



2009/10

MGIS IB MYP Guide



**Mahatma Gandhi
International School,
Manila, Philippines**

M.G.I.S Mission Statement

Mahatma Gandhi International School wants to make quality International Education affordable and within the reach of a larger section of the society. We aim to instill in our youngsters the true spirit of Internationalism, to establish a new world order based on love, tolerance and understanding. We want to give our students the love for life long learning & the confidence to face challenges of the 21st century, to be the harbingers of a better world, with full faith in the principles of the United Nations and its commitment for global peace, security & the service of mankind.

M.G.I.S Vision

Our vision is to build an impeccable reputation as an ideal International School, catering to the growing demands of our students, to continuously upgrade our facilities in terms of safety & security, better infrastructure for sports & games, and provide ample resources for the implementation of the International Baccalaureate (IB) curriculum.

Our aim is to make M.G.I.S a living example of Unity in Diversity, with students from different nationalities, interacting and growing in appreciation for the diversity in thought and ideas in an atmosphere of love and camaraderie.

Our core commitment is to strengthen our students intellectually, physically, morally and spiritually. It is also our commitment inspire them with the values of Mahatma Gandhi to follow the path of truth, justice, non violence and peace. With such, we want empower our students continuously to make mature and informed choices and lead exemplary lives as responsible global citizens of the future, celebrating the unity of mankind.

The IB Learner Profile

“The IB Learner Profile is the IB mission statement translated into a set of learning outcomes. The aim of all IB programmes is to develop internationally-minded people who, is recognizing their common humanity and shared guardianship of the planet, help to create a better and more peaceful world” (IB, 2006)

Through the Middle Years Programme, M.G.I.S. aims to develop the dispositions (learning outcomes) as described in the IB Learner Profile. IB learners strive to be:

Disposition	Description
Inquirers	They develop their natural curiosity. They acquire skills necessary to conduct inquiry and research and show independence in learning. They actively enjoy learning and this love of learning will be sustained throughout the years
Knowledgeable	They explore concepts, ideas and issues that have local and global significance. In so doing they acquire in-depth knowledge and develop understanding across a broad and balanced range of disciplines.
Thinkers	They exercise initiative in applying thinking skills critically and creatively to recognise and approach complex problems, and make reasoned ethical decisions.
Communicators	They understand and express ideas and information confidently and creatively in more than one language and in a variety of modes of communication. They can work effectively and willingly in collaboration with others.
Principled	They act with integrity and honesty, with a strong sense of fairness, justice and respect for dignity of the individual, groups and communities. They take responsibility for their own actions and consequences that accompany them.
Open-minded	They understand and appreciate their own cultures and personal histories, and are open to the perspectives, values and traditions of other individuals and communities. They are accustomed to seeking and evaluating a range of points of view, and are willing to grow from the experience.
Caring	They show empathy, compassion and respect towards the needs and feelings of others. They have a personal commitment to service, and act to make a positive difference to the lives of others and to the environment.
Risk-takers	They approach unfamiliar situations and uncertainty with courage and forethought, and have the independence of spirit to explore new roles, ideas and strategies. They are brave and articulate in defending their beliefs.
Balanced	They understand the importance of intellectual, physical and emotional balance to achieve personal well-being for themselves and others.
Reflective	They give thoughtful consideration to their own learning and experience. They are able to assess and understand their strengths and limitations in order to support their learning and personal development.

Introduction to IB Middle Years Programme

The Middle Years Programme (MYP), designed for students aged 11 to 16, has been offered by the International Baccalaureate Organization (IBO) since 1994

The MYP is designed to teach students to become independent learners who can recognize relationships between school subjects and the world outside, who can adapt to new situations and combine relevant knowledge, practical and social intelligence to solve authentic problems alone or in groups. Successful teaching of the programme requires commitment to its fundamental principles on the part of the whole school community, and a high degree of communication and collaboration between teachers.

The programme aims to enable students to:

- build upon their spirit of discovery to develop an understanding and enjoyment of the process of learning, independently and in cooperation with others
- acquire knowledge and understanding and prepare for further learning
- recognize the extent to which knowledge is interrelated
- learn to communicate effectively in a variety of ways
- develop a sense of personal and cultural identity and a respect for themselves and for others
- acquire insights into local and global concerns affecting health, the community and the environment, and develop a sense of individual and collective responsibility and citizenship.

Three fundamental concepts – listed below – underpin the development of the programme, in each participating school across the world.

A) Holistic learning in the context of the MYP

Like the Primary Years Programme, the development of the MYP has been substantially influenced by a constructivist, process-led view of learning in which the student develops an understanding by consciously learning how to learn and linking new knowledge to existing knowledge. Theorists such as Gardner (1999), Perkins (1992), and Wiggins and McTighe (1998) stress the vital importance of thoughtful learning and connections within pedagogy of understanding.

The focus of holistic learning is the discovery of relationships between areas of knowledge, between the individual, communities and the world. The programme emphasizes the study of traditional subject groups: languages (best language and additional language), humanities, sciences, mathematics, arts, technology, and physical education.

However, the MYP requires schools to organize learning so that students will become increasingly aware of the connections between subjects, and between subject content and the real world. The fundamental concept of holistic learning has led to the curriculum model of the MYP, providing five central elements called the **Areas of Interaction**, to which all disciplines contribute subject knowledge, conceptual understanding and skills. As students realize that most real-world issues require insights gained from a variety of disciplines, they are encouraged to draw on the many different approaches to acquiring knowledge. Helping students discover how knowledge is interrelated not only helps their intrinsic motivation but also encourages deeper, lasting understanding, and facilitates transfer of learning.

The MYP requires teachers to become concerned with the total experience of the student at school. Organizing a well-rounded experience over the five years of the MYP requires team planning across subjects on the part of teachers as well as discussion of, and reflection on, the curriculum and learning activities from the point of view of the student.

B) Intercultural awareness

This concept is concerned with developing students' attitudes, knowledge and skills as they learn about their own and others' cultures. For adolescents, this means considering the many facets of the concept of culture, and experiencing and reflecting on its manifestations in various contexts. This is particularly important at an age when adolescents discover and affirm an identity while they experience the need to be accepted by a social group, when they discover a cultural heritage increasingly influenced and transformed by a globalized world. By encouraging students to consider multiple perspectives, intercultural awareness not only fosters tolerance and respect, but also aims to develop empathy and understanding, the acceptance of others' rights in being different.

The MYP is taught in a range of schools, some with students and teachers of many nationalities, and others with a more homogeneous student population and teaching staff. Developing intercultural awareness in an MYP school involves everyone. It affects the organizational structure, policies and practices, the climate within the school, the relations with the community outside, as well as the content of the curriculum taught through the subjects and interdisciplinary activities. This fundamental concept guides the development of the curriculum framework within the subject groups, affecting content (focusing on global issues, on languages and varied manifestations of cultures) and pedagogical approaches (allowing reflection, dialogue, active inquiry, action). As they learn to construct meaning by exploring other ways of being and different points of view, students become more informed about, and sensitive to, the experiences of others, locally, nationally and internationally.

Intercultural awareness also means considering the attitudes created as a result of learning and encouraging involvement in action and service. It is central to the programme, a critical element in developing internationally-minded students.

C) Communication

The curriculum requirements and the aims & objectives of the MYP subjects emphasize the central importance of communication, verbal and non-verbal, as a vehicle to realize the aims of the programme. A good command of expression in all of its forms is fundamental to learning. In most MYP subject groups, development of communication is a key objective and an explicit part of the assessment, as it supports understanding and allows student reflection and expression in different forms.

The IBO places particular emphasis on language acquisition, which does more than promote cognitive growth: it is crucial for exploring and sustaining cultural identity, personal development and intercultural understanding. Students are required to develop at least two languages within the MYP, normally their best language and another language. Many schools, depending on their circumstance and needs, will encourage students to study more than two languages.

This fundamental concept also touches the development of the students' understanding and appreciation of different modes of thinking and expression, including the arts and the use of information and communication technology. Like the fundamental concept of intercultural awareness, it affects the delivery of the programme itself, as teachers need to engage in common planning across subjects and as students learn to work in teams.

Aims and Objectives

The objectives of each subject group are skills-based and broad enough to allow for a variety of teaching and learning approaches. The choice and organization of precise content is left to schools in order to preserve flexibility.

In some subjects the content is not specified while in others a framework of concepts or topics is prescribed for all MYP students to address over the five years. Such prescription is kept to a minimum and schools are asked to expand their scope of topics and depth of treatment according to their individual needs and preferences.

The aims and objectives of the subject groups address all dimensions of learning, including knowledge, understanding, application and attitude.

Knowledge: the facts that the student should be able to recall to ensure competence in the subject

Understanding: how the student will be able to interpret or predict aspects of the subject

Application: how the student will be able to apply what has been learned in new situations

Attitude: how the student is changed by the learning experience

Objectives provided by the IBO for subjects in the MYP are defined as final objectives. While teachers will find it necessary to develop their own interim objectives and assessment practices in Years 1 to 5, the **MYP final objectives** form the basis for the **MYP assessment criteria** devised for use in the **final assessment** of students' work at the end of year 5. Whether or not schools request IBO-validated grades for their students, they are all required to organize learning and assessment in a way which is consistent with the prescribed objectives.

An Overview of the Middle Years Programme, Grades 6 – 10

Students of MGIS in grades 6 to 10 follow the **International Baccalaureate Middle Years Programme**, a broad, balanced curriculum set within eight subject groups:

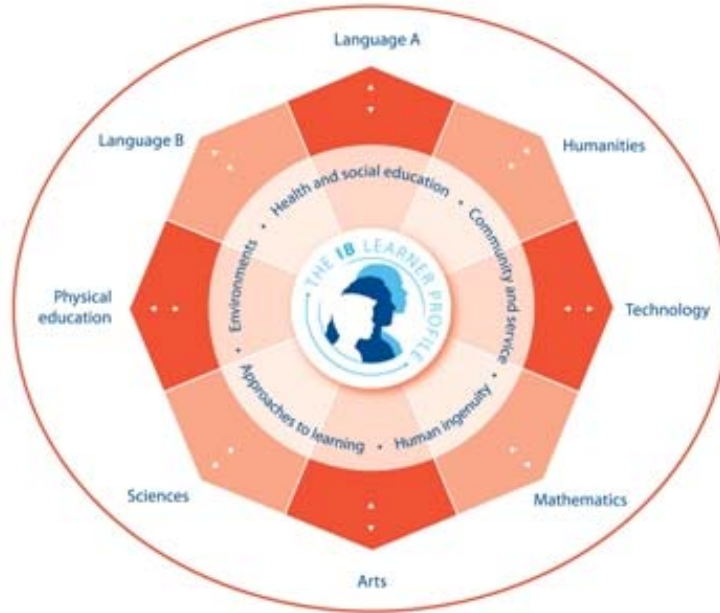
Group 1: Language A	English
Group 2: Language B	English, French, Hindi
Group 3: Humanities	Integrated Humanities
Group 4: Sciences	Grade 6 – 7: Integrated Science Grade 8 – 10: Biology, Chemistry, Physics
Group 5: Mathematics	Standard Mathematics
Group 6: The Arts	Visual and Performing Arts, Music
Group 7: Technology	Integrated Computer Technology
Group 8: Physical Education	Physical Education and Health

These courses, delivered across all eight domains, are led and linked together by **Areas of Interaction (AoI)**, which are five themes or threads that tie all the subject groups together. These Areas of Interaction are:

- Approaches to Learning
- Community and Service
- Human Ingenuity
- Environments
- Health and Social Education

English as Second Language (ESL) is offered to those who require additional English tuition, and support teaching is built into the other courses for those students with particular learning needs. The school also has a Special Education Needs (SEN) Coordinator to monitor and support students who may need additional materials or a modified programme of study.

The MYP Curriculum Model



The diagram represents the IB Middle Years Programme curriculum model. The five Areas of Interaction connect the development of the individual (at the center) with the educational experience in all subject groups (at the outer points of the octagon). These interactive areas are common to all disciplines with each subject developing general and specific aspects of the areas. In this way the subject groups are also linked by the Areas of Interaction, demonstrating the interdisciplinary potential of the MYP.

Explaining the MYP Curriculum Model

The Middle Years Programme (MYP) of the International Baccalaureate (IB) is a course study designed to meet the educational requirements of students aged between 11 and 16 years.

MYP students are at an age when they are making the transition from early puberty to mid-adolescence: this is a crucial period of personal, social, physical and intellectual development; of uncertainty and of questioning. The MYP has been devised to guide students in their search for a sense of belonging in the world around them. It also aims to help students to develop the knowledge, attitudes and skills they need to participate actively and responsibly in a changing and increasingly interrelated world. This means teaching them to become independent learners who can recognise relationship between school subjects and the world outside, and learn to combine relevant knowledge, experience and critical thinking to solve authentic problems.

The right subject groups provide a broad, traditional foundation of knowledge, while the pedagogical devices used to transmit this knowledge aim to increase each student's awareness of the relationship between subjects. Students are encouraged to question and evaluate information critically, to seek out and explore the links between subjects, and to develop an awareness of their own place in the world.

The MYP aims to develop in students:

- the disposition and capacity to be lifelong learners
- the capacity to adapt to a rapidly changing reality
- problem solving and practical skills and intellectual rigour
- the capacity and self –confidence to act individually & collaboratively
- an awareness of global issues and the willingness to act responsibly
- the ability to engage in effective communication across frontiers
- respect for others and an appreciation of similarities & differences.

Fundamental Concepts

Adolescents are confronted with a vast and often bewildering array of choices. The MYP is designed to provide students with the values and opportunities that will enable them to develop sound judgment. Learning how to learn and how to evaluate information critically is as important as content of the disciplines themselves.

From its beginning, the MYP has been guided by three fundamental concepts the underpin its development, both internationally and in individual schools:

- holistic learning

- intercultural awareness
- communication

These concepts form the basis for the MYP curriculum framework, which is shared by different types of school in all parts of the world. The fundamental concepts of the MYP are the guiding principles in designing the curriculum and school activities.

Fundamental Concepts: Holistic Learning

Holistic learning emphasizes the links between disciplines, providing a global view of situations and issues. Students should become more aware of the relevance of their learning, and come to see knowledge as an interrelated whole. Students should see the cohesion and the complimentary nature of various fields of study, but this must not be done to the detriment of learning within each of the disciplines, which retain their own objectives and methodology.

Fundamental Concepts: Intercultural Awareness

Intercultural awareness is concerned with developing students' attitudes, knowledge and skills as they learn about their own and others' social and national cultures. By encouraging the students to consider multiple perspectives, intercultural awareness not only fosters tolerance, understanding, and respect but may also lead to empathy.

Fundamental Concepts: Communication

Communication supports inquiry and understanding, and facilitates student learning through reflection and expression. The MYP places particular emphasis on language acquisition and allows student to explore multiple forms of expression within each subject.

The Areas of Interaction

Students experience and explore each of the five areas of interaction in every year of the programme:

- **Approaches to Learning (AtL)** through which the students become more aware of and more responsible for developing strategies to improve their own learning.
 - **Community and Service** through which students become aware of their role and their responsibilities as members of communities.
 - **Human Ingenuity**
 - **Environments**
 - **Health and Social Education**
- } broad areas of student inquiry were personal as well as societal & global issues are investigated and debated.

The MYP presents knowledge as an integrated whole, is emphasizing the acquisition of skills and self-awareness in addition to the development of personal values. As a result, students are expected to develop an awareness of broader and more complex global issues.

The Areas of Interaction are explored through the subjects, thereby fulfilling their integrative function. Some aspects however may also be approached as separate modules and interdisciplinary projects throughout MYP. Student participation in the Areas of Interaction culminates in the Personal Project in Grade 10.

Areas of Interaction: Approaches to Learning (AtL)

How do I learn best? How do I know? How do I communicate my understanding?

Approaches to Learning aims to help students develop their intellectual discipline, attitude, strategies and skills which will result in critical, coherent and independent thought & decision-making. This goes far beyond study skills, having to do with “learning how to learn” and developing an awareness of thought process and their strategic use. This Area of Interaction recognizes that true learning is more than the acquisition of knowledge: it involves active participation, critical thinking and problem-solving, as well as reflection at various stages in any process, both individually and collaboratively.

Areas of Interaction: Community and Service

*How do we live in relation to each other? How can I contribute to the community?
How can I help others?*

Community and Service begins in the classroom and extends beyond it, requiring students to participate in the communities in which they live. The emphasis is on developing community awareness and concern, a sense of responsibility, and the skills & attributes needed to make an effective contribution to society. Students are expected to become actively involved in service activities.

Areas of Interaction: Human Ingenuity

Why and how do we create? What are the consequences?

Human Ingenuity allows students to focus on the evolution, processes and products of human creativity. It considers their impact on society and on the mind. Students learn to appreciate and put into practice the human capacity to influence, transform, enjoy and improve the quality of life. This Area of Interaction encourages students to see the relationships between science, aesthetics, technology and ethics. It is the core of student-centered learning, where the students themselves are required to demonstrate Human Ingenuity: solving problems and showing creativity & resourcefulness in a variety of contexts throughout the curriculum and school life.

Areas of Interaction: Environments

Where do we live? What resources do we have or need? What are my responsibilities?

This Area of Interaction aims to develop the students' awareness of their interdependence with the environment so that they understand and accept their responsibilities. Students are confronted with global environmental issues that require balanced understanding in the context of sustainable development. Students also face environmental situations at home and at school that require decision-making. This Area of Interaction places the students in position where they are asked to take positive, responsible action for the future.

Areas of Interaction: Health and Social Education

How do I think and act? How am I changing? How can I look after myself and others?

Health and Social Education prepares students for a physically and mentally healthy life; aware of potential hazards and able to make informed choices. It develops in students a sense of

responsibility of their own well-being & for their physical and social environment. This area encourages students to explore their own selves as they develop healthy relationships with others.

The Personal Project (for Grade 10)

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 programme. 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.

As shown in the MYP curriculum model, and exemplified in the subject group guides and other MYP documents, the five areas of interaction form the core of the programme: they are addressed through the subjects; they bind various disciplines together; they are the basis of varied learning experiences through project work, interdisciplinary activities, and real-life community involvement.

Although the areas of interaction are not awarded individual grades, they are central to the experience of the personal project, which is intended to be the culmination of the student's involvement with the five areas of interaction; the project is therefore normally completed during the **last year** of the student's participation in the MYP.

Types of Personal Project

The personal project may take many forms, for example:

- an original work of art (visual, dramatic, or performance)
- a written piece of work on a special topic (literary, social, psychological, or anthropological)
- a piece of literary fiction (that is, creative writing)
- an original science experiment
- an invention or specially designed object or system
- the presentation of a developed business, management, or organizational plan (that is, for an entrepreneurial business or project), a special event, or the development of a new student or community organization.

The student and the supervisor must agree that, whatever form the personal project takes, the finished product allows the student to **investigate and focus** on a theme, topic and/or issue closely connected to at least one area of interaction of the MYP. It must also include **structured writing**.



IB MYP Course Descriptions SY 2009-2010

Group 1: Language A – English

Aims

The aims of the teaching and study of language A are to encourage and enable the student to:

- use the language as a vehicle for thought, creativity, reflection, learning and self-expression
- use language as a tool for personal growth, social interaction and for developing relationships within the international community
- comprehend more clearly aspects of their own culture and those of other culture by exploring the interdependence of human beings through a variety of works
- explore the many facets of the language through the use of media and information technology
- develop the skills involved in speaking, listening reading writing and viewing in a variety of contexts
- respond appropriately to variety of texts
- read widely to promote a lifelong interest in language literature
- develop a critical and creative approach to studying and analyzing literature
- develop language skills through interdisciplinary work
- consider the role of literature both culturally and historically
- reflect on the learning process in various ways and at various stages

Objectives:

At the end of the course, students should be able to:

- understand and comment on the language, content, structure, meaning and significance of both familiar and previously unseen pieces of writing
- demonstrate a critical awareness of a range of written and visual texts
- use language to narrate, describe, analyze, explain, argue, persuade, inform, entertain and express feelings
- compare texts and connect themes to show similarities or differences across genres
- express an informed personal response to literary and non literary texts and demonstrate the ability to approach works independently
- understand connotations within a language in order to interpret the author's and speaker's intentions
- express ideas with clarity and coherence in both oral and written communication
- structure ideas and arguments, both orally and in writing, in a sustained and logical way, and support them with relevant examples
- distinguish the main ideas in a text from the secondary ideas
- use and understand an appropriate and varied range of vocabulary and idiom
- use correct grammar with appropriate and varied sentence structure

- show awareness of the need for an effective choice of register suited to the audience in both oral and written communication

Assessment

- written assignments
- individual or group presentations
- in-class essays
- oral and written exams

Assessed in the following:

- 1) Content
- 2) Organisation

Criterion A: Content

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

Achievement level: 0 to 10

Criterion B: Organisation

This criterion covers 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.

Level of Achievement: 0 to 10

Criterion C: Style and Language Usage

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.

Achievement level: 0 to 10

Group 2: Language B – French, Hindi & English

Aims

The aims of the study of modern foreign languages are to:

- enable the student to use language(s) effectively as a means of practical communication, providing a sound base of communication skills necessary for future study, work and leisure
- enable the student to understand the nature of language and the process of total language learning, which comprises the integration of linguistic, cultural and social components
- enable the student to develop an appreciation of a variety of literary and non-literary texts
- offer insight into the cultural characteristics of the communities where the language(s) is (are) spoken
- encourage an awareness and understanding of the perspectives of people from other cultures
- promote involvement with different communities, where relevant
- provide access to varied sources of information
- foster curiosity, a lifelong interest and enjoyment in language learning.

Objectives:

At the end of the course, students should be able to:

- communicate information, ideas and opinions
- demonstrate comprehension of specific factual information and attitudes, expressed in spoken and written contexts
- identify main ideas and supporting details and draw conclusions from spoken and written texts
- understand and appropriately use structures and vocabulary
- request and provide information in both spoken and written contexts
- engage actively in oral production using comprehensible pronunciation and intonation
- take part in formal and informal exchanges related to the areas of interaction and to cultural and international issues.

Assessment

Criterion A: Speaking and Listening – Message & Interaction

To what extent can the student:

- request and/or provide information as appropriate to the task
- understand and respond to questions and statements

- present their ideas, giving details where appropriate
- demonstrate the ability to maintain a coherent and flowing conversation?

Achievement level: 0 to 8

Criterion B: Speaking – Language

To what extent does the student show the ability to use the language effectively and accurately?

To what extent can the student:

- use clear pronunciation and/or intonation
- correctly use a range of vocabulary
- correctly use a range of grammatical structures?

Tasks used to assess criteria A and B often include role-plays, discussions, pair work, interviews, presentations with question and answer sessions, etc. These tasks give students the maximum opportunity to demonstrate their ability to use the language.

Achievement level: 0 to 8

Criterion C: Writing – Message and Organisation

To what extent does the student show the ability to communicate, organize and support relevant ideas?

To what extent can the student:

- provide information and ideas
- develop ideas
- use a format and structure appropriate to the task to organize the work?

Achievement level: 0 to 8

Criterion D: Writing – Language

To what extent does the student show the ability to use the language effectively and accurately?

To what extent can the student:

- correctly use a range of vocabulary
- correctly use a range of grammatical structures
- show accuracy in spelling or writing of characters?

Achievement level: 0 to 8

Tasks used to assess criteria C and D often include letter writing, advertisements, essays, creative writing, presentations, etc. These tasks give students the maximum opportunity to demonstrate their ability to use the language.

The importance attached to the assessment of spelling and/or writing will vary from language to language. For example, the techniques of writing will be particularly important in languages such as Hindi, whereas spelling will take on greater importance in English or French.

Criterion E: Reading Comprehension

To what extent does the student show the ability to comprehend a piece of writing in the target language?

To what extent can the student:

- identify specific factual information
- identify main ideas and supporting details
- draw conclusions?

Achievement level: 0 to 16

Tasks used to assess criterion E often include letters, advertisements, magazine and newspaper articles, prose, etc. The questions must address each level descriptor so that students have the opportunity to achieve all levels.

Group 3: Humanities

Aims:

The aims of the teaching and study of humanities are to encourage and enable the student to develop:

- an inquiring mind
- the skills necessary for the effective study of humanities
- a sense of time and place
- a respect for and understanding of others' perspectives, values and attitudes
- awareness and understanding of people, cultures and events in a variety of places at different times
- an understanding of the interactions and interdependence of individuals, societies, and their environments
- an understanding of the causes and consequences of change through physical and human actions and processes
- an understanding of contemporary humanities issues
- a sense of internationalism and a desire to be proactive as a responsible global citizen
- an awareness of the connections with other subjects
- a lifelong interest in and enjoyment of humanities.

Objectives:

At the end of the course, students should be able to:

- know and use humanities terminology in context
- demonstrate subject content knowledge and understanding through the use of descriptions and explanations, supported by relevant facts and examples, and may show other ways of knowing
- develop an understanding of the following key humanities concepts over the course at increasing levels of sophistication.
- establish a personal sense of identity in a context of time and place
- understand different perceptions of time
- show an understanding of people in past societies
- demonstrate an awareness of chronology that links people, places and events through time
- recognize and explain the similarities and differences that exist between people, places and events through time
- awareness of how place/space is categorized, and the significance of place/space in humanities disciplines. understand and explain short-term and long-term causes of change
- establish and explain links between causes, processes and consequences
- recognize and explain continuity and change

- recognize that change is inevitable and that the rate of change is relevant to the context
- understand that as people interact with their environment, both change
- understand and explain how environmental, political, economic and social interactions can change levels of sustainability
- undertake research and demonstrate their understanding of knowledge & concepts
- how systems, models and institutions operate
- social structures and controls
- the complex and dynamic nature of systems
- different types of equilibrium within systems
- systems in local, national and global societies
- rights and responsibilities within systems
- cooperation within and between systems.

Assessment

Criterion A: Knowledge

Knowledge is fundamental to studying humanities, and forms the base from which to explore concepts and develop skills. Knowledge and understanding 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.

Achievement level: 0 to 10

Criterion B: Concepts

Concepts are powerful ideas that have relevance within and across the Middle Years Programme, and students must explore and re-explore these in order to develop understanding. Learners develop their understanding of a concept to increasing levels of sophistication by applying acquired knowledge and skills.

Assessment tasks should allow students to demonstrate and apply the full extent of their understanding of the concepts specified within, or across, disciplines. It is not intended that any one piece of work will assess all of the humanities concepts (time, place and space, change, systems and global awareness). Suggested tasks for assessment include extended writing, oral presentations, research projects, case studies, essays and tests, and must give students the opportunity to demonstrate the requirements of the highest level descriptor.

Achievement level: 0 to 10

Criterion C: Skills

The development of skills in humanities is critical in enabling the student to undertake research and demonstrate an understanding of knowledge and concepts. Developments in the student's technical, analytical, decision-making and investigative skills will be invaluable in transferring these skills to other subject groups in the MYP, and for lifelong learning.

Assessment tasks may give the student the opportunity to demonstrate one or more of the skills described in the objectives. Tasks for assessment may include fieldwork, data analysis, map analysis, evaluation of sources and/or evidence, a research paper or similar piece of extended writing, case studies, and oral presentations/interviews.

Achievement level: 0 to 10

Criterion D: Organisation and Presentation

Students need to develop the ability to organize and present information and ideas in order to be able to demonstrate their grasp of humanities knowledge, concepts and skills.

Criterion D is more suited to assessing extended pieces of work, for example, fieldwork, research projects or essays. Teachers should use only the relevant elements of the descriptors when assessing organization and presentation.

Schools must ensure that there is a set of recognized conventions for students to adhere to when documenting sources.

Achievement level: 0 to 8

Group 4: Sciences

Aims:

The aims of the teaching and study of sciences are to encourage and enable students to:

- develop inquiring minds and curiosity about science and the natural world
- acquire knowledge, conceptual understanding and skills to solve problems and make informed decisions in scientific and other contexts
- develop skills of scientific inquiry to design and carry out scientific investigations and evaluate scientific evidence to draw conclusions
- communicate scientific ideas, arguments and practical experiences accurately in a variety of ways
- think analytically, critically and creatively to solve problems, judge arguments and make decisions in scientific and other contexts
- appreciate the benefits and limitations of science and its application in technological developments
- understand the international nature of science and the interdependence of science, technology and society, including the benefits, limitations and implications imposed by social, economic, political, environmental, cultural and ethical factors
- demonstrate attitudes and develop values of honesty and respect for themselves, others, and their shared environment.

Objectives:

At the end of the course, students should be able to:

- understand the interdependence between science and society
- discuss how science and technology are interdependent and assist each other in the development of knowledge and technological applications
- communicate scientific information using a range of scientific language
- demonstrate honesty when handling data and information, acknowledging sources as appropriate
- understand the main ideas and concepts of science and to apply them to solve problems in familiar and unfamiliar situations
- develop critical and reflective thinking and judge the credibility of scientific information when this is presented to them
- develop scientific inquiry skills to design and carry out scientific investigations
- record, organize and process data
- collect and transform data by numerical calculations into diagrammatic form
- analyse and interpret data and explain appropriate conclusions
- work effectively as members of a team, collaborating, acknowledging and supporting others as well as ensuring a safe working environment

Assessment

Criterion A: One World

Students should understand the interdependence of science and society. Students are expected to discuss how science is applied and used to solve specific problems in life and society. Students should be given the opportunity to explore local and global scientific issues and evaluate the interaction between science and scientific developments with social, economic, political, environmental, cultural and ethical factors.

Assessment tasks should allow students to demonstrate their understanding of the role of science in society through the development of analysis and critical thinking.

Achievement level: 0 to 6

Criterion B: Communication in Science

Students should be able to demonstrate understanding when communicating scientific information. Students should use appropriate scientific language, a range of communication modes and the most appropriate communication format.

Depending on the tasks, students will be expected to acknowledge the sources of information and document these appropriately.

Achievement level: 0 to 6

Criterion C: Knowledge and Understanding in Science

Students should show their understanding of the main scientific ideas and concepts of science, by applying these to solve problems in familiar and unfamiliar situations. Students should develop critical-thinking skills to analyse and evaluate scientific information.

Suitable assessment tasks to assess this criterion include complex questions in tests, critical analysis of case studies, research projects or media articles on scientific issues.

Achievement level: 0 to 6

Criterion D: Scientific Inquiry

Students are expected to design and carry out scientific investigations independently.

Students should be able to

- (i) state a problem that can be tested by an investigation;
- (ii) formulate a suitable hypothesis;
- (iii) identify and manipulate variables;
- (iv) plan an appropriate investigation including the method and materials;
- (v) evaluate the method.

Assessment tasks for scientific inquiry should provide students with the opportunity to design, plan and carry out scientific investigations independently.

Achievement level: 0 to 6

Criterion E: Processing Data

Processing data refers to enabling students to organize and process data. Students should be able to organize and transform data by numerical calculations into diagrammatic form (tables, graphs and charts) and draw and explain appropriate conclusions.

Achievement level: 0 to 6

Criterion F: Attitudes in Science

This criterion refers to encouraging students' attitudes of safety, respect and collaboration. Students are expected to:

- carry out scientific investigations using materials and techniques skillfully and safely and showing respect for the living and non-living environment
- work effectively as a member of a team, collaborating, acknowledging and respecting the views of others as well as ensuring a safe working environment.

Evidence of performance of this criterion should be collected from the observation of students when working in science, individually and in groups.

Achievement level: 0 to 6

Group 5: Mathematics

Aims:

The aims of teaching and learning mathematics are to encourage and enable students to:

- recognize that mathematics permeates the world around us
- appreciate the usefulness, power and beauty of mathematics
- enjoy mathematics and develop patience and persistence when solving problems
- understand and be able to use the language, symbols and notation of mathematics
- develop mathematical curiosity and use inductive and deductive reasoning when solving problems
- become confident in using mathematics to analyse and solve problems both in school and in real-life situations
- develop the knowledge, skills and attitudes necessary to pursue further studies in mathematics
- develop abstract, logical and critical thinking and the ability to reflect critically upon their work and the work of others
- develop a critical appreciation of the use of information and communication technology in mathematics
- appreciate the international dimension of mathematics and its multicultural and historical perspectives.

Objectives:

At the end of the course, students should be 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)
- develop mathematical reasoning to make deductions and solve problems
- apply mathematical knowledge and problem-solving techniques to investigate a problem, generate and/or analyse information, find relationships and patterns, describe these mathematically as general rules, and justify or prove them
- use mathematical language appropriately when communicating mathematical ideas, reasoning and findings—both orally and in writing.
- share their thinking with teachers and peers and to examine different problem solving strategies

Assessment:

Criterion A: Knowledge and Understanding

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
- select and apply general rules correctly to solve problems, including those in real-life contexts.

Assessment tasks for this criterion are likely to be class tests, examinations, real-life problems and investigations that may have a variety of solutions.

Achievement level: 0 to 8

Criterion B: Investigating Patterns

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
- justify or prove mathematical relationships and general rules.

Assessment tasks for this criterion should be mathematical investigations of some complexity, as appropriate to the level of MYP mathematics. Tasks should allow students to choose their own mathematical techniques to investigate problems, and to reason from the specific to the general. Assessment tasks could have a variety of solutions and may be set in real-life contexts. Teachers should clearly state whether the student has to provide a justification or proof.

Achievement level: 0 to 8

Criterion C: Communication in Mathematics

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
- use different forms of mathematical representation (formulae, diagrams, tables, charts, graphs and models)
- move between different forms of representation

Assessment tasks for this criterion are likely to be real-life problems, tests, examinations and investigations. Tests and examinations that are to be assessed against criterion C must be designed to allow students to show complete lines of reasoning using mathematical language.

Achievement level: 0 to 6

Criterion D: Reflection in Mathematics

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
- suggest improvements to the method when necessary.

Assessment tasks are most likely to be investigations and real-life problems. Generally these types of tasks will provide students with opportunities to use mathematical concepts and skills to solve problems in real life contexts.

Achievement level: 0 to 6

Group 6: The Arts

Aims:

Participation in MYP arts should enable students to:

- experience and develop curiosity, interest and enjoyment in their own creativity and that of others
- explore through the processes of visual and performing arts
- acquire and develop skills needed for the creation of visual and performing art work
- use the language, concepts and principles of visual and performing arts
- communicate their thoughts and ideas through visual and performing arts
- create visual and performing art work
- reflect on, appreciate and evaluate their work and the work of others
- develop receptiveness to visual and performing art forms across time, place and cultures, and perceive the significance of these art forms as an integral part of life.

Objectives:

At the end of the course students should be able to:

- demonstrate knowledge and understanding of the theoretical basis of the art forms studied
- demonstrate knowledge and understanding of a variety of styles, developments and ideas which have shaped the arts across time and cultures
- apply appropriate terminology to show aesthetic and critical awareness
- plan and organize effectively to define and set goals, solve problems, negotiate and make decisions
- experiment and explore through both spontaneous and structured activities
- use art confidently as a form of expression and communication while demonstrating a range of technical skills
- demonstrate an ability to find original and inventive solutions
- apply skills specific to the art forms studied to elaborate an idea, a theme or a composition to a point of realization
- present work through formal or informal performance and exhibition.
- reflect upon and evaluate their work in order to set goals for future development
- use group discussion and feedback to support and promote creative development
- assess and appraise their work and that of others
- show sensitivity to their own and different cultures
- accept and incorporate views and feedback from others to further develop their artistic potential
- show self-motivation in setting and meeting deadlines
- show initiative, creativity and a willingness to take risks
- support and encourage their peers towards a positive working environment.

Assessment

Criterion A: Knowledge and Understanding

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
- understanding how theorists, practitioners and artists have contributed to the arts.

Achievement level: 0 to 8

Criterion B: Application

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
- presenting work through formal or informal exhibitions and performances.

Achievement level: 0 to 10

Criterion C: Reflection and Evaluation

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
- using feedback and discussion on artwork to support creative development.

Achievement level: 0 to 8

Criterion D: Artistic Awareness and Personal Engagement

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
- supporting and encouraging peers towards a positive working environment.

Achievement level: 0 to 8

Group 7: Technology

Aims:

The aims of the teaching and study of technology are to encourage and enable students to:

- develop an appreciation of the significance of technology for life, society and the environment
- use knowledge, skills and techniques to create products/solutions of appropriate quality
- develop problem-solving, critical- and creative-thinking skills through the application of the design cycle
- develop respect for others' viewpoints and appreciate alternative solutions to problems
- use and apply ICT effectively as a means to access, process and communicate information, and to solve problems.

Objectives:

At the end of the course, they should be able to:

- identify the problem to be solved
- develop the design brief
- formulate a design specification
- design, plan, create and evaluate the product/solution
- use appropriate techniques and equipment
- follow the plan
- evaluate their use of the design cycle
- carry out units of work in technology using materials and techniques safely and responsibly
- work effectively as members of a team, collaborating, acknowledging and supporting the views of others
- provide evidence of personal engagement with the subject (motivation, independence, general positive attitude) when working in technology.



The Design Cycle

Assessment

Criterion A: Investigate

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.

Achievement level: 0 to 6

Criterion B: Design

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.

Achievement level: 0 to 6

Criterion C: Plan

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.

Achievement level: 0 to 6

Criterion D: Create

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.

Achievement level: 0 to 6

Criterion E: Evaluate

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.

Achievement level: 0 to 6

Criterion F: Attitudes in Technology

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.

Achievement level: 0 to 6

Group 8: Physical Education

Aims:

The aims of the teaching and study of physical education are to encourage and enable the student to develop:

- an appreciation and understanding of the value of physical education and its relationship to a healthy, balanced lifestyle
- an interest in the promotion of health and wellness
- the motivation to participate fully in all aspects of physical education
- their optimal level of physical fitness
- effective communication strategies, verbal, non-verbal and written
- the skills and understanding necessary to participate successfully in a variety of physical activities, for example, learning, practising, refining, adapting, thinking, interacting
- the ability to reflect critically on all aspects of physical education, including being a critical performer
- an understanding of international perspectives on physical activity, sport and health education
- a lifelong interest in and enjoyment of physical activities as a participant.

Objectives:

At the end of the course students should be able to:

- use physical education terminology in context
- demonstrate an understanding of concepts, strategies, techniques and rules related to a variety of physical activities, and apply them in various contexts
- demonstrate an understanding of the various principles that contribute to fitness, and their importance in various contexts
- use their knowledge to analyse situations and solve problems
- explore movement possibilities and variations in accordance with the principles of a particular aesthetic activity
- compose aesthetic movements
- link movements in order to compose aesthetic sequences, taking into account the concepts of space, time, level, force and flow
- demonstrate the skills and techniques necessary for active participation in a variety of physical activities
- apply tactics, strategies and rules in both individual and group situations
- perform movement concepts and sequences of movement in a variety of physical contexts
- communicate effectively, including verbal and non-verbal forms of communication
- demonstrate attitudes and strategies that enhance their relationships with others
- show respect and sensitivity to their own and different cultures
- take responsibility for their own learning process and demonstrate engagement with the activity

- reflect critically upon their own achievements
- set goals to enhance learning and take action towards achieving them.

Assessment

Criterion A: Use of Knowledge

Students are expected to have a knowledge and understanding of the physical activities or topics studied. They are also expected to be able to use this knowledge and understanding critically, and apply it to analyse situations and solve problems.

Criterion A is best assessed through written or oral activities, and must be assessed in a non-performance/non-playing situation.

Achievement level: 0 to 8

Criterion B: Movement Composition

Students are expected to be able to compose sequences of aesthetic movement, through exploring movement possibilities and variations in accordance with the principles and concepts of a particular aesthetic activity and using this as inspiration.

Achievement level: 0 to 6

Criterion C: Performance

Students are expected to be able to perform in a range of activities, and show skills and techniques ranging from basic to complex. They should be able to apply tactics, strategies and rules in both individual and group situations.

Achievement level: 0 to 10

Personal Project (for Grade 10)

Aims:

The aims of the personal project are to allow students to:

- demonstrate the personal abilities and skills required to produce and present an extended piece of work
- engage in personal inquiry, action and reflection on specific topics and issues
- focus on, and demonstrate an understanding of, the areas of interaction
- reflect on learning and share knowledge, views and opinions.

Objectives:

At the end of the course 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
- adhere to the stated goal throughout the project
- select and utilize adequate, varied resources
- identify and use relevant information critically
- acknowledge sources of information appropriately
- choose techniques relevant to the project's goal
- justify a selection
- apply the chosen techniques consistently and effectively
- analyse the information in terms of the goal and the focus of the project
- express personal thought
- support arguments with evidence
- respond thoughtfully to ideas and inspiration
- organize their work in a coherent manner according to the required structure
- present information clearly
- present references, bibliography and symbolic representations appropriately
- 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
- show awareness of the overall perspectives related to the chosen topic or piece of work meet deadlines
- follow agreed procedures and work plans
- make appropriate use of a process journal or log book
- show initiative, enthusiasm and commitment to the task.

Assessment

Criterion A: Planning and Development

Students should be aware that it is essential to define a clear goal before starting detailed research and work. A goal can be defined as a statement, or one or more key questions, which identify the focus of the personal project based on one or more areas of interaction. The goal may alter during the course of the personal project but students need to state and explain clearly the reason(s) for a change in goal.

Achievement level: 0 to 4

Criterion B: Collection of Information/Resources

This criterion allows the student to demonstrate the ability to collect relevant information from a variety of sources and to compile a bibliography of sources used in the project. Students should select sufficient information and appropriate resources to substantiate all arguments and/or to support the project. Students should also acknowledge their sources of information clearly in the body of their text through clear referencing.

Achievement level: 0 to 4

Criterion C: Choice and Application of Techniques

This criterion assesses students' abilities to choose techniques relevant to the personal project's goal, as defined by the key questions, or statement of intent of the personal project. Students should justify this selection and apply the chosen techniques consistently and effectively.

Achievement level: 0 to 4

Criterion D: Analysis of Information

This criterion measures students' abilities to analyse information in terms of the personal project's goal and focus on the chosen area(s) of interaction. Students should express personal thoughts and support arguments with evidence.

Achievement level: 0 to 4

Criterion E: Organisation of Written Work

This criterion focuses on the presentation of the written work (including title page, contents page and page numbering, overall neatness, the appropriate use of graphs, diagrams and tables, where appropriate). It also assesses the internal structure and coherence of the work.

Achievement level: 0 to 4

Criterion F: Analysis and Procedure of Outcomes

Evidence of students' achievement in this criterion will be found in the conclusion and also in the body of the structured piece of writing. Students are expected to describe, and reflect on, the stages of development of the personal project and the thought processes followed. Students should reflect on the ways in which the personal project has fulfilled the initial goal. In this reflection, students should review the ways in which the project has been focused on the chosen area(s) of interaction, and on how dimensions of the area(s) have been explored and developed. Students should attempt to define new perspectives that could be investigated further through future inquiry into the topic/theme. Using their process journals as a prompt for reflection, students will provide comments on such questions as:

- What have been the strengths and the weaknesses of the personal project at different stages of development?
- What would the student do differently next time?

Achievement level: 0 to 4