## Core Skills Analysis

### Science (Biology and Environmental Science)

- Understood the role of an arborist in maintaining tree health and managing urban forestry.
- Learnt about tree anatomy, including parts such as roots, trunk, branches, and leaves and their functions.
- Gained awareness of how trees contribute to the environment through oxygen production, carbon sequestration, and habitat for wildlife.
- Explored the importance of tree care techniques such as pruning, disease management, and soil health maintenance.

### Physical Education / Skills Development

- Developed fine and gross motor skills through hands-on activities such as pruning or handling tree care equipment.
- Understood safety protocols required when climbing or working around trees to prevent injury.
- Gained experience in problem-solving and decision-making related to tree care scenarios.
- Enhanced spatial awareness by assessing tree structure and planning maintenance activities.

### Environmental Responsibility and Sustainability

- Recognized the importance of trees in urban ecosystems and sustainable city planning.
- Understood human impact on trees and how responsible arborist practices support environmental balance.
- Learnt about methods to protect and cultivate trees to promote biodiversity and reduce pollution.
- Developed appreciation for conservation efforts and how arborists contribute to sustainable natural resources.

### Tips

To deepen understanding about arboriculture and environmental science, encourage the student to start a small tree-monitoring project, noting how different species grow and respond to changes throughout the seasons. Incorporate creative activities such as designing an ideal urban green space that balances human needs with environmental sustainability. Arrange guest speakers or virtual tours with professional arborists to expose the student to real-world applications and career pathways. Finally, combine practical skills with science by examining tree health using simple tests; for example, assessing soil quality or identifying signs of disease on leaves.

### Book Recommendations

- The Tree Book for Kids and Their Grown-Ups by Gina Ingoglia: An engaging guide introducing children to different types of trees, their importance, and how to care for them.
- Arborist: The Tree Doctor by Joanne Randolph: A descriptive introduction to the profession of arborists, including their tools, techniques, and the science behind tree care.
- A Tree is a Plant by Cody Scott: This book explains the life cycle of trees, how they grow, and their role in ecosystems, suitable for young teens.

### Learning Standards

- ACSSU043: Living things have structural features and adaptations that help them to survive in their environment.
- ACSSU096: The growth and survival of living things are affected by physical conditions of their environment.
- ACCGGK039: The importance of sustainable practices in conserving natural environments.

- ACHASSK097: The roles and responsibilities of people in protecting and managing natural environments.

**Try This Next**

- Create a worksheet to identify tree species and label their parts with explanations of their functions.
- Write a short report or journal entry on the health assessment of a local tree, including observations and maintenance recommendations.

**Growth Beyond Academics**

This activity fosters increased responsibility as the student learns the critical role of arborists in environmental stewardship. It encourages patience and observation skills when examining tree health and care. Any hands-on component likely builds confidence through mastering new practical skills and promotes environmental empathy by connecting students to nature.