

Mathematics Objectives: Year 1

Objective A: Knowing and Understanding

At the end of year 1, students should be able to:

- (i) select appropriate mathematics when solving problems in both familiar and unfamiliar situations
- (ii) apply the selected mathematics successfully when solving problems
- (iii) solve problems correctly in a variety of contexts.

Objective B: Investigating Patterns

At the end of year 1, students should be able to:

- (i) apply mathematical problem-solving techniques to recognize patterns
- (ii) describe patterns as relationships or general rules consistent with findings
- (iii) verify whether the pattern works for other examples

Objective C: Communicating

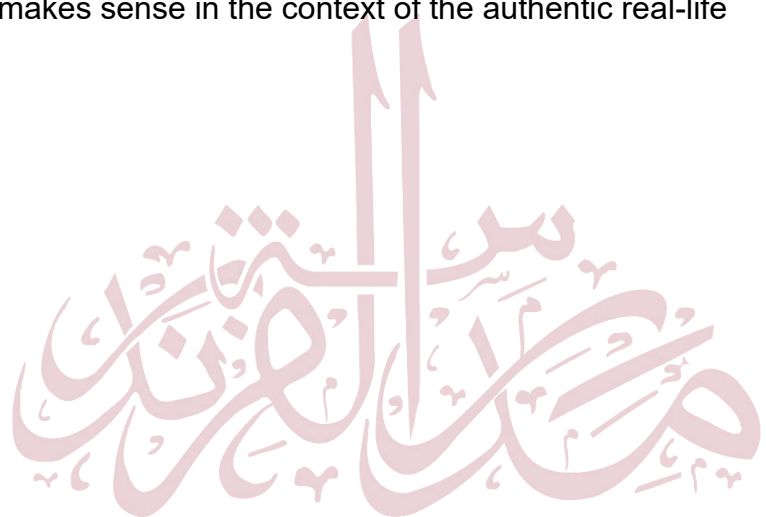
At the end of year 1, students should be able to:

- (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) *(not demonstrated at this level)*
- (iv) communicate coherent mathematical lines of reasoning
- (v) organize information using a logical structure.

Objective D: Applying mathematics in real-life contexts

At the end of year 1, students should be able to:

- (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.

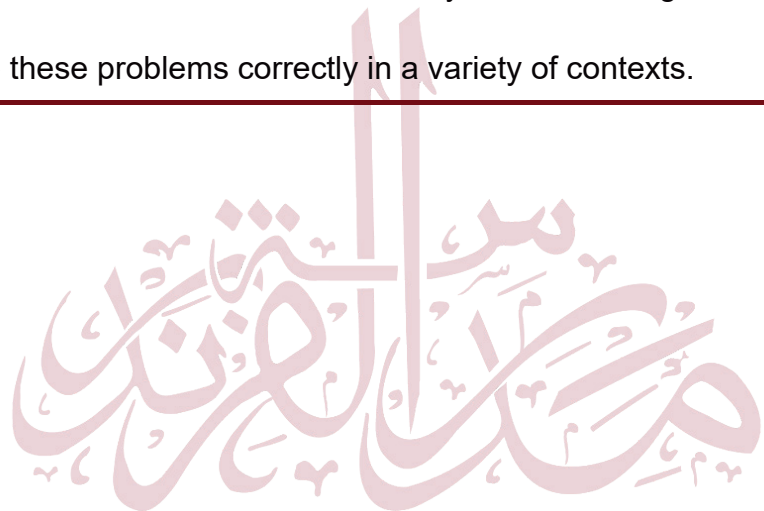


Mathematics Assessment Criteria: Year 1

Criterion A: Knowing and Understanding

Maximum: 8

Achievement level	Level descriptor
0	The student does not reach a standard described by any of the descriptors below.
1 – 2	The student: <ol style="list-style-type: none"> select appropriate mathematics when solving simple problems in familiar situations apply the selected mathematics successfully when solving these problems generally solve these problems correctly in a variety of contexts.
3 – 4	The student: <ol style="list-style-type: none"> select appropriate mathematics when solving more complex problems in familiar situations apply the selected mathematics successfully when solving these problems generally solve these problems correctly in a variety of contexts.
5 – 6	The student: <ol style="list-style-type: none"> select appropriate mathematics when solving challenging problems in familiar situations apply the selected mathematics successfully when solving these problems generally solve these problems correctly in a variety of contexts.
7 – 8	The student: <ol style="list-style-type: none"> select appropriate mathematics when solving challenging problems in both familiar and unfamiliar situations apply the selected mathematics successfully when solving these problems generally solve these problems correctly in a variety of contexts.



Mathematics Assessment Criteria: Year 1

Criterion B: Investigating Patterns

Maximum: 8

Achievement level	Level descriptor
0	The student does not reach a standard described by any of the descriptors below.
1 – 2	The student: <ol style="list-style-type: none"> apply, with teacher support, mathematical problem-solving techniques to recognize simple patterns state predictions consistent with simple patterns <i>(not demonstrated at this level)</i>.
3 – 4	The student: <ol style="list-style-type: none"> apply mathematical problem-solving techniques to recognize patterns suggest how these patterns work <i>(not demonstrated at this level)</i>.
5 – 6	The student: <ol style="list-style-type: none"> apply mathematical problem-solving techniques to recognize patterns suggest relationships or general rules consistent with findings verify whether patterns work for another example.
7 – 8	The student: <ol style="list-style-type: none"> select and apply mathematical problem-solving techniques to recognize correct patterns describe patterns as relationships or general rules consistent with correct findings verify whether patterns work for other examples.



Mathematics Assessment Criteria: Year 1

Criterion C: Communicating

Maximum: 8

Achievement level	Level descriptor
0	The student does not reach a standard described by any of the descriptors below.
1 – 2	The student: <ol style="list-style-type: none"> use limited mathematical language use limited forms of mathematical representation to present information <i>(not demonstrated at this level)</i> communicate through lines of reasoning that are difficult to understand <i>(not demonstrated at this level).</i>
3 – 4	The student: <ol style="list-style-type: none"> use some appropriate mathematical language use appropriate forms of mathematical representation to present information adequately <i>(not demonstrated at this level)</i> communicate through lines of reasoning that are able to be understood, although these are not always coherent adequately organize information using a logical structure.
5 – 6	The student: <ol style="list-style-type: none"> usually use appropriate mathematical language usually use appropriate forms of mathematical representation to present information correctly <i>(not demonstrated at this level)</i> communicate through lines of reasoning that are usually coherent present work that is usually organized using a logical structure.
7 – 8	The student: <ol style="list-style-type: none"> consistently use appropriate mathematical language consistently use appropriate forms of mathematical representation to present information correctly <i>(not demonstrated at this level)</i> communicate clearly through coherent lines of reasoning present work that is consistently organized using a logical structure.

Mathematics Assessment Criteria: Year 1

Criterion D: Applying mathematics in real-life contexts

Maximum: 8

Achievement level	Level descriptor
0	The student does not reach a standard described by any of the descriptors below.
1 – 2	<p>The student:</p> <ul style="list-style-type: none"> i. identify some of the elements of the authentic real-life situation ii. <i>(not demonstrated at this level)</i> iii. apply mathematical strategies to find a solution to the authentic real-life situation, with limited success iv. <i>(not demonstrated at this level)</i> v. <i>(not demonstrated at this level)</i>.
3 – 4	<p>The student:</p> <ul style="list-style-type: none"> i. identify the relevant elements of the authentic real-life situation ii. <i>(not demonstrated at this level)</i> iii. apply mathematical strategies to reach a solution to the authentic real-life situation iv. <i>(not demonstrated at this level)</i> v. state, but not always correctly, whether the solution makes sense in the context of the authentic real-life situation.
5 – 6	<p>The student:</p> <ul style="list-style-type: none"> i. identify the relevant elements of the authentic real-life situation ii. select adequate mathematical strategies to model the authentic real-life situation iii. apply the selected mathematical strategies to reach a valid solution to the authentic real-life situation iv. describe the degree of accuracy of the solution v. state correctly whether the solution makes sense in the context of the authentic real-life situation.
7 – 8	<p>The student:</p> <ul style="list-style-type: none"> i. identify the relevant elements of the authentic real-life situation ii. select adequate mathematical strategies to model the authentic real-life situation iii. apply the selected mathematical strategies to reach a correct solution to the authentic real-life situation iv. explain the degree of accuracy of the solution v. describe correctly whether the solution makes sense in the context of the authentic real-life situation.

