MATHEMATICS

By the end of **Year 3**	By the end of **Year 5**	By the end of **Year 7**	By the end of **Year 9**
Students are able to: • identify mathematics in everyday situations • pose basic mathematical questions and identify simple strategies to investigate solutions • plan activities and investigations to explore mathematical concepts, questions, issues and problems in familiar situations • use everyday and mathematical language, mental computations, representations and technology to generate solutions and check for reasonableness of the solution • make statements and decisions based on interpretations of mathematical concepts in familiar everyday situations • evaluate their own thinking and reasoning, giving consideration to how mathematical ideas have been applied • communicate thinking and reasoning, using everyday and mathematical language, concrete materials, visual representations, and technologies • reflect on and identify the contribution of mathematics to everyday situations • reflect on learning to identify new understandings.	Students are able to: • identify and describe the mathematical concepts, strategies and procedures required to generate solutions • pose questions and make predictions based on experience in similar situations • plan activities and investigations to explore concepts, pathways and strategies and solve mathematical questions, issues and problems • identify and use mental and written computations, estimations, representations and technologies to generate solutions and check for reasonableness of solutions • make statements, predictions, inferences and decisions based on mathematical interpretations • evaluate their own thinking and reasoning, in relation to the application of mathematical ideas, strategies and procedures • communicate and justify thinking and reasoning, using everyday and mathematical language, concrete materials, visual representations and technologies • reflect on mathematics and identify the contribution of mathematics to personal activities • reflect on learning to identify new understandings and future applications.	Students are able to: • analyse situations to identify mathematical concepts and the relationships between key features and conditions necessary to generate solutions • pose questions that draw on familiar examples to clarify thinking and support predictions • plan activities and investigations to explore concepts through selected pathways, and plan strategies to solve mathematical questions, problems and issues • select and use suitable mental and written computations, estimations, representations and technologies to generate solutions and to check for reasonableness • develop arguments to justify predictions, inferences, decisions and generalisations from solutions • evaluate thinking and reasoning, to determine whether mathematical ideas, strategies and procedures have been applied effectively • communicate thinking and justify reasoning and generalisations, using mathematical language, representations and technologies • reflect on and identify the contribution of mathematics to their life • reflect on learning, apply new understandings and identify future applications.	Students are able to: • analyse situations to identify the key mathematical features and conditions, strategies and procedures that may be relevant in the generation of a solution • pose and refine questions to confirm or alter thinking and develop hypotheses and predictions • plan and conduct activities and investigations, using valid strategies and procedures to solve problems • select and use mental and written computations, estimations, representations and technologies to generate solutions and to check for reasonableness of the solution • use mathematical interpretations and conclusions to generalise reasoning and make inferences • evaluate their own thinking and reasoning, considering their application of mathematical ideas, the efficiency of their procedures and opportunities to transfer results into new learning • communicate thinking, and justify and evaluate reasoning and generalisations, using mathematical language, representations and technologies • reflect and identify the contribution of mathematics to their own and other people's lives • reflect on learning, apply new understandings and justify future applications.

Queensland Government
Department of Education, Training and the Arts

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Partnership and innovation