



By the end of year 10...

MATHEMATICS

- Define rational & irrational numbers & perform operations with surds & fractional indices
- Use the definition of a logarithm to establish & apply the laws of logarithms
- Investigate the concept of a polynomial & apply the factor & remainder theorems to solve problems
- Describe, interpret & sketch parabolas, hyperbolas, circles & exponential functions & their transformations
- Solve simple exponential equations
- Apply understanding of polynomials to sketch a range of curves & describe the features of these curves from their equation
- Factorise monic & non-monic quadratic expressions & solve a wide range of quadratic equations derived from a variety of contexts
- Solve problems involving surface area & volume of right pyramids, right cones, spheres & related composite solids
- Prove & apply angle & chord properties of circles
- Establish the sine, cosine & area rules for any triangle & solve related problems
- Use the unit circle to define trigonometric functions, & graph them with & without the use of digital technologies
- Solve simple trigonometric equations
- Apply Pythagoras theorem & trigonometry to solving three-dimensional problems in right-angled triangle
- Investigate reports of studies in digital media & elsewhere for information on their planning & implementation
- Calculate & interpret the mean & standard deviation of data & use these to compare data sets
- Use information technologies to investigate bivariate numerical data sets. Where appropriate use a straight line to describe the relationship allowing for variation

ENGLISH

- Understand that Standard Australian English in its spoken & written forms has a history of evolution & change & continues to evolve
- Understand how language use can have inclusive & exclusive social effects, & can empower or disempower people
- Understand that people's evaluations of texts are influenced by their value systems, the context & the purpose & mode of communication
- Compare the purposes, text structures & language features of traditional & contemporary texts in different media
- Understand how paragraphs & images can be arranged for different purposes, audiences, perspectives & stylistic effects
- Understand conventions for citing others, & how to reference these in different ways
- Analyse & evaluate the effectiveness of a wide range of sentence & clause structures as authors design & craft texts
- Analyse how higher order concepts are developed in complex texts through language features including nominalisation, clause combinations, technicality & abstraction
- Evaluate the impact on audiences of different choices in the representation of still & moving images
- Refine vocabulary choices to discriminate between shades of meaning, with deliberate attention to the effect on audiences
- Understand how to use knowledge of the spelling system to spell unusual & technical words accurately, for example those based on uncommon Greek & Latin roots

This is to be used as a guide only.

All children learn at a different pace & in different ways.

Summarised from: <https://www.australiancurriculum.edu.au/>