



## WORK-IT-OUT WORKSHEET REFERENCES FOR FACTS

- Did you know "If we all halved the amount of meat, dairy and eggs we eat, it would reduce the world's food climate impact by one quarter."
  - Poore & Nemeck 2018.  
<https://science.sciencemag.org/content/360/6392/987> Figure S14 give 6.2 kg CO<sub>2</sub>e per person per day in their "Current (2010) diet", whereas for their "No animal products" scenario they get 3.56 kg CO<sub>2</sub>e per person per day if food waste is considered  $(7.04 + 2.05)/6.993/365 * 1000 = 3.56$  or  $(7.04)/6.993/365 * 1000 = 2.75$  kg CO<sub>2</sub>e per person per day if food waste is not considered, therefore roughly half the standard diet.
  - We therefore conclude that if we halve the amount of animal products then the result would lie halfway between these two (assuming a proportionate scaling of each type of animal food including dairy relative to meat) i.e. a 25% reduction in food GHGE.
  
- Did you know "Putting the oven on for 10 minutes causes about eight times as much greenhouse gas emissions as boiling a kettle."
  - Assuming a kettle uses 2 kW of power for 1.5 minutes, this corresponds to  $2 * 1.5 / 60 = 0.05$  kWh, or  $0.05 * 500 = 25$  g CO<sub>2</sub>e assuming 1 kWh causes 0.5 kg CO<sub>2</sub>e (this number will cancel out of the full calculation so is not important).
  - If your oven draws on average 2.4 kW, and you run it for 10 minutes, this corresponds to  $2.4 \text{ kW} * 10 \text{ minutes} / 60 \text{ minutes per hour} = 2.4 * 10/60 \text{ kWh} = 0.4 \text{ kWh}$ , or  $0.4 \text{ kWh} * 500 \text{ g CO}_2\text{e} / \text{kWh} = 0.4 * 500 \text{ g CO}_2\text{e} = 200 \text{ gCO}_2\text{e}$ .

Comparing the two numbers, the ratio is  $200 / 25 = 8$ . This depends mostly on the power consumption of your particular oven, and how much water you put in the kettle.

- Did you know "If food waste was a country, it would be 3rd largest contributor to climate change."
  - Food and Agriculture Organization of the United Nations (FAO). Food wastage footprint & Climate Change.  
<http://www.fao.org/nr/sustainability/food-loss-and-waste>
  - See <https://friendsoftheearth.uk/food-waste> who say "If it were a country, food waste would be the third highest emitter of greenhouse gases in the world." citing [http://www.fao.org/fileadmin/templates/nr/sustainability\\_pathways/docs/FWF\\_and\\_climate\\_change.pdf](http://www.fao.org/fileadmin/templates/nr/sustainability_pathways/docs/FWF_and_climate_change.pdf)

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## WORK-IT-OUT WORKSHEET REFERENCES FOR NUMBERS AND INTERVIEW REFERENCES

### Climate Food Flashcards

- To know more about the Flashcards and get the latest version go here <https://www.takeabitecc.org/flashcards.html>  
You can download the free version 2 of the Flashcards here: [https://www.dropbox.com/s/3oev670575y2ten/main\\_nov19\\_v2\\_8up.pdf?dl=0](https://www.dropbox.com/s/3oev670575y2ten/main_nov19_v2_8up.pdf?dl=0) and view all the numbers that went into version 2 (including references) here <https://docs.google.com/spreadsheets/d/1bYaRQf1xNziKX9nzJfUHFf9tthKUUu1WE3yCGq9jeCo/edit#gid=0>

### NHS - How to prepare and cook food safely

- "Find out how to prepare, cook and store food correctly to minimise the risk of food poisoning, including *E. coli*."  
<https://www.nhs.uk/live-well/eat-well/how-to-prepare-and-cook-food-safely/?tabname=recipes-and-tips>

### Definition - cooking from scratch

- Lavelle, F et al. Barriers and Facilitators to Cooking From 'Scratch' Using Basic or Raw Ingredients: A Qualitative Interview Study. *Appetite*. 2016, 1;107:383-391.  
<https://www.sciencedirect.com/science/article/abs/pii/S0195666316304391?via%3Dihub>

### Check the temperature of your fridge

- As mentioned by Christian Reynolds on the Theme 4 Q&A video, here is a link to a website where you can check the temperature of your fridge, and make sure it's cold enough to keep things fresher for longer, and so reduce food waste  
<https://www.lovefoodhatewaste.com/article/chill-fridge-out>

### Love Food Hate Waste

- "Your food is at its best when it's on your plate, ready to be enjoyed. It's perfect in your fridge, ready to be used, or stored in the freezer for another time. It's at its worst when it's in your bin. Saving food means saving money, but look at the bigger picture, too. Reducing food waste is good for the planet, as it helps slow down global warming."  
<https://www.lovefoodhatewaste.com/>

### Jack Monroe's Tin Can Cook

- As mentioned by Ro Randall on the Theme 4 Q&A video, this is Jack Monroe's Tin Can Cook book which makes great use of tin cans - a great way to cook easily and with less waste due to items going off before you use them!  
<https://cookingonabootstrap.com/product/tin-can-cook/>

### Food, greenhouse gas emissions and our changing climate

- Tara Garnett. Cooking up a storm: food, greenhouse gas emissions and our changing climate. *Food Climate Research Network, Centre for Environmental Strategy, University of Surrey*. 2008.  
"The subject of this report is food and its impact on the climate. We set out what we know about the food system's contribution to greenhouse gas (GHG) emissions and how they arise."  
<https://www.fcrrn.org.uk/fcrrn/publications/cooking-up-a-storm>

### Change Your Diet: the Easiest Way to Help Save the Planet

- Bridle, S L. Food and Climate Change without the hot air - Change Your Diet: the Easiest Way to Help Save the Planet. Publisher: UIT Cambridge Ltd. September 2020.

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## ADDITIONAL RESOURCES

### Videos

#### What If The World Became Vegan? | BBC Earth Unplugged

- *"In the UK alone there are over half a million people who have decided to live a vegan lifestyle. This involves not eating dairy or meat and instead opting for plant based food. However, across the globe, humans eat a staggering amount of meat and all these animals need land to graze, food to eat and are responsible for the production of methane which accelerates climate change. What would happen if everyone in the world became vegan?"* - <https://www.youtube.com/watch?v=ytFwytWK1Bw&amp;t=1>

#### The diet that helps fight climate change

- *"You don't have to go vegan to fight climate change. Research shows that small changes to our diets can make big differences."* - <https://www.youtube.com/watch?v=nUnJQWO4YJY&amp;feature=youtu.be>

#### Energy, let's save it! | European Commission

- *"A family is carelessly and unknowingly wasting energy from the moment they wake up. Until something unexpectedly happens."* - <https://www.youtube.com/watch?v=1-g73ty9v04>

#### Learn About Clean Energy with Ubongo Kids and the EU | Educational Cartoons for Kids

- *"Watch "Kids for a Cleaner Future!" an Ubongo Kids special made in partnership with the European Union in Tanzania!"* - [https://www.youtube.com/watch?v=R5\\_grNnheDI](https://www.youtube.com/watch?v=R5_grNnheDI)

#### SavingFood Educational on food waste | SavingFood EU

- *"Watch this educational video tailored to children to help them comprehend the food waste problem and adopt environmentally and socially responsible behaviour. Raising awareness, passing along the message, affecting the behaviour of parents and other kids, making change! Join the revolution! Start SavingFood now!"* <https://www.youtube.com/watch?v=0eqxgvZNn0I>

#### Food wastage footprint | Food and Agriculture Organization of the United Nations

- <https://www.youtube.com/watch?v=loCVrkcaH6Q>

#### The Kids Cook Monday

- *"Cook with Kids on Monday to Teach Healthy Eating Habits. We have kid-friendly recipes and tips for cooking with your kids at home as well as guides to implement programs at school and community settings."* <https://www.mondaycampaigns.org/kids-cook-monday>

#### The One Blue Dot Environmentally Sustainable Diets Toolkit | The Association of UK Dietitians

- *"One Blue Dot is the British Dietetic Association (BDA)'s Environmentally Sustainable Diet Project, created to help make our Sustainable Diets Policy a reality. On these pages you will find a toolkit of information, graphics, tools and links to help you improve your understanding of environmentally sustainable diets and discuss these with your patients or clients. This is very much a "live" toolkit, and we will be adding more information and tools on a regular basis."*

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## GLOBAL GOALS REFERENCES

### United Nations Sustainable Development Goals - What are the global goals?

- [https://www.youtube.com/watch?v=M-iJM02m\\_Hg](https://www.youtube.com/watch?v=M-iJM02m_Hg)

### The World's Largest Lesson Part 1 | The Global Goals

- *“We have a plan. A plan to teach every child, in every school, about the #GlobalGoals and why they are so important. Find out how YOU can take part in the World's Largest Lesson and help in the fight to end poverty, inequality and climate change today.”*  
<https://www.youtube.com/watch?v=cBxN9E5f7pc>

### World's Largest Lesson Part 2 | The Global Goals

- *“Sir Ken Robinson, Emma Watson and Aardman Animations invite children to get involved in the Global Goals for Sustainable Development by inventing, innovating and campaigning.”*  
<https://www.youtube.com/watch?v=IUjYMrGreRw>

### World's Largest Lesson Part 3 | The Global Goals

- *“The World's Largest Lesson is back with a brand new theme and another fabulous animation from Aardman. Make sure you take part!”*  
<https://www.youtube.com/watch?v=ZdOQf0nOB6A>

### United Nations + Ubongo Kids | The Global Goals | Human Rights Day 2015

- *“See how Human Rights link to The Global Goals for Sustainable Development in this special video from Ubongo Kids and United Nations Tanzania.”* <https://www.youtube.com/watch?v=Ot5y3BJnAxI>

## IMAGE CREDIT

### References for images

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We welcome your questions and suggestions, to  
[queries@takeabitecc.org](mailto:queries@takeabitecc.org)