## Curriculum Connections

## Curriculum Connections – General capabilities

|  |  |
| --- | --- |
| **Personal and Social Capability** | ***Typically, by the end of Year 8*** |
| Appreciate diverse perspectives | acknowledge the values, opinions and attitudes of different groups within society and compare to their own points of view |
| Understand relationships | identify indicators of possible problems in relationships in a range of social and work-related situations |
| Communicate effectively | analyse enablers of and barriers to effective verbal, nonverbal and digital communication |
| Work collaboratively | assess the extent to which individual roles and responsibilities enhance group cohesion and the achievement of personal and group objectives  |
| Make decisions | assess individual and group decision making processes in challenging situations |
| Develop leadership skills  | plan school and community projects, applying effective problem-solving and team-building strategies, and making the most of available resources to achieve goals |
| **Critical and Creative Thinking** | ***Typically, by the end of Year 8*** |
| Pose questions | pose questions to probe assumptions and investigate complex issues |
| Identify and clarify information and ideas | clarify information and ideas from texts or images when exploring challenging issues |
| Organise and process information | critically analyse information and evidence according to criteria such as validity and relevance |
| Imagine possibilities and connect ideas | draw parallels between known and new ideas to create new ways of achieving goals |
| Consider alternatives | generate alternatives and innovative solutions, and adapt ideas, including when information is limited or conflicting  |
| Seek solutions and put ideas into action | predict possibilities, and identify and test consequences when seeking solutions and putting ideas into action |
| Reflect on processes | evaluate and justify the reasons behind choosing a particular problem-solving strategy |
| Draw conclusions and design a course of action | differentiate the components of a designed course of action and tolerate ambiguities when drawing conclusions |
| Evaluate procedures and outcomes | explain intentions and justify ideas, methods and courses of action, and account for expected and unexpected outcomes against criteria they have identified |

## Curriculum Connections – Learning areas

|  |  |  |
| --- | --- | --- |
|  |  |  |
| **Science** | **Technologies (Digital and/or Design** | **Mathematics** |
| Year 7 Content Descriptor:Mixtures, including solutions, contain a combination of pure substances that can be separated using a range of techniques (ACSSU113)Year 8 Content Descriptor:Chemical change involves substances reacting to form new substances (ACSSU225)Year 7 and 8 Scientific Inquiry Content Descriptor:Identify questions and problems that can be investigated scientifically and make predictions based on scientific knowledge (ACSIS139) | Year 7 and Year 8 Digital Technology Content Descriptor:Investigate the ways in which products, services and environments evolve locally, regionally and globally and how competing factors including social, ethical and sustainability considerations are prioritised in the development of technologies and designed solutions for preferred futures (ACTDEK029)Analyse how characteristics and properties of food determine preparation techniques and presentation when designing solutions for healthy eating (ACTDEK033)Critique needs or opportunities for designing and investigate, analyse and select from a range of materials, components, tools, equipment and processes to develop design ideas (ACTDEP035)Generate, develop, test and communicate design ideas, plans and processes for various audiences using appropriate technical terms and technologies including graphical representation techniques (ACTDEP036)Select and justify choices of materials, components, tools, equipment and techniques to effectively and safely make designed solutions (ACTDEP037)Use project management processes when working individually and collaboratively to coordinate production of designed solutions (ACTDEP039)Acquire data from a range of sources and evaluate authenticity, accuracy and timeliness (ACTDIP025)Plan and manage projects that create and communicate ideas and information collaboratively online, taking safety and social contexts into account (ACTDIP032) | Year 7 Content Descriptor:Solve problems involving addition and subtraction of fractions, including those with unrelated denominators (ACMNA153)Express one quantity as a fraction of another, with and without the use of digital technologies (ACMNA155)Find percentages of quantities and express one quantity as a percentage of another, with and without digital technologies (ACMNA158)Investigate and calculate 'best buys', with and without digital technologies (ACMNA174)Calculate volumes of rectangular prisms (ACMMG160)Draw different views of prisms and solids formed from combinations of prisms (ACMMG161)Identify and investigate issues involving numerical data collected from primary and secondary sources (ACMSP169)Year 8 Content Descriptor:Carry out the four operations with rational numbers and integers, using efficient mental and written strategies and appropriate digital technologies (ACMNA183) Solve problems involving the use of percentages, including percentage increases and decreases, with and without digital technologies (ACMNA187)Solve a range of problems involving rates and ratios, with and without digital technologies (ACMNA188)Solve problems involving profit and loss, with and without digital technologies (ACMNA189)Choose appropriate units of measurement for area and volume and convert from one unit to another (ACMMG195)Develop formulas for volumes of rectangular and triangular prisms and prisms in general. Use formulas to solve problems involving volume (ACMMG198)Investigate techniques for collecting data, including census, sampling and observation (ACMSP284)Explore the variation of means and proportions of random samples drawn from the same population (ACMSP293)Investigate the effect of individual data values, including outliers, on the mean and median (ACMSP207) |