Stage 1 Agriculture Teaching Program Semester 1

*This program articulates with LAP3*

| Week | Topics | Key understanding | Context | Resources | Assessment |
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| 1 | **Science inquiry skills** | Experimental Design | Formative investigation, develop hypothesis, identify variables, materials, randomisation, replication, | Dynamic Agric book 3 | Formative collaborative investigation |
| 2 |  | Method and materials | Identify materials required, procedure ,ethical and safety |  |  |
| 3 |  | Results presentation analysis  conclusions | Construct data in tables and graphs, analyse data to identify trends draw justifiable conclusions |  |  |
| 4 | **Principals of agriculture** | Aquaculture production skills | Develop practical skills in feeding, testing and water quality in aquaculture facility | School aquaculture facility | Formative aquaculture practical skills |
| 5-6 | **Aquaculture Practical investigation** | Design and set up the experiment  And collect data | Work **collaboratively** to set up an investigative trial and collect data. | School aquaculture facility |  |
| 7 | **Aquaculture Practical investigation** | Analyse data and make conclusions | Individual written scientific report incorporating analysis of the production data |  | **Summative** **Design Practical Exploration**  Aquaculture investigation  1000 word limit |
| 8-9 | **Innovation and technology** | **SHE** Research the role of technology in improving production in barramundi farming | Research essay to identify how new technology can be used to improve production through water quality and feeding regimes. Focus of how the science has developed technology which has influence and application on barramundi farming | Web based research plus aquaculture magazines |  |
| 10 | **Enterprise management** | Environmental management  Investigate key environmental issues for commercial aquaculture | Class discussion on the legislation and regulations which underpin Barramundi farming in SA.  **SHE** Discuss the role of collaboration between researchers in aquaculture.  Develop a plan for sustainable waste water management | PIRSA barramundi farming guidelines  Teacher directed | **Summative SHE Exploration**  How technology is improving the efficiency of barramundi farming |
| 11 | **Principals of agriculture** | Anatomy and physiology of grape vines  Growth stages | Identification of relevant structures of vines e.g. cordons, canes, leaves ,stems, roots  Identification of growth stages, e.g. verasion | School vineyard  Local vineyards | Formative  Anatomy of the vine  Growth stages |
| 12-13 | **Principals of agriculture** | Develop pruning skills  Identification of health and safety issues | Demonstration of rod and spur pruning in the school and local vineyards  Identification of work health and safety issues with pruning | Teacher and local vigneron demonstration | Formative spur pruning |
| 14 | **Principals of agriculture** | Develop pruning skills | Student formative pruning with supervisor feedback  Teacher based discussion on reasons for pruning and the effects on production and disease control | Teacher and local vigneron demonstration  Teacher directed lessons | **Summative Applications task**  Practical skill Pruning  Written assessment Pruning |
| 15 | **Principals of agriculture** | Plant health  Describe the signs and symptoms of vine yard diseases and pests | Identify and examine significant diseases and pests in viticulture.  **SHE** Explore the research that has provided sustainable solutions for viticulture. | School vineyard,  Viticultural disease and pest books ,web |  |
| 16 | **Enterprise management** | Environmental management  Explore sustainable management strategies for conservation of the viticultural ecosystems | Students complete written assignment Demonstrate knowledge and understanding of pests and diseases that affect viticulture production in Australia. They make recommendations for solving environmental problems in commercial vineyards and suggest sustainable solutions | Web research,  Teacher reference ,Industry contacts | **Summative Applications task**  **Written assignment**  Vineyard Pests and diseases  Written response to a maximum 750 words or equivalent for multimedia |