How and why do people use the environment for dairy farming?

VISITING A DAIRY FARM.

ESSENTIAL QUESTION

Can I 'talk dairy farm' in 10 easy steps?

WHAT ARE WE LEARNING?

- Understand that natural environments have particular characteristics.
- Understand the impact that humans have on an environment.
- Using an established industry environmental assessment matrix.

TRY THIS WITH

- Year 11 Geography students
- Students who have not encountered a dairy farm.
- Students who have an inherent knowledge of dairy farming.

FIND

Recognise, Relate
Generalise Match
Outline Name

Introduce the concept of a Dairy Farm.

Play Rosie's Sequencing Game and watch Grass to Glass.

Challenge students to articulate a grass to glass supply chain.

Use TimeToast to create a timeline to understand the expansion of dairying in New Zealand.

Watch Day on a New Zealand Dairy Farm and break up the film into key phases.

Assign individual segments to students.

Match screenshots of the video to elements of the Farm Enviro Walk.

Review to guarantee that Riparian Planting, Effluent Ponds, Spreaders and Feed Pads, etc have been included.

Identify terms that are yet to be addressed.

Establish a functional dairy farming vocabulary.

APPLY

Identify Make use of
Discover Transfer
Classify Illustrate

Introduce your chosen dairy farm and farmer.

Use google maps and Topo-map to identify and source images of the site.

Use Soil (s-map online).

Create a map of the site that includes waterways, soil type, farm hotspots and access roads. Also include local towns and dairy factories.

Add civic facilities that are inside the wider study boundary or have a direct connection with your farm.

Use the water requirements table and make calculations based on differing numbers of cows as to water requirements.

Connect key dairying features with issues from the continuum.

Give students their own copy of the Farm Enviro Walk.

Explain that this is a current tool recommended by DairyNZ, directly addressing barriers to sustainability.

PRODUCE

Plan Validate
Discuss Measure
Evaluate Discover

Have students identify four main consequences of dairy farming.

Support each student to construct a plan for the visit.

Reflect on key issues your students will need to identify in the Farm Enviro Walk report.

Prepare your farmer for student questions about his nitrogen budget.

Ask to discuss Riparian Planting and Effluent Management within the context of the farm.

Identify specific queries that are unresolved such as 'waterway type'.

Encourage each student to focus on prolific photography of their four consequences.

Conduct your farm visit. Please remember transport funding is available from DairyNZ.

Complete the Farm Enviro Walk with your farmer.

Photograph evidence of chosen hotspots regardless of whether they are being managed.

Support students to use the EnviroWalk Guide as a base for their final report.

SUCCESS CRITERIA

Students can check they have successfully completed the task by:

- Evidencing a functional dairy farm vocabulary before the farm visit takes place.
- Creating a map of the farm to be visited that identifies key topographic features.
- Conducting a farm visit and documenting on-farm progress against four key impacts.

PRINCIPLES	VALUES	KEY COMPETENCIES	LEARNING AREAS	WORD BANK	KEY CONCEPTS
Future Focus Community Engagement	Community and Participation Innovation, Inquiry and Curiosity	Resource Interpretation Fieldwork	Processes Patterns	1. Effluent 2. Stand Off Pad 3. Supplemental Feed 4. Culvert	1. Mapping Conventions 2. Hydrospheres 3. Interpret diagrams 4. Sustainability