Criterion A: Knowing and understanding

Achievement	Descriptors		
levels	MYP 1	MYP 2-3	MYP 4-5
7-8	 The student is able to: outline scientific knowledge apply scientific knowledge and understanding to solve problems set in familiar situations and suggest solutions to problems set in unfamiliar situations 	 The student is able to: describe scientific knowledge apply scientific knowledge and understanding to solve problems set in familiar and unfamiliar situations 	 The student is able to: explain scientific knowledge apply scientific knowledge and understanding to solve problems set in familiar and unfamiliar situations
	interpret information to make scientifically supported judgments	 analyze information to make scientifically supported judgments 	analyze and evaluate information to make scientifically supported judgments
	The student is able to: state scientific knowledge 	The student is able to: outline scientific knowledge 	The student is able to: describe scientific knowledge
5-6	apply scientific knowledge and understanding to solve problems set in familiar situations	 apply scientific knowledge and understanding to solve problems set in familiar situations and suggest solutions to problems set in unfamiliar situations 	 apply scientific knowledge and understanding to solve problems set in familiar situations and suggest solutions to problems set in unfamiliar situations
	 apply information to make scientifically supported judgments 	 interpret information to make scientifically supported judgments 	 analyze information to make scientifically supported judgments
	The student is able to: recall scientific knowledge 	The student is able to: state scientific knowledge 	The student is able to: explain scientific knowledge
3-4	 apply scientific knowledge and understanding to suggest solutions to problems set in familiar situations 	 apply scientific knowledge and understanding to solve problems set in familiar situations 	 apply scientific knowledge and understanding to solve problems set in familiar situations
	apply information to make judgments	 apply information to make scientifically supported judgments 	 interpret information to make scientifically supported judgments
	The student is able to: select scientific knowledge 	The student is able to: recall scientific knowledge 	The student is able to:
1-2	 select scientific knowledge and understanding to suggest solutions to problems set in familiar situations 	 apply scientific knowledge and understanding to suggest solutions to problems set in familiar situations 	 apply scientific knowledge and understanding to suggest solutions to problems set in familiar situations
	 apply information to make judgments, with limited success 	apply information to make judgments	 interpret information to make judgments
0	The student's work does not rea	ach a standard described by any o	of the descriptors above.

Criterion B: Inquiring and designing

Achievement			
levels	MYP 1	MYP 2-3	MYP 4-5
	The student is able to: outline a problem or question to be tested by a scientific investigation 	The student is able to: describe a problem or question to be tested by a scientific investigation	The student is able to: explain a problem or question to be tested by a scientific investigation
	 outline a testable prediction using scientific reasoning 	outline and explain a testable hypothesis using scientific reasoning	 formulate and explain a testable hypothesis using correct scientific reasoning
7-8	 outline how to manipulate the variables, and outline how sufficient, relevant data will be collected 	 describe how to manipulate the variables, and describe how sufficient, relevant data will be collected 	explain how to manipulate the variables, and explain how sufficient, relevant data will be collected
	 design a logical, complete and safe method in which he or she selects appropriate materials and equipment 	 design a complete and safe method in which he or she selects appropriate materials and equipment 	 design a logical, complete and safe method in which he or she selects appropriate materials and equipment
	 The student is able to: state a problem or question to be tested by a scientific investigation -outline a testable 	The student is able to: outline a problem or question to be tested by a scientific investigation 	 The student is able to: describe a problem or question to be tested by a scientific investigation
	prediction	 outline and explain a testable hypothesis using scientific reasoning 	 formulate and explain a testable hypothesis using scientific reasoning
5-6	 outline how to manipulate the variables, and state how relevant data will be collected 	 outline how to manipulate the variables, and outline how sufficient, relevant data will be collected 	 describe how to manipulate the variables, and describe how sufficient, relevant data will be collected
	 design a complete and safe method in which he or she selects appropriate materials and equipment 	 design a complete and safe method in which he or she selects appropriate materials and equipment 	 design a complete and safe method in which he or she selects appropriate materials and equipment
	 The student is able to: state a problem or question to be tested by a scientific investigation state a testable prediction 	 The student is able to: state a problem or question to be tested by a scientific investigation 	 The student is able to: outline a problem or question to be tested by a scientific investigation
		 outline a testable hypothesis using scientific reasoning 	 formulate a testable hypothesis using scientific reasoning
3-4	state how to manipulate the variables, and state how data will be collected	 outline how to manipulate the variables, and state how relevant data will be collected 	 outline how to manipulate the variables, and outline how relevant data will be collected
	design a safe method in which he or she selects materials and equipment	design safe method in which he or she selects materials and equipment	design safe method in which he or she selects materials and equipment
1-2	 The student is able to: select a problem or question to be tested by a scientific investigation 	 The student is able to: state a problem or question to be tested by a scientific investigation, with limited success 	 The student is able to: state a problem or question to be tested by a scientific investigation
	select a testable prediction	State a testable hypothesis	

	□ state a variable	state the variables	 outline a testable hypothesis
	 design a method with limited success 	design a method, with limited success	outline the variables
			 design a method, with limited success
0	The student's work does not read	ch a standard described by any of t	the descriptors above.

Criterion C: Processing and evaluating

Achievement		Descriptors	
levels	MYP 1	MYP 2-3	MYP 4-5
	The student is able to: correctly collect, organize, transform and present data in numerical and/or visual forms 	The student is able to: correctly collect, organize, transform and present data in numerical and/or visual forms 	The student is able to: correctly collect, organize, transform and present data in numerical and/or visual forms
	 accurately interpret data	 accurately interpret data	 accurately interpret data
	and outline results using	and describe results using	and explain results using
	correct scientific	correct scientific	correct scientific
	reasoning	reasoning	reasoning
7-8	 discuss the validity of a	 discuss the validity of a	 evaluate the validity of a
	prediction based on the	hypothesis based on the	hypothesis based on the
	outcome of a scientific	outcome of a scientific	outcome of a scientific
	investigation	investigation	investigation
	 discuss the validity of the	 discuss the validity of the	evaluate the validity of the
	method based on the	method based on the	method based on the
	outcome of a scientific	outcome of a scientific	outcome of a scientific
	investigation	investigation	investigation
	 describe improvements or	 describe improvements or	explain improvements or
	extensions to the method	extensions to the method	extensions to the method
	that would benefit the	that would benefit the	that would benefit the
	scientific investigation	scientific investigation	scientific investigation
	The student is able to: correctly collect, organize, and present data in numerical and/or visual forms 	The student is able to: correctly collect, organize, and present data in numerical and/or visual forms 	The student is able to: correctly collect, organize and present data in numerical and/or visual forms
	 accurately interpret data	 accurately interpret data	 accurately interpret data
	and outline results using	and describe results using	and explain results using
	scientific reasoning	scientific reasoning	scientific reasoning
5-6	 outline the validity of a	 outline the validity of a	 discuss the validity of a
	prediction based on the	hypothesis based on the	hypothesis based on the
	outcome of a scientific	outcome of a scientific	outcome of a scientific
	investigation	investigation	investigation
	outline the validity of the	 outline the validity of the	discuss the validity of the
	method based on the	method based on the	method based on the
	outcome of a scientific	outcome of a scientific	outcome of a scientific
	investigation	investigation	investigation
	outline improvements or	 outline improvements or	describe improvements or
	extensions to the method	extensions to the method	extensions to the method
	that would benefit the	that would benefit the	that would benefit the
	scientific investigation	scientific investigation	scientific investigation
	The student is able to: correctly collect and present data in numerical and/or visual forms 	The student is able to: correctly collect and present data in numerical and/or visual forms 	The student is able to: correctly collect and present data in numerical and/or visual forms
3-4	 accurately interpret data	 accurately interpret data	 accurately interpret data
	and outline results	and describe results	and explain results
5-4	state the validity of a	state the validity of a	 outline the validity of a
	prediction based on the	hypothesis based on the	hypothesis based on the
	outcome of a scientific	outcome of a scientific	outcome of a scientific
	investigation	investigation	investigation
	state the validity of the method based on the	state the validity of the method based on the	outline the validity of the method based on the

			7
	outcome of a scientific investigation	outcome of a scientific investigation	outcome of a scientific investigation
	 state improvements or extensions to the method that would benefit the scientific investigation 	 state improvements or extensions to the method that would benefit the scientific investigation 	 outline improvements or extensions to the method that would benefit the scientific investigation
	The student is able to: collect and present data in numerical and/or visual forms 	The student is able to: collect and present data in numerical and/or visual forms 	The student is able to: collect and present data in numerical and/or visual forms
	interpret data	accurately interpret data	interpret data
1-2	state the validity of a prediction based on the outcome of a scientific investigation, with limited success	state the validity of a hypothesis with limited reference to a scientific investigation	state the validity of a hypothesis based on the outcome of a scientific investigation
	state the validity of the method based on the outcome of a scientific investigation, with limited success	state the validity of the method with limited reference to a scientific investigation	state the validity of the method based on the outcome of a scientific investigation
	state improvements or extensions to the method that would benefit the scientific investigation, with limited success	state limited improvements or extensions to the method	 state improvements or extensions to the method
0	The student's work does not read	ch a standard described by any of	the descriptors above.

Criterion D: Reflecting on the impacts of science

MYP 1 student is able to: summarize the ways in which science is applied and used to address a specific problem or issue describe and summarize the implications of using science and its application to solve a specific problem or issue, interacting with a factor consistently apply scientific language to communicate understanding clearly and orecisely document sources completely student is able to:	MYP 2-3 The student is able to: describe the ways in which science is applied and used to address a specific problem or issue discuss and analyze the implications of using science and its application to solve a specific problem or issue, interacting with a factor consistently apply scientific language to communicate understanding clearly and precisely document sources	MYP 4-5 The student is able to: explain the ways in which science is applied and used to address a specific problem or issue discuss and evaluate the implications of using science and its application to solve a specific problem or issue, interacting with a factor consistently apply scientific language to communicate understanding clearly and precisely
summarize the ways in which science is applied and used to address a specific problem or issue describe and summarize he implications of using science and its application to solve a specific problem or issue, interacting with a factor consistently apply scientific language to communicate understanding clearly and precisely document sources completely student is able to:	 describe the ways in which science is applied and used to address a specific problem or issue discuss and analyze the implications of using science and its application to solve a specific problem or issue, interacting with a factor consistently apply scientific language to communicate understanding clearly and precisely 	 explain the ways in which science is applied and used to address a specific problem or issue discuss and evaluate the implications of using science and its application to solve a specific problem or issue, interacting with a factor consistently apply scientific language to communicate understanding clearly and
he implications of using science and its application to solve a specific problem or issue, interacting with a factor consistently apply scientific language to communicate understanding clearly and precisely document sources completely student is able to:	 implications of using science and its application to solve a specific problem or issue, interacting with a factor consistently apply scientific language to communicate understanding clearly and precisely 	 implications of using science and its application to solve a specific problem or issue, interacting with a factor consistently apply scientific language to communicate understanding clearly and
ccientific language to communicate understanding clearly and precisely document sources completely student is able to:	scientific language to communicate understanding clearly and precisely	scientific language to communicate understanding clearly and
student is able to:	document sources	
	completely	 document sources completely
outline the ways in which science is used to address a specific problem or issue	The student is able to: summarize the ways in which science is applied and used to address a specific problem or issue 	The student is able to: describe the ways in which science is applied and used to address a specific problem or issue
putline the implications of ising science to solve a pecific problem or issue, interacting with a factor	 describe the implications of using science and its application to solve a specific problem or issue, interacting with a factor 	discuss the implications of using science and its application to solve a specific problem or issue, interacting with a factor
Isually apply scientific anguage to communicate Inderstanding clearly and precisely	 usually apply scientific language to communicate understanding clearly and precisely 	 usually apply scientific language to communicate understanding clearly and precisely
isually document sources correctly	 usually document sources correctly 	 usually document sources correctly
student is able to: state the ways in which science is used to address a specific problem or issue	The student is able to: outline the ways in which science is used to address a specific problem or issue 	The student is able to: summarize the ways in which science is applied and used to address a specific problem or issue
atate the implications of Ising science to solve a Specific problem or issue, Interacting with a factor	 outline the implications of using science to solve a specific problem or issue, interacting with a factor 	 describe the implications of using science and its application to solve a specific problem or issue, interacting with a factor
cometimes apply scientific anguage to communicate Inderstanding	 sometimes apply scientific language to communicate understanding 	 sometimes apply scientific language to communicate understanding
sometimes document sources correctly	sometimes document sources correctly	 sometimes document sources correctly
student is able to: state the ways in which science is used to address a specific problem or issue, with limited success	The student is able to: state the ways in which science is used to address a specific problem or issue 	The student is able to: outline the ways in which science is used to address a specific problem or issue
	anguage to communicate inderstanding clearly and recisely sually document sources <u>orrectly</u> student is able to: tate the ways in which cience is used to address specific problem or issue tate the implications of sing science to solve a pecific problem or issue, iteracting with a factor ometimes apply scientific inguage to communicate inderstanding ometimes document <u>ources correctly</u> student is able to: tate the ways in which cience is used to address	Inguage to communicate inderstanding clearly and reciselyIanguage to communicate understanding clearly and preciselysually document sources orrectlyusually document sources correctlystudent is able to: tate the ways in which cience is used to address specific problem or issue, interacting with a factorIbe student is able to: outline the implications of using science to solve a specific problem or issue, interacting with a factorometimes apply scientific inderstandingIbe student is able to: outline the implications of using science to solve a specific problem or issue, interacting with a factorometimes apply scientific inderstandingIbe student is able to: sources correctlyometimes document ources correctlyIbe student is able to: tate the ways in which cience is used to address specific problem or issue, interacting with a factorometimes document ources correctlyIbe student is able to: tate the ways in which cience is used to address specific problem or issue, istudent is able to: tate the ways in which cience is used to address specific problem or issue, a specific problem or issue, interacting with a factor

	 state the implications of using science to solve a specific problem or issue, interacting with a factor, with limited success 	state the implications of using science to solve a specific problem or issue, interacting with a factor	 outline the ways in which science is used to address a specific problem or issue
	 apply scientific language to	 apply scientific language to	 sometimes apply scientific
	communicate	communicate	language to communicate
	understanding, with limited	understanding, but does so	understanding but does so
	success	with limited success	with limited success
	 document sources, with	document sources, with	 document sources, with
	limited success	limited success	limited success
0	The student's work does not reach a standard described by any of the descriptors above.		