## Year 8 Science standard elaborations

|  | A | B | C |
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|  | The folio of student work has the following characteristics: |  |  |
| Understanding dimension | Science Understanding | * Integration of analysis, explanation, description, identification and comparison of phenomena, with science knowledge
* Application of science knowledge to generate justified solutions and justified predictions in simple and complex situations
 | * Linking of analysis, explanation, description, identification and comparison of phenomena, with science knowledge
* Application of science knowledge to generate informed solutions and plausible predictions and solutions in simple situations with progress towards some that are complex
 | * Analysis, explanation, description, identification and comparison of phenomena
* Application of science knowledge to generate solutions and predictions in simple situations
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|  | Refer to the Year 8 Australian Curriculum achievement standard for the depth of conceptual understanding for each of the sub-strands: *Biological sciences, Chemical sciences, Earth and space sciences* and *Physical sciences*.tttttttt0 |  |  |
| **Understanding dimension** | Science as a Human Endeavour | * Examination and explanation of how and why different science knowledge is used in occupations
* Thorough explanation of how evidence has improved understanding of scientific ideas and informed the collaboration of scientists to generate solutions to contemporary problems
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 | * Examination of the different science knowledge used in occupations
* Explanation of how evidence has improved understanding of scientific ideas
* Description of situations in which scientists collaborated to generate solutions to contemporary problems
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| Skills dimension | Questioning and predicting | Identification and construction of questions and problems that can be investigated scientifically and the making of justified predictions  | Identification and construction of questions and problems that can be investigated scientifically and the making of plausible predictions  | Identification and construction of questions and problems that can be investigated scientifically |
| **Skills dimension** | Planning and conducting (including designing field or experimental methods) | * Description of how to manage safety and ethical considerations when planning investigations
* Identification of how variables are changed, controlled and accurately measured to comprehensively collect reliable data
 | * Description of the implications of safety and ethical considerations when planning investigations
* Identification of how variables are changed, controlled and measured to collect reliable data
 | * Consideration of safety and ethics when planning investigations
* Identification of variables to be changed, controlled and measured
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| Processing and analysing data and information | Following of conventions to systematically construct accurate representations of data to analyse patterns and trends, and use of these when explaining relationships and justifying conclusions | Following of conventions to systematically construct representations of data to analyse patterns and trends, and use of these when describing relationships and justifying conclusions | Construction of representations of data to reveal and analyse patterns and trends, and use these when justifying conclusions |
| Skills dimension | Evaluating | * Reflection on the method used and evaluation of the quality of data to thoroughly explain how effective modifications to methods will improve the quality of data
* Use of relevant scientific knowledge and investigation findings to evaluate with justification claims made by others
 | * Reflection on the method used and evaluation of the quality of data to explain how effective modifications to methods could improve the quality of data
* Use of relevant scientific knowledge and investigation findings when evaluating claims made by others
 | * Explanation of how modifications to methods could improve the quality of data
* Application of scientific knowledge and investigation findings to evaluate claims made by others
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| Communicating | Concise and coherent use of appropriate scientific language and representations to communicate science ideas, methods and findings in a range of text types | Coherent use of appropriate scientific language and representations to communicate science ideas, methods and findings in a range of text types | Use of appropriate language and representations to communicate science ideas, methods and findings in a range of text types |