

## Core Skills Analysis

### Digital Literacy & Game-Based Learning

- Tina learned how to navigate and interact within an online virtual environment, improving her digital navigation skills.
- Through the game mechanics of Grow a Garden Roblox, Tina understood basic cause-and-effect relationships as she planted, nurtured, and grew virtual plants.
- The activity encouraged problem-solving as Tina likely had to decide the order or type of plants to grow for optimal garden development.
- Tina developed patience and strategic thinking by managing her garden's growth over time, reflecting real-world gardening concepts through a digital platform.

### Science - Life Cycles and Botany

- Tina explored the growth stages of plants in a simulated environment, learning about seed germination to mature plant phases.
- She gained insight into the importance of resources like water and sunlight for plant development, as implied by game demands.
- The virtual garden helped Tina observe how different factors affect plant health and growth, enhancing her understanding of basic botany.
- Tina practiced observational skills by monitoring changes in her plants over time, reinforcing life cycle concepts.

### Tips

To deepen Tina's understanding, encourage her to relate her virtual garden experiences to real-life gardening by planting a small garden or indoor plants, helping her observe real plant growth. Introduce simple scientific experiments to compare how factors like water, light, and soil type affect plant development. For a creative twist, have Tina keep a gardening journal documenting observations, challenges, and successful strategies from both digital and real gardens. Additionally, explore peer collaboration by engaging in online or offline garden-building projects to develop teamwork and communication skills.

### Book Recommendations

- [The Garden Classroom: Hands-On Activities in Math, Science, Literacy, and Art](#) by Anita R. Loughrey: A practical guide with engaging activities that connect garden-based learning to core subjects, perfect for extending outdoor and virtual gardening experiences.
- [Plant Life Cycles](#) by Heather Moore Niver: An accessible introduction to how plants grow and change over time, supporting foundational understanding of botany for young learners.
- [Roblox Game Development in 24 Hours: The Official Roblox Guide](#) by Official Roblox Team: A beginner-friendly guide to understanding Roblox games, providing insight into how games like Grow a Garden are created and how players interact within them.

### Learning Standards

- Australian Curriculum Science (ACSSU072): Understanding the growth and survival of plants, connecting virtual gardening to life cycles and resource needs.
- Australian Curriculum Digital Technologies (ACTDIP016): Applying digital problem-solving and using online environments for purposeful activity.
- Australian Curriculum General Capabilities - Critical and Creative Thinking: Developing strategic

decisions and planning through interactive game play.

### **Try This Next**

- Create a worksheet tracking plant growth stages observed in the game and real life, including drawing and description sections.
- Design a quiz with questions like: What does a plant need to grow? What happens after a seed is planted? How can players help their garden in Roblox?