



TAKE A **BITE** OUT OF
CLIMATE CHANGE

INSTRUCTION SHEET 1

PLANET PIZZA MENU:

STARTERS:

CLIMATE CHANGE:

Climate change describes global warming - the ongoing increase in global average temperature - and its effects on Earth's climate system.

GREENHOUSE GASES:

Greenhouse gases absorb some of the heat that the Earth radiates after it warms from sunlight. Larger amounts of these gases trap heat and reflect it back on the Earth, increasing the planet's temperature like in a greenhouse. High quantities of these gases are causing global warming and climate change. Greenhouse gases include carbon dioxide, methane and nitrous oxide.

EMISSIONS:

The combined effect of all the greenhouse gases (gCO₂e).

RETHINK FOOD CHOICES:

About one third of greenhouse gas emissions come from food. By swapping the foods we eat, we can reduce our greenhouse gas emissions and stop climate change.

PIZZA MAINS:

MARGHERITA MARS

Tomato sauce with cheese and double extra cheese on top!

Emissions: **1501** g CO₂e

SIZZLING SUN

Tomato sauce with cheese, sliced sausage, and extra cheese on top!

Emissions: **1390** g CO₂e

PEPPERONI PLUTO

Tomato sauce with cheese, topped with pepperoni and extra cheese!

Emissions: **1467** g CO₂e

BEST SELLER!



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INSTRUCTION SHEET 2

CREATE YOUR PIZZA

BRAND NEW!

YOUR PIZZA

Planet Pizza needs your help! Can you create a NEW pizza that is good for people and the planet?

Work as a team of Food Scientists to design a pizza that is tasty and that has lower emissions than our current best seller, Pepperoni Pluto! This means that the value of the total emissions from your pizza must be less than 1467 grams of CO₂e.

Use the ingredients cards to compare the emissions of the different cheeses and toppings to see which ones you would like to have on your pizza. As a team of Food Scientists, discuss your ingredient choices and your reasons behind them. Record your calculations for the emissions of your pizza using the Pizza Calculations Sheet. How low can you go and still make a tasty pizza? Once you have done this, you can design it on the Pizza Design Sheet.

This is a fast-food business so you will only have 30 minutes to complete the task!

SIDES AND EXTRAS

- Locally grown food travels a shorter distance from farm to plate. However, it is usually the way a food has been transported that makes the most difference to its emissions from transport, as opposed to how far it has travelled. If a food is transported by plane, its emissions from transport will be 100 times bigger than if it had been transported by boat.
- Animal products usually have a higher carbon footprint than plant-based foods. This is because of factors such as the need to grow animals' foods as well as raising the animals, and also because animals like cows and sheep release a greenhouse gas called methane when they burp!
- The portion size of a food can have a big impact on its emission value. Having half the amount of a high-emission food will halve its emission value.



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EXAMPLE PIZZA CALCULATIONS SHEET

YOUR PIZZA NAME: Sweet Saturn

	Quantity (grams)	Emissions (gCO ₂ e)
PIZZA BASE:		
<input checked="" type="checkbox"/> Pizza Base	220	165
<input checked="" type="checkbox"/> Tomato Sauce	40	64
<input type="checkbox"/> Dairy Cheese		
<input checked="" type="checkbox"/> Vegan Cheese	40	57
TOPPING:		
Extra vegan cheese	20	29
Sweetcorn	20	45
Sausage	20	207
COOKING: Oven Cooking for 20 minutes		200

MY PIZZA'S TOTAL EMISSIONS:
Have a think about whether your total is higher or lower than the total from our best selling pizza.

767 gCO₂e



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PIZZA CALCULATIONS SHEET

YOUR PIZZA NAME: _____

	Quantity (grams)	Emissions (gCO ₂ e)
PIZZA BASE:		
<input checked="" type="checkbox"/> Pizza Base		
<input type="checkbox"/> Tomato Sauce		
<input type="checkbox"/> Dairy Cheese		
<input type="checkbox"/> Vegan Cheese		
TOPPINGS:		
COOKING:		
Oven Cooking for 20 minutes		200

MY PIZZA'S TOTAL EMISSIONS: gCO₂e

Have a think about whether your total is higher or lower than the total from our best selling pizza.



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PIZZA DESIGN SHEET

Remember that Planet Pizza needs your help to create a pizza that is good for people and the planet. Can you create a pizza that has lower emissions than the current best seller, Pepperoni Pluto? You can draw your pizza in the box below. Remember to give it a name!

YOUR PIZZA NAME: _____

