to underline the causes that One Acre Fund addresses and the solutions it provides. A teacher's version which includes the underlined causes and solutions is also provided on page 20.
- 4. Facilitate a conversation about the handout. You might use some of the guestions below:

Which causes did you underline? Why?

Which solutions did you underline? Why?

What do you think about One Acre Fund's work?

Are they addressing the right problems?

What do you think about their solution?

Potential collaboration with partner school

Pupils could discuss and share their opinions on the following questions:

- What sort of approaches to tackling hunger are in place in your country?
- How is the One Acre Fund's approach to tackling hunger similar or different to the approaches in your country?
- What do you think about which approach works best and why?

One Acre Fund



Robert Tigarya is 30 years old and he has always been passionate about farming. Many of his friends left their native village of Lulyambuzi, Uganda, to look for a job in a city. Robert remained in the village and wanted to become a successful farmer.

A few years ago, he was close to giving up. 'I know I have a responsibility to provide for my family. My children are very important to me, and I get very sad if I'm not able to provide enough for them,' Robert says. Most years, his harvest would only last for about four months, and without food he would have to borrow from neighbours and shop owners. Then one of his friends told him about One Acre Fund, an organisation that worked with farmers in his village.

One Acre Fund provided Robert with **credit in the form of hybrid maize seed and fertilizer**. These were **delivered** to his village and for the first time in his life, Robert planted with hybrid seed and fertilizer. In **training** conducted by One Acre Fund staff, Robert learned how to use fertilizers using a microdosing technique.

This season, the harvest filled Robert's entire house. 'This harvest is amazing – I'm at a loss for words to explain it. I'm even worried I might not have enough space to store it in my house!' Robert laughs. Now he is able to feed his family and sell the surplus produce at **market**. Recently, he sold part of his harvest and was able to buy a motorcycle. This makes it easier for Robert to get around and he can also earn money from transporting other people.

In the future, Robert is hoping to buy a cow, plaster the walls of his house and buy more land. 'I now know farming can be a business,' Robert smiles.

How is One Acre Fund's model unique?

It combines four components:

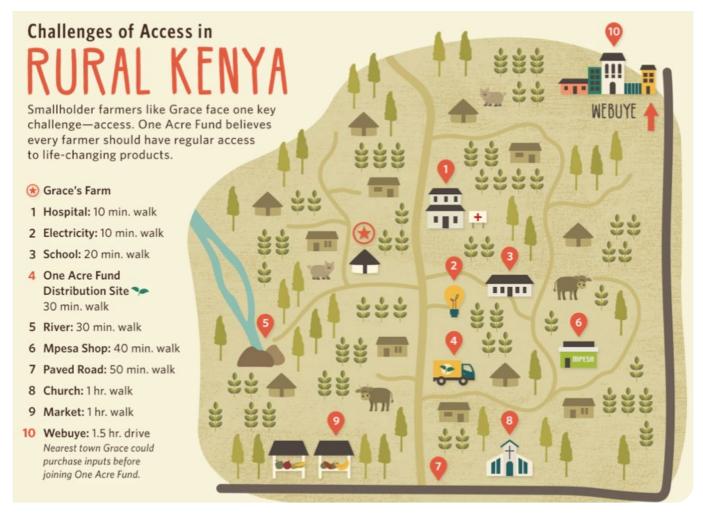
- 1. **Providing farm inputs on credit** without One Acre Fund, many farmers lack access to loans to buy high quality seeds and fertilizers.
- 2. **Delivery** in rural areas, distances are vast and transportation is often undeveloped, so seeds and fertilizers need to be delivered to local villages.
- 3. **Training** without proper training, improved seeds and fertilizers are largely ineffective.
- 4. **Harvest sales** in rural areas, often there are no markets; One Acre Fund has set up 800 local markets within walking distance for people, so they can sell their products and earn an income.

In 2017, One Acre Fund served more than 600,000 farm families in six countries.

Photo by Kelvin Owino/One Acre Fund

Source: One Acre Fund blog and website

What's the problem?



Designed by Jessica Knuth/One Acre Fund 1

THINKING CRITICALLY: MULTIPLE PERSPECTIVES ON HUNGER

Read the One Acre Fund case study. Then read this worksheet.

Which causes of hunger does the One Acre Fund try to address? Underline these on the worksheet.

What solutions to hunger does the One Acre Fund focus on? Underline these too.

	Hunger			Solutions	
Level 1: Immediate causes	Poor food and nutrient Poor health intake		Nutrition services, especially for mothers, babies, young children Micronutrient supplements and fortification		
Level 2: Intermediate causes	Lack fo access to nutritious food	Poor maternal and childcare practices	Limited water, sanitation and health services		Social protection Agricultural policies
Level 3:	Poverty, limited access to money and goods	Faraway locations without good access	Lack of knowledge and skills (on farming, childcare, etc.)	No markets where extra produce can be sold	Provide farm inputs on credit Deliver seeds and fertilizers to village
Underlying causes	Conflicts	Environment and natural disasters	Lack of health workers	Weak institutions	Training on how to use seeds and fertilizers Set up local markets to sell harvest
	Limited access to technology				Good governance

THINKING CRITICALLY: MULTIPLE PERSPECTIVES ON HUNGER

Teacher's version

This version shows underlined causes of hunger that the One Acre Fund addresses and the solutions it uses (i.e. it is the completed version of the worksheet on page 19).

	Hunger			Solutions	
Level 1: Immediate causes	Poor food and nutrient intake		Poor health		Nutrition services, especially for mothers, babies, young children Micronutrient supplements and fortification
Level 2: Intermediate causes	Lack of access to nutritious food	Poor maternal and childcare practices	Limited water, sanitation and health services		Social protection Agricultural policies
Level 3:	Poverty, limited access to money and goods	Faraway locations without good access	Lack of knowledge and skills (on farming, childcare, etc.)	No markets where extra produce can be sold	Provide farm inputs on credit Deliver seeds and fertilizers to village Training on how
Underlying causes	Conflicts	Environment and natural disasters	Lack of health workers	Weak institutions	to use seeds and fertilizers Set up local markets to sell harvest
	Limited access to technology				Good governance

Case studies to explore multiple causes and solutions



PUPILS WILL:

- work individually to explore other case studies on tackling hunger
- use the table of causes and solutions to summarise the case study they have been learning about.

NOTES ON CORE SKILLS

In this lesson, pupils will continue to explore the multiple causes of, and potential solutions to, the problem of hunger. They will continue to practice exploring evidence and looking at an issue from multiple perspectives. Both habits are important for critical thinkers and problem solvers, and it would be helpful if the teacher explained this to pupils.

In addition, this lesson will begin the process of collaboration. Pupils will first work individually to explore different case studies, and will then work as a group to summarise the case study. In many jobs, it is impossible for one person to know everything about an issue. Work is often divided up between team members who then bring their most important findings and ideas back to the whole team. This way, everyone in the team gains a more complete understanding of the issue.

Step 1

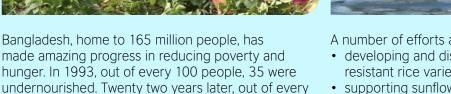
- 1. Divide pupils into groups of three. Each group member will explore a different case study: one about Bangladesh; another about Vietnam; and a third one about hunger in rich countries. Pupils can choose themselves which one they would like to read. It is important that each pupil within a group of three reads a different case study; the pupils can agree between themselves who reads which one.
- 2. Ask pupils to read their case study, then use the worksheet on page 26 to underline any causes of, and solutions to, hunger they have identified in their case study. Pupils can then add any additional causes and solutions from their case study to the worksheet, using the gaps provided.

Step 2

- 1. Ask pupils to form three new groups: one containing everyone who read the case study about Bangladesh; another group for those who read about Vietnam; and a third for those who read about hunger in wealthy countries. These new groups can also be split into smaller groups in large classes; just make sure that everyone in the new group has read the same case study.
- 2. Ask pupils to discuss the notes they made on the worksheet in Step 1 about the causes of, and solutions to, hunger in their case study. Are they confident that they have found all of these? Can they add others together? N.B. Pupils will need these worksheets in Lesson 5.
- 3. The teacher can circulate among groups, check progress and answer questions as needed.

Bangladesh: adapting to climate change





Cyclones, floods and droughts have made life difficult in Bangladesh for decades. In recent years, the negative effects of climate change have become worse than before. A few years ago, floods caused eight million people to flee their homes. Scientists predict that in the next few decades, the country is likely to experience rising sea levels, more extreme heat and more intense cyclones. By 2050, one fifth of today's land area might be under water.

100 people, 15 were undernourished. Yet climate

change threatens to undo the progress for which

people in Bangladesh have worked so hard.

The negative effects of climate change make food production even more difficult. This is especially worrying because the population of Bangladesh is growing by nearly two million every year. So how is the country adapting to climate change?



A number of efforts are under way:

- developing and disseminating droughtresistant rice varieties
- supporting sunflower cultivation in coastal areas
- developing cold-resistant rice varieties for the northern areas of Bangladesh, which experience low temperatures in the winter.

Some new technologies that are widely used in agriculture in Bangladesh and beyond have had a negative effect on the land. Some organisations are now supporting cheaper and environmentallyfriendly processes. In northern Bangladesh, where water is scarce, new methods of cultivating rice are used. These demand less water and yet produce higher yields from seedlings.

BRAC is an organisation that has supported 500,000 farmers in Bangladesh. Sir Fazle Hasan Abed is a founder of BRAC and winner of world food prize in 2015:

Our planet has the resources to feed its people, but we must ensure that each individual has access to the tools they need to create their own livelihoods and develop their communities. To increase food security, we involved women in the business of distributing high-yielding seeds and other agricultural inputs.

Source: BRAC blog, World Bank report

Vietnam: Improving the first 1,000 days



Nguyen Thi Lac has two children. Her daughter is 12 years old and her son is 11 months old. They are both very healthy.

Her neighbours were curious about how she cared for her children. Her daughter is now in 6th grade. She is intelligent and won two prizes last year. The neighbours thought that Lac had been using infant formula when her children were small, because they had seen TV advertisements promoting this formula. Most mothers in the countryside think that infant formula is best for their children when they see the TV advertisements, but Lac fed her daughter – and continues to feed her son – with breast milk.

The first 1,000 days of life is the most important period in a child's development. This is the time that begins with conception through a mother's pregnancy and continues until the child is two years old.

The World Health Organisation states that: Infants should be exclusively breastfed for the first six months of life to achieve optimal growth, development and health. Thereafter, to meet their evolving nutritional needs, infants should receive safe and nutritionally adequate complementary foods while breastfeeding continues for up to two years of age and beyond.

Fewer than one in five infants under six months of age were exclusively breastfed in Vietnam in 2010. Nearly one in three children under five years of age were stunted – they were too short for their age – as a result of chronic malnutrition. Since then, very good progress has been made to improve children's nutrition during the first 1,000 days of their lives.

Amazing achievements

A large scale programme called Alive and Thrive has reached more than two million mothers with children under the age of two years. Here are some of the results:

Two in ten mothers used to exclusively breastfeed their children for the first six months, now this figure has doubled to four in ten mothers, as a result of a successful mass media campaign.

In provinces where mothers were also counselled in addition to the mass media campaign, six in ten mothers now exclusively breastfeed their children for the first six months.

Source: Alive and Thrive website and blog, A Life Free From Hunger (2012) report by Save the Children.

Hunger in the land of plenty?



The New Face of Hunger - Why are people malnourished in the richest country on Earth? This was the title of an article published by the magazine National Geographic in August 2014, which described the reality of hunger:

Chances are good that if you picture what hunger looks like, you don't summon an image of someone like Christina Dreier: white, married, clothed, and housed, even a bit overweight. The image of hunger in America today differs markedly from Depression-era images of the gaunt-faced unemployed scavenging for food on urban streets. "This is not your grandmother's hunger," says Janet Poppendieck, a sociologist at the City University of New York. "Today more working people and their families are hungry because wages have declined."

In the United States more than half of hungry households are white, and two-thirds of those with children have at least one working adult – typically in a full-time job.

By whatever name, the number of people going hungry has grown dramatically in the U.S., increasing to 48 million by 2012 – a fivefold jump since the late 1960s, including an increase of 57 percent since the late 1990s.

In the United Kingdom, the picture is also quite disturbing. Foodbanks provide emergency food and support to people in crisis, free of charge. They fed more than one million people in 2017/2018, of whom over 435.000 were children.

Does this mean that it is not possible to solve the problem of hunger? Some European countries have been successful in reducing hunger to almost zero. The table on page 25 shows the proportion of people (out of 100) that are unable to afford a meal with meat, chicken, fish (or vegetarian alternative) every second day.

Sources: National Geographic, US Department of Agriculture, Trussel Trust

Hunger in the land of plenty?

	Unable to afford a proper meal, 2017*	Population, 2017 (in millions)	GDP per person in PPP, in 2017**
Sweden	1	10	\$46,949
Norway	2	5	\$64,800
Denmark	2	6	\$46,683
Spain	4	46.5	\$34,272
Portugal	3	10	\$27,937
France	7	67	\$35,229
Germany	7	83	\$45,229
United Kingdom	5	66	\$39,753
EU average	8	512	\$36,357

^{*} Proportion of people (out of 100) that are unable to afford a meal with meat, chicken or fish (or vegetarian alternative) every second day.

^{**} The wealth of countries is represented by Gross Domestic Product per person, using purchasing power parity and constant 2011 international dollars.

THINKING CRITICALLY: MULTIPLE PERSPECTIVES ON HUNGER

Read your case study. Then look at this worksheet. Which causes of, and solutions to, hunger that you read about in your case study can you see here? Underline all you can see.

After that, see if you can identify any causes or solutions that are not yet on this worksheet. Write them in the gaps.

Μv	case study is from	

		Hunger			Solutions
Level 1: Poor food and nutrient Immediate intake causes		Poor health		Nutrition services, especially for mothers, babies, young children Micronutrient supplements and fortification	
Level 2: Intermediate causes	Lack of access to nutritious food	Poor maternal and childcare practices	Limited water, sanitation and health services		Social protection Agricultural policies
Level 3:	Poverty, limited access to money and goods	Faraway locations without good access	Lack of knowledge and skills (on farming, childcare, etc.)	No markets where extra produce can be sold	Provide farm inputs on credit Deliver seeds and fertilizers to village Training on how to use seeds and
Underlying causes	Conflicts	Environment and natural disasters	Lack of health workers	Weak institutions	fertilizers Set up local markets to sell harvest Good governance
	Limited access to technology				

Analysis of case studies, beginning to prepare for mini-projects



PUPILS WILL:

- produce a summary of their case study, describing the causes of hunger and the solutions that have been highlighted
- present the summary to the large group
- discuss observations of how hunger affects their own community.

NOTES ON CORE SKILLS

This lesson is about collaboration. First, smaller teams present the learning from their case study to the whole group, and each case study is discussed. Teams also work together to talk about how hunger affects their community. Ideas and insights from the case studies and discussions can inform Lesson 6, which involves pupils designing a mini-project to address hunger in their own community. For example, the case study from Bangladesh shows how climate change is affecting the production of healthy food, and some of the solutions that are being found. Pupils may find something similar is happening in their own community.

Step 1

Ask pupils to go back into the case study groups they were in at the end of Lesson 4. Their next task is to create a summary of their case study to present to the rest of the class. The summary needs to outline the case study plus explain the causes of hunger, and the solutions to it, that pupils found in their case study. To present, pupils can either use their completed worksheets, or create a new visual summary.

Step 2

 Each of the groups presents, in turn, their summary to the entire class. The teacher facilitates a conversation about the case studies. The following questions might be used:

What is the most important thing you learned in your case study?

Were you surprised by anything?

Why do you think some poorer countries are doing a good job addressing the causes of hunger, while some richer countries are not doing a good job?

Do you have any questions about the case studies?

Step 3

- 1. Optional activity: the teacher may print out and share with pupils additional examples of how hunger and malnutrition is addressed in creative ways. The purpose is to provide pupils with further examples of successful projects and interventions to address hunger. For example:
- <u>infographics</u> to raise awareness about issues such as breastfeeding and low birth weight
- comics to tell stories about healthy behaviours
- <u>pictures</u> to raise awareness among illiterate mothers about young child nutrition.

Step 4

1. Pupils work in groups of four or five. Ask each of them to share their thoughts about how hunger affects their community. This is an important step before they begin to plan their mini-projects in Lesson 6.

What children can do to tackle hunger



PUPILS WILL:

- explore what children can do to address hunger in their community
- familiarise themselves with the Design For Change toolkit
- decide in groups which aspect of hunger they would like to address in their own community
- plan how to go into the community and interview people to understand their concerns.

NOTES ON CORE SKILLS

An important step in the process of creative collaboration and problem solving is deciding as a team which specific problem to address. This session provides an opportunity for teams to decide what they want to do. The lesson begins with a case study of Joshua's Heart Foundation showing that even young children

Step 1

- 1. Show a video about the work of Joshua's Heart Foundation, an organisation set up by Joshua Williams when he was almost five years old: YouTube video
- 2. Facilitate a conversation about the video:

What did you notice in the video about the causes of hunger in Joshua's home town?

What do you think about his solution?

Step 2

- 1. Optional activity: Read the blog post on page 29 written by Joshua Williams which further describes his motivation to set up his own foundation. Or use this activity as a non-internet alternative to Step 1.
- 2. Facilitate a conversation:

What was Joshua's motivation to address hunger in his community?

What does this story make you think of? Is there anything you could do to tackle hunger in your own community?

Step 3

- 1. Share with pupils the Design For Change <u>toolkit</u>. A worksheet summary of the toolkit can be found on page 30.
- 2. Ask pupils to go back into the groups they were in at the end of Lesson 5. Each group should contain four or five pupils. Give each group a copy of the worksheet on page 30.
- 3. Focus on Step 1: Feel. Before this lesson, pupils will have observed how hunger affects their community. In the previous lesson, they discussed their observations. Now they will begin planning their mini-projects. The first step is deciding which aspect of the problem to address. After reminding each other of their thoughts, each group votes on which aspect of hunger in their community they would like to address through their mini-project.
- 4. In their groups, pupils plan how they will go out to speak with people relevant to their mini-project. The purpose is to interview people, understand their concerns and begin to think about how the situation could be improved. Pupils need to carry out their interviews before moving on to Lesson 7.

Joshua's Heart Foundation



A blog post by Joshua Williams, founder of Joshua's Heart Foundation

Here is one of my favourite quotes: 'I am only one, but I am one. I cannot do everything, but I can do something. And I will not let what I cannot do interfere with what I can do.' – Edward Everett Hale.

I decided to start my foundation when I was almost five years old. This all came about because of a single twenty dollar bill. My story starts when I was on my way to church on a Sunday morning. When I was about to leave, my amazing grandmother gave me twenty dollars to do with whatever I wanted. In the process of going to church I was thinking about all the possible things I could buy with the money. But when we were stopped at a red light that was the moment when I saw the homeless, hungry man who changed my life forever. I saw him and I knew I had to give him my twenty dollars. Not only was it for a good cause but it would help him in whatever way it could. I knew then, that this is what I had to do in life. Then on another day I was watching television and there was an infomercial about Feed The Children Foundation. That's when I had the vision of exactly what I needed to do in life. I needed to help people. Now I had to answer the how;

How could I help?.... I thought for a while, then it came to me. I had to help by giving food, the one basic necessity of life. I told my two aunts about my idea of helping the needy; although they came on board to help, they kind of ignored me so I had to fire them. Then I went to my mom to help, she didn't at first but with constant nagging she ultimately agreed. She also didn't take me seriously until she realized that I was very serious about my vision.

At first we were giving hot food that we cooked to the homeless every Saturday, I also came up with the idea of a food distribution, where we would have families, who are less fortunate, come by and get a bag full with essential foods. Simple right? So we started; our first distribution was a big accomplishment. We helped 300 families who left with a bag full of a week's worth of groceries. We assisted the needy for two years then we became a foundation, I called it Joshua's Heart Foundation. Why, because I felt like I was putting my heart into my mission. Currently we help young people every Friday in a food backpack program, seven months of the year we provide groceries in a large food distribution and quarterly with a cooking demonstration to show families how to prepare easy, tasty and nutritious meals. We feed 20-60 youths every Friday and an average of 150 families per month.

As Martin Luther King Jr once said 'I Have a Dream', I too have a dream, I have a dream that one day there will be no more hungry children, I have a dream that if someone is hungry they will know where to go, I have a dream that one day there will be 'open Cafeterias' everywhere where poor families can donate what they can or volunteer if they cannot and be able to feed their families when needed. I have a dream that one day all youths will be givers and helpful to each other, I have a dream that together we can eradicate worldwide hunger, I have a dream that JHF will inspire youths all over the world to start making a difference. I have a dream that everyone will find their purpose in life.

Source: www.joshuasheart.org

DESIGN FOR CHANGE



FEEL IMAGINE DO SHARE

Step 1: Feel	Observe your surroundings in your class, school and community. How does hunger or food insecurity affect your community? List all the different aspects that bother you.	Space for your notes:
	Share your observations with your team members.	
	Vote for the one situation that you would all like changed.	
	Go out and talk to people who are affected by the situation. Interview them to understand their concerns. This will help you understand how the situation can be improved.	
Step 2: Imagine	Imagine a variety of ideas around how this situation can be changed. Be creative and collect as many ideas as possible.	
	Don't criticise others' ideas, build on the ideas of others.	
	Vote for the ideas that best address each part of the situation.	
Step 3: Do	Plan the steps for your project. What resources will you need? What is the budget? How will you get the money? How many people are needed? How much time will it take? How will you document your work? How will you share up the tasks among your team members?	
	Implement your project. Go out and put your plan in to action. Yes you can!	
	Reflect on your project. What three things did you learn about the situation? What two things did you learn about your teammates? What one thing did you learn about yourself? How do you continue your work for long term impact?	
Step 4: Share	Feelings: How can your story depict the feelings of your teammates and other people around you?	
	Actions: How can you show your teammates in action?	
	Change: How were people changed? Capture quotes. What was your community like before? How has it changed?	

Source: Design For Change website and toolkit.

Continue designing the mini-project

PUPILS WILL:

 creatively imagine a variety of ideas around how the problem that they are addressing could be solved.

NOTES ON CORE SKILLS

At this stage of the learning unit, the focus is on creativity. Previously pupils have learned about the various causes of hunger in other countries and in their own community; now is the time to come up with mini-projects to address them. It is important to try to create the right conditions for creativity in the classroom. Teachers should encourage pupils to come up with their own ideas, and to not criticise anyone else's ideas. Making mistakes is normal. All inventors and problem solvers make mistakes along the way, trying out different ideas before finding the one that actually works.

Step 1

1. Pupils work in the same groups as Lessons 5 and 6 and share their findings from the interviews they carried out in the community. You may wish to ask them to think about specific questions. For example:

What were the main concerns of people they talked to?

Did anyone in the community have ideas for solutions to these concerns?

2. Next, ask pupils to focus on Step 2 of the Design for Change worksheet: Imagine. How many ideas can they think of to address the issue they have chosen? It is important to remind pupils to build on the ideas of others rather than criticise them.

Step 2

1. Towards the end of the lesson, ask each group to review their ideas and vote for the ones that best address their chosen issue.

Potential collaboration with partner school

Each group of pupils in partner schools might share information about, and suggested solutions for, the specific problem they have chosen with their peers.

An interesting opportunity for collaboration could be for pupil teams from two schools to work together if they are looking to solve a similar problem. If pupils from two different countries worked on this project together, they could show that hunger is a shared issue for everyone – in poorer as well as wealthier countries.

Plan the mini-project and prepare for implementation

PUPILS WILL:

- plan the steps for their project, including resources, budget, people and responsibilities
- prepare to implement the project

NOTES ON CORE SKILLS

The teacher may want to highlight one important aspect of problem solving and creative collaboration – not just coming up with new, exciting ideas but also making them happen. This session is very practical in nature, and is an opportunity to think through, in detail, everything that needs to be done to implement the project.



Step 1

 Using the idea that their group voted for in the previous lesson, pupils work in their groups to plan the steps for the mini-project. They can use Step 3: Do of the Design for Change worksheet to help them. If necessary they could be prompted by being asked questions, for example:

What resources will you need?

What is the budget? How will you get the money?

How many people are needed?

How much time will it take?

How will you document your work?

How will you share up the tasks among your team members?

Step 2

1. Pupils prepare to implement their mini-project. This will happen between Lessons 8 and 9. Teachers may want to reinforce the Design for Change message: Go out and put your plan into action. Yes you can!

Reflect on the mini-project



PUPILS WILL:

• reflect on their project: what they learned about the situation, about collaborating with teammates and about themselves.

NOTES ON CORE SKILLS

Previously we have emphasised that taking risks and making mistakes is a natural part of problem solving. IT is impossible to know in advance whether the solution works or not. All inventors that have changed the world have had many failed attempts before coming up with the right solution. However, reflection is a key part of the process. One has to think carefully about the implementation of the project and capture what was learned.

Step 1

1. Pupils work in their groups to reflect on their projects. Using Step 3: Do on the Design for Change worksheet they will write down their main ideas to answer the following questions:

What three things did you learn about the situation?

What two things did you learn about your team-mates?

What one thing did you learn about yourself?

How do you continue your work for long term impact?

Step 2

1. If there is enough time, groups can begin planning how to share the results of their mini-projects with others, using the suggested questions in Step 4: Share on the Design for Change worksheet.

Share the results of the mini-project

PUPILS WILL:

• share the results of the mini-project.

NOTES ON CORE SKILLS

In the final session of this learning unit, pupils are encouraged to share the results of their mini-projects. How does this relate to core skills? In two main ways. First of all, by sharing with others what worked and what did not work, this helps other people learn more about the issue of hunger, with the result that everyone can develop a better understanding of the multiple causes and potential solutions. Secondly, sharing the results of mini-projects will hopefully inspire others to get

Step 1

1. Pupils work in their groups to plan how they will share the results of their project with others. They may want to use the questions in Step 4: Share of the Design for Change worksheet to help them:

Feelings: How can your story depict the feelings of your teammates and other people around you?

Actions: How can you show your teammates in action?

Change: How were people changed? What was your community like before? How has it changed? Use quotes when you can to show change.

Step 2

1. Pupils share the results of their project with others in their class and school.

Potential collaboration with partner school

Each group may share the results of their mini-project with pupils in the partner school, for example through photos, a short video or a blog post.



SOURCES OF INFORMATION

Alive and Thrive: Country briefs, Southeast Asia

BBC: Affordable healthy diet too expensive for many

BRAC: Planting the future

BRAC: Improving maternal and child nutrition

BRAC: Bangladesh achieves the highest level of breastfeeding and the greatest

increase in complementary feeding

Columbia University: climate modelling

Farm Africa: Climate resilient farming

Global Food Security Update

Hungry Planet Family Food Portraits

Malnutrition lesson materials (UNICEF)

McKinsey: A cure for hidden hunger

McKinsey: Ending hunger in Africa

Mother and child nutrition

NASA: Climate models show potential 21st century temperature-precipitation changes

NASA: Climate time machine

NASA: Climate models

NHS: Malnutrition treatment

One Acre Fund: Our Model

Save the Children: A Life Free from Hunger

Save the Children: World Food Day, 6 ways we're tackling hunger

SUN: Scaling up nutrition

The Guardian: Older people lack of food

The Guardian: Conflict drives unacceptable figure of 795 million people facing hunger

The Guardian: In 2050, there will be 9 billion people on earth - how will we feed them?

The Hunger Project: Tasly's story, Bangladesh

Thousand Days: Infographics

UN: Sustainable Development Goals

UN: First 1000 days

Unicef: Raise awareness about child stunting

World Food Program (WFP): Zero Hunger

WFP: Food Price Rollercoaster

WFP: 11 myths about hunger

WFP: Classroom activities about hunger

WFP: Facts about hunger in different countries



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Find a partner school or browse more resources at www.britishcouncil.org/school-resources

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