



Assessment
Middle Years Program
Lincoln Community School
2012-2013



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Assessment in the MYP

Assessment in the MYP is based on observations of what a student can do and is carried out on a continuous basis. Students are not assessed on what they cannot do, but on what they can successfully achieve at different stages of their development. Assessments are designed to help them determine what the next steps in their learning should be.

At the beginning of the year, students are given copies of the criteria they will work with during that year in each subject. The criteria stem directly from the MYP Learning Objectives of each subject, help to measure what a student should know and be able to do at each stage of development. Assessment is holistic and varied and is not based on what percentage of the total they have learned, but rather on what skills they have acquired, how are they able to apply them, and what level of understanding can they demonstrate.

How can students use the criteria?

The criteria enable students to know precisely what it is they are being asked to now and do in each course. They can monitor their own development of skills and their understanding of significant concept by cross-checking their work against the criteria. They can identify their areas of strength and areas for improvement and work with their teachers to determine possible learning strategies to enable personal growth in these specific areas.

How do teachers use the criteria?

MYP teachers plan each unit and lesson with the objectives in mind. The detail and specificity of the criteria allow teachers to identify the precise skills and areas of knowledge that students need to develop, and to target it in their teaching.

How can parents use the criteria?

The detailed objectives and criteria allow parents access to precisely what their student should know and be able to do at the end of each course. They can specify precisely what skills or areas of knowledge may be a struggle and help their child to address them. The criteria serve as a powerful communication tool for parents, student and teachers as we work together to challenge and support each student.

Purposes of assessment

Assessment is integral to all teaching and learning and should support the principles of the MYP through the encouragement of best practice. Assessment in the MYP aims to:

- support and encourage student learning by providing feedback on the learning process
- inform, enhance and improve the teaching process
- promote positive student attitudes towards learning
- promote a deep understanding of subject content by supporting students in their inquiries set in real world contexts using the areas of interaction

- promote the development of higher-order cognitive skills by providing rigorous final objectives that value these skills
- reflect the international-mindedness of the program by allowing for assessments to be set in a variety of cultural and linguistic contexts
- support the holistic nature of the program by including in its model principles that take account of the development of the whole student.

MYP report cards

Both at quarter and semester marking periods, Approaches to Learning, which at LCS are aligned to aspects of the IB Learner Profile, will be judged as follows:

- E = exceeds
- S = satisfies
- N = needs improvement

Parents and students should be aware that while there is no numerical value given to Approaches to Learning marks, student performance in them greatly affects what they know and are able to do in the subject area and thus the level of achievement in the descriptors that are used for each subject area criterion.

On quarter report cards, students and their parents will see numbers that indicate what a student has learned for each of the criteria in a given subject (beginning p 3 of this booklet). In addition, they will find a 1-7 **grade in progress** intended to show the progress a student has made in his learning through the quarter. Semester report cards will indicate the final 1-7 mark for the course for the term. It is this mark that will appear on student transcripts. The 1-7 mark is derived by totaling student achievement in the subject criteria and assigning a final grade according to the grade boundaries and descriptors provided by the International Baccalaureate each year.

Please refer to this year's Grade Boundaries and our Approaches to Learning rubric on the following pages.

LINCOLN COMMUNITY SCHOOL APPROACHES TO LEARNING BY GRADE								
Draft: Includes some but is not limited to:								
ATLs	Whole School	Grade 6	Grade 7	Grade 8	Grade 9	Grade 10	Grade 11	Grade 12
Organization skills BALANCED	Time Management Self Management	Can use teacher-provided organizers to guide time management Usually prepared with resources for class.	Can use and apply a range of tools, teacher provided and personal, to aid in time management Usually prepared with relevant resources in class. Beginning to assess personal goals.		Can use and apply a range of tools to effectively organize time. Always prepared with relevant resources in class. Assess personal goals and beginning to set personal goals.		Independently, choose effective approaches to organize time efficiently. Always prepared with relevant resources in class. Set and assess personal goals.	
Collaboration Skills CARING PRINCIPLED OPEN-MINDED	Working in Groups Accepting Others Personal Challenges	With guidance can work with others and using teacher support can resolve conflicts. With help and support they can participate in group discussions or contribute to a team.	With minimal guidance they are able to participate in group work, discussions and teams. With help and support they can resolve conflicts, and accept outcomes. They can demonstrate teamwork and adaptability.		Students are able to participate in group work, discussions and teams independently. They are able to resolve conflicts, and accept and complete tasks. Students can demonstrate teamwork and adaptability.		Collaborate effectively in groups and teams. Take the lead in resolving conflict, delegating and accepting responsibility.	
Communication Skills COMMUNICATOR KNOWLEDGABLE	Literacy Being Informed Informing Others	Write, speak and present ideas with support. With guidance, communicate information and develop strategies to extract meaning.	With minimal support, write, speak and present ideas with clarity and some confidence. Communicate information and ideas clearly and coherently.		Write, speak and present ideas with clarity and confidence. Communicate information and ideas clearly and coherently in a variety of different settings and addressing audience expectations.		Write, speak, present and articulate ideas with confidence and precision. Consistently communicate information and ideas clearly and coherently using appropriate format, media, and register.	
Reflection Skills REFLECTIVE RISK-TAKERS	Self Awareness Self Evaluation	With guidance, and reminders from teacher, be aware of learning expectations and expected outcomes. Use frequent guidance	Are usually aware of learning expectations and expected outcomes. With some help and guidance listen and respond to critical feedback. With teacher support reflect on areas of perceived limitation and act to make improvements. Seek and give		Students are aware of learning expectations. Listen and respond to critical feedback. Reflect on areas of perceived limitation and act to make improvements. Seek and give constructive observations to peers.		Confidently identify learning expectations. Listen and respond to criticism, and offer constructive suggestions for improvement. Seek advice and offer constructive ideas or actions to improve ones self.	

MYP grade boundaries, 2012-2013

Language A		Standard mathematics, extended mathematics	
Grade	Boundaries	Grade	Boundaries
1	0-4	1	0-4
2	5-9	2	5-8
3	10-14	3	9-12
4	15-19	4	13-17
5	20-23	5	18-21
6	24-27	6	22-25
7	28-30	7	26-28
Language B all phases (for use from September 2012 or January 2013)		Language B foundation, language B standard and language B advanced (for use until June 2012 or December 2012)	
Grade	Boundaries	Grade	Boundaries
1	0-3	1	0-8
2	4-7	2	9-16
3	8-12	3	17-23
4	13-17	4	24-30
5	18-22	5	31-36
6	23-27	6	37-42
7	28-32	7	43-48
Language B sign languages, classical languages, revival languages (for use from September 2012 or January 2013)		History, geography, humanities, philosophy, economics, business studies (for use until June 2012 or December 2012)	
Grade	Boundaries	Grade	Boundaries
1	0-8	1	0-7
2	9-16	2	8-12
3	17-23	3	13-18
4	24-30	4	19-23
5	31-36	5	24-28
6	37-42	6	29-33
7	43-48	7	34-38

History, geography, humanities, philosophy, economics, business studies (for use from September 2012 or January 2013)		Biology, chemistry, physics, sciences	
Grade	Boundaries	Grade	Boundaries
1	0-3	1	0-5
2	4-7	2	6-11
3	8-12	3	12-18
4	13-17	4	19-24
5	18-22	5	25-28
6	23-27	6	29-32
7	28-32	7	33-36
Computer technology, design technology, technology		Dance, drama, film, music, visual arts	
Grade	Boundaries	Grade	Boundaries
1	0-5	1	0-3
2	6-9	2	4-8
3	10-15	3	9-13
4	16-21	4	14-20
5	25-28	5	21-25
6	29-32	6	26-30
7	33-36	7	31-34
Physical education		Personal project	
Grade	Boundaries	Grade	Boundaries
1	0-5	1	0-4
2	6-10	2	5-8
3	11-15	3	9-12
4	16-20	4	13-16
5	21-24	5	17-20
6	25-28	6	21-24
7	29-32	7	25-28

The grade boundaries identify the 1-7 grade the student earns for a semester grade and offer an indication of grade-in-progress for quarter marks. Students and parents can see what that means in terms of overall performance through the MYP general descriptors below:

MYP General grade descriptors

Grade 1: **Minimal** achievement in terms of the objectives.

Grade 2: **Very limited** achievement against all the objectives. The student has difficulty in understanding the required knowledge and skills and is **unable** to apply them fully in normal situations, **even with support**.

Grade 3: **Limited** achievement against most of the objectives, or clear difficulties in some areas. The student demonstrates a **limited understanding** of the required knowledge and skills and is **only able to apply** them fully in normal situations **with support**.

Grade 4: A **good general understanding** of the required knowledge and skills, and the ability to apply them effectively in **normal** situations. There is **occasional** evidence of the skills of analysis, synthesis and evaluation.

Grade 5: A **consistent and thorough understanding** of the required knowledge and skills, and the ability to apply them in a **variety** of situations. The student **generally** shows evidence of analysis, synthesis and evaluation where appropriate and **occasionally** demonstrates originality and insight.

Grade 6: A consistent and thorough understanding of the required knowledge and skills, and the ability to apply them in a **wide variety** of situations. **Consistent** evidence of analysis, synthesis and evaluation is shown where appropriate. The student **generally** demonstrates originality and insight.

Grade 7: A consistent and thorough understanding of the required knowledge and skills, and the ability to apply them **almost**

faultlessly in a wide variety of situations. Consistent evidence of analysis, synthesis and evaluation is shown where appropriate. The student **consistently** demonstrates originality and insight and **always** produces **work of high quality**.

MYP subject area aims, objectives and assessment criteria

ARTS

The arts subject group of the curriculum encompasses visual arts and performing arts and is of particular interest in an international program. From the earliest times, artistic expression has been common to all cultures as human beings make statements through a variety of non-verbal forms and create objects which are aesthetically pleasing. Beyond the barrier of languages, the discovery of the cultural values of civilizations through their artistic production is one of the best ways to promote international understanding.

The coursework brings students into contact with the art forms and aesthetic values of other cultures as well as their own, and helps to develop perceptions between ideas and art. Students are encouraged to identify particular creative abilities and to master techniques appropriate to that form of expression. In addition to developing the student's own imagination and skills, the program seeks to acquaint young people with the creations of men and women whose works have proven to be of enduring worth.

MYP arts is designed to help the student become a developing artist, one who is able to assess the level of skill and target the areas that need development. It organizes learning around the creative cycle, a dynamic, ongoing process of sensing, planning, creating and evaluating art, and one in which all the senses are involved. This cycle involves creative energy, communication, interaction and reflection.

Assessment Criteria

Criterion A: Knowledge and Understanding *Maximum 8*

Students are expected to have a knowledge and understanding of the art form(s) studied. This criterion includes knowing and understanding the theoretical basis of the art form(s) studied; developing an understanding of themes and issues studied through the arts; using subject-specific terminology to show aesthetic and critical awareness when discussing their work or the work of others; understanding how historical developments and cultural perspectives have shaped the arts and understanding how theorists, practitioners and artists have contributed to the arts.

Criterion B: Application *Maximum 10*

Students are expected to apply knowledge, understanding, skills and strategies to develop and elaborate ideas, themes or compositions. This criterion includes planning and organizing effectively to define and set goals, negotiate and make decisions; experimenting through both spontaneous and structured activities; choosing appropriate forms for the expression of ideas, thoughts and feelings in a creative manner; demonstrating a range of techniques and skills; finding original and inventive solutions; developing and elaborating ideas, themes and compositions to a point of realization and presenting work through formal or informal exhibitions and performances.

Criterion C: Reflection and Evaluation *Maximum 8*

Students are expected to reflect on the themes and issues encountered during the course, and to evaluate creative development and processes. This criterion includes using a developmental workbook throughout the creative cycle; reflecting upon, evaluating, assessing and appraising work to support and promote creative development and using feedback and discussion on artwork to support creative development.

Criterion D: Artistic Awareness and Personal Engagement *Maximum 8*

Students are expected to develop an aesthetic, cultural and critical awareness, and to engage with arts. This criterion includes showing sensitivity to one's own and different cultures; inviting and accepting views from others; showing self-motivation, initiative and a willingness to take artistic risks and supporting and encouraging peers towards a positive working environment.

HUMANITIES

The study of history in the MYP demands a truly international approach. It addresses a variety of cultures and times, and stresses their increasing interaction in our modern world. History within an international curriculum stresses the ability to analyze evidence, to use historical sources in a critical way, to detect bias, and to argue empathetically. Beyond factual knowledge, students are encouraged to develop the capacity to think and write historically and to enjoy and value the past for its own sake as well as a means by which to understand and appreciate the present.

Assessment Criteria

Criterion A: Knowing and Understanding *Maximum 8*

Knowledge and understanding are fundamental to studying humanities, and forms the base from which to explore concepts and develop skills. Knowledge is both factual and conceptual and provides the foundation for critical thinking. Criterion A can be assessed through a wide variety of tasks that involve factual recall or description, and explanation. Tasks may include tests, examinations, written assignments, oral interviews and presentations, extended writing, projects and exhibits.

Criterion B: Investigating *Maximum 8*

The development of investigative skills in humanities is an integral part of the inquiry cycle. It enables students to plan and carry out research and/or fieldwork as individuals or in the group. Students should be able to demonstrate investigative skills throughout the humanities course to an increasing level of sophistication. The focus is placed on acquiring systematic research skills and processes associated with the craft of each humanities discipline. As part of this process students might reappraise methods and research questions in order to make recommendations for improving the process and act upon these where appropriate. This will be part of the formative assessment process. Activities that allow students to develop investigative skills include, but are not limited to: research essays, fieldwork investigations, web quests, problem solving tasks, role plays and group investigations.

Criterion C: Thinking Critically *Maximum 8*

The ability to think critically in humanities is vital in developing a deeper understanding of the subject and its concepts. The objective strands highlighted in “Thinking Critically” build on the knowledge base of humanities and are an integral part of the inquiry cycle. Student should be able to demonstrate these objectives throughout the humanities course to an increasing level of sophistication.

Criterion D: Communicating *Maximum 8*

Students should be able to demonstrate the ability to use a wide variety of media to organize and communicate their factual and conceptual learning. These formats include, but are not limited to: written reports, oral presentations, cartoons, storyboards, maps, diagrams, flow charts, PowerPoint® Presentations, podcasts, animations and videos.

LANGUAGE A

Language A is defined as the student’s best language. It is fundamental to the curriculum as it crosses the boundaries of the traditional disciplines. It is the basic tool of communication in the sense of enabling one to understand and to be understood, and to establish one’s own identity.

Language is also the avenue by which one gains access to literature and thereby to the cultural treasury of civilization. The Middle Years Program thus distinguishes between the instrumental function of language when it emphasizes listening, viewing, speaking, reading and writing skills, and the study of literature, which encompasses a variety of periods and genres.

Assessment Criteria**Criterion A: Content (receptive and productive)** *Maximum 10*

This criterion refers to the student’s ability to demonstrate an awareness of the function of language through critical and creative writing, an understanding of the works studies, and an effective response to literature.

Criterion B: Organization *Maximum 10*

The organization criterion refers to the student’s ability to express ideas with clarity and coherence, structure arguments in a sustained and logical fashion, and support these arguments with relevant examples.

Criterion C: Style and Language Mechanics *Maximum 10*

This criterion refers to the student’s ability to use language for a variety of purposes, including description, analysis and persuasion. Appropriate register and language should be chosen, according to intention and audience.

LANGUAGE B

Teaching and learning in Language B is organized into six phases. The phases represent a developmental continuum of additional language learning. Students may commence their language B course in any phase on the continuum and they may exit from any phase on the continuum.

Language B Levels

There are six phases for certification in MYP language B:

Please note that students taking two languages at the A level are not obliged to take a language B in addition.

Progression along the continuum

As students progress through the six phases they are expected to develop competencies to communicate appropriately and effectively in an increasing range of social, intercultural understanding and academic contexts, and for an increasing variety of audiences and purposes. As students' understanding is developed, increasing cognitive demands are also set. These are expressed as instructional verbs so show progression.

Phase 1	Phase 2	Phase 3	Phase 4	Phase 5	Phase 6
In a limited range of everyday situations	In a limited range of familiar situations	In familiar and some unfamiliar situations	In familiar and unfamiliar situations	In social situations and some academic situations	In social situations and academic situations
Some aspects of register	Some aspects of register	Appropriate register	Appropriate register	Appropriate register	Appropriate register
A very limited range of interpersonal and cultural contexts	A limited range of interpersonal and cultural contexts	A limited range of interpersonal and cultural contexts	A range of interpersonal and cultural contexts	A range of interpersonal and cultural contexts	A wide range of interpersonal and cultural contexts
Use basic vocabulary	Use basic language	Use language accurately	Use language accurately	Use language accurately and effectively	Use oratory technique
Simple short texts	Simple texts	A limited range of texts	A range of texts	A range of texts	A wide range of texts
Interact in simple and rehearsed exchanges	Interact in basic rehearsed and some unrehearsed exchanges	Interact in rehearsed and unrehearsed exchanges	Engage actively	Engage actively	Engage actively
Understand and respond	Understand and respond	Understand and respond	Understand, interpret and respond	Understand, analyze and respond	Understand, analyze, evaluate and respond
Identify and recognize	Recognize and understand	Understand	Construct meaning and interpret	Construct meaning/analyze	Evaluate

Pathways from the MYP to DP group 1 and 2 courses

This table is to be used for indication only and it is up to teachers and the DP Coordinator to decide the final requirements for progressions to a DP course.

MYP		DP
Phase 1		Ab initio
Phase 2		Ab initio Language B SL
Phase 3		Language B SL
Phase 4		Language B SL/HL
Phase 5		Language B SL/HL Language A: literature SL Language A: language and literature SL Literature and performance SL
Phase 6	Language A	Language A: literature SL/HL Language A: language and literature SL/HL Literature and performance SL

Assessment Criteria

Criterion A: Oral Communication *Maximum 8*

This objective encompasses all aspects of listening and speaking. It refers to enabling the students to construct meaning through the process of internalizing meaning and articulating thoughts using speech in a variety of ways in the target language.

Criterion B: Visual Interpretation *Maximum 8*

This objective involves the student in interpreting and constructing meaning from visual text to understand how images presented with oral and written text convey ideas, values and attitudes. Engaging with text requires the student to think creatively and critically about what is viewed, and to be aware of opinions, attitudes and cultural references presented in visual text. The student might, for example reflect on feelings and actions imagine himself or herself in another's situation, gain new perspectives and develop empathy, based on what he or she has understood in the text.

Criterion C: Reading Comprehension *Maximum 8*

This objective refers to enabling the student to construct meaning from written text by making inferences and interpretations. Engaging with text requires the student to think creatively and critically about what is read, and to be aware of opinions, attitudes and cultural references presented in the text. The student might, for example, reflect on feelings and actions, imagine himself or herself in another's situation, gain new perspectives and develop empathy, based on what he or she has understood in the text.

Criterion D: Writing—language *Maximum 8*

This objective relates to the development of the writing process. Students are judged on their ability to use the language effectively and accurately, correctly use a range of vocabulary, correctly use a range of grammatical structures and accurately spell, as appropriate to the level.

MATHEMATICS

MYP mathematics sets out to give students an appreciation of the usefulness, power and beauty of the subject. One aspect of this is the awareness that mathematics is a universal language with diverse applications. MYP mathematics promotes an understanding of how cultural, societal and historical influences from a variety of

cultures have shaped mathematical thought. Students learn to understand and discuss the international nature of mathematics.

The framework includes five branches of mathematics: number, algebra, geometry and trigonometry, statistics and probability, and discrete mathematics. Aims and objectives include understanding mathematical reasoning and processes, the ability to apply mathematics and to evaluate the significance of the results, the ability to develop flexible strategies for problems in which solutions are not obvious, and the acquisition of mathematical intuition.

Assessment Criteria

Criterion A: Knowledge and understanding *Maximum 8*

Knowledge and understanding are fundamental to studying mathematics and form the base from which to explore concepts and develop skills. This criterion expects students to use their knowledge and to demonstrate their understanding of the concepts and skills of the prescribed framework in order to make deductions and solve problems in different situations, including those in real-life contexts.

This criterion examines to what extent the student is able to know and demonstrate understanding of the concepts from the five branches of mathematics (number, algebra, geometry and trigonometry, statistics and probability, and discrete mathematics); use appropriate mathematical concepts and skills to solve problems in both familiar and unfamiliar situations, including those in real-life contexts and select and apply general rules correctly to solve problems, including those in real-life contexts.

Criterion B: Investigating patterns *Maximum 8*

Students are expected to investigate a problem by applying mathematical problem-solving techniques, to find patterns, and to describe these mathematically as relationships or general rules and justify or prove them. This criterion examines to what extent the student is able to select and apply appropriate inquiry and mathematical problem-solving techniques; recognize patterns; describe patterns as relationships or general rules; draw conclusions consistent with findings and justify or prove mathematical relationships and general rules.

Criterion C: Communication in Mathematics *Maximum 6*

Students are expected to use mathematical language when communicating mathematical ideas, reasoning and findings—both orally and in writing. This criterion examines to what extent the student is able to use appropriate mathematical language (notation, symbols, terminology) in both oral and written explanations and use different forms of mathematical representation (formulae, diagrams, tables, charts, graphs and models) move between different forms of representation.

Students are encouraged to choose and use appropriate ICT tools such as graphic display calculators, screenshots, graphing, spreadsheets, databases, drawing and word processing software, as appropriate, to enhance communication.

Criterion D: Reflection in Mathematics *Maximum 6*

Reflection allows students to reflect upon their methods and findings. This criterion examines to what extent the student is able to explain whether his or her results make sense in the context of the problem, explain the importance of his or her findings in connection to real life, justify the degree of accuracy of his or her results where appropriate and suggest improvements to the method when necessary.

PHYSICAL EDUCATION

Physical education has a unique and significant contribution to make, since its aim is to facilitate physical, intellectual, emotional and social development. The Middle Years Program intends to cultivate a healthy and active lifestyle for students and consequently advocates activities, which are not only enjoyable, but also contribute to healthy living. Students are helped to develop the motor skills necessary to enable them to participate successfully in a variety of physical activities, and learn the benefits of a regular exercise regime.

MYP physical education enables students to establish links between different areas of experience. It is also a useful area in which to incorporate intercultural awareness, as physical education is a reflection of elements of history, culture and values. The course requires schools to allow students to experience and appreciate a wide range of physical activities in and outside the school. MYP physical education also provides opportunities for different forms of self-reflection, communication and team-work.

Assessment Criteria

Criterion A: Knowledge and Understanding *Maximum 6*

Students are expected to have a knowledge and understanding of the physical activities and themes studied. This criterion includes understanding the principles related to a variety of physical activities, the importance of physical activity to a healthy lifestyle and the various components that contribute to health-related fitness.

Criterion B: Movement Composition *Maximum 6*

Students are expected to develop compositional skills by creating, selecting and linking movements into sequences. This includes exploration of movement possibilities and variations in accordance with the principles of a particular aesthetic activity; composition of aesthetic movements and the linking of movements in order to compose aesthetic sequences, taking into account the concepts of space, time, level, force and flow.

Criterion C: Performance/Application *Maximum 10*

Students are expected to display the motor skills learned in a variety of physical activities. They should be able to apply tactics, strategies and rules in individual and group situations. It is also important that students use movement concepts appropriately and apply health and fitness principles.

Criterion D: Social Skills *Maximum 6*

This criterion covers students' ability to work cooperatively while respecting themselves and their social and physical environment. They should also show the ability to support and encourage others, develop appropriate attitudes and strategies for interrelating with others and show sensitivity through intercultural awareness.

SCIENCE

The study of science aims to provide the student with both a body of knowledge and an understanding of the scientific approach to problem solving. This dual role makes science an important means to investigate and understand the natural world. The ability to formulate hypotheses, design and carry out strategies to test them, and evaluate results constitutes the framework within which specific content is presented. Among other skills, the student is expected to use basic laboratory equipment safely and efficiently, to measure and make sensible estimates, and to classify things logically.

Within MYP sciences are the traditional subjects of biology, chemistry and physics, as well as topics, concepts and issues from other branches of science, such as earth and health sciences. As with other areas of the curriculum, students are encouraged to relate the content of the classroom and laboratory to the realities of life as they develop critical thinking and problem-solving skills.

The MYP sciences promote an awareness of the increasingly international context of scientific activity, its impact and limitations, as well as the constant evolution of scientific knowledge and understanding. Students are encouraged to consider science as a constantly evolving cooperative venture between individuals and among members of the community, influenced by social, economical, technological, political, ethical and cultural surroundings.

Assessment Criteria

Criterion A: One world *Maximum 6*

One world enables students to gain a better understanding of the role of science in society and allows them to explore how scientific developments and applications are applied and used to address specific problems or issues in local and global contexts. Students should be able to explain the ways in which science is applied and used to address **a specific** problem or issue; discuss the effectiveness of science and its application in solving the problem or issue and discuss and evaluate the moral, ethical, social, economic, political, cultural and environmental implications of the use of science and its application in solving specific problems or issues.

Assessment tasks give students the opportunity to explore how science is used to address **a specific** problem or issue. Students are required to critically discuss and evaluate the implications associated with the use and

application of science by considering moral, ethical, social, economic, political, cultural and environmental factors.

Criterion B: Communication in science *Maximum 6*

Communication in science enables students to develop the communication skills to become competent and confident when communicating information in science.

Students should be able to use different communication modes, including verbal (oral, written) and visual (graphic, symbolic), as well as appropriate communication formats (laboratory reports, essays, and multimedia presentations) to effectively communicate scientific ideas, theories, findings and arguments in science. Students should be able to use scientific language correctly; use appropriate communication modes and formats and acknowledge the work of others and the sources of information used by appropriately documenting them using a recognized referencing system.

Criterion C: Knowledge and understanding of science *Maximum 6*

Knowledge and understanding of science enables students to demonstrate their understanding of science by applying scientific knowledge to construct scientific explanations, solve problems and formulate scientifically supported arguments. Students should be able to recall scientific knowledge and use scientific understanding to construct scientific explanations; apply scientific knowledge and understanding to solve problems set in familiar and unfamiliar situations and critically analyze and evaluate information to make judgments supported by scientific understanding.

Criterion D: Scientific inquiry *Maximum 6*

This criterion enables students to design and carry out scientific investigations independently.

Students should be able to state a focused problem or research question to be tested by a scientific investigation; formulate a testable hypothesis and explain it using scientific reasoning; design and carry out scientific investigations that include variables and controls, material and/or equipment needed, a method to be followed, and the way in which the data is to be collected and processed; evaluate the validity and reliability of the method; judge the validity of the hypothesis based on the outcome of the investigation and suggest improvements to the method or further inquiry, when relevant.

Criterion E: Processing data *Maximum 6*

Processing data refers to enabling students to organize, process and interpret quantitative and qualitative data. Students should be able to collect and record data using units of measurement as and when appropriate; organize, transform and present data using numerical and visual forms; analyze and interpret the data and draw conclusions consistent with the data and supported by scientific reasoning.

Criterion F: Attitudes in science *Maximum 6*

Attitudes in science encourages students to develop safe, responsible and collaborative working practices when carrying out experimental work in science. Students are expected to work safely and use material and equipment competently; work responsibly with regards to the living and non-living environment and work effectively as individuals and as part of a group by collaborating with others.

TECHNOLOGY

Technology in the MYP aims at establishing the foundations for technological literacy and know-how. Students become aware of the practical solutions people have devised to satisfy their basic need for food, clothing and shelter as well as to communicate, to preserve their health, to learn, and to enjoy themselves. Technology in the MYP is essentially concerned with solving problems in an effort to stimulate students' ingenuity and to encourage them to combine intellectual talents and practical skills.

The teaching of technology in the MYP provides a balance among three key areas: systems, information and materials. Technology courses allow students to display ingenuity and creativity and to devise practical solutions to given tasks by following the design cycle of investigation, planning, creation and evaluation.

Technology offers great potential for reinforcing and integrating skills learned in other disciplines, especially in the presentation and handling of data and the processes involved in the design and manufacture of a product. At the same time, it fosters awareness of the social and ethical implications of technological development.

Assessment Criteria

Criterion A: Investigate *Maximum 6*

Investigation is an essential stage in the design cycle. Students are expected to identify the problem, develop a design brief and formulate a design specification. Students are expected to acknowledge the sources of information and document these appropriately.

Criterion B: Design *Maximum 6*

Students are expected to generate several feasible designs that meet the design specification and to evaluate these against the design specification. Students are then expected to select one design, justify their choice and evaluate this in detail against the design specification.

Criterion C: Plan *Maximum 6*

Students are expected to construct a plan to create their chosen product/solution that has a series of logical steps, and that makes effective use of resources and time. Students are expected to evaluate the plan and justify any modifications to the design.

Criterion D: Create *Maximum 6*

Students are expected to document, with a series of photographs or a video and a dated record, the process of making their product/solution, including when and how they use tools, materials and techniques. Students are expected to follow their plan, to evaluate the plan and to justify any changes they make to the plan while they are creating the product/solution. Students will sometimes embark upon a very ambitious project, or they may encounter unforeseen circumstances. In some circumstances a product/solution that is incomplete or does not function fully can still achieve one of the levels awarded for this criterion.

Criterion E: Evaluate *Maximum 6*

Students are expected to evaluate the product/solution against the design specification in an objective manner based on testing, and to evaluate its impact on life, society and/or the environment. They are expected to explain how the product/solution could be improved as a result of these evaluations. Students are expected to evaluate their own performance at each stage of the design cycle and to suggest ways in which their performance could be improved.

Criterion F: Attitudes in technology *Maximum 6*

This criterion refers to students' attitudes when working in technology. It focuses on an overall assessment of two aspects:

- personal engagement (motivation, independence, general positive attitude)
- attitudes towards safety, cooperation and respect for others.

By their very nature these qualities are difficult to quantify and assess, and assessment should therefore take into account the context in which the unit of work was undertaken.

THE PERSONAL PROJECT

The personal project is a significant body of work produced over an extended period. It is a product of the student's own initiative and should reflect his/her experience of the MYP. The personal project holds a very important place in the program. It provides an excellent opportunity for students to produce a truly creative piece of work of their choice and to demonstrate the skills they have developed in approaches to learning and is the culminating work of the Middle Years Program.

Assessment Criteria

Criterion A. Planning and development - (Process Journal) *Maximum 4*

Students should be able to identify a clear and achievable goal, describe and justify a focus on the chosen area(s) of interaction, describe the steps followed to achieve the stated goal and adhere to the stated goal throughout the project

Criterion B. Collection of information/resources - (Goal, evolving resource Lists, Citations) *Maximum 4*

Students should be able to select and use adequate, varied resources, identify and use relevant information critically and acknowledge sources of information appropriately

Criterion C. Choice and application of techniques - (Product) *Maximum 4*

Students should be able to choose techniques relevant to the project's goal, justify this selection and apply the chosen techniques consistently and effectively

Criterion D Analysis of information - (Application of Information) *Maximum 4*

Students should be able to analyze the information in terms of the goal and the focus of the project, express personal thought, support arguments with evidence and respond thoughtfully to ideas and inspiration

Criterion E. Organization of the written work - (Achieving the Goal) *Maximum 4*

Students should be able to organize their work in a coherent manner according to the required structure, present information clearly and present references, bibliography and symbolic representations appropriately

Criterion F. Analysis of the process and outcome - (Reflection on learning) *Maximum 4*

Students should be able to identify the strengths and weaknesses of the project at different stages of development, where appropriate, suggest ways in which the project could have been tackled differently, assess the achieved results in terms of the initial goal and the focus on the chosen area(s) of interaction and how awareness of the overall perspectives relate to the chosen topic or piece of work

Criterion G. Personal engagement - (Judged by your Supervisor) *Maximum 4*

Students should be able to meet deadlines, follow agreed procedures and work plans, make appropriate use of a process journal and show initiative, enthusiasm and commitment to the task

Final Grade Determination:

Each student's Personal Project will be jointly assessed by a group of 3-4 teachers, including the student's own Personal Project Supervisor. Teachers will meet with each student for a 10-minute presentation of the process of creating their Personal Project and explain the following:

- Describe the project
- What Areas of Interaction they used, how and why
- Lessons learned in the process, skills/gained/developed and project importance
- Question and Answer session

Teachers will reconvene after the student presentations and make a final decision for scores.