Reducing Food Miles with a School Kitchen Garden

Subjects **Geography, Home Economics**

Year **11**

Learning Intention

Students will investigate food miles (the distance food travels from farm to plate) and how growing food in a school kitchen garden can reduce environmental impact. They will track food origins, compare carbon footprints and create a plan to replace imported food with locally grown produce.

Curriculum links

Geography

Strand: Geo 11.2 Human Geography

Sub-strand:

Geo 11.2 1. Population and Settlement

Geo 11.2.2 Agriculture and Food Supply

Learning Outcome

- 11.2.1.1 Explain the nature and characteristics of population and the effect of changes to determine its socio-economic significance and analyse population date and problems to find solutions.
- 11.1.2.1 Discuss the significance of the agricultural sector in providing food supply and source of income and analyse its importance in food security.
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Home Economics

Strand: HEC 11. 2 Food and Nutrition

Sub-strand: HEC 11.2.6 Food planning and product development

Learning Outcome

- 11.2.6.1 Design nutritious meals by highlighting the integration, utilization and appreciation of multicultural food.

Teaching Activity

Materials required

- Selection of common foods (e.g. bananas, tomatoes, lettuce, rice, apples)
- Food packaging with ingredient and origin information (if available)
- Computers or tablets with internet access
- World maps or atlases
- Online food miles calculator (e.g. https://www.foodmiles.com)
- Exercise books for calculations, notes and reflection
- Reference materials (e.g. https://www.foodmiles.com) on carbon footprint of transportation type (e.g. truck, ship, plane)
- Garden planning materials (e.g. seed catalogues, soil information)
- Butchers paper and markers
- Art supplies for making posters

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Activity Steps

Introduce and **lead** the following activity, explaining the steps and concepts as required.

Step 1: Track Our Food

- **Select foods**: Teacher and/or students bring a selection of common foods (e.g. bananas, tomatoes, lettuce, rice, apples) to class.
- **Check labels**: Students will examine packaging labels or research where each food is grown.
- **Calculate food miles**: Use an online tool or map to estimate how far each food has travelled to reach the classroom.

Step 2: Compare Food Miles and Impact

- **Identify carbon footprint:** Research how transportation (truck, ship, plane) affects emissions.
- **Compare local and imported:** Compare food grown in the school kitchen garden (or locally available produce) to imported options.
- **Identify better options**: Discuss which foods could be replaced with local alternatives.

Step 3: Create a Local Food Swap Plan

- **Choose 3 imported foods** and suggest local alternatives that could be grown in the school garden.
- **Plan a simple seasonal meal** using produce grown locally or in the school garden.
- **Design an awareness poster** that explain how reducing food miles helps the environment.

Step 4: Present and Reflect

- Class Presentations: Share findings and ideas for local food swaps.
- Reflection: Write a paragraph about how personal food choices can affect the planet.