

STUDENT WORKSHEETS



WORKSHEET 1: SENSORY CHART

Name: _____

Taste and observe raw kale, steamed Brussels sprouts, and pickled cabbage and complete the worksheet (e.g., bitter, crunchy).

Brassica	Raw Kale	Steamed Brussels Sprouts	Pickled Cabbage
Appearance			
Aroma			
Texture			
Flavour			
Potential Uses in Meals			



WORKSHEET 2: ETHICS AND SUSTAINABILITY

Name: _____

Answer the following questions using the information provided and knowledge gained from the lesson.

Brassicas, such as cabbage, kale, and Brussels sprouts, are increasingly recognised for their role in sustainable and ethical food production. They require less water than some other vegetables, thrive in cool climates, and improve soil health through their nutrient uptake and use as cover crops.

By adopting crop rotation and sustainable farming practices, brassica cultivation supports biodiversity and maintains soil fertility, avoiding the drawbacks of monoculture. Ethical farming practices and fair-trade initiatives are ensuring that the growing demand for these ‘superfoods’ benefits local communities and farmers.

Innovative approaches are also reducing food waste by creating milder varieties and value-added products from brassica by-products. Their versatility makes them ideal for plant-based meat alternatives and nutrient-fortified foods, helping to promote sustainability and improve nutrition worldwide. Brassicas offer a promising path toward a healthier, more sustainable future.

1. List three challenges brassica farmers are facing and how they are addressing them.



WORKSHEET 2: ETHICS AND SUSTAINABILITY

2. How can plant breeders and future food designers address food waste in brassica production?

Blank area for student response to question 2.

3. Explain how the growth requirements of brassicas can contribute to positive environmental sustainability outcomes

Blank area for student response to question 3.

4. Describe an innovative use of brassicas that addresses an ethical or sustainability issue.

Blank area for student response to question 4.



WORKSHEET 3: DESIGN TEMPLATE

Name: _____

Future foods are foods and food systems that are emerging or evolving to address the challenges of health, sustainability, climate change, and food security in the coming years. These foods and production methods are designed to be more resilient, and environmentally and nutritionally beneficial than many traditional options.

Sketch a product concept for a future food and include:

- Product name.
- Target sustainability issue it addresses.
- Key features.
- Sustainable materials used.
- Describe relationships.

For each component (the key elements or stages involved in bringing the product to market), briefly describe how they are connected (e.g., Farming practices affect soil health, which in turn influences crop yield and biodiversity).

Explain the broader implications for sustainability, ethics, or society (e.g., If farming practices do not support soil health, it can lead to long-term loss of productivity and harm to local ecosystems, affecting food security and livelihoods).

Key Features:

1. _____
2. _____
3. _____

Sustainable Materials Used:



WORKSHEET 3: DESIGN TEMPLATE

Name:

Sketch a product concept for a future food.

A large, empty rectangular box with a black border, intended for sketching a product concept for a future food.