

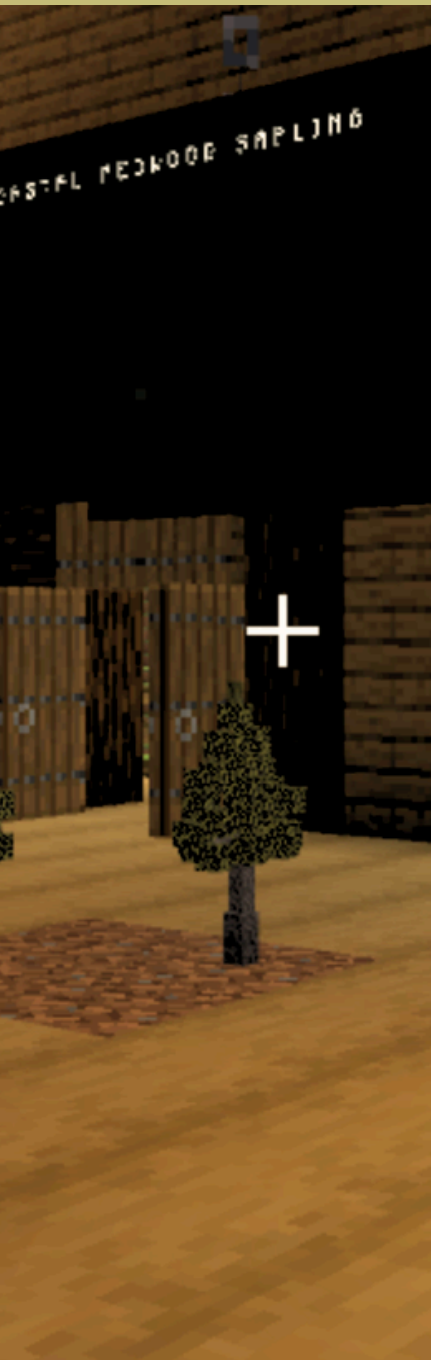
Minecraft Sapling World

Unit Plan (Levels 3–5) This is a teacher resource

“Whatungarongaro te tangata, toitū te whenua”

“People may disappear, but the land remains.”





Why Plant a Forest?

Planting a forest is a powerful way for students to explore sustainability, land use, and cause-and-effect thinking. Forests can serve many purposes — environmental protection, economic production, recreation, erosion control, cultural value and each purpose requires different planning decisions.

. By connecting digital design with real-world forestry practices, students develop systems thinking, environmental stewardship, and future-focused problem-solving skills.

Context for Learning

Students will use Minecraft to design and plant an exotic forest. They will make deliberate decisions about the forest purpose, land type, and tree species and reflect on the outcomes, linking digital experimentation to real-world forest planning.

Students are building forests, thinking skills, and ethical frameworks that guide decisions in careers, community, and life.





Looking Ahead

This unit helps develop skills and habits of mind that will support students far into the future:

1. Systems Thinking: Understanding how land, trees, and human decisions interact.
2. Problem-Solving: Analyzing trade-offs, predicting outcomes, and iterating plans.
3. Digital Literacy & Creativity: Using Minecraft to model and experiment.
4. Environmental Stewardship: Ethical responsibility for land and resources.
5. Cultural Awareness: Respect for Māori perspectives and the impact of human decisions.
6. Future-Ready Skills: Collaboration, reflection, resilience, experimentation, and metacognition.

Big Ideas and Enduring Understandings

- Forests are intentionally planned ecosystems that support people, wildlife, and the environment.
- The decisions we make today about land and species have long-term consequences.
- Digital simulations allow safe experimentation, critical thinking, and creativity.
- Caring for the land (kaitiakitanga) is a responsibility that lasts beyond individual lifetimes.



Essential Questions

- 1.Why do people plant forests or woodlots?
- 2.How do land type and tree species affect forest ecosystems?
- 3.How do today's decisions affect the environment and communities tomorrow?
- 4.How can Minecraft help us prepare for real-world challenges in the future?

Making the most of Minecraft

Minecraft is an exciting shared learning space, so set clear expectations around respectful digital behaviour, including valuing others' builds, communicating appropriately, and supporting learning. If a student may struggle in a shared world, placing them in their own world can help everyone have a positive experience.

If students find reading lots of text challenging, they can use Minecraft Education's built-in Immersive Reader, which reads text aloud, simplifies the font, and shows one line at a time. Look for the icon below when viewing text in the game.



The Book and Quill is a great tool.

The camera can be used to capture images of their work.

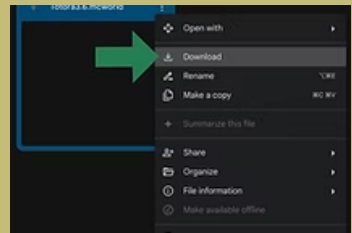


ACCESSING MINECRAFT

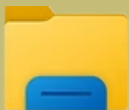
- If you don't have or have an old version of Minecraft, please download the latest version:
- Follow the instructions below to download the world. Please note that downloading Minecraft World can be different depending on your operating system and device.
- Take a look at the troubleshoot page if you get stuck.
<https://www.sowtheseed.org.nz/troubleshooting>

Download Māitiki Minecraft World

- Click on the Minecraft World image to download the world.



FIND THE FILE IN YOUR FILE EXPLORER OR FINDER
DOWNLOADS FOLDER AND DOUBLE CLICK TO OPEN IN
MINECRAFT.



Optional Student Challenge

MINECRAFT

SAPLING WORLD CHALLENGE

Name: _____ Class/Level: _____ Date: _____

1. Plan your forest.

What is the purpose of your forest?

Environmental Economic Recreational

Reason for my choice: _____



2. Choose your trees.



Tree Species	Why I chose them	Where I will plant them

3. Plant and reflect.

Build your forest in Minecraft Sapling World.
Share a pic of your forest using the camera function.

Reflect on your forest:

1. Did it meet your purpose? _____
2. What worked well? What would you do differently next time?
What did you learn about planting a forest by playing in Minecraft Sapling World?

Optional Challenge:

- add habitat for **Kārearea** to live in and be safe.



Challenge

Step 1: Plan Your Forest

Learning Intention: Students will understand different purposes for planting forests and how land type affects forest design.

Explore this site for practical guidance and resources on trees and forestry in Aotearoa <https://www.canopy.govt.nz/>

1. Explore forest purposes: environmental, economic, recreational, cultural.
2. Decide on land type in Minecraft.
3. Record purpose and land choice on the Minecraft Forest Planning Worksheet.

Paideia Questions:

1. Why do you think people choose certain types of land for forests?
2. How might the purpose of a forest influence the way it is planned?
3. What might happen if a forest is planted on land that isn't suitable for those trees?

Success Criteria:

- Students can explain the purpose of their forest.
- Students select an appropriate land type for their forest.
- Students record and justify their decisions on the planning worksheet.



Step 2: Choose Your Trees

Learning Intention: Students will be able to select tree species suited to their forest purpose and land type.

1. Investigate exotic tree species: growth rate, height, density, environmental impact.
2. Plan placement and test a small section in Minecraft.
3. Record tree selection and reasoning on the worksheet.

Paideia Questions:

1. How do the characteristics of each tree species affect your forest design?
2. Why might some trees grow better on certain land types than others?
3. How do your choices of trees reflect the purpose of your forest?

Success Criteria:

- Students choose tree species that match their forest purpose and land type.
- Students can justify tree placement in their plan.
- Students demonstrate understanding by testing a small section in Minecraft.



Step 3: Plant and Reflect

Learning Intention: Students will implement their forest plan in Minecraft and reflect on the outcomes to understand cause-and-effects in forest design.

1. Implement full forest plan in Minecraft.
2. Observe growth, take screenshots, and reflect on outcomes.
3. Connect digital learning to real-world forest planning, environmental stewardship, and future thinking.

Paideia Questions:

1. Did your forest turn out as you expected? Why or why not?
2. How do your planting choices affect the growth and health of your forest?
3. What changes would you make if you planted the forest again, and why?

Success Criteria:

- Students implement their forest according to plan.
- Students observe and describe the outcomes of their forest design.
- Students reflect on successes, challenges, and possible improvements.



Extension Activities for Gifted Students.

1. Forest Simulation Analysis: Students calculate projected growth rates, canopy coverage, and ecosystem impact for different tree species in their Minecraft forest.
2. Creative Forest Design: Students design an integrated forest including pathways, water features, wildlife habitats, or renewable resource areas, linking to real-world forestry management practices.

Modifications for Students with Learning Needs

1. Simplified Choices: Provide a limited set of tree species and land options to reduce cognitive load.
2. Guided Support: Use step-by-step instructions, visual aids, and peer mentoring for planning and planting.
3. Alternative Recording: Allow oral responses, drawings, or screenshots instead of written reflections.
4. Extended Time: Offer extra time for planning, Minecraft building, or reflection activities.



Resources & Tools

- Minecraft Totara Forest
- Minecraft Forest Planning Worksheet (Sketch, species table, reflection space)
- Images of exotic forests and NZ forests
- Optional: digital time-lapse videos of forest growth
<https://www.canopy.govt.nz/>



<https://www.discoverforestry.co.nz>

