

# **Bali Island School**

for a World-Class Education



## **IB Programmes Handbook** 2017-2018



## Elements of the IB Continuum

The information below is common to all three of the IB Programmes offered at BIS - The Primary Years Programme (PYP), the Middle Years Programme (MYP) and the Diploma Programme (DP). After this introduction to the common elements, each programme is explained individually in detail.

## **The IB Learner Profile**

The IB learner profile is the IB's mission statement translated into a set of learning outcomes for the century. IB Programmes promote the education of the whole person, emphasizing intellectual, personal, emotional and social growth through all domains of knowledge. By focusing on the dynamic combination of knowledge, skills, independent critical and creative thought and international-mindedness, the IB embraces the concept of education for the whole person in a lifelong process.

## **International Mindedness**

Bali Island School (BIS) is committed to fostering the belief, values and skills that will allow our students to become interculturally literate global citizens who can positively impact the world. The IB Learner Profile represents international mindedness in action. At BIS we believe that internationalism is portrayed through:

- an awareness of one's own culture(s) and other cultures
- an understanding of and empathy for world issues and challenges
- an acute degree of intercultural literacy
- open-mindedness toward global citizenship
- celebration and respect of diversity, language, culture and beliefs, including host country.

## **Approaches to Teaching (ATT)**

Teaching at BIS is:

- inquiry based
- conceptually focused
- contextualized
- collaborative
- differentiated
- informed by assessment

## **Approaches To Learning (ATL)**

Learning at BIS encourages the development of:

- research skills
- communication skills
- thinking skills
- social skills
- self-management skills

## Action across the IB Continuum

Action occurs when students independently decide do or initiate something meaningful, as a result of their learning. As both a strategy and an outcome, Action represents the IB's commitment to teaching and learning through practical, real-world experience. IB learners act at home, as well as in classrooms, schools, communities and the broader world. Action involves learning by doing, enhancing learning about self and others. IB World Schools value Action that encompasses a concern for integrity and honesty, as well as a strong sense of fairness that respects the dignity of individuals and groups.

Challenging learning environments help students to develop the imagination and motivation they require in order to meet their own needs and the needs of others. Principled action means making responsible choices, sometimes including decisions not to act. Individuals, organizations and communities can engage in principled action when they explore the ethical dimensions of personal and global challenges. Action in IB Programmes may involve service learning, advocacy and educating oneself and others.

## **IB Culminating Projects**

**The PYP Exhibition** (PYPE) is the culminating event of the Primary Years Programme. Students participate in an extended, collaborative inquiry process, which requires them to take positive action to benefit the school, local and/or global community. The process involves students synthesizing the essential elements of the PYP and sharing them with the whole school community.

**The Personal Project** (PP) is an extended, independent piece of project work completed by each student in the last year of the MYP Programme, Grade 10. Project topics may be creative or research-based and, ideally, they should reflect a student's personal interest.

**The Extended Essay** (EE) engages students in independent research through an in-depth study of a question relating to one of the DP subjects. They then write a 4000-word university style research paper.

## **Academic Honesty**

The IB defines academic misconduct as behaviour that results in, or may result in, the student or any other student gaining an unfair advantage in one or more assessment component.

Academic misconduct includes:

- plagiarism—the representation, intentionally or unwittingly, of the ideas, words or work of another person without proper, clear and explicit acknowledgment
- collusion—supporting academic misconduct by another student, as in allowing one's work to be copied or submitted for assessment by another
- duplication of work—the presentation of the same work for different assessment components
- any other behaviour that gives an unfair advantage to a student or that affects the results of another student (falsifying data, misconduct during an examination, creating spurious reflections).

BIS provides Secondary students with the training and guidance to understand the ethics of academic honesty. The School also provides access to text matching software to assist them with avoiding plagiarism.

In the DP if malpractice is detected on an internal assessment prior to submission, the policies of BIS will apply. However, if the IB detects academic malpractice, the policies of the IB apply. In the case of a Diploma Programme candidate the consequence is that no Diploma will be awarded to the candidate. However, a Diploma Programme Courses Results will be awarded for other subjects in which no malpractice has occurred.

For most MYP assessments students are expected to work independently but with appropriate support from teachers and other adults, although there are many occasions when collaboration with other students is an important part of the learning process.

In the PYP, we approach academic honesty as being a set of values and skills that promote personal integrity and good practice in teaching, learning and assessment. Academic honesty results in respect for each other's intellectual property and the completion of "authentic" pieces of work which are based on the individual's own original ideas, with the ideas and work of others fully acknowledged. We encourage our students to be principled by always ensuring our work is our own, and acknowledging the work others have done by quoting, paraphrasing appropriately and/or citing sources.

## What is so special about IB Programmes?

- IB Programmes are recognized around the world and ensure an increased adaptability and mobility for IB students.
- The curriculum and pedagogy of IB Programmes focus on international perspectives of learning and teaching, while insisting that students fully explore their home culture and language.
- IB World Schools must undergo an exhaustive authorization process in order to offer one or more of the Programmes, which includes a study of the school's resources and commitment to the IB mission and philosophy.
- IB teachers participate in a wide variety of professional development opportunities to constantly update their knowledge and share their expertise with colleagues around the world.
- Many students graduating from the Diploma Programme find that it enhances their opportunities at tertiary institutions. The IB works closely with universities around the world to gain recognition for IB Programmes.
- The core components of IB Programmes encourage students to participate in creative and serviceoriented activities, while at the same time emphasizing the importance of reflection on a personal and academic level.



## The IB Primary Years Programme (PYP) Model

## **The IB Primary Years Programme**

The International Baccalaureate (IB) Primary Years Programme (PYP) is a curriculum framework designed for students aged 3-12. It is the first part of the IB curriculum. At BIS students from Preschool to Grade 5 participate in the Programme.

The IB aims to help children become successful learners in the contexts of the 21<sup>st</sup> century; to become adults who are able to work successfully in a rapidly changing world; and to have the determination, flexibility and character to succeed in their lives.

## What will your child be learning?

The IB created the Primary Years Programme to focus on six transdisciplinary themes that are considered essential in the context of a Programme of international education. These themes have universal relevance and cross over many of the traditional subject disciplines.

The themes should:

- have global significance
- create the opportunity to explore the commonalities of human experience
- combine knowledge, skills and concepts from the subject area making learning transdisciplinary
- spiral through the grades, revisiting concepts for a more in-depth understanding.

#### The themes are:

- Who we are
- Where we are in place and time
- How we express ourselves
- How the world works
- How we organize ourselves
- Sharing the planet

Preschool students study four units of inquiry and Kindergarten-Grade 5 study six units of inquiry over the year. There is no specific order in which the themes must be taught. This is determined each year by the teachers in conjunction with the PYP Coordinator.

## **The PYP Essential Elements:**

Student learning in the PYP revolves around 5 essential elements:

#### Knowledge

Each year students engage in six Units of Inquiry (UOI), which come under the six transdisciplinary themes. Each UOI revolves around a central idea which is an enduring understanding with global significance. Under each central idea, students inquire into 3 or 4 lines of inquiry. Teachers plan significant, relevant and engaging learning activities, which will support students in developing their knowledge and understanding.

#### Approaches To Learning (Transdisciplinary Skills)

These 5 skill sets are explicitly taught, as well as embedded into our instructional Programme. These skills transcend subject disciplines and are vital for our students to become competent and capable members of society.

- Social skills
- Communication skills
- Thinking skills

- Research skills
- Self-management skills

#### Concepts

There are 8 key PYP concepts, with accompanying questions, that help to drive structured inquiry. Additionally, PYP units also incorporate related concepts. Concepts are big ideas that transcend time and place. They are abstract, but by understanding them, students are able to make connections to a wealth of understanding. Examples of related concepts include conflict, migration, endangerment, endurance, harmony.

#### **PYP Key Concepts**

- Form What is it like? .
- Function How does it work?
- Causation Why is it like it is?
- Change How is it changing?
- Connection How is it connected to other things?
- Perspective What are the points of view?
- Responsibility What is our responsibility?
- Reflection How do we know?

#### **PYP Attitudes**

Along with the IB Learner Profile, PYP students develop the following dispositions. These dispositions become directed towards people, the environment and their learning. As with Approaches To Learning, these attitudes are explicitly taught, as well as embedded into our instructional Programme.

- Appreciation •
- Cooperation •
- Empathy •
- Respect

- Commitment
- Creativity
- Independence
- Tolerance

- Confidence
- Curiosity •
- Integrity

## "Attitude is a little thing that makes a big difference."

- Winston Churchill -

#### Action

We encourage our students to do something, or to 'take action' as a result of their learning. This action may extend the child's learning or it may have a wider social impact. Action is an important part of a PYP Programme, as we challenge our students to be more than passive receptors of knowledge; to go further and to do something of significance with their learning. In this way, an IB education empowers our students to become active participants in society, with the experiences and capacities necessary to be able to make a positive difference in the global community.

## How will your child be learning?

#### Inquiry based learning

Inquiry is the leading pedagogical approach in the PYP. It is an approach that puts students at the center of their learning. Inquiry interpreted in its broadest sense is the process initiated by the students or the teacher that moves the students from their current level of understanding to a new and deeper level of understanding. This can mean:

- Exploring, wondering and questioning. •
- Experimenting and playing with possibilities.
- Making connections between previous learning and current learning.
- Making predictions and acting purposefully to see what happens.
- Collecting data and reporting findings.
- Clarifying existing ideas and reappraising perceptions of events.

- Deepening understanding through the application of a concept.
- Making and testing theories.
- Researching and seeking information.
- Taking and defending a position.
- Solving problems in a variety of ways.

#### (from Making the PYP Happen)

## How will you know what your child has learned?

#### Assessment

Students and teachers are actively involved in assessing students' progress.

Assessment involves the gathering and analysis of student performance and is designed to inform teaching and learning. It identifies what students know, understand, can do and feel at different stages in their learning.

We use a balanced range of assessment tools and strategies, carefully designed to give students, parents and teachers a clear picture of a student's progress.

Some of these assessment strategies are:

- Observations
- Performance assessments such as presentations, debates and role-plays
- Teacher-student/student-student conferences and conversations
- Tests with true/false, multiple-choice questions
- Open-ended tasks such as written answers and drawing illustrations and diagrams.

Some of the assessment tools are:

- Rubrics: student and/or teacher-designed criteria
- Benchmarks
- Checklists
- Exemplars
- Anecdotal records: brief written notes based on observations of students
- Continuums: which show a progression of achievement or identify where a student is.

We report on your child's experiences and progress in the following ways:

- Parent-teacher (& student) conferences Term 1.
- Student-led conference Term 3.
- Written Reports December and June.
- Student Services Report i.e. English as an Additional Language (EAL) and Learning Support (LS) December and June.
- Individual Education Plan (IEP) overview January.
- Ongoing progress is communicated as and when required via emails, newsletters, eNews etc.
- Portfolios are an accumulation of a student's work that are used as a focal point during student-led conferences.
- Grade 5 PYP Exhibition.
- Primary Shares and Open Houses
- Curriculum presentations from the PYP Coordinator
- You are encouraged to play an active role in supporting your child's learning by keeping yourself informed and staying in touch with the class teacher throughout the year.

## How can you support your child?

There are many ways in which parents can support their children's learning, including:

- Promote a balanced lifestyle that includes adequate rest, play, healthy food and work.
- Nurture and model the attributes of the learner profile and the PYP attitudes.
- Read daily with your child.
- Encourage independence, organisational and time management skills when engaged with homework.
- Encourage the use of mathematics in everyday life (eg: when cooking/shopping) and practice basic math facts.
- Play games together (eg: Scrabble, Monopoly, Chess).

## What is the purpose of the PYP Exhibition?

Students in Grade 5 at BIS carry out an extended, collaborative inquiry process, known as the Exhibition, under the guidance of their teachers and mentors. The Exhibition is the culmination of the Primary Years Programme. Students are involved in synthesizing the essential elements of the PYP and sharing them with the whole school community.

It is an opportunity for students to exhibit the attributes of the IB Learner Profile that have been developing throughout their engagement with the Programme. Students are given flexibility in their choice of real-life issues or problems to be explored and investigated in the Exhibition.

The PYP Exhibition:

- Presents an occasion for students to demonstrate their abilities to be self-directed learners.
- Requires students to synthesise their prior learning and apply it to an unfamiliar situation, thus providing an appropriate assessment strategy for real understanding.
- Provides an opportunity for greater involvement and for the School community as a whole to gain more insight into the PYP.
- Develops the IB learner profiles and PYP attitudes.
- Focuses on all key questions that drive the inquiry (form, function, causation, change, connection, perspective, responsibility and reflection).
- Requires the application of all the Approaches To Learning skills.
- Requires positive "Action" from students.
- Celebrates the transition of learners from primary to middle/secondary education.

## What does a PYP Classroom look like?

Visitors to BIS often comment on the special atmosphere and enthusiasm for learning that is so evident among students and staff. This is best experienced first-hand. If you visit our school, expect to see:

- Student-centred learning with the teacher as the guide/facilitator
- Students engaged in their learning in different areas of the classroom
- Students working in groups, individually or as a whole class
- Students may be involved in different activities within the same session
- Opportunities for students to try out their ideas and abandon or modify their misconceptions
- Evidence of student learning around the classroom
- A literature-rich environment stocked with fiction and nonfiction texts
- Lots of language on display
- Hands-on resources such as science equipment, computers, games, mathematical manipulatives and whiteboards.

## What does the BIS Curriculum uncover?

#### Language in the Primary Years Programme

The need to communicate is instinctive. The development of language is fundamental to that need to communicate; it supports and enhances our thinking and understanding. Language permeates the world in which we live; it is socially constructed and dependent on the number and nature of our social interactions and relationships.

The learning process simultaneously involves learning language—as learners listen to and use language with others in their everyday lives; learning about language—as learners grow in their understanding of how language works; and learning through language—as learners use language as a tool to listen, think, discuss and reflect on information, ideas and issues (Halliday 1980). An appreciation of these aspects of language learning may help teachers better understand and enhance students' learning. However, these three aspects are so inextricably linked they are best not thought of as discrete processes.

Language plays a vital role in the construction of meaning. It empowers the learner and provides an intellectual framework to support conceptual development and critical thinking. It is recognized that the teaching of language should be in response to the previous experience, needs and interests of the student, rather than the consequence of a predetermined, prescriptive model for delivering language. Fragmenting learning into the acquisition of isolated skill sets can create difficulties for learners—for example, learners may be able to read, write and spell words correctly in isolation but may not be able to read, write or spell those same words in other contexts. Learners' needs are best served when they have opportunities to engage in learning within meaningful contexts, rather than being presented with the learning of language as an incremental series of skills to be acquired.

The language profiles of students in PYP schools may be complex and diverse; however, the influence of mother-tongue development is significant for all learners. It is acknowledged that development of mother- tongue language is crucial for cognitive development, and in maintaining cultural identity. Success in mother-tongue development is a strong predictor of long-term academic achievement, including acquisition of other languages.

The complex processes involved in language learning represent a series of developmental continuums. A teacher is able to identify where on those continuums a student is positioned to better design appropriate, contextualized learning experiences—to move the student from one development phase to the next. In this way, the learner is able to build on established skills and understanding, while being supported to meet appropriate challenges to extend their learning within their "zone of proximal development" (Vygotsky 1999), which may be represented by more than one phase.

In PYP schools all students have the opportunity to learn more than one language from at least the age of 7. Every learner benefits from having access to different languages, and, through that access, to different cultures and perspectives. Acquisition of more than one language enriches personal development and helps facilitate international-mindedness. For these reasons it could be argued that bilingualism, if not multilingualism, is the hallmark of a truly internationally minded person and that this requirement should be central to all three IB programmes. However, to accept this premise one would have to argue in support of the reciprocal position, that a monolingual person has a limited capacity to be internationally minded.

This is not the position the PYP has chosen to adopt. As well as the learning of an additional language, the other elements of the PYP framework that contribute to international-mindedness are described in *Making the PYP happen: A curriculum framework for international primary education*. Most IB World Schools implementing the PYP, particularly state or national system primary schools, would struggle to create a learning community where bilingualism was a realistic goal—indeed, it would be an impossibility in most cases. Consequently, the strategic goal of the IB to broaden access to its programmes would be in conflict with the notion of IB World Schools having bilingualism as a goal for all of their students.

Effective language teaching and learning are social acts, dependent on relationships with others, with context, with the environment, with the world, and with the self. Such learning is relevant, engaging, challenging and significant. Exposure to and experience with languages, with all their richness and diversity, creates an inquisitiveness about life and learning, and a confidence about creating new social interactions. Language provides a vehicle for learners to engage with the world and, in an IB World School, to relate to, and accept, responsibility for the mission of the IB to "help to create a better and more peaceful world".

#### The Four Strands of Language in the Primary Years Programme

#### Listening and Speaking

Listening and speaking are natural, developmental processes that infants and young children are immersed in from their earliest experiences. Almost all children arrive at school with an impressive command of their mother-tongue language. However, the expectations and approach to language development in school is often very different from the successful learning environment the child has previously experienced. In the transition from home to school, or from one school to another, it is important to acknowledge the language profile of the individual and build on previous learning in ways that are positive and productive.

Oral language encompasses all aspects of listening and speaking—skills that are essential for ongoing language development, for learning and for relating to others. Listening (the receptive mode) and speaking (the expressive mode) work together in a transactional process between listeners and speakers. A balanced programme will provide meaningful and well-planned opportunities for learners to participate as listeners as well as speakers. Listening involves more than just hearing sounds. It requires active and conscious attention in order to make sense of what is heard. Purposeful talk enables learners to articulate thoughts as they construct and reconstruct meaning to understand the world around them. Oral language involves recognizing and using certain types of language according to the audience and purposes (for example, the language used at home, the language of the classroom, the language of play, the language of inquiry, conversations with peers, giving instructions, interpreting creative texts, the language of fantasy, the language of different generations, of different times and places).

In an inquiry-based learning environment, oral language exposes the thinking of the learner. It is a means by which "inner speech" (Vygotsky 1999) can be communicated and shared to negotiate and construct meaning and develop deeper levels of understanding.

#### Viewing and Presenting

Viewing and presenting are fundamental processes that are historically and universally powerful and significant. The receptive processes (viewing) and expressive processes (presenting) are connected and allow for reciprocal growth in understanding; neither process has meaning except in relation to the other. It is important to provide a balanced programme with opportunities for students to experience both viewing and presenting. These processes involve interpreting, using and constructing visuals and multimedia in a variety of situations and for a range of purposes and audiences. They allow students to understand the ways in which images and language interact to convey ideas, values and beliefs. Visual texts may be paper, electronic or live, observable forms of communication that are consciously constructed to convey meaning and immediately engage viewers, allowing them instant access to data. Examples of visual texts are: advertisements, brochures, computer games and programs, websites, movies, posters, signs, logos, flags, maps, charts, graphs, diagrams, illustrations, graphic organizers, cartoons and comics. Learning to interpret this data, and to understand and use different media, are invaluable life skills.

Acquiring skills related to information and communication technology (ICT) and visual texts is significant because of their persuasive influence in society. It is important to learn how visual images influence meaning and produce powerful associations that shape the way we think and feel. Opportunities that invite students to explore the function and construction of images facilitate the process of critically analysing a range of visual texts. Learning to understand and use different visual texts expands the sources of information and expressive abilities of students.

#### **Reading**

Reading is a developmental process that involves constructing meaning from text. The process is interactive and involves the reader's purpose for reading, the reader's prior knowledge and experience, and the text itself. It begins to happen when the young learner realizes that print conveys meaning and becomes concerned with trying to make sense of the marks on the page. The most significant contribution parents and teachers can make to success in reading is to provide a captivating range of picture books and other illustrated materials to share with beginning readers. Enthusiasm and curiosity are essential ingredients in promoting the desire to read. Children of all ages need to experience and enjoy a wide variety of interesting, informative, intriguing and creative reading materials.

Reading helps us to clarify our ideas, feelings, thoughts and opinions. Literature offers us a means of understanding ourselves and others, and has the power to influence and structure thinking. Well-written fiction provides opportunities for learners to imagine themselves in another's situation, reflecting on feelings and actions, and developing empathy. The ability to read and comprehend non-fiction is essential for the process of inquiry. As inquirers, learners need to be able to identify, synthesize and apply useful and relevant information from text. Teachers should provide a balance between fiction and non-fiction, to meet the range of learning needs and interests of their students.

Children learn to read by reading. In order to develop lifelong reading habits, learners need to have extended periods of time to read for pleasure, interest, and information, experiencing an extensive range of quality fiction and non-fiction texts. As learners engage with interesting and appealing texts, appropriate to their experiences and developmental phase, they acquire the skills, strategies and conceptual understanding necessary to become competent, motivated, independent readers.

#### <u>Writing</u>

Writing is a way of expressing ourselves. It is a personal act that grows and develops with the individual. From the earliest lines and marks of young learners to the expression of mature writers, it allows us to organize and communicate thoughts, ideas and information in a visible and tangible way. Writing is primarily concerned with communicating meaning and intention. When children are encouraged to express themselves and reveal their own "voice", writing is a genuine expression of the individual. The quality of expression lies in the authenticity of the message and the desire to communicate. If the writer has shared his or her message in such a way that others can appreciate it, the writer's intention has been achieved. Over time, writing involves developing a variety of structures, strategies and literary techniques (spelling, grammar, plot, character, punctuation, voice) and applying them with increasing skill and effectiveness. However, the writer's ability to communicate his or her intention and share meaning takes precedence over accuracy and the application of skills. Accuracy and skills grow out of the process of producing meaningful communication. Children learn to write by writing. Acquiring a set of isolated skills will not turn them into writers. It is only in the process of sharing their ideas in written form that skills are developed, applied and refined to produce increasingly effective written communication.

#### Additional Language (Indonesian and French)

Students in Grade 1 through Grade 5 have the opportunity to study Bahasa Indonesia four times per week. In addition to this all primary students receive one period per week of Indonesian studies which serves to contextualize everyday learning within our host country and enrich the children's understanding of Indonesian culture. From Grade 3 to Grade 5, students may choose to study French four times per week. The purpose of studying a language other than English in the primary school is to acquire basic language literacy in an additional language or the language of the host country, and to learn about the cultural connection to the language. The aim is to nurture a better sense of what it means to be internationally minded.

#### Mathematics in the Primary Years Programme

The power of mathematics for describing and analyzing the world around us is such that it has become a highly effective tool for solving problems. It is also recognized that students can appreciate the intrinsic fascination of mathematics and explore the world through its unique perceptions. In the same way that students describe themselves as "authors" or "artists", a school's programme should also provide students with the opportunity to see themselves as "mathematicians", where they enjoy and are enthusiastic when exploring and learning about mathematics.

Mathematics is also viewed as a vehicle to support inquiry, providing a global language through which we make sense of the world around us. It is intended that students become competent users of the language of mathematics, and can begin to use it as a way of thinking, as opposed to seeing it as a series of facts and equations to be memorized.

#### How children learn mathematics

It is important that learners acquire mathematical understanding by constructing their own meaning through ever-increasing levels of abstraction, starting with exploring their own personal experiences, understandings and knowledge. Additionally, it is fundamental to the philosophy of the PYP that, since it is to be used in real-life situations; mathematics needs to be taught in relevant, realistic contexts, rather than by attempting to impart a fixed body of knowledge directly to students. How children learn mathematics can be described using the following stages.

#### Constructing meaning about mathematics

Learners construct meaning based on their previous experiences and understanding, and by reflecting upon their interactions with objects and ideas. Therefore, involving learners in an active learning process, where they are provided with possibilities to interact with manipulatives and to engage in conversations with others, is paramount to this stage of learning mathematics. When making sense of new ideas all learners either interpret these ideas to conform to their present understanding or they generate a new understanding that accounts for what they perceive to be occurring. This construct will continue to evolve as learners experience new situations and ideas, have an opportunity to reflect on their understandings and make connections about their learning.

#### Transferring meaning into symbols

Only when learners have constructed their ideas about a mathematical concept should they attempt to transfer this understanding into symbols. Symbolic notation can take the form of pictures, diagrams, modeling with concrete objects and mathematical notation. Learners should be given the opportunity to describe their understanding using their own method of symbolic notation, and then learn to transfer them into conventional mathematical notation.

#### Applying with understanding

Applying with understanding can be viewed as the learners demonstrating and acting on their understanding. Through authentic activities, learners should independently select and use appropriate symbolic notation to process and record their thinking. These authentic activities should include a range of practical hands-on problem-solving activities and realistic situations that provide the opportunity to demonstrate mathematical thinking through presented or recorded formats. In this way, learners are able to apply their understanding of mathematical concepts as well as utilize mathematical skills and knowledge. As they work through these stages of learning, students and teachers use certain processes of mathematical reasoning.

- They use patterns and relationships to analyze the problem situations upon which they are working.
- They make and evaluate their own and each other's ideas.
- They use models, facts, properties and relationships to explain their thinking.
- They justify their answers and the processes by which they arrive at solutions.

In this way, students validate the meaning they construct from their experiences with mathematical situations. By explaining their ideas, theories and results, both orally and in writing, they invite constructive feedback and also lay out alternative models of thinking for the class. Consequently, all benefit from this interactive process.

#### The Five Strands of Mathematics in the Primary Years Programme

#### Data Handling

Data handling allows us to make a summary of what we know about the world and to make inferences about what we do not know. Data can be collected, organized, represented and summarized in a variety of ways to highlight similarities, differences and trends; the chosen format should illustrate the information without bias or distortion. Probability can be expressed qualitatively by using terms such as "unlikely", "certain" or "impossible". It can be expressed quantitatively on a numerical scale.

#### **Measurement**

To measure is to attach a number to a quantity using a chosen unit. Since the attributes being measured are continuous, ways must be found to deal with quantities that fall between numbers. It is important to know how accurate a measurement needs to be or can ever be.

#### Shape and Space

The regions, paths and boundaries of natural space can be described by shape. An understanding of the interrelationships of shape allows us to interpret, understand and appreciate our two-dimensional (2D) and three-dimensional (3D) world.

#### Pattern and Function

To identify pattern is to begin to understand how mathematics applies to the world in which we live. The repetitive features of patterns can be identified and described as generalized rules called "functions". This builds a foundation for the later study of algebra.

#### <u>Number</u>

Our number system is a language for describing quantities and the relationships between quantities. For example, the value attributed to a digit depends on its place within a base system. Numbers are used to interpret information, make decisions and solve problems. For example, the operations of addition, subtraction, multiplication and division are related to one another and are used to process information in order to solve problems. The degree of precision needed in calculating depends on how the result will be used.

#### Science in the Primary Years Programme

In the Primary Years Programme, science is viewed as the exploration of the biological, chemical and physical aspects of the natural world, and the relationships between them. Our understanding of science is constantly changing and evolving. The inclusion of science within the PYP leads learners to an appreciation and awareness of the world as it is viewed from a scientific perspective. It encourages curiosity and ingenuity and enables the student to develop an understanding of the world. Reflection on scientific knowledge also helps students to develop a sense of responsibility regarding the impact of their actions on themselves, others and their world.

It is recognized that teaching and learning science as a subject, while necessary, is not sufficient. Of equal importance is the need to learn science in context, exploring content relevant to students, and transcending the boundaries of the traditional subject area. Student-initiated science inquiries will occur that are not directly related to any planned units of inquiry. These are valuable teaching and learning experiences in themselves and they provide teachers and students with the opportunity to apply the pedagogy of the PYP to authentic, of-the-moment situations.

#### The Four Strands of Science in the Primary Years Programme

#### Living Things

The study of the characteristics, systems and behaviours of humans and other animals, and of plants; the interactions and relationships between and among them, and with their environment.

#### Forces and Energy

The study of energy, its origins, storage and transfer, and the work it can do; the study of forces; the application of scientific understanding through inventions and machines.

#### Materials and Matter

The study of the properties, behaviours and uses of materials, both natural and human-made; the origins of human-made materials and how they are manipulated to suit a purpose.

#### Earth and Space

The study of planet earth and its position in the universe, particularly its relationship with the sun; the natural phenomena and systems that shape the planet and the distinctive features that identify it; the infinite and finite resources of the planet.

#### Science Skills

All teaching and learning provides the opportunity to utilize and develop transdisciplinary skills. In addition to these, the science component of the curriculum also provides opportunities for students to develop a range of science-specific skills and processes.

*Observe carefully in order to gather data* (for example, students will examine objects and living things to find out more about them; observe and manipulate objects by using all their senses as appropriate; observe changes in living things, objects and events over a period of time; distinguish between significant and less significant observations; record observations in a systematic way).

Use a variety of instruments and tools to measure data accurately (for example, students will use a range of tools and techniques with increasing competency; use standard and non-standard units for measurement; measure, compare and record data including mass, weight, time and temperature; select appropriate tools and measurement units).

Use scientific vocabulary to explain their observations and experiences (for example, students will talk about what is observed; describe simple features of objects and events; describe what is happening using an increasing scientific vocabulary; record and present findings and conclusions using a variety of strategies and appropriate scientific vocabulary).

*Identify or generate a question or problem to be explored* (for example, students will ask questions or show curiosity about the natural and physical environment; ask questions or identify problems that may lead to investigations; pose questions and define problems that will facilitate effective investigations or inquiries).

*Plan and carry out systematic investigations, manipulating variables as necessary* (for example, students will identify variables; collect information and data from a range of sources; suggest approaches and methods for solving problems; identify one or two variables relevant to an investigation; recognize the way in which an experiment is unfair if the relevant variables are not controlled; reflect on methods used in investigations and their effectiveness).

*Make and test predictions* (for example, students will observe similarities and differences; guess and suggest what will happen next in structured situations; based on prior learning and/or observations, suggest outcomes of an investigation; make justified predictions; propose ideas or simple theories that may be explored or tested).

Interpret and evaluate data gathered in order to draw conclusions (for example, students will sort and classify according to observable features or selected criteria; look for and recognize patterns in observations; compare results of different investigations; interpret information and offer explanations).

Consider scientific models and applications of these models (including their limitations) (for example, students will share findings with peers informally; represent findings using pictures and models; reflect on and build upon their own current scientific theories and applications; apply scientific knowledge to reconstruct or refine their understandings of the physical, chemical and biological worlds; assess their understanding in light of new data or reconsideration of existing data).

#### Social Studies in the Primary Years Programme

In the Primary Years Programme, social studies learning guides students towards a deeper understanding of themselves and others, and of their place in an increasingly global society. It provides opportunities for students to look at and think about human behaviour and activity realistically, objectively, and with sensitivity. Exposure to and experience with social studies therefore opens doors to key questions about life and learning.

It is recognized that teaching and learning social studies as a subject, while necessary, is not sufficient. Of equal importance is the need to learn social studies in context, exploring content relevant to students, and transcending the boundaries of the traditional subject area. It is worthwhile to note that there will be occasions that present themselves for student-initiated, spontaneous, social studies inquiries that are not directly related to any planned units of inquiry. These are valuable teaching and learning experiences in themselves and they provide teachers and students with the opportunity to apply the pedagogy of the PYP to authentic, of-the-moment situations.

#### The Five Strands of Social Studies in the Primary Years Programme

#### Human Systems and Economic Activities

The study of how and why people construct organizations and systems; the ways in which people connect locally and globally; the distribution of power and authority.

#### Social Organization and Culture

The study of people, communities, cultures and societies; the ways in which individuals, groups and societies interact with each other.

#### Continuity and Change Through Time

The study of the relationships between people and events through time; the past, its influences on the present and its implications for the future; people who have shaped the future through their actions.

#### Human and Natural Environments

The study of the distinctive features that give a place its identity; how people adapt to and alter their environment; how people experience and represent place; the impact of natural disasters on people and the built environment.

#### Resources and the Environment

The interaction between people and the environment; the study of how humans allocate and manage resources; the positive and negative effects of this management; the impact of scientific and technological developments on the environment.

#### Social Studies Skills

All teaching and learning provides the opportunity to utilize and develop transdisciplinary skills. In addition to these, the social studies component of the curriculum also provides opportunities for students to develop a range of social studies-specific skills and processes.

Formulate and ask questions about the past, the future, places and society (for example, students will express wonderings, show curiosity or ask questions about a person or event of personal significance; express wonderings, show curiosity or ask questions about the natural and physical environment; ask questions to extend understanding of how others have constructed or represented the past, the human and natural environment and society; formulate questions and identify problems that will enable them to make links between prior learning, new situations and further actions; formulate questions that promote the transfer of knowledge and make connections across their learning).

Use and analyse evidence from a variety of historical, geographical and societal sources (for example, students will draw information from, and respond to, stories about the past from geographical and societal sources; access a broad range of first- and second-hand sources of information such as people, maps, surveys, direct observation, books, museums and libraries; identify appropriate information and communication technology (ICT) tools and sources of information to support research; predict future events by analysing reasons for events in the past and present).

Orientate in relation to place and time (for example, students will explore and share instances of change and continuity in personal lives, family and local histories; investigate directions and distances within the local environment; distinguish between past, present and future time; explore similarities and differences between the past and the present; sequence events, routines, personal histories in chronological order; interpret place and time using tools such as maps and timelines).

*Identify roles, rights and responsibilities in society* (for example, students will define own roles and responsibilities within the family, class or school; compare children's and adults' roles, rights and responsibilities in society; reflect on the rights and responsibilities of children in other societies and make comparisons; examine how the rights of a person directly affect their responsibilities; investigate how services and systems influence societal rights and responsibilities; examine the responsibility of people towards the environment; reflect on opportunities to contribute actively to the community at a range of levels, from local to global).

Assess the accuracy, validity and possible bias of sources (for example, students will examine and interpret simple evidence such as artifacts; compare the validity of statements from a variety of different sources; distinguish between fact and opinion; piece together evidence to explain, report or persuade; analyse and synthesize information; make predictions in order to test understanding; develop a critical perspective regarding information and the reliability of sources).

#### Art in the Primary Years Programme

Art engages students in creative processes through which they explore and experiment in a continual cycle of action and reflection. Such creative processes are seen by the PYP as the driving force in learning through inquiry. From an early age, students have the opportunity to develop genuine interests, to give careful consideration to their work and to become self-critical and reflective. Reflecting on and evaluating their own work and the work of others is vital, and empowers students to take intellectual risks. Exposure to and experience with art opens doors to questions about life and learning. The process of making and appreciating art is gratifying and will encourage students to continue creating throughout their lives.

The term "visual arts" is used to describe practices that have been more traditionally described in education as "art, craft and design". It is important that students are exposed to a broad range of experiences that illustrate the field of visual arts, including architecture, bookmaking, ceramics, collage, costume design, drawing, graphic design, film, illustration, industrial design, installation, jewellery, land art, mask making, metalwork, painting, papermaking, performance art, photography, printmaking, sculpture, set design, textiles and woodwork.

Wherever possible, students should have the opportunity to experience visual arts beyond their own initial involvement. This may be achieved by inviting artists into the school, or by visiting art galleries, museums, artists' and designers' studios, exhibitions, films sets and/or theatres. Students will begin to appreciate the depth and breadth of the field by experiencing visual arts created by diverse artists—locally and globally, now and in the past, by women and men, and by people of different backgrounds.

In visual arts, the role of the sketchbook is integral to this process. The sketchbook provides a space for students to take ownership of their learning, to creatively explore personal interests and to develop their own style. The PYP recognizes the range of forms a sketchbook may take, reaching beyond the physical book to possibly include new media, sound and film.

ICT can be used in the visual arts classroom as a tool to enhance the creative experience. Photo and film editing, animation, web design, drawing, computer-aided design, audio and word processing programs can be used as tools to engage students with the conceptual understandings detailed in the continuums.

Visual arts activities require space, tools, materials and ICT tools. Ideally, an adequately large, wellresourced environment is desirable to explore a range of visual arts practices. Beyond the physical space, it is important to establish a constructive and positive learning environment conducive to the creative experience.

#### The Two Strands of Art in the Primary Years Programme

#### Responding

The process of *responding* provides students with opportunities to respond to their own and other artists' works and processes, and in so doing develop the skills of critical analysis, interpretation, evaluation, reflection and communication. Students will demonstrate knowledge and understanding of the concepts, methods and elements of drama, dance, music and visual arts, including using specialized language. Students consider their own and other artists' works in context and from different perspectives in order to construct meaning and inform their own future works and processes.

## Creating

The process of *creating* provides students with opportunities to communicate distinctive forms of meaning, develop their technical skills, take creative risks, solve problems and visualize consequences. Students are encouraged to draw on their imagination, experiences and knowledge of materials and processes as starting points for creative exploration. They can make connections between their work and that of other artists to inform their thinking and to provide inspiration. Both independently and collaboratively, students participate in creative processes through which they can communicate ideas and express feelings. The creating strand provides opportunities for students to explore their personal interests, beliefs and values and to engage in a personal artistic journey.

## Personal, Social (& Physical Education) in the Primary Years Programme

PSPE is concerned with the individual's well-being through the promotion and development of concepts, knowledge, attitudes and skills that contribute to this well- being. Well-being is intrinsically linked to all aspects of a student's experience at school and beyond. It encompasses physical, emotional, cognitive, spiritual and social health and development, and contributes to an understanding of self, to developing and maintaining relationships with others, and to participation in an active, healthy lifestyle.

PSPE is integral to teaching and learning in the PYP and is embodied in the IB learner profile that permeates the programme and represents the qualities of internationally minded students and effective lifelong learners. As lifelong learners we strive to make sense of our lives and the world around us by constructing meaning, exploring concepts and revising understandings. Lifelong learners adopt a positive attitude to learning, develop and apply strategies for critical and creative thinking, engage in inquiry, make connections, and apply new learning and skills in different contexts. In order to become successful learners, it is necessary for students to feel empowered by their learning, to value and take responsibility for their learning, to demonstrate resilience and to develop independence. Such learners are able to reflect on themselves, their experiences, and the process of learning in order to support personal growth and their ongoing commitment to personal, social and physical well-being.

The development of a student's well-being can be implicitly and explicitly addressed through all areas of the PYP curriculum. Therefore, every teacher has a responsibility to support each student's personal, social and physical development through all learning engagements both within and outside the programme of inquiry.

#### The Three Strands of PSPE in the Primary Years Programme

#### **Identity**

An understanding of our own beliefs, values, attitudes, experiences and feelings and how they shape us; the impact of cultural influences; the recognition of strengths, limitations and challenges as well as the ability to cope successfully with situations of change and adversity; how the learner's concept of self and feelings of self-worth affect his or her approach to learning and how he or she interacts with others.

#### **Interactions**

An understanding of how an individual interacts with other people, other living things and the wider world; behaviours, rights and responsibilities of individuals in their relationships with others, communities, society and the world around them; the awareness and understanding of similarities and differences; an appreciation of the environment and an understanding of, and commitment to, humankind's responsibility as custodians of the Earth for future generations.

#### Active Living (specifically targeted in PE)

An understanding of the factors that contribute to developing and maintaining a balanced, healthy lifestyle; the importance of regular physical activity; the body's response to exercise; the importance of developing basic motor skills; understanding and developing the body's potential for movement and expression; the importance of nutrition; understanding the causes and possible prevention of ill health; the promotion of safety; rights and the responsibilities we have to ourselves and others to promote well-being; making informed choices and evaluating consequences, and taking action for healthy living now and in the future.

#### PE in the Primary Years Programme

It is acknowledged that in many schools, single-subject teachers take responsibility for the physical component of PSPE. It is vital that these single-subject teachers see themselves primarily as PYP teachers who teach physical education, and in so doing contribute to the overall outcomes of a transdisciplinary programme.

Physical education should be more than just student participation in sports and games. Its purpose should be to develop a combination of transferable skills promoting physical, intellectual, emotional and social development; to encourage present and future choices that contribute to long-term healthy living; and to understand the cultural significance of physical activities for individuals and communities. Therefore, in the PYP, there should be specific opportunities for learning about movement and through movement in a range of contexts.

Teachers are encouraged to draw on conceptual understandings from the arts as well as from personal, social and physical education in order to provide meaningful, connected learning experiences for students. The contexts selected for learning through and about movement will be different for each school, and will depend on factors such as the prior knowledge and experiences of the students; the host country of the school; the particular physical activities that are valued in the school and local community; the resources available to the school; and the kinds of experiences that the school believes will encourage present and future choices that will lead to an active healthy lifestyle. Regular exposure to all kinds of physical learning experiences will enable students to make informed choices throughout their lives. A balanced curriculum would include the following types of experiences (These have been incorporated into the BIS continuum).

Individual Pursuits: The development of basic motor skills and the body's capacity for movement through locomotor and manipulative skills and/or experiences; the techniques, rules and purpose of a range of athletic activities (for example, track and field, swimming, skating, skiing); recognizing a high level of achievement and how to improve a performance.

<u>Movement Composition</u>: Recognizing that movements can be linked together and refined to create a sequence of aesthetic movements. Movements can be in response to stimuli or performance elements and/ or criteria and can communicate feelings, emotions and ideas (for example, gymnastics, dance, martial arts).

<u>Games</u>: Recognizing the challenges presented by games; the importance of manipulating space; the categorizing of games; identifying and developing appropriate skills and strategies; recognizing the importance of rules and how they define the nature of a game; modifying existing games and creating new games; teamwork.

<u>Adventure Challenges</u>: A variety of tasks requiring the use of physical and critical-thinking skills by individuals and/or groups; challenges that require groups to work together collaboratively in order to solve problems and accomplish a common goal; recognizing the role of the individual in group problem solving.

<u>Health-related Fitness</u>: Recognizing and appreciating the importance of maintaining a healthy lifestyle; the body's response to exercise including the interaction of body systems and the development of physical fitness.

#### The Five Strands of Art and PSPE in the Primary Years Programme

#### **Responding**

The process of *responding* provides students with opportunities to respond to their own and other artists' works and processes, and in so doing develop the skills of critical analysis, interpretation, evaluation, reflection and communication. Students will demonstrate knowledge and understanding of the concepts, methods and elements of drama, dance, music and visual arts, including using specialized language. Students consider their own and other artists' works in context and from different perspectives in order to construct meaning and inform their own future works and processes.

#### **Creating**

The process of *creating* provides students with opportunities to communicate distinctive forms of meaning, develop their technical skills, take creative risks, solve problems and visualize consequences. Students are encouraged to draw on their imagination, experiences and knowledge of materials and processes as starting points for creative exploration. They can make connections between their work and that of other artists to inform their thinking and to provide inspiration. Both independently and collaboratively, students participate in creative processes through which they can communicate ideas and express feelings. The creating strand provides opportunities for students to explore their personal interests, beliefs and values and to engage in a personal artistic journey.

#### **Identity**

An understanding of our own beliefs, values, attitudes, experiences and feelings and how they shape us; the impact of cultural influences; the recognition of strengths, limitations and challenges as well as the ability to cope successfully with situations of change and adversity; how the learner's concept of self and feelings of self-worth affect his or her approach to learning and how he or she interacts with others.

#### **Interactions**

An understanding of how an individual interacts with other people, other living things and the wider world; behaviours, rights and responsibilities of individuals in their relationships with others, communities, society and the world around them; the awareness and understanding of similarities and differences; an appreciation of the environment and an understanding of, and commitment to, humankind's responsibility as custodians of the Earth for future generations.

#### Active Living

An understanding of the factors that contribute to developing and maintaining a balanced, healthy lifestyle; the importance of regular physical activity; the body's response to exercise; the importance of developing basic motor skills; understanding and developing the body's potential for movement and expression; the importance of nutrition; understanding the causes and possible prevention of ill health; the promotion of safety; rights and the responsibilities we have to ourselves and others to promote well-being; making informed choices and evaluating consequences, and taking action for healthy living now and in the future.

#### **Music in the Primary Years Programme**

Music engages students in creative processes through which they explore and experiment in a continual cycle of action and reflection. Such creative processes are seen by the PYP as the driving force in learning through inquiry. From an early age, students have the opportunity to develop genuine interests, to give careful consideration to their work and to become self-critical and reflective. Reflecting on and evaluating their own work and the work of others is vital, and empowers students to take intellectual risks. Exposure to and experience with music opens doors to questions about life and learning. The process of making and appreciating music is gratifying and will encourage students to continue creating throughout their lives.

Music enables students to communicate in ways that go beyond their oral language abilities. Music delights and stimulates, soothes and comforts us; music allows students to communicate in a unique way. Musical experiences and learning begin with the voice. It is important that students are given opportunities to discover a broad range of music experiences including classifying and analysing sounds, composing, exploring body music, harmonizing, listening, playing instruments, singing, notation, reading music, songwriting and recording. In creating, students use their imagination and musical experiences to organize sounds—natural and technological—into various forms that communicate specific ideas or moods. In responding, students are given the opportunity to respond to different styles of music, as well as to music from different times and cultures. Individually and collaboratively, students should have the opportunity to create and respond to music ideas. By exposing students to a wide and varied repertoire of musical styles, they can begin to construct an understanding of their environment, their surroundings and structures, and begin to develop personal connections with them.

Music is a part of everyday life. Listening to and performing music can be a social activity. The development of listening skills, an important aspect of all learning, is constantly reinforced. Teachers should be aware that music plays an important part in the language learning process. Through songs and rhymes, students can hear patterns and develop a sense of the rhythm that applies to languages. This can be especially apparent when learning a new language because the meaning of the words is not necessarily understood, and so students concentrate on the rhythms and patterns they hear. Wherever possible, teachers should try to include rhymes and songs in their teaching activities, not just in designated music classes.

Music is both an active and reflective process when making and listening to it. Students can draw on a wide range of sources in their music learning: music composed by themselves and other students; music composed by musicians; literature; paintings; dance; their own imagination; real-life experiences; feelings; values and beliefs. They should be exposed to live performances as well as recordings. Additionally, the opportunity to participate in live performances—informal as well as formal—allows students to work collaboratively and gain awareness of the audience.

A PYP music classroom provides an environment that stimulates and challenges students. It is well resourced with an extensive range of music recordings, videos and instruments. Students have the opportunity to explore home-made as well as manufactured instruments from a variety of countries and cultures. ICT can influence and enhance learning in music by allowing students to create, compose and record their work as well as listen to, observe and share music through the use of CDs and music files.

#### The Two Strands of Music in the Primary Years Programme

#### Responding

The process of *responding* provides students with opportunities to respond to their own and other artists' works and processes, and in so doing develop the skills of critical analysis, interpretation, evaluation, reflection and communication. Students will demonstrate knowledge and understanding of the concepts, methods and elements of drama, dance, music and visual arts, including using specialized language. Students consider their own and other artists' works in context and from different perspectives in order to construct meaning and inform their own future works and processes.

#### Creating

The process of *creating* provides students with opportunities to communicate distinctive forms of meaning, develop their technical skills, take creative risks, solve problems and visualize consequences. Students are encouraged to draw on their imagination, experiences and knowledge of materials and processes as starting points for creative exploration. They can make connections between their work and that of other artists to inform their thinking and to provide inspiration. Both independently and collaboratively, students participate in creative processes through which they can communicate ideas and express feelings. The creating strand provides opportunities for students to explore their personal interests, beliefs and values and to engage in a personal artistic journey.

#### ICT in the Primary Years Programme

The ever-increasing impact of information and communication technologies (ICT) on teaching and learning is recognized in the Primary Years Programme. It is recommended that all staff be trained to learn how to use any technologies provided for them by the school, and that the use of the available technologies be integrated into student inquiries. Many students will bring previous experience and knowledge that can be drawn upon to enhance the learning of others, including that of the teacher. In fact, it is in this area that a PYP classroom most often resembles a community of learners. ICT provides opportunities for the enhancement of learning, and may significantly support students in their inquiries, and in developing their conceptual understanding. It is best considered as a tool for learning, albeit with its own set of skills. ICT skills should be developed and learned in order to support the needs of individual learners in their inquiries. The use of ICT:

- Can document the learning, making it available to all parties
- Can provide opportunities for rapid feedback and reflection
- Can provide opportunities to enhance authentic learning
- Can provide access to a broad range of sources of information
- Can provide students with a range of tools to store, organize and present their learning

Encourages and allows for communication with a wide-ranging audience. A PYP school community should collaboratively identify and agree on the need for, and aims of, the use of ICT. ICT tools should be used critically, with integrity, and there should be specific attention given to the validity and reliability of information gained through their use.

## ★ The Role of the Library at BIS

Students, staff and parents have access to a wide range of resources from around the world to support the curriculum, develop lifelong learning and foster a love of reading. The library holds books, periodicals, newspapers, DVDs, CDs, audio-books and online resources. There are also collections of resources in languages other than English and these, with the help of school families, are being continually developed.

All students from Preschool through Grade 5 have a regularly scheduled time in the library. The homeroom teachers help to develop students' information literacy skills so that they can make sense and best use of the information around them.

Developing a love of reading is key to successful literacy, and to this end the librarians share and expand the reading experience of the children through highlighting authors, genres and themes. Librarians plan alongside class teachers and specialists in order to support and deliver units of inquiry. Students are also able to use the library at other times for research and reading purposes. Students are encouraged to borrow and return books on a regular basis.

## **Information Directory**

For more information on the IB Primary Years Programme please contact the relevant person below:

Mr Alan Lorenzini (IB PYP Coordinator) primaryprincipal@baliis.net

Useful Websites BIS Web Page www.baliisland.com About the IB www.ibo.org



## The IB Middle Years Programme (MYP) Model

## The IB Middle Years Programme

The IB goal is to provide students with the values and opportunities that will enable them to develop sound judgments, make wise choices and respect others in the global community. The International Baccalaureate (IB) Middle Years Programme (MYP) was originally developed by the International Schools Association and then further developed by schools during the early 1990s. It is a purpose-built five-year Programme (Grades 6-10, ages 11-16) for international schools and is now being taught and implemented worldwide.

The IB MYP has been taught at BIS since 1994. It builds upon skills and units of inquiry learning developed in the IB Primary Years Programme (IB PYP). IB PYP teaching and learning "focuses on the development of the whole child as an inquirer, both in the classroom and in the world outside" (IB). The IB MYP also relies on connecting classroom pedagogical practices and content to the world outside through the Global Contexts and the Learner Profile.

## The IB MYP Philosophy

#### The IB MYP emphasizes Holistic Learning.

The IB MYP should expose students to as many different subjects, skills and experiences as possible so that students will learn to see knowledge as an interrelated whole. Students should have the opportunity to show their various strengths while being rewarded for them and gaining a sense of personal achievement.

#### The IB MYP emphasizes Intercultural Awareness and Communication.

In our community, it is essential that the curriculum reflects and is responsive to the different perspectives of all our students. It should also guide them in forming their own, international, outlook. This implies an emphasis on communication skills, both in the languages and other subjects.

#### The IB MYP is **Student-Centred**.

It is vital that students develop an awareness of their own learning process and the necessary skills to continue learning throughout life. The curriculum seeks to shift the emphasis from teacher-led instruction to student-led learning wherever possible.

The philosophy's key elements permeate the whole curriculum and are practiced throughout the curriculum model.

MYP educators have continued to focus on how best to meet the needs of adolescents, who are confronted with a vast and often bewildering array of choices in a complex and rapidly changing world. A focus on higher-order thinking skills gives students opportunities to explore their expanding concerns and their growing awareness of themselves and the world in ways that develop sound judgment.

## The IB Middle Years Programme at BIS

The Bali Island School adopted the IB MYP because the philosophy and objectives of this programme reflect those of the school. In addition, the IB MYP

- Is an international Programme with no bias towards any particular national system.
- Provides for vertical consistency across Grades with the IB Diploma in Grades 11 and 12 and with the PYP; many elements of the IB MYP are common to the skills required by the Diploma and developed in the PYP.
- Provides assessment, within the IB MYP subjects, which shares a common approach by being criterion-related and inquiry-based.
- Has strong, interdisciplinary elements.
- Is flexible enough to allow BIS to design the curriculum to fit student needs.
- Does not proscribe content of subject areas but does provide a framework for their delivery.
- Supports curriculum development and external evaluation.

## A Concept-driven Curriculum

A concept is a big idea — a principle or conception that is enduring, the significance of which goes beyond aspects such as particular origins, subject matter or place in time. Concepts represent the vehicle for students' inquiry into issues and ideas of personal, local and global significance, providing the means by which the essence of a subject can be explored.

The MYP identifies prescribed key concepts and related concepts. These concepts ensure the development of a rigorous curriculum and promote a shared community of practice among IB World Schools offering the MYP.

A concept-based model is used in the MYP because it encourages students to:

- Process factual knowledge at a deeper intellectual level as they relate the facts to concepts and essential conceptual understandings.
- Create personal relevance, as students relate new knowledge to prior knowledge, and encourage understanding of cultures and environments across global contexts through the transfer of knowledge.
- Bring their personal intellect to the study as they use a key concept to personally focus on the unit topic in order to increase motivation for learning.
- Increase fluency with language as students use factual information to explain and support their deeper conceptual understanding.
- Achieve higher levels of critical, creative and conceptual thinking as students analyze complex global challenges and create greater subject depth through the study of discipline-specific related concepts.

## **Global Contexts**

Subject content is organized around themes or perspectives called Global Contexts. They are designed to encourage the students to make worthwhile connections between the real world and classroom learning.

Teaching and learning in the MYP involves understanding concepts in context. Global contexts provide a common language for powerful contextual learning, identifying specific settings, events or circumstances that provide more concrete perspectives for teaching and learning. When teachers select a global context for learning, they are answering the following questions.

- Why are we engaged in this inquiry?
- Why are these concepts important?
- Why is it important for me to understand?
- Why do people care about this topic?

The six MYP Global Contexts inspire explorations of our common humanity and shared guardianship of the planet. They invite reflection on local, national and global communities, as well as the real-life issues and concerns of 11 to 16-year-old students. For each MYP unit teachers should identify one global context that establishes a focus for meaningful teaching and learning in a Programme of international education. Over the course of their study, students should encounter all six global contexts, which are shown in the diagram.



MYP global contexts provide common points of entry for inquiries into what it means to be internationally minded, framing a curriculum that promotes multilingualism, intercultural understanding and global engagement. These contexts build on the powerful themes of global significance that structure teaching and learning in the Primary Years Programme (see below), creating relevance for adolescent learners.

Primary Years Programme (PYP) K – G5 Trans-disciplinary themes:	Middle Years Programme (MYP) G6 – G12 Global contexts:
Who we are	Identities and relationships
Where we are in place and time	Orientation in space and time
How we express ourselves	Personal and cultural expression
How the world works	Scientific and technical innovation
How we organize ourselves	Globalization and sustainability
Sharing the planet	Fairness and development

Inquiring into subject content through a global context enables students to develop a deeper understanding of both the subject and its application in the real world. Repeated cycles of inquiry, action and reflection can lead students from academic knowledge towards practical understanding, developing positive attitudes towards learning as well as a sense of personal and social responsibility.

In Grade 10, the school assesses the Global Contexts through a significant, extended Personal Project completed by each student individually.

## **Approaches To Learning (ATL)**

Through Approaches To Learning in all the IB Programmes, students develop skills that have relevance across the curriculum that help them "learn how to learn".

The MYP extends IB Approaches To Learning (ATL) skills categories into developmentally appropriate clusters.

There are ten ATL MYP clusters explained below:

Communication	I. Communication skills			
	Exchanging thoughts, messages and information effectively through interaction	How can students communicate through interaction?		
	Reading, writing and using language to gather and communicate information	How can students demonstrate communication through language?		
Social	II. Collaboration skills			
	Working effectively with others	How can students collaborate?		
Self-management	III. Organization skills			
	Managing time and tasks effectively	How can students demonstrate organization skills?		
	IV. Affective skill			
	Managing state of mind Mindfulness Perseverance Emotional management Self-motivation Resilience	How can students manage their own state of mind?		
	V. Reflection skills			
	(Re)considering the process of learning; choosing and using ATL skills	How can students be reflective?		

Research	VI. Information literacy skills	VI. Information literacy skills			
	Finding, interpreting, judging and creating information	How can students demonstrate information literacy?			
	VII. Media literacy skills	VII. Media literacy skills			
	Interacting with media to use and create ideas and information	How can students demonstrate media literacy?			
Thinking	VIII. Critical thinking skills	VIII. Critical thinking skills			
	Analysing and evaluating issues and ideas	How can students think critically?			
	IX. Creative thinking skills	IX. Creative thinking skills			
	Generating novel ideas and considering new perspectives	How can students be creative?			
	X. Transfer skill	X. Transfer skill			
	Using skills and knowledge in multiple contexts	How can students transfer skills and knowledge across disciplines and subject groups?			

## **Service as Action**

In Grades 6-10 students are encouraged to participate in Service as Action (SaA) projects. It is up to the student to show personal initiative through their SaA choices and activities. Each student is required to complete at least one SaA project per semester and reflections of these activities are recorded in semester reports. Students are also encouraged to be involved in other service opportunities. In Grades 6 - 8 SaA guidance is strong, whereas by Grades 9-10 students take more SaA responsibility.

## **The Personal Project**

The Personal Project (PP) is an extended, independent piece of project work completed by each student in the last year of the Programme, Grade 10.

Project topics may be creative or research-based and, ideally, they should reflect a student's personal interest. Students begin the PP process at the end of Grade 9 so they can actively develop their topic over the long break and finish in early February the following year. The stages of the process are documented in a process journal. While there is some recognition of the project through the criteria, a student's record of, research about, and reflection on the process is a significant part of the final result. Each student is assigned a supervisor who will provide support and guidance through the PP process.

Please check the BIS newsflash for Parent Information Sessions about the PP process.

To celebrate the end of the PP process the school hosts a Personal Project exhibition during an MYP Hour with presentations and performances.

## Arts

## Visual Art, Drama, Music

The Arts are a universal form of human expression and a unique way of knowing that engage us in affective, imaginative and productive activity. Learning through the arts helps us to explore, shape and communicate our sense of identity and understanding of the world, while providing opportunities to develop self-confidence, resilience and adaptability. The IB MYP Arts value the process of creating artwork as much as the finished product.

#### Main objectives

The study of Arts is to encourage and enable students to:

- Demonstrate knowledge and understanding of the art form studied, including concepts, processes and the use of subject-specific terminology.
- Use acquired knowledge to purposefully inform artistic decisions in the process of creating artwork.

- Demonstrate the acquisition and development of the skills and techniques of the art form.
- Demonstrate a range and depth of creative-thinking behaviours.
- Demonstrate the exploration of ideas to shape artistic intention through to a point of realization.
- Create an artistic response which intends to reflect or impact on the world around them.
- Critique the artwork of self and others.

#### Assessment

Each semester students are graded on the four Arts assessment criteria. At the end of the course criteria grades are combined to produce an overall MYP Arts attainment level.

### **Design** Digital Design

#### **Main Objectives**

The study of Design is to encourage and enable students to:

- Explain and justify the need for a solution to a problem for a specified client/target audience
- Identify and prioritize the primary and secondary research needed to develop a solution to the problem
- Develop a design specification which clearly states the success criteria for the design of a solution
- Critically evaluate the success of the solution against the design specification
- Explain the impact of the solution on the client/target audience

#### Assessment

Each semester students are graded on the four Design assessment criteria. At the end of the course, criteria grades are combined to produce an overall MYP Design attainment level.

## Individuals and Societies (also known as Humanities)

The aim of MYP Individuals and Societies is to encourage students to gain and develop knowledge, conceptual understanding, research skills, analytical and interpretive skills, and communication skills, contributing to the development of the student as a whole. Individuals and societies aim to encourage students to respect and understand the world around them, and to provide a skills base to facilitate further study. This is achieved through the study of individuals, societies and environments in a wide context: historical, contemporary, geographical, political, social, economic, religious, technological and cultural.

#### **Main Objectives**

Individuals and Societies aims to have students develop:

- A detailed understanding of the academic nature of history and the perspectives that shape mankind's outlook on the past.
- A working knowledge of all the components that make up Humanities.
- Ability to properly research topics from both the modern and ancient worlds
- Ability to write an academic essay and document their learning in the appropriate forms.

#### Assessment

Each semester students are graded on the four Individual and Societies assessment criteria. At the end of the course, criteria grades are combined to produce an overall MYP Individuals and Societies attainment level.

## Language and Literature (also known as Language A) English

Language and Literature English is an academically rigorous study of both language and literature which aims to equip students with linguistic, analytical and communicative skills. There is a strong emphasis on developing a lifelong interest in reading, and developing students' overall ability to express themselves in written and spoken forms.

#### Main Objectives

The study of MYP Language and Literature English is to encourage and enable students to:

- Use language as a vehicle for thought, creativity, reflection, learning, self-expression and social interaction.
- Develop critical, creative and personal approaches to studying and analyzing literary and non-literary works.
- Develop a lifelong interest in reading widely and apply language skills in a variety of real-life contexts.

#### Assessment

Each semester students are graded on the four Language and Literature assessment criteria. At the end of the course, criteria grades are combined to produce an overall MYP Language and Literature attainment level.

## Language Acquisition (also known as Languages B)

#### French, Indonesian

The aims of the study of modern foreign languages are to acquire, firstly, the basis of a means of communication and an understanding of the linguistic, cultural, and social elements of the communities where these languages are spoken. In addition, we aim to develop an appreciation of a variety of literary and non-literary texts, thus giving access to multiple sources of information. Finally, it is hoped that this activity will be life-long and enjoyable.

#### **Main Objectives**

The study of MYP Language Acquisition French and Indonesian is to encourage and enable students to:

- Communicate information, ideas and opinions and to demonstrate comprehension of these, both orally and in writing.
- Identify main ideas and supporting details and draw conclusions using appropriate structures and vocabulary.
- Demonstrate comprehensible pronunciation and intonation.
- Request and provide information in formal and informal exchanges related to the Global Contexts and to cultural and international issues.

#### Assessment

Each semester students are graded on the four Language Acquisition assessment criteria. At the end of the course, criteria grades are combined to produce an overall MYP Language Acquisition attainment level.

#### **Mathematics**

#### **Extended Mathematics, Standard Mathematics**

MYP Mathematics aims to equip all students with the knowledge, understanding and intellectual capabilities to address further courses in mathematics, as well as to prepare those students who will use mathematics in their workplace and life in general.

#### Main Objectives

The study of Mathematics is to encourage and enable students to:

- Develop an understanding of the principles and nature of mathematics.
- Develop confidence, perseverance, and independence in mathematical thinking and problem-solving.
- Develop powers of generalization and abstraction.
- Appreciate how developments in technology and mathematics have influenced each other.
- Develop the knowledge, skills and attitudes necessary to pursue further studies in mathematics.
- Develop the ability to reflect critically upon their own work and the work of others.

MYP mathematics provides a framework of concepts and skills organized into the following five branches of mathematics:

- Number
- Algebra
- Geometry and trigonometry
- Statistics and probability
- Discrete mathematics

#### Levels of Mathematics in grade 9 and 10

The concepts and skills of the framework for mathematics are organized so that students can work at two levels of ability: standard mathematics and extended mathematics.

- Standard mathematics aims to give all students a sound knowledge of basic mathematical concepts while allowing them to develop the skills needed to meet the objectives of MYP mathematics.
- Extended mathematics consists of the standard mathematics framework supplemented by additional concepts and skills. This level provides the foundation for students who wish to pursue further studies in mathematics, for example, mathematics standard, mathematics higher level (HL) as part of the IB Diploma Programme.

#### Assessment

Each semester students are graded on the four mathematics assessment criteria. At the end of the course, criteria grades are combined to produce an overall MYP Mathematics attainment level.

## Sciences:

## Biology (living things), Chemistry (materials and matter), Physics (forces and energy), Environmental Science (earth and space)

With inquiry at the core, the MYP sciences curriculum explores the connections between science and everyday life. The students work independently and collaboratively to investigate issues through research, observation and experimentation. Scientific inquiry also fosters critical and creative thinking about research and design, as well as the identification of assumptions and alternative explanations. Students learn to appreciate and respect the ideas of others, gain good ethical-reasoning skills and further develop their sense of responsibility as members of local and global communities.

## **Main Objectives**

The study of Sciences is to encourage and enable students to:

- develop analytical and critical thinking skills to make scientifically supported judgments
- design scientific investigations to test a problem or question and use scientific reasoning to Interpret data and explain results
- discuss and evaluate the various implications of the use of science and its application in solving a specific problem or issue
- become scientifically literate inquirers who are able to think critically and creatively to solve problems and make decisions affecting themselves, others and their social and natural environments.

#### Assessment

Each semester students are graded on the four Sciences assessment criteria. At the end of the course, criteria grades are combined to produce an overall MYP Science attainment level.

## **Physical and Health Education (also known as PE)** Physical Education

Physical activity is based around the core activities of fitness, football codes, volleyball, gymnastics, basketball/netball, swimming, t-ball and athletics. Health topics include Growth and Development, Personal Health Choices, Interpersonal Relationships and Safety.

#### **Main Objectives**

The study of Physical and Health Education is to encourage and enable students to:

- Apply physical and health education knowledge to analyze issues and solve problems set in familiar and unfamiliar situations.
- Design, explain and justify plans to improve physical performance and health.
- Analyze and evaluate the effectiveness of a plan based on the outcome.
- Demonstrate and apply a range of skills and techniques effectively.
- Demonstrate and apply a range of strategies and movement concepts.
- Develop goals and apply strategies to enhance performance.
- Analyze and evaluate performance.

#### Assessment

Each semester students are graded on the four Physical and Health Education assessment criteria. At the end of the course, criteria grades are combined to produce an overall MYP PE level.

#### **IB MYP Assessment and Criteria**

We recognize that students learn in different ways, and in keeping with a holistic view of education, we think it is important to provide a variety of different ways for students to demonstrate what they have learned. This is the guiding principle of MYP assessment.

The Programme provides teachers with a structure for assessment based on fixed objectives for the final year (Grade 10), but the teachers can then adapt the criteria to meet the needs of their students in earlier years.

Assessment in the IB MYP at BIS is

#### 1. Varied in approach

Students should be assessed in a variety of different ways: written assignments, oral presentations, field work, practical work, role-play, debates, exhibitions, performance, tests and examinations, research papers, peer and self-assessment.

#### 2. Formative as well as summative

Formative assessment means that students will be given assessed feedback on their work to help them improve it. They will also be involved in this assessment, perhaps through assessing their peers or even themselves. Summative assessment is a terminal activity usually assessed by the teacher, often graded tasks for the report cards.

#### 3. Criterion-related, not deficit-based

Assessment is criteria-related, so that students are assessed against published, agreed learning objectives. These learning objectives are published for each subject and each grade level, and should be available to parents and students. The subject criteria for Grade 10 are based on the learning objectives mandated by the IB.

Assessment should be on-going and reflective, allowing the students to evaluate their progress and set targets for improvement, and for the school to evaluate the measure of success in meeting specific learning objectives.

Summary of the Specific- Subject Assessment Criteria SUBJECT	Criterion A (max 8)	Criterion B (max 8)	Criterion C (max 8)	Criterion D (max 8)
Language and Literature	Analysing	Organizing	Producing text	Using language
Language Acquisition	Comprehending spoken and visual text	Comprehending written and visual text	Communicating in response to spoken, written and visual text	Using language in spoken and written form (Language Acquisition)
Individuals and Societies	Knowing and understanding	Investigating	Communicating	Thinking critically
Sciences	Using knowledge	Inquiring and designing	Processing and evaluating	Reflecting on the impacts of science
Mathematics	Knowing and understanding	Investigating patterns	Communicating	Applying mathematics in real- life contexts
Arts	Knowing and understanding	Developing skills	Thinking creatively	Responding
Physical and Health Education	Knowing and understanding	Planning for performance	Applying and performing	Reflecting and improving performance
Design	Inquiring and analysing	Developing ideas	Creating the solution	Evaluating
Personal Project	Investigating	Planning	Taking action	Reflecting

## **IB MYP Assessment and Criteria**

Grade	Boundaries	Descriptor
1	1 - 5	Produces work of very limited quality. Conveys many significant misunderstandings or lacks understanding of most concepts and contexts. Very rarely demonstrates critical or creative thinking. Very inflexible, rarely using knowledge or skills.
2	6 - 9	Produces work of limited quality. Expresses misunderstandings or significant gaps in understanding for many concepts and contexts. Infrequently demonstrates critical or creative thinking. Generally inflexible in the use of knowledge and skills, infrequently applying knowledge and skills.
3	10 - 14	Produces work of an acceptable quality. Communicates basic understanding of many concepts and contexts, with occasionally significant misunderstandings or gaps. Begins to demonstrate some basic critical and creative thinking. Is often inflexible in the use of knowledge and skills, requiring support even in familiar classroom situations.
4	15 - 18	Produces good-quality work. Communicates basic understanding of most concepts and contexts with few misunderstandings and minor gaps. Often demonstrates basic critical and creative thinking. Uses knowledge and skills with some flexibility in familiar classroom situations, but requires support in unfamiliar situations.
5	19 - 23	Produces generally high-quality work. Communicates secure understanding of concepts and contexts. Demonstrates critical and creative thinking, sometimes with sophistication. Uses knowledge and skills in familiar classroom and real-world situations, and, with support, some unfamiliar real-world situations.
6	24 - 27	Produces high-quality, occasionally innovative work. Communicates extensive understanding of concepts and contexts. Demonstrates critical and creative thinking, frequently with sophistication. Uses knowledge and skills in familiar and unfamiliar classroom and real-world situations, often with independence.
7	28 - 32	Produces high-quality, frequently innovative work. Communicates comprehensive, nuanced understanding of concepts and contexts. Consistently demonstrates sophisticated critical and creative thinking. Frequently transfers knowledge and skills with independence and expertise in a variety of complex classroom and real-world situations.

Note: Descriptors should not be considered as marks or percentages. It should not be assumed that there are other arithmetical relationships; for example, a level 2 performance is not necessarily twice as good as a level 1 performance.

A student who attains a particular achievement level in relation to one criterion will not necessarily attain similar achievement levels in relation to the others.

## **MYP Certificate Requirements and Graduation**

To be awarded the Bali IS MYP Certificate, a student's end-of-year report should demonstrate:

- A total points score total of at least 32/56 points overall from the 7 subject groups and the Personal Project combined.
- At least a 2/7 in each subject area.
- At least a 3/7 on the Personal Project.
- That the student has met Bali IS's expectations for Community & Service.
- Minimum 90% attendance in each course.

## **Information Directory**

For more information on the IB Middle Years Programme of study please contact the relevant person below:

About the IB Middle Years Programme	Ms Michele Jane McLay (IB MYP Coordinator) mypcoordinator@baliis.net
About the Personal Project	Ms Michele Jane McLay (IB MYP Coordinator) mypcoordinator@baliis.net
Secondary School Principal	Mr Justin Walsh secondaryprincipal@baliis.net
About the Service as Action	Ms Michele Jane McLay (IB MYP Coordinator) mypcoordinator@baliis.net

#### **Useful Websites**

BIS Web Page www.baliisland.com About the IB www.ibo.org



## The IB Diploma Programme (DP) Model

## The International Baccalaureate Diploma Programme at BIS

The IB Diploma Programme (DP) is an academically challenging and balanced Programme of education with final examinations that prepares students, aged 16 to 19, for success at university and life beyond. The Programme has gained recognition and respect from the world's leading universities.

The Diploma Programme prepares students for effective participation in a rapidly evolving and increasingly global society as they:

- Develop physically, intellectually, emotionally and ethically.
- Acquire breadth and depth of knowledge and understanding.
- Develop the skills and a positive attitude towards learning.
- Study at least two languages and increase understanding of cultures, including their own.
- Make connections across traditional academic disciplines and explore the nature of knowledge through the Theory of Knowledge course.
- Undertake in-depth research into an area of interest in the Extended Essay.
- Enhance their personal and interpersonal development through Creativity, Activity and Service.

## How is the IB Diploma Programme different?

#### The IB DP is:

- Designed to promote international-mindedness.
- Studied in over 150 countries around the world.
- Criterion-referenced.
- Largely externally examined and moderated as a method of ensuring consistent standards.
- Unique with CAS, the Extended Essay, and TOK core components.
- Education for the whole person.

## **Expectations**

#### As DP students BIS will expect you to:

- Demonstrate self-discipline and responsibility.
- Enjoy the challenge of a demanding academic Programme.
- Have the desire and motivation required.
- Seek assistance when necessary, and not hesitate to give it when possible.
- Learn from peers as well as from teachers.
- Share with and contribute to the school community.

## The IB Curriculum

- 6 subjects, 3 at Higher Level, 3 at Standard Level.
- Cover at least 5 out of 6 subject groups.
- All students complete CAS, Extended Essay and Theory of Knowledge.

## Assessment

- Written exams in May of year 2, externally marked.
- Assessment tasks during course are marked internally then moderated, or externally marked.
- Criterion related assessment.
- Marks are from 1-7 per subject.
- 3 bonus points for TOK/EE.
- Possible 45 points total.

## **Passing Requirements**

- CAS requirements have been met.
- Total points are 24 or higher.
- At least 12 points in HL subjects.
- At least 9 points in SL subjects.
- N (not submitted) for TOK or EE is a failing condition.
- Grade E for one or both of TOK and the EE is a failing condition.
- grade 1 awarded in a subject is a failing condition.
- Grade 2 three or more times is a failing condition.
- Grade 3 or below four or more times is a failing condition.

## TOK and EE bonus points' matrix

ToK/EE	А	В	С	D	E
A	3	3	2	2	
В	3	2	2	1	Failing
С	2	2	1	0	condition
D	2	1	0	0	
Е			Failin	g con	dition

## **Internal Assessment Deadlines**

A series of deadlines is distributed to students at the beginning of their Grade 11 and 12 years. These deadlines represent an agreed upon schedule to ensure due dates are not concentrated at any one time. Students are expected to note all dates which apply to them and properly plan their time and studies to ensure that all deadlines are met.

## **Online Learning**

The school uses a variety of online learning Programmes to help foster and improve student learning. These Programmes are accessed through students' laptops.

**Pamoja Education** is an Oxford, UK-based educational enterprise. Pamoja Education's courses meet the very high expectations established by the DP Online. The courses are:

- Developed by IB-approved subject experts.
- Designed for strong student-teacher relationships and collaboration between students.
- Offered in small sections, which are balanced to achieve a high degree of global diversity and interaction.
- Taught by experienced IB teachers, who have received special training in online education.

Students who opt for a Pamoja course must be self-directed learners with good time management skills.

## The DP Core Components

- The Extended Essay (EE) engages students in independent research through an in-depth study of a question relating to one of the DP subjects. They then write a 4000-word university style research paper.
- **Theory of Knowledge** (TOK) develops a coherent approach to learning that unifies the academic disciplines. In this course on critical thinking, students inquire into the nature of knowing and deepen their understanding of knowledge as a human construction.

 Creativity, Action, Service (CAS) involves students in a range of activities alongside their academic studies throughout the Diploma Programme. Creativity encourages students to engage in the arts and creative thinking. Action seeks to develop a healthy lifestyle through physical activity. Service with the community offers a vehicle for new learning with academic value. The three strands of CAS enhance students' personal and interpersonal development through experiential learning and enable journeys of self-discovery.

## **Group 1: Studies in Language and Literature**

## Language A: Language and Literature (English, Indonesian)

- For students with experience of the language and fluency or near-fluency.
- Encourages students to question the meaning of language and texts in wider contexts.

#### The parts of the course

Part 1: Language in Cultural Context Part 2: Language and Mass Communication Part 3: Literature – Texts and Contexts Part 4: Literature – Critical Study

#### Assessment

- Completion of two (HL) or one (SL) Written Assignment(s).
- Completion of two oral assessments.
- Two external examination papers.

## School Supported Self-Taught Language A (SL)

The Self-Taught Language A course is an option we as a school strongly encourage given the importance of mother tongue development. We agree with the IB that "Language is integral to exploring and sustaining personal growth and cultural identity; it is closely linked to the development of a healthy self-esteem and emotional well-being, both of which are necessary for successful learning to take place. Maintaining and developing the mother tongue of all learners is especially important in this respect."

The student is rewarded with the prestigious IB Bilingual Diploma, if he/she completes two languages selected from Group 1 with the award of a grade 3 or higher.

The school commits to assist the student in setting up a programme of studies, and finding a suitable tutor. However, it is the responsibility of the family to contract a tutor who can guide the student through the programme; the cost for this will be borne by the family above and beyond the regular BIS tuition fees. The ideal tutor is someone who is familiar with the Diploma Programme, or someone who teaches literature at high school or university level. If there is no well-qualified tutor locally, the family may contract a tutor who is willing to work with the student online (perhaps teaching at an IB school in the home country).

- Provide suggestions for works of literary value (in the case of special request languages where no PBL is available).
- Provide the student with mother-tongue guidance (discussion of content, language, conventions, structure, and so on) for the various parts of the course of studies.
- Set and provide feedback on mock examinations, and on practice papers or orals.
- Maintaining contact with the supervisor and regularly providing information on the student's progress. As this is a self-taught course, the school will be unable to provide a report grade and comment on a regular basis for the language studied. The school will, however, provide feedback on student study habits and work progress, based on observation/discussion with the student; together with any acquired information from the tutor.

#### Assessment

The overall course objectives and assessment tasks for the independent self-taught course, are the same as the taught Language A Literature course.

- Completion of one Written Assignment.
- Completion of two oral assessments.
- Two external examination papers.

## **Group 2: Language Acquisition**

## Language B (English, Indonesian, French)

The course is for students with prior experience of learning the language. The focus is on language skills & intercultural understanding. The required core is:

- Communication and media.
- Global issues.
- Social relationships.

In addition there are 2 selected options.

#### Assessment

- Completion of one Written Assignment.
- Completion of two oral assessments.
- Two external examination papers.

## Language ab initio (Spanish)

The course is designed for language beginners. It envelops linguistic skills (listening, reading, writing, speaking) and awareness of target language cultures. It consists of three themes:

- Individual and society.
- Leisure and work.
- Urban and rural environment.

#### Assessment

- Completion of one Written Assignment.
- Completion of two oral assessments.
- Two external examination papers.

## **Group 3: Individuals and Societies**

#### **History**

Students study several topics in detail. These are:

- Peacemaking, peacekeeping international relations 1918-1936
- Causes, practices and effects of wars
- Origins and development of authoritarian and single party states
- Aspects of the History of Europe and the Middle East
  - Imperial Russia, revolutions, emergence of Soviet State 1853-1924
  - European diplomacy and the First World War 1870 1923
  - Interwar Years: Conflict and cooperation 1919-1939

#### Assessment

- Historical investigation assignment (1500 2000 words)
- (HL) Three external examination papers
- (SL) Two external examination papers

## Economics

The course will enable students to develop an understanding of microeconomic and macroeconomic theories and concepts and their real world application.

HL Economics students should be taking at least SL Mathematics.

#### Assessment

- Internal Assessment: Portfolio
- External Assessment: 3 Examination papers (HL), 2 Examination papers (SL)

#### **Business Management**

The course examines business decision-making processes and how these decisions impact on and are affected by internal and external environments:

- Business Organization and Environment
- Human Resources
- Accounts and Finance
- Marketing
- Operations Management
- Business Strategy (HL)

#### Assessment

- Internal Assessment: Research Project
- External Assessment: 2 Examination papers

## **Group 4: Sciences**

All science Programmes have a strong focus on providing experimental evidence for the phenomena and concepts studied. Experimental work is carried out both individually and in small groups.

As part of this process, students will:

- Consider science in its international context.
- Appraise the importance of communication and collaborative work in science.
- Acquire a body of concepts and skills for solving scientific problems.
- Develop an enquiring, investigative attitude.
- Evaluate and design experimental procedures.
- Develop the skills to analyze, synthesize and evaluate scientific information.
- Consider the ethical / moral, social, economic and environmental implications of scientific change.
- Develop an understanding and critical appraisal of the scientific method.
- Utilize information technology as a scientific tool.

#### Assessment

- Three written examination papers.
- The internal assessment task, of 6 to 12 pages long, is on one scientific investigation.
- Evidence of participation in the trans-disciplinary Group 4 Project.

#### The Group 4 Project

This is a collaborative learning experience where all Group 4 students will, plan, carry out and evaluate a project.

An individual contribution to the team effort, the ability to be self motivated and to show perseverance as well as being able to self reflect on the project's success are all qualities Group 4 students should demonstrate.

## **Environmental Systems and Societies**

#### The IB ESS (SL) course focuses on the following topics:

- 1. Systems and models (5 hours)
- 2. The ecosystem (31 hours)
- 3. Human population, carrying capacity and resource use (39 hours)
- 4. Conservation and biodiversity (15 hours)
- 5. Pollution management (18 hours)
- 6. The issue of global warming (6 hours)
- 7. Environmental value systems (6 hours)

Topic's 1 and 7 are taught as integral throughout the whole course. That means that although there are some specialized lessons, systems approach and values analysis is a huge part of this course.

## **Biology**

The students study the following topics, all of which are compulsory:

#### **Standard Level**

- Topic 1 Cell biology
- Topic 2 Molecular biology
- Topic 3 Genetics
- Topic 4 Ecology
- Topic 5 Evolution and biodiversity
- Topic 6 Human physiology

#### **Higher Level**

- Topic 7 Nucleic acids
- Topic 8 Metabolism, cell respiration and photosynthesis
- Topic 9 Plant biology
- Topic 10 Genetics and evolution
- Topic 11 Animal physiology

## Chemistry

The students study the following topics, all of which are compulsory:

#### Standard Level

- Topic 1 Stoichiometric relationships
- Topic 2 Atomic structure
- Topic 3 Periodicity
- Topic 4 Chemical bonding and structure
- Topic 5 Energetics/thermochemistry
- Topic 6 Chemical kinetics
- Topic 7 Equilibrium
- Topic 8 Acids and bases
- Topic 9 Redox processes
- Topic 10 Organic chemistry
- Topic 11 Measurement and data

#### **Higher Level**

- Topic 7 Nucleic acids
- Topic 8 Metabolism, cell respiration and photosynthesis

Topic 9 Plant biology

- Topic 10 Genetics and evolution
- Topic 11 Animal physiology

## Chemistry

The students study the following topics, all of which are compulsory:

#### **Standard Level**

- Topic 1 Stoichiometric relationships
- Topic 2 Atomic structure
- Topic 3 Periodicity
- Topic 4 Chemical bonding and structure
- Topic 5 Energetics/thermochemistry
- Topic 6 Chemical kinetics
- Topic 7 Equilibrium
- Topic 8 Acids and bases
- Topic 9 Redox processes
- Topic 10 Organic chemistry
- Topic 11 Measurement and data

#### **Higher Level**

- Topic 12 Atomic structure
- Topic 13 The periodic table the transition metals
- Topic 14 Chemical bonding and structure
- Topic 15 Energetics/thermochemistry
- Topic 16 Chemical kinetics
- Topic 17 Equilibrium
- Topic 18 Acids and bases
- Topic 19 Redox chemistry
- Topic 20 Organic chemistry
- Topic 21 Measurement and analysis

HL Chemistry students should be taking at least SL Mathematics.

## **Physics**

The students study the following topics, all of which are compulsory:

#### Standard Level

- Topic 1 Mechanics
- Topic 2 Thermal physics
- Topic 3 Wave
- Topic 4 Electricity and magnetism
- Topic 5 Circular motion and gravitation
- Topic 6 Atomic, nuclear and particle physics
- Topic 7 Energy production
- + One option

#### **Higher Level**

- Topic 1 Mechanics
- Topic 2 Thermal physics
- Topic 3 Wave
- Topic 4 Electricity and magnetism
- Topic 5 Circular motion and gravitation

- Topic 6 Atomic, nuclear and particle physics
- Topic 7 Energy production
- Topic 8 Wave phenomena
- Topic 9Electromagnetic Induction
- Topic 10 Fields
- Topic 11 Quantum and nuclear physics

## **Group 5: Mathematics**

## Mathematics HL

The course is for students with a good background in mathematics who are competent in a range of analytical and technical skills. They study seven topics, all of which are compulsory:

- Topic 1 Algebra
- Topic 2Functions and Equations
- Topic 3 Circular Functions and Trigonometry
- Topic 4 Vectors
- Topic 5 Statistics and Probability
- Topic 6 Calculus

+ One of the following options:

- Topic 7 Statistics and Probability
- Topic 7 Sets, Relations and Groups
- Topic 7 Series and Differential Equations
- Topic 7 Discrete Mathematics

## Assessment

- Mathematical exploration: The internally assessed component in this course is a mathematical exploration. This is a short report written by the student based on a topic chosen themselves, focusing on the mathematics of that particular area.
- 3 written examination papers.

## **Mathematics SL**

The course is for students who already possess knowledge and application of basic mathematical concepts and techniques. They study seven topics, all of which are compulsory:

- Topic 1 Algebra
- Topic 2 Functions and Equations
- Topic 3 Circular Functions and Trigonometry
- Topic 4 Vectors
- Topic 6 Statistics and Probability
- Topic 7 Calculus

## Assessment

- Mathematical exploration: The emphasis is on mathematical communication, with accompanying commentary, good mathematical writing and thoughtful reflection.
- 2 written examination papers.

## **Mathematical Studies SL**

The course is for students with varied backgrounds and abilities designed to build confidence and encourage an appreciation of mathematics in students who do not anticipate a need for mathematics in their future studies. They study seven topics, all of which are compulsory:

- Topic 1 Introduction to the Graphic Display Calculator
- Topic 2 Number and Algebra
- Topic 3 Sets, Logic and Probability
- Topic 4 Functions
- Topic 5 Geometry and Trigonometry
- Topic 6 Statistics
- Topic 7 Introductory Differential Calculus
- Topic 8 Financial Mathematics.

#### Assessment

- Individual piece of work involving the collection of information or the generation of measurements, and the analysis and evaluation of the information or measurements.
- 2 written examination papers.

## **Group 6: The Arts**

#### Music

The course is for the specialist music student with a background in musical performance and composition. HL students must complete all three components of the course. SL must choose between Performing and Creating.

#### Assessment

#### **Standard Level**

Written examination paper

#### **Higher Level**

- Written examination paper
- Creating three pieces of coursework with recordings and written work
- A solo performance recording selected from pieces presented during one or more public performances

#### Theatre

Theatre is a practical subject that encourages discovery through experimentation, risk-taking and the presentation of ideas. The IB DP theatre course is multifaceted and gives students the opportunity to actively engage in theatre as creators, designers, directors and performers. It emphasizes working both individually and collaboratively as part of an ensemble.

#### Assessment

- Performance and Production Presentation (TPPP)
- Independent Project Portfolio (IPP)
- External Assessment Practical Performance proposal (PPP)

## **Visual Arts**

The course is a combination of practical (studio) work driven by research and investigation about the themes, styles and techniques of art from a variety of cultures and time periods. The course is designed to prepare students who wish to study visual arts in higher education, as well as welcoming those students who wish to pursue creative approaches in their overall course of study.

#### **Higher Level and Standard Level**

Whether the students choose to work at Higher Level or Standard level, the course consists of three components, all of which are compulsory:

- Exhibition
- Process Portfolio
- Comparative Study

The difference between option A and B is the amount of evidence and time that is required to fulfill the course requirements for either option.

#### Assessment

- Exhibition (Practical)
- Process Portfolio
- Comparative Study

## **Information Directory**

For more information on the IB Diploma Programme of study please contact the relevant person below:

sdelhommeau@baliis.net

About the IB Diploma Programme	Mr Matthew Wood (IB DP Coordinator) dpcoordinator@baliis.net
Secondary School Principal	Mr Justin Walsh secondaryprincipal@baliis.net
About the GCP/CAS Programme	Mr Sylvain Delhommeau (CAS Coordinator)

#### **Useful Websites**

BIS Web Page www.baliisland.com About the IB www.ibo.org Pamoja Education www.pamojaeducation.com

#### References

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Making the PYP happen: A curriculum framework for international primary education. 2009. UK: International Baccalaureate.

#### MYP

MYP: From principles into practice. 2014. UK International Baccalaureate

#### DP

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