# Science Assessment Schedule: Assessment Activity 1.1c

##### Activity Title: An apple a day

##### Achievement Standard: 91928 Demonstrate understanding of how a life process is managed in a primary production system

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| Achievement | Achievement with Merit | Achievement with Excellence |
| Achievement Criteria |
| At the Achieved level, the student is able to demonstrate understanding of how a life process is managed in a primary production system | At the Merit level, the student is able to explain how a life process is managed in a primary production system | At the Excellence level, the student is able to evaluate how a life process is managed in a primary production system |
| For all levels of achievement, the student is able to show understanding of a Māori concept in the context of how a life process is managed in a primary production system. |
| Teacher Judgement |
| At the Achieved level, the student is able to:* describe a life process of the plant or animal that is managed in the production system
* describe one management practice that is relevant to the life process carried out when farming, using supporting evidence.
 | At the Merit level, the student is able to:* explain how the management practice influences a life process when producing the primary product.
 | At the Excellence level, the student is able to:* evaluate a way that the management practice influences the life process to improve the production of the primary product.
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| At all levels, the student is able to show understanding of how a Māori concept has been considered in the context of the management of a life process in a primary production system. Examples of a Māori concept include tūhononga, manaakitanga, or tiakitanga. |

Overall level of achievement will be based on a holistic examination of the evidence provided against the criteria in the Achievement Standard.

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| For example (description of possible student evidence for this activity) |
| Achievement | Achievement with Merit | Achievement with Excellence |
| At the Achieved level, the student has:* described a life process. *For example, how the apple and tree grow and develop through a life cycle.*
* described a management practice used by orchardists to support production and wellbeing of the tree and fruit using supporting evidence. *For example, describing how pruning is carried out using a video recording, while describing environmental interactions and relevance to the life process that supports fruit production. Supporting evidence may be drawn from technical documents, reference manuals or other industry informed instructional communications or use visual depictions (video, audio recordings or photographs) of an orchard management practice that has implications for quality of the fruit.*
* shown understanding of a Māori concept as it relates to how a life process for apple production is managed as part of interrelationships with the environment. *For example, when recognising the stewardship employed for the interconnected environment within of the orchard, tiakitanga is defined and employed as a Māori concept that shows understanding of care for all living this in the environment. By providing named ways in which the orchardist provides care and nurture of the environment and things within it, the understanding is that this is reciprocated with food provision.*
 | At the Merit level, the student has:* linked the management practice to the life process to explain the relationship between the orchard practice and apple tree growth. *For example, explaining why pruning is completed in the manner that it is to enhance the life process and the effect it has on the surrounding environment and the productivity of the tree.*
* shown understanding of a Māori concept as it relates to how a life process for apple production is managed as part of interrelationships with the environment. *For example, when recognising the stewardship employed for the interconnected environment within of the orchard, tiakitanga is defined and employed as a Māori concept that shows understanding of care for all living this in the environment. By providing named ways in which the orchardist provides care and nurture of the environment and things within it, the understanding is that this is reciprocated with food provision.*
 | At the Excellence level, the student has:* evaluated, by comparing and contrasting, or discussed a strength and a weakness of the life process management practice. Understanding is shown of the management practice, that has been applied to enhance apple quality or yield. *For example, enhanced pollination by situating hives within an orchard or increased access to water via irrigation is discussed with strengths and weaknesses of the practices linked to improved production outcome and plant long-term wellbeing.*
* shown understanding of a Māori concept as it relates to how a life process for apple production is managed as part of interrelationships with the environment. *For example, when recognising the stewardship employed for the interconnected environment within of the orchard, tiakitanga is defined and employed as a Māori concept that shows understanding of care for all living this in the environment. By providing named ways in which the orchardist provides care and nurture of the environment and things within it, the understanding is that this is reciprocated with food provision.*
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Overall level of achievement will be based on a holistic examination of the evidence provided against the criteria in the Achievement Standard.