

Ask an Expert Workbook



Workbook Overview

This programme introduces experts in soil and what their values, concerns, and areas of interest are. We hope you will develop an appreciation for what soil is and be able to identify some of its scientific properties. We also encourage you to think about soil and its everyday uses!

The 'Ask an Expert' videos are available in the 'Resources' section of the Soilsafe Kids website: <https://soilsafe.auckland.ac.nz/soilsafe-kids/>. Videos are also available with New Zealand Sign Language.

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TIP Sheet 1

Term, Interpretation, Picture

As you watch Dr. Emma Sharp's Ask an Expert' videos, write down what you think each term means. Then draw a picture to help you remember more easily! The first one has been done for you.

Term	Interpretation	Picture
Environment	surroundings – like soil, climate, living things	
Geography		
Fertile		
Economic		
Social		
Food security		
Biology		



TIP Sheet 2

Term, Interpretation, Picture

As you watch Dr. Martin Brook's 'Ask an Expert', write down what you think each term means. Then draw a picture to help you remember more easily!

Term	Interpretation	Picture
Engineering		
Geology		
Geotechnical		
Hazard		
Floodplain		
Earthquake		
Consistency		
Plasticity		



TIP Sheet 3

Term, Interpretation, Picture

As you watch Dr. Melanie Kah's 'Ask an Expert' videos, write down what you think each term means. Then draw a picture to help you remember more easily!

Term	Interpretation	Picture
Chemistry		
Ground water		
Surface water		
Contaminate		
Biodiversity		
Organism		
Metal		
Pesticide		



Worksheet 1: Why should we care?

This 1st video introduces Dr. Emma Sharp, who is an Environmental Geographer at the University of Auckland.

1. What values does Emma mention?

- _____
- _____
- _____
- _____



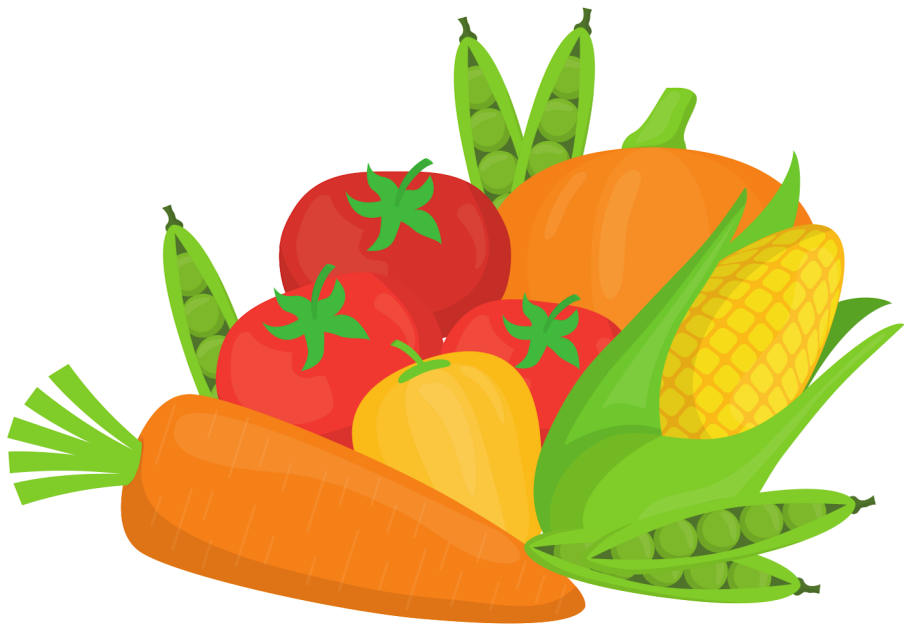
2. What are Emma's concerns for soil?

3. Draw a garden and five things you may find.



Worksheet 2: What grows in soil?

This 2nd video further explores Dr. Emma Sharp's thoughts on soil and why it is important.



1. What food is grown in soil?

- _____
- _____
- _____
- _____

2. Describe or name one animal that lives in soil in Aotearoa:

3. What are some things most plants need to grow?

4. Are there any fruits or vegetables that are special to your culture? If so, what are they?



Worksheet 3: Properties of Soil

This 3rd video introduces Dr. Martin Brook, who is an Engineering Geologist at the University of Auckland.

1. In New Zealand, we mostly live on floodplains. What is a floodplain?

Your TIP Sheet on page 4 of this workbook may be helpful!



2. What are three properties of soil that Martin looks at?

3. A key function of soil Martin describes is plasticity. What is plasticity?

Your TIP Sheet on page 4 of this workbook may be helpful!



Worksheet 4: Contaminants in Soil

This 4th video introduces Dr. Melanie Kah, who is an Environmental Chemist at the University of Auckland.

1. What does Melanie measure in soil, and what are some examples?



2. True or False: a spoonful of soil has more organisms than the number of people in the world.

☐ True

☐ False

3. Why is biodiversity important?

Your TIP Sheet on page 5 of this workbook may be helpful!

3. What are some things you have found in soil that were not plants and animals?



Worksheet 5: Protecting our Water

This 5th video further explores Dr. Melanie Kah's thoughts on soil and her concerns for it.

1. Why do we use pesticides in soil?

Your TIP Sheet on page 5 of this workbook may be helpful!



2. How does soil protect water resources?



3. What can you do to protect our soil and water?
