THE NATURAL WORLD

Level: Upper intermediate / Advanced (B2–C1)

Age: Teenagers / Adults

Time: 45 minutes

Language summary: Expressions related to GM foods; language of comparison; language of speculation

Image work: Looking at an image from different perspectives; using an image as a stimulus for discussion

PROCEDURE:

1 Ask students to discuss the meaning of this widely used expression. You could encourage students to discuss the global ecosystem and the links between all varieties of animals and plants.

2 You may need to explain some key vocabulary here, such as *grains*. Monitor students while they discuss this. If you have students from different countries in your class, draw out the variations across different cultures for balance of vegetables/grains with other food sources such as meat, fish or dairy products.

3 Accept any reasonable answer here. The man is wearing a protective suit and mask (sometimes called a hazmat suit) and appears to be checking a plant in a setting that looks to be a large greenhouse or biolab. He is also wearing protective gloves suggesting he is working with hazardous chemicals or is involved in an experiment which needs to be carried out in sterile conditions.

4 People dress like this when they are close to any sort of hazardous material. Accept reasonable answers like a nuclear plant, a chemical plant, etc.

5 **Key:**

a. **genetically modified food:** *genetically modified organisms (GMOs) can be defined as organisms in which the genetic material (DNA) has been altered in a way that does not occur naturally*

organic food: *food produced without the use of chemical fertilizers or pesticides*

wholefood: *food that is unprocessed or refined and is as close to its original*

state as possible

Frankenstein food: *any food that is genetically modified. 'Frankenstein' refers to its unnatural origin (from the Mary Shelley story)*

b. **biolab:** *workplace for conducting scientific experiments*

hazardous: *dangerous*

selective breeding: *breeding plants and animals for specific genetic traits*

resistance: *a microorganism's ability to withstand the effects of something dangerous, i.e. plant disease*

pesticide: *chemical applied to plants to avoid the effects of a pest which may cause it damage*

6 Students work in their groups to complete the table. In feedback, find out if there were any differences among groups. Possible answers:

Organic food advantages: *contains more vitamins; reduces energy depletion (due to farming methods); encourages biodiversity (not focused on removing weeds and using pesticides that kill plant and animal life); more sustainable in the long term (not responsible for environmental damage)*

Organic food disadvantages: *expensive production means more expensive products; more time-consuming; difficult to compete with other non-organic farms; not supported by government initiatives*

GM food advantages: *can produce more crops with fewer problems; can ensure crop yield, thereby maintaining profit levels for producers; produces crops quickly; more cost-effective once established*

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GM food disadvantages: *long term effects unknown; may trigger food allergies; surplus GM crops bring down the price of non-GM crops*

7   Encourage students to discuss the article and help them with vocabulary and ideas. Circulate and monitor, helping them to explore both sides of the argument. Alternatively you could divide the class in two and ask them to focus on one 'side' each and then discuss the results in whole class feedback.

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1 What do you think the expression *the natural world* means? With a partner, write a definition and discuss when we might use this expression.

2 With the same partner, make a list of all the food you ate yesterday. How many portions of fruit and vegetables did you eat? How many grains? Do you wish you had eaten more? Do you think fruit and vegetables are important? Why or why not?

3 Look at the picture. Describe the scene in as much detail as possible. Why is this man wearing a mask?

4 Focusing on the picture again, in what other situations would you normally see someone dressed like this? How does this image make you feel?

5 The words and phrases in 5a are all associated with food, while the words in 5b are all linked to the picture. What do they mean? Discuss them with your partner.

   a. *genetically modified, organic, whole, Frankenstein*

   b. *biolab, hazardous, selective breeding, resistance, pesticide*

6 Look at the table below and add as many advantages and disadvantages of organic and genetically modified food as you can, as in the example. Discuss these in groups of three. Be ready to feed back to the group.

ORGANIC		GENETICALLY MODIFIED	
ADVANTAGES	**DISADVANTAGES**	**ADVANTAGES**	**DISADVANTAGES**
Contains more vitamins			

7 Read the following short article that gives two sides of the same story. In your groups discuss whether you think this kind of action is justified – who do you think is right? Can you think of any other strategies to raise awareness about the issue of genetically modified food? Would you buy GM food or not?

A: This morning a group calling themselves the Free Food Movement broke into a 300-acre farm in Woodash and set fire to the crops there. The group were dressed in T-shirts that said 'NO TO GM FOODS'. A spokesperson from the group said: 'We believe GM foods are dangerous for the environment and for the future. We urge people not to buy products unless they are produced using natural farming methods.'

B: Professor Jasmine Reynolds today spoke out about the recent Woodash Farm incident, saying, 'GM crops enable us to produce more food, as less of the crop is destroyed by diseases and pests – surely this is enough to justify using GM crops despite the interference with the natural food chain. I wish members of Free Food would understand this. What other ways are there to overcome starvation in the world?'