**ProTalk**

Discussion Files



Language Center

# C1. Food from the lab

Afaq Language Center

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# Goals

- Can read and understand a complex text about food technologies
- Can present my own views on the idea of 'lab meat' and explain why overpopulation can be a problem.



We can make all kinds of things in a **laboratory**, but did you know that **scientists** are working on making your next hamburger in there as well?

# What did you eat?

**What did you eat yesterday? Was that a typical day for you?**



breakfast

lunch

dinner

snacks

# The food you eat

## How much do you know about where your food comes from? Do you know how it is treated?



# Population



What's the population of your country? Is it increasing or decreasing?

What's the population of the world?

# Rising and falling populations

**While the global population is rising, many developed countries are seeing their population fall. What difficulties does this cause?**



**Read the text and summarize it.**

# Food from the lab

The human population is growing at an **unprecedented** rate; we are adding a billion people to Earth every twelve to fifteen years, and the world's population stood at seven and a half billion in 2017. There are many problems with the overpopulation of the Earth, mainly centred upon the fact that we are using up resources at **unsustainable** levels; we cannot feed everyone now, let alone in the future, when it is estimated that by the year 2050 we will need 70% more food than we do now.



**Read the text and summarize it.**

# Food from the lab

The **burning question** is where is that food going to come from? Over the past fifty years we have seen huge improvements in **crop yields**, particularly of **staple** foods like cereals. However, little attention has been paid to the quality of the food, leaving many, especially in poorer societies, **deficient** of nutrients.



**Read the text and summarize it.**

# Food from the lab

On top of these issues, clearing land for agriculture is causing enormous problems connected to deforestation, which is having a devastating effect on our environment. We need a better answer, and that answer may lie in **synthetically produced** food.

**Frankenmeat**, I hear you say? Yes, indeed. Let's look first at how food, or specifically meat and fish, can be produced in a lab. Very simply, the first stage is to collect cells from an animal or fish; these cells can be taken harmlessly from living animals, or from those which have died of natural causes. The cells are then treated with a protein which stimulates **tissue** growth, and grown on an **edible scaffold**, which creates the shape of the meat. Theoretically, no more cells need to be harvested from living animals, as the lab cells can go on to produce all the meat we need.

# Vocabulary: which do you recognise and which are new? Give a synonym or definition of 6 words or less for each card.

unprecedented

unsustainable

burning question

staple

deficient

(cell) tissue

## Vocabulary

**Look at these words and phrases from the text. Do you know what they mean? Can you remember what they were referring to?**

*Frankenmeat*

synthetically produced

crop yields

an edible scaffold

# Vegetarians

**Do you think vegetarians would eat lab meat? Why or why not?**



## Tell your teacher

**Answer these questions about some of the issues raised in the text.**



1. One of the effects of overpopulation is that we need more food. What other effects does overpopulation have?

2. Do you think there are any solutions other than lab meat to solve the problem of feeding a growing population?

3. Have you noticed a decline in food quality in your country?

# Your reaction

What is your initial reaction to the idea of lab meat? How willing would you be to try it?



# Read the dialogue

**Read through the dialogue between two friends with your teacher.**



Ugh! The very idea of *Frankenmeat* is revolting! I try hard to only eat natural products and lab meat is definitely not normal.

Oh come on, you eat bread, cheese, chocolate. Do you think they're taken straight from the ground? And if you're so conscious about the natural environment, think about how good it would be to stop industrial farming.





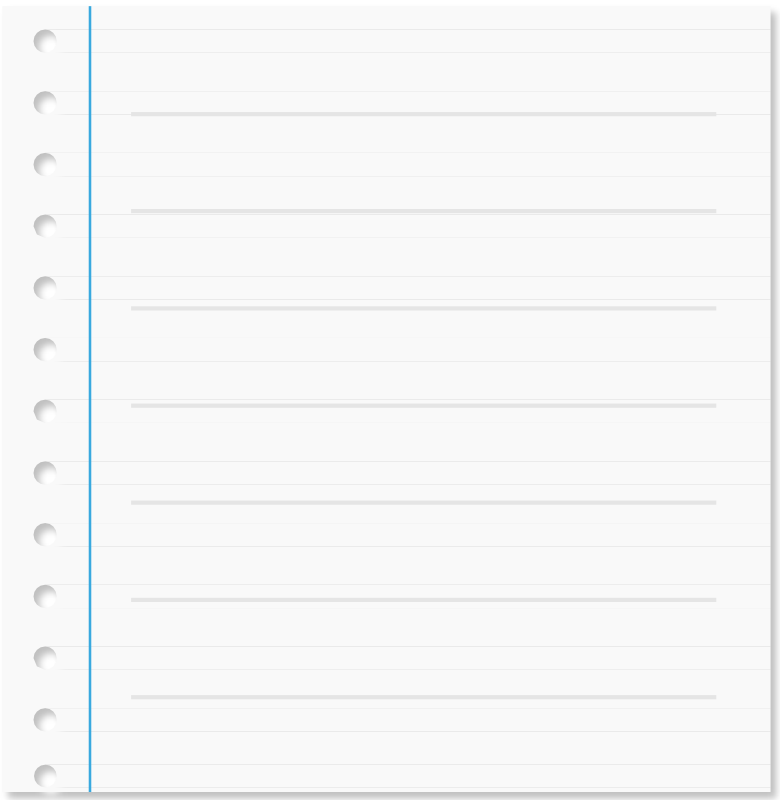
Well I suppose that's true. Maybe it'd be better to stop eating meat at all.

I think that's an unrealistic expectation for most people. As long as meat exists we're going to crave it. I'd definitely be up for trying some lab meat.

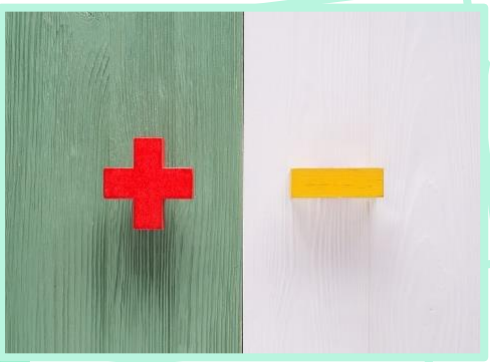


# Pros and cons

**Make a list of pros and cons of lab meat from your perspective, thinking about the different points the text makes and the conversation on the previous slide. Can you think of any negative sides that haven't been mentioned, or any additional positives?**

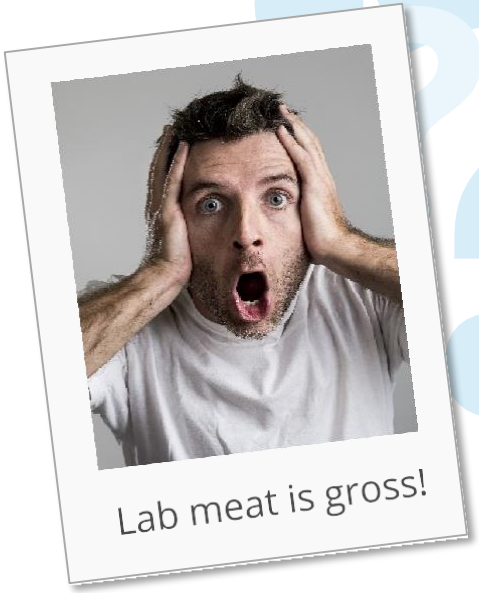


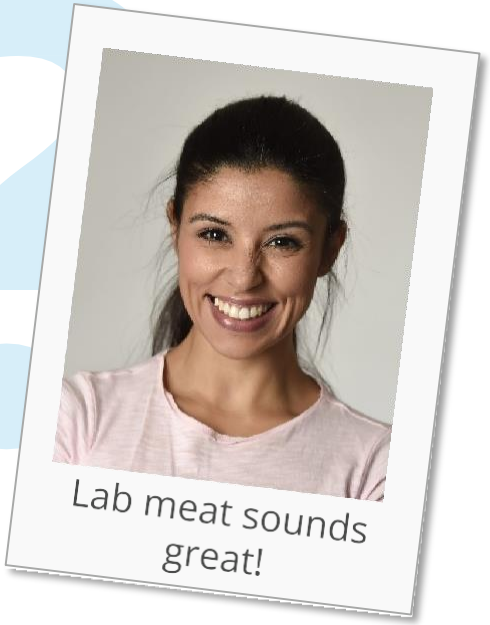




## Have a conversation

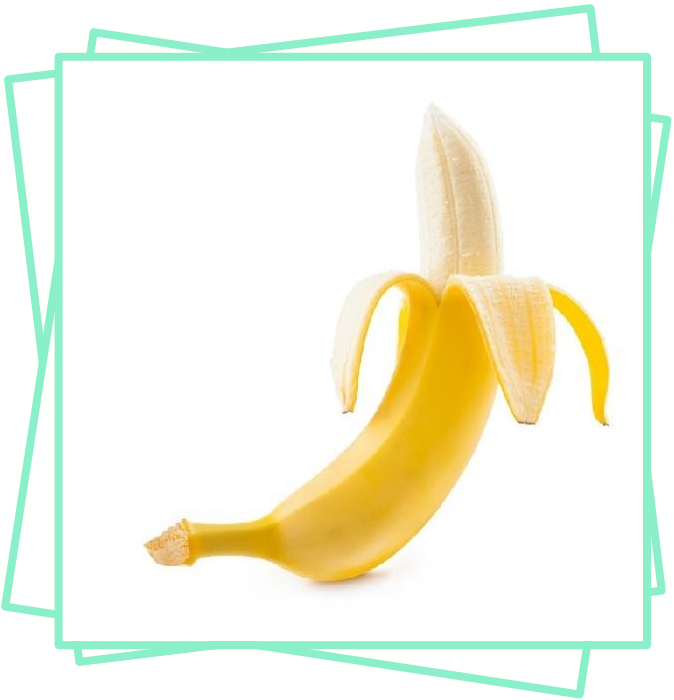
**Using the ideas from the dialogue page and your pro/con list to help you, have a similar discussion about lab-grown meat with your teacher. Decide which side you're on!**



# Other food

**Scientists are experimenting with creating many other foods inside the lab, aside from meat. Would it be more appealing to you to eat another type of lab-produced food? Why or why not?**





# The future of food

**Twenty years ago, the idea of meat grown in a lab would have been considered very far-fetched. What do you think we will be eating another twenty years from now? Will lab-grown meat be normal then? Will we be eating liquid meals, or entire meals concentrated into a tiny tablet? What do you think?**



# Presentation

Using the vocabulary on the previous page, and any other words you can remember from the lesson, prepare a two-minute presentation about how you feel about lab-produced meat.

Include several reasons to support your point of view.

Give your presentation to the class. Answer questions and get feedback.

