*Strand: Science as a human endeavor*

| **Dimensions of consumer and financial literacy** | **Sub-strand** | **Year 7** | **Year 8** | **Year 9** | **Year 10** |
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| **Knowledge and understanding** | **Use and influence of science** | Solutions to contemporary issues that are found using science and technology, may impact on other areas of society and may involve ethical considerations (ACSHE120) | Solutions to contemporary issues that are found using science and technology, may impact on other areas of society and may involve ethical considerations (ACSHE135) | People use scientific knowledge to evaluate whether they accept claims, explanations or predictions, and advances in science can affect people’s lives, including generating new career opportunities (ACSHE160) | People use scientific knowledge to evaluate whether they accept claims, explanations or predictions, and advances in science can affect people’s lives, including generating new career opportunities (ACSHE194) |
| People use science understanding and skills in their occupations and these have influenced the development of practices in areas of human activity (ACSHE121) | People use science understanding and skills in their occupations and these have influenced the development of practices in areas of human activity (ACSHE136) | Values and needs of contemporary society can influence the focus of scientific research (ACSHE228) | Values and needs of contemporary society can influence the focus of scientific research (ACSHE230) |
| **Competencies and skills** | **Processing and analysing data and information** | Construct and use a range of representations, including graphs, keys and models to represent and analyse patterns or relationships in data using digital technologies as appropriate (ACSIS129) | Construct and use a range of representations, including graphs, keys and models to represent and analyse patterns or relationships in data using digital technologies as appropriate (ACSIS144) | Plan, select and use appropriate investigation types, including field work and laboratory experimentation, to collect reliable data; assess risk and address ethical issues associated with these methods (ACSIS165) | Plan, select and use appropriate investigation types, including field work and laboratory experimentation, to collect reliable data; assess risk and address ethical issues associated with these methods (ACSIS199) |
| Summarise data, from students’ own investigations and secondary sources, and use scientific understanding to identify relationships and draw conclusions based on evidence (ACSIS130) | Summarise data, from students’ own investigations and secondary sources, and use scientific understanding to identify relationships and draw conclusions based on evidence (ACSIS145) | Select and use appropriate equipment, including digital technologies, to collect and record data systematically and accurately (ACSIS166) | Select and use appropriate equipment, including digital technologies, to collect and record data systematically and accurately (ACSIS200) |
| **Competencies and skills** | **Evaluating** | Reflect on scientific investigations including evaluating the quality of the data collected, and identifying improvements (ACSIS131) | Reflect on scientific investigations including evaluating the quality of the data collected, and identifying improvements (ACSIS146) | Evaluate conclusions, including identifying sources of uncertainty and possible alternative explanations, and describe specific ways to improve the quality of the data (ACSIS171) | Evaluate conclusions, including identifying sources of uncertainty and possible alternative explanations, and describe specific ways to improve the quality of the data (ACSIS205) |
|  | Use scientific knowledge and findings from investigations to evaluate claims based on evidence (ACSIS132) | Use scientific knowledge and findings from investigations to evaluate claims based on evidence (ACSIS234) | Critically analyse the validity of information in primary and secondary sources and evaluate the approaches used to solve problems (ACSIS172) | Critically analyse the validity of information in primary and secondary sources and evaluate the approaches used to solve problems (ACSIS206) |
| **Communicating** | Communicate ideas, findings and evidence based solutions to problems using scientific language, and representations, using digital technologies as appropriate (ACSIS133) | Communicate ideas, findings and evidence based solutions to problems using scientific language, and representations, using digital technologies as appropriate (ACSIS148) | Communicate scientific ideas and information for a particular purpose, including constructing evidence-based arguments and using appropriate scientific language, conventions and representations (ACSIS174) | Communicate scientific ideas and information for a particular purpose, including constructing evidence-based arguments and using appropriate scientific language, conventions and representations (ACSIS208) |
| **Responsibility and enterprise** | **Questioning and predicting** | Identify questions and problems that can be investigated scientifically and make predictions based on scientific knowledge (ACSIS124) | Identify questions and problems that can be investigated scientifically and make predictions based on scientific knowledge (ACSIS139) | Formulate questions or hypotheses that can be investigated scientifically (ACSIS164) | Formulate questions or hypotheses that can be investigated scientifically (ACSIS198) |
| **Planning and conducting** | Collaboratively and individually plan and conduct a range of investigation types, including fieldwork and experiments, ensuring safety and ethical guidelines are followed (ACSIS125) | Collaboratively and individually plan and conduct a range of investigation types, including fieldwork and experiments, ensuring safety and ethical guidelines are followed (ACSIS140) | Plan, select and use appropriate investigation types, including field work and laboratory experimentation, to collect reliable data; assess risk and address ethical issues associated with these methods (ACSIS165) | Plan, select and use appropriate investigation types, including field work and laboratory experimentation, to collect reliable data; assess risk and address ethical issues associated with these methods (ACSIS199) |
| **Responsibility and enterprise** | **Planning and conducting** | Measure and control variables, select equipment appropriate to the task and collect data with accuracy (ACSIS126) | Measure and control variables, select equipment appropriate to the task and collect data with accuracy (ACSIS141) | Select and use appropriate equipment, including digital technologies, to collect and record data systematically and accurately (ACSIS166) | Select and use appropriate equipment, including digital technologies, to collect and record data systematically and accurately (ACSIS200) |