

Planning a progression of learning

MYP mathematics relies on a progression in the complexity of the level of mathematics throughout the programme. For this reason, the objectives listed below for years 1, 3 and 5 are quite similar; however, the complexity of the mathematics being assessed is increasing. Throughout the programme, students should engage with the curriculum and demonstrate their understanding at increasing levels of sophistication.

Year 1 In order to reach the aims of mathematics, students should be able to:	Year 3 In order to reach the aims of mathematics, students should be able to:	Year 5 In order to reach the aims of mathematics, students should be able to:
Objective A: Knowing and understanding		
i. select appropriate mathematics when solving problems in both familiar and unfamiliar situations	i. select appropriate mathematics when solving problems in both familiar and unfamiliar situations	i. select appropriate mathematics when solving problems in both familiar and unfamiliar situations
ii. apply the selected mathematics successfully when solving problems	ii. apply the selected mathematics successfully when solving problems	ii. apply the selected mathematics successfully when solving problems
iii. solve problems correctly in a variety of contexts.	iii. solve problems correctly in a variety of contexts.	iii. solve problems correctly in a variety of contexts.
Objective B: Investigating patterns		
i. apply mathematical problem-solving techniques to recognize patterns	i. select and apply mathematical problem-solving techniques to discover complex patterns	i. select and apply mathematical problem-solving techniques to discover complex patterns
ii. describe patterns as relationships or general rules consistent with correct findings	ii. describe patterns as relationships and/or general rules consistent with findings	ii. describe patterns as general rules consistent with findings
iii. verify whether the pattern works for other examples.	iii. verify and justify relationships and/or general rules.	iii. prove, or verify and justify, general rules.

Year 1 In order to reach the aims of mathematics, students should be able to:	Year 3 In order to reach the aims of mathematics, students should be able to:	Year 5 In order to reach the aims of mathematics, students should be able to:
Objective C: Communicating		
i. use appropriate mathematical language (notation, symbols and terminology) in both oral and written statements ii. use appropriate forms of mathematical representation to present information iii. communicate coherent mathematical lines of reasoning iv. organize information using a logical structure.	i. use appropriate mathematical language (notation, symbols and terminology) in both oral and written explanations ii. use appropriate forms of mathematical representation to present information iii. move between different forms of mathematical representation iv. communicate complete and coherent mathematical lines of reasoning v. organize information using a logical structure.	i. use appropriate mathematical language (notation, symbols and terminology) in both oral and written explanations ii. use appropriate forms of mathematical representation to present information iii. move between different forms of mathematical representation iv. communicate complete, coherent and concise mathematical lines of reasoning v. organize information using a logical structure.
Objective D: Applying mathematics in real-life contexts		
i. identify relevant elements of authentic real-life situations ii. select appropriate mathematical strategies when solving authentic real-life situations iii. apply the selected mathematical strategies successfully to reach a solution iv. explain the degree of accuracy of a solution v. describe whether a solution makes sense in the context of the authentic real-life situation.	i. identify relevant elements of authentic real-life situations ii. select appropriate mathematical strategies when solving authentic real-life situations iii. apply the selected mathematical strategies successfully to reach a solution iv. explain the degree of accuracy of a solution v. explain whether a solution makes sense in the context of the authentic real-life situation.	i. identify relevant elements of authentic real-life situations ii. select appropriate mathematical strategies when solving authentic real-life situations iii. apply the selected mathematical strategies successfully to reach a solution iv. justify the degree of accuracy of a solution v. justify whether a solution makes sense in the context of the authentic real-life situation.

The range of assessed skills, techniques and strategies as well as the complexity of their application, must increase as students progress through the programme.