Mathematics

Criterion A: Knowing and understanding

Achievement level	Level descriptor
0	The student **does not** reach a standard described by any of the descriptors below.
1–2	The student is able to: i. **select** appropriate mathematics when solving *simple problems* in *familiar situations* ii. **apply** the selected mathematics successfully when solving these problems iii. generally **solve** these problems correctly in a variety of contexts.
3–4	The student is able to: i. **select** appropriate mathematics when solving *more complex problems* in *familiar situations* ii. **apply** the selected mathematics successfully when solving these problems iii. generally **solve** these problems correctly in a variety of contexts.
5–6	The student is able to: i. **select** appropriate mathematics when solving *challenging problems* in *familiar situations* ii. **apply** the selected mathematics successfully when solving these problems iii. generally **solve** these problems correctly in a variety of contexts.
7–8	The student is able to: i. **select** appropriate mathematics when solving *challenging problems* in both *familiar and unfamiliar situations* ii. **apply** the selected mathematics successfully when solving these problems iii. generally **solve** these problems correctly in a variety of contexts.

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Criterion B: Investigating patterns

Achievement level	Level descriptor
0	The student **does not** reach a standard described by any of the descriptors below.
1–2	The student is able to: i. **apply**, *with teacher support*, mathematical problem-solving techniques to discover *simple patterns* ii. **state** *predictions* consistent with patterns.
3–4	The student is able to: i. **apply** mathematical problem-solving techniques to discover *simple patterns* ii. **suggest** *general rules* consistent with *findings.*
5–6	The student is able to: i. **select** and **apply** mathematical problem-solving techniques to discover *complex patterns* ii. **describe** *patterns* as general rules consistent with *findings* iii. **verify** the validity of these general rules.
7–8	The student is able to: i. **select** and **apply** mathematical problem-solving techniques to discover *complex patterns* ii. **describe** *patterns* as general rules consistent with *correct findings* iii. **prove**, or **verify** and **justify**, these general rules.

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Criterion C: Communicating

Achievement level	Level descriptor
0	The student **does not** reach a standard described by any of the descriptors below.
1–2	The student is able to: i. **use** *limited* mathematical language ii. **use** *limited forms* of mathematical representation to present information iii. **communicate** through lines of reasoning that *are difficult to interpret.*
3–4	The student is able to: i. **use** *some appropriate* mathematical language ii. **use** *appropriate forms* of mathematical representation to presentinformation *adequately* iii. **communicate** *t*hrough lines of reasoning that are *complete adequately organize* information using a logical structure.
5-6	The student is able to: i. *usually* **use** *appropriate* mathematical language ii. *usually* **use** *appropriate forms* of mathematical representation to presentinformation *correctly* iii. *usually* **move** between different forms of mathematical representation iv. **communicate** through lines of reasoning that are *complete and coherent* **present** work that is *usually organized* using a logical structure.
7-8	The student is able to: i. *consistently* **use** *appropriate* mathematical language ii. **use** *appropriate forms* of mathematical representation to *consistently* present information *correctly* iii. **move** *effectively* between different forms of mathematical representation iv. **communicate** through lines of reasoning that *are complete, coherent andconcise* **present** work that is *consistently organized* using a logical structure.

Mathematics

Criterion D: Applying mathematics in real-life contexts

Achievement level	Level descriptor
0	The student **does not** reach a standard described by any of the descriptors below.
1–2	The student is able to: i. **identify** *some* of the elements of the authentic real-life situation ii. **apply** mathematical strategies to *find a solution* to the authentic real-life situation*, with limited success.*
3–4	The student is able to: i. **identify** the *relevant* elements of the authentic real-life situation ii. **select**, *with some success, adequate* mathematical strategies to model the authentic real-life situation iii. **apply** mathematical strategies *to reach a solution* to the authentic real-life situation iv. **discuss** whether the solution makes sense in the context of the authentic real-life situation.
5-6	The student is able to: 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. **explain** the degree of accuracy of the solution **explain** whether the solution makes sense in the context of the authentic real-life situation.
7-8	The student is able to: i. **identify** the *relevant* elements of the authentic real-life situation ii. **select** *appropriate* 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. **justify** the degree of accuracy of the solution **justify** whether the solution makes sense in the context of the authentic real-life situation.