Burrowing Crayfish Education Sessions - AusVELS curriculum links overview.

The sessions are linked to the Australian Curriculum with a particular focus on the biological science substrand. The Australian Curriculum: Science has three interrelated strands; Science Understanding, Science as a Human Endeavor and Science Inquiry Skills- 'that together provide students with the understanding, knowledge and skills through which can develop a scientific view of the world' (ACARA 2012).

Strand	Sub-strand	Level	Content	Session
Science understanding	Biology	Foundation Level 1 Level 2 Level 3 Level 4 Level 5 Level 6 Level 7 Level 8 Level 9 Level 10	• Living things live in different places where their needs are met. • Living things have a variety of external features. • Living things live in different places where their needs are met. • Living things grow, change and have offspring similar to themselves. • Living things can be grouped on the basis of observable features and can be distinguished from nonliving things. • Living things have life cycles. • Living things including plants and animals depend on each other and the environment to survive. • Living things have structural features and adaptations that help them to survive in their environment. • The growth and survival of living things is affected by the physical conditions of their environment. • Interactions between Organisms can be described in terms of food changes and food webs; human activities can affect these interactions. • Cells are the basic building units of living things and have specialized structures and functions. • Ecosystems consist of communities of interdependent organisms and abiotic components of the environment matter and energy flow through these systems. • The theory of evolution by natural selections explains the diversity of living things and is supported by a range of scientific evidence.	1 - 5

Strand	Sub-strand	Level	Content	Session
Science as a Human Endeavor	Nature and development of science	Level 3-4 Level 5-6 Level 7-8 Level 9-10	• Science involves making predictions and describing patterns. • Science involves testing predictions by gathering data and using evidence to develop explanations of events. • Science knowledge can develop through collaboration and connecting ideas across the disciplines of science. • Advances in scientific understanding rely on developments in technology are link to scientific discoveries.	6 - 7
	Use and influence of science	Level 3-4 Level 5-6 Level 7-8 Level 9-10	• Science knowledge helps people to understand the effects of their actions. • Scientific knowledge is used to inform personal and community decisions. • Science understanding influences the development of practices in areas of human activity, agriculture and resource management. • People can use scientific knowledge to evaluate whether they accept claims, explanations or predictions.	6-7
Science Inquiry Skills	Questioning and Predicting	Level 3-4 Level 5-6 Level 7-8 Level 9-10	• With guidance, identify questions in familiar contexts that can be investigated scientifically and predict what might happen based on prior knowledge. • With guidance pose questions to clarify practical proves or inform a scientific investigation. • Identify questions and problems that can be investigated scientifically and make predictions based on scientific knowledge. • Formulate question or hypotheses that can be investigated scientifically.	6-7

Strand	Sub-strand	Level	Content	Session
Science Inquiry Skills	Planning and Conducting	Level 3-4 Level 5-6 Level 7-8 Level 9-10	• Suggest ways to plan and conduct investigations to find answers to questions. • Safely use appropriate tools or equipment to make, record observations, using formal measurements and digital technologies as appropriate. • With guidance, select appropriate investigation methods to answer question or solve problems. • Collaboratively and individually plan and conduct a range of investigations types including fieldwork, ensure safety and ethical guidelines are met. • Plan, select and use appropriate investigation methods, including fieldwork to collect reliable data, assess risk and address ethical issues associated with these methods. • Select and use appropriate equipment including digital technologies to systematically and accurately collect and record data.	6-7
	Processing and analyzing data	Level 3-4 Level 5-6 Level 7-8 Level 9-10	• Use a range of methods including tables and simple column graphs to represent data and to identify patterns and trends. • Compare results with predictions, suggesting possible reasons for findings. • Construct and use a range of representations, including tables and graphs, to represent and describe observations, patterns or relationships in data. • Summaries data from students own investigations and secondary sources use scientific understanding to identify relationships and draw conclusions. • Analyse patterns and trends in data, including describing relationships between variables and identifying inconsistencies. • Use knowledge of scientific concepts to draw conclusions that are consistent with evidence.	7

Strand	Sub-strand	Level	Content	Session
Science Inquiry Skills	Evaluating	Level 3-4 Level 5-6 Level 7-8 Level 9-10	• Reflect on the investigating, including whether a test was fair or not. • Suggest improvements to the methods used to investigate a question or solve a problem. • Reflect on the methods used to investigate a questions or solved a problem, including evaluating the quality of data collected and identify improvements to the methods. • Evaluate conclusions including identifying the source of uncertainty and possible alternative explanations and describe ways to improve the quality of the data.	6 - 7
	Communication	Level 3-4 Level 5-6 Level 7-8 Level 9 -10	• Represent and communicate ideas and finings in a variety of ways such as diagrams, physical representation and simple reports. • Communicate ideas, explanations and processes in a variety of ways. • Communicate ideas, findings and solutions to problems using scientific language and representation using digital technologies. • Communicate scientific ideas and information for a particular purpose, including constructing evidence-based arguments and using appropriate scientific language, conventions and representations.	1 - 8