

Feet First term 3: walking and creating

Updated 2023



Key understanding: Walking benefits people, places and our planet.

Driving question: Walking – what difference can I make?

- Define walking.
- Explain the benefits of walking.
- Predict how using sustainable transport such as walking might improve people, places and the planet.

Activity 3.5 Science: creating sustainable environments

Achievement objectives – see New Zealand Curriculum Science levels 1-4 Earth systems.

Example learning intentions

Describe Planet Earth in terms of water, air, rocks, soil and life forms.

Define 'natural features', 'manmade features', 'resource', 'Earth's resources'.

Describe an identified natural feature in your local area, and its resources.

Describe a manmade feature.

Explain how a natural feature was created in your local area.

Explain how a natural feature can be a resource.

Compare and contrast the resources from two natural features.

Reflect on a natural feature that is a resource for you and your local community.

Create an annotated map of natural features in your local area. Include digital images, descriptions, and local opinion on the resources provided by these features.

Learning experiences

Select the learning experiences that best match the abilities of your student and that support your learning intentions.

Define 'natural features'. Record student responses on sticky notes and start a knowledge wall.

Define 'manmade features'.

List all of the natural and manmade features in your area.

Photograph and add to the knowledge wall.

Use a data projector and search Google images for any local images or New Zealand manmade and natural features.

Define 'resource'. Refer to amount, extractability and demand. Add information to a knowledge board.

Discuss with students: What if we ran out of drinking water? What if we ran out of electricity?

Use some of the internet resources below to share with class below or use as part of your literacy programme.

Describe the resources of an identified natural feature in your local area. Use digital images, video, local history, stories, interviews, articles in local media, latitude and longitude, etc, to bring in information that captures the resources of an identified natural feature.

Observe images and video of the diverse natural features on Planet Earth.

Describe Planet Earth. (Include water, air rocks, soil and life forms.)

Identify the geological makeup of your area.

Invite a local geologist, tour bus operator, geographer, identity to talk about natural features in the local area.

Take a walk around your school grounds. Before starting, ensure the landscape you will be walking over is safe for bare feet and contains no hazardous or sharp materials. Let your bare feet explore and experience a range of different surfaces – rough and smooth, natural and man-made, loose and tight, rocky and bumpy, fine or coarse, hot or cold, sand and silt, volcanic and sedimentary, moist and dry etc. Use the sensations from your feet to read the surface of the planet.

Take another walking field trip, only this time travel further afield. Wear safe footwear. Use your eyes and ears to explore the natural features in your local area.

Explain the geological processes that created a natural feature in your local area.

Explain how the identified natural feature can also be a resource.

Compare and contrast the resources from two local natural features.

If you were to meet the world's leading geologist, what questions would you ask them about the features in your landscape?

Reflect on a natural feature which is a resource for you and your local community.

Create an online survey for your school community (students, teachers, staff, parents etc) to nominate their favourite natural feature in the local area. Create an event where the local community can walk to explore this natural feature. Collect the experiences and impressions of participants in the "walk to explore a natural feature" event. Use VoiceThread to create a community resource.

Create an annotated map of natural features in your local area. Include digital images, descriptions, and local opinion on the resources provided by these features.

Assessment

Learning area: science

	I can identify several relevant similarities and differences between resources from two different natural features, explain these similarities and differences and make a generalisation.
	I can identify several relevant similarities and differences between resources from two different natural features, and explain these similarities and differences.
	I can identify several relevant similarities and differences between resources from two different natural features.
	I can identify a relevant similarity or difference between resources from two different natural features.
	I need help to compare and contrast the resources from two different natural features.

Key competency: thinking

	I can ask complex questions that go beyond the identified natural feature and resources and make links to other natural features and resources.
	I can ask questions that link information relevant to the identified natural feature and resources.
	I can ask questions that bring in more than one idea relevant to the identified natural feature and resources.
	I can ask questions that bring in one idea relevant to the identified natural feature and resources.
	I need help to ask a question about the identified natural feature and resources.

Internet resources

[Natural resources \(Science learning hub\)](#)

[Geology – overview \(Te Ara\)](#)

[Landscapes – overview \(Te Ara\)](#)

[Geological Map of New Zealand \(GNS Science\)](#)

[Coal and coal mining \(Te Ara\)](#)

[Gold and gold mining \(Te Ara\)](#)

[History of minerals and coal in New Zealand](#)

[Northland's buried treasure Kauri gum \(NZ Geographic\)](#)

[New Zealand's wind farms](#)

Thinking resources

Complete a PMI on a local natural feature.

Complete a Venn diagram on two local features.

Create 5 questions where the answer can only be “natural feature”.

Brainstorm ways a natural feature can also be a resource.

Read through an article in the local media about a natural feature and classify the statements into fact or opinion.

PMI: Should we be able to sell a resource that is created by nature?

What if questions

Use these questions for class and group discussions or for writing.

What if manmade features lasted as long as natural features?

What if we used the resources from natural features in other countries whilst protecting the resources in our own area?

What if the resources from a natural feature had to be used to advantage the local community?

What if using the resources from a natural feature destroyed the natural feature?

What if we could only use the renewable resources from a natural feature?

What if all fishing was banned for recreational fishermen?

What if the only resources that we used had to be produced in New Zealand?