AISA Elementary Curriculum

Primary Years Programme

What is the PYP?

The Primary Years Programme is a curriculum framework designed for students aged 4 to 11 in classes KG1 to 5th grade. The PYP focuses on the whole child as an inquirer, both in the classroom and in the world outside.

What is the curriculum like?

The PYP curriculum is engaging, relevant, challenging and significant. It is inquiry based. It focuses on issues in Units of Inquiry that stimulate the natural curiosity of students and inspire them to ask questions. The issues addressed in the Units of Inquiry are transdisciplinary: they cut across traditional subject areas. This encourages students to see connections between subjects, further stimulating their curiosity. As inquirers, students construct their own meaning, rather than relying of their teachers to do so for them. Students, consequently, develop a deeper and more profound understanding.

IB LEARNER PROFILE

The aim of all IB programmes is to develop internationally-minded people who, recognising their common humanity and shared guardianship of the planet, help to create a better and more peaceful world. IB learners strive to be:

Reflective

Give thoughtful consideration to your own learning and experience.
You are able to assess and understand your strengths and limitations in order to support your learning and personal development.

Open-minded

Understand and appreciate your own culture and personal histories, and are open to the perspectives, values and traditions of other individuals and communities.
You seek and evaluate a range of points of view, and you are willing to grow from the experience.

Risk-takers

Approach unfamiliar situations and uncertainty with courage and forethought, and have the independence of spirit to explore new roles, ideas and strategies.
You are brave and articulate in defending your beliefs.

Caring

Show empathy, compassion and respect towards the needs and feelings of others.
You have a personal commitment to service, and act to make a positive difference to the lives of others and to the environment.

Balanced

Understand the importance of intellectual, physical and emotional balance to achieve personal well-being for yourself and others.

Principled

Act with integrity and honesty, with a strong sense of fairness, justice and respect for the dignity of the individual, groups and communities.
You take responsibility for your own actions and the consequences that accompany them.

Knowledgeable

Explore concepts, ideas and issues that have local and global significance. In so doing, you acquire in-depth knowledge and develop understanding across a broad and balanced range of disciplines.

Inquirers

Have a natural curiosity and learn to acquire the skills necessary to conduct inquiry and research and show independence in learning.
You actively enjoy learning and this love of learning will be sustained throughout their lives.

Communicators

Understand and express ideas and information confidently and creatively in more than one language and in a variety of modes of communication.
You are willing to work in collaboration with others.

Thinkers

Exercise initiative in applying thinking skills critically and creatively to recognise and approach complex problems, and make reasoned, ethical decisions.

What Are The **Five** Essential Elements Of The PYP Curriculum?

Knowledge: Significant, relevant content that we wish the students to explore and know about, taking into consideration their prior experience and understanding.

Concepts: Powerful ideas that have relevance within the subject areas but also transcend them and the students must explore and re-explore in order to develop a coherent in- depth understanding.

Skills: Those capabilities that the students need to demonstrate to succeed in a changing, challenging world, which may be disciplinary or transdisciplinary in nature.

Attributes: Dispositions that are expressions of fundamental values, beliefs and feelings about learning, the environment and people.

Action: Demonstrations of deeper learning in responsible behavior through responsible action; a manifestation in practice of the other essential elements.

Primary Years Programme

Trandisciplinary Learning

While the PYP acknowledges the importance of traditional subject areas (language, mathematics, social studies, science, personal social and physical education and arts), it also recognizes the critical importance of acquiring sets of skills and exploring content that transcends the boundaries of the traditional subjects

The PYP has six transdisciplinary themes that provide the framework for learning. These themes are globally significant and support the acquisition of knowledge, concepts and skills of the traditional subjects. These themes are revisited and reinforced yearly in the Units of Inquiry.

The six Transdisciplinary 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
An inquiry into the interconnectedness of human-made systems and communities; the structure and function of organizations; societal decision-making; economic activities and their impact on humankind and the environment.	An inquiry into orientation in place and time; personal histories; homes and journeys; the discoveries, explorations and migrations of humankind; the relationships between, and the interconnectedness of, individuals and civilizations from local and global perspectives.	An inquiry into the ways in which we discover and express ideas, feelings, nature, culture, beliefs and values; the ways in which we reflect on, extend and enjoy our creativity; our appreciation of the aesthetic.	An inquiry into the natural world and its laws; the interaction between the natural world (physical and biological) and human societies; how humans use their understanding of scientific principles; the impact of scientific and technological advances on society and the environment	An inquiry into the interconnectedness of human-made systems and communities; the structure and function of organizations; societal decision-making; economic activities and their impact on humankind and the environment.	An inquiry into rights and responsibilities in the struggle to share finite resources with other people and with other living things; communities and the relationships within and between them; access to equal opportunities; peace and conflict resolution.

What Do We Want Students To Understand?

The PYP identifies seven key concepts that facilitate planning for a conceptual approach to transdisciplinary and subject-specific learning. Together, these key concepts form the component that drives the teacher and/or student-constructed inquiries that lie at the heart of the PYP curriculum (IBO).

FUNCTION

How does it work?

Everything has a purpose, a role or a way of behaving that can be investigated.

FORM

What is it like?

Everything has features or characteristics that can be observed, identified, described, and categorised.

RESPONSIBILITY

What is our responsibility?

People makes choices based on their understanding and the actions they take as a result do make a difference.

CAUSATION

Why it is like it is?

Things do not just happen. There are always reasons behind events. This is cause and effect.

PRESPECTIVE

What are the points of view?

Different ways of looking a information. This leads to different interpretations, understandings, and findings.

CONNECTION

What is the link to other things?

The universe is a collection of systems made of individual parts that work with and effect each other.

CHANGE

How is it changing?

Everything is always in a state of transformation from one state to another. This happens to everything and everyone.

What Do We Want Students To Be Able To Do? Approaches to Learning

Approaches to learning (ATL) are an integral part of an IB education and complement the learner profile, knowledge, conceptual understanding and inquiry. These skills are grounded in the belief that learning how to learn is fundamental to a student's education. Five categories of interrelated skills aim to support students of all ages to become self-regulated learners who know how to ask good questions, set effective goals and pursue their aspirations with the determination to achieve them. These skills also help to support students' sense of agency, encouraging them to see their learning as an active and dynamic process (IBO 2017).

The IB's ATL aim to support student agency and the development of cognitive and metacognitive skills and dispositions so that students view learning as something that they "do for themselves in a proactive way, rather than as a covert event that happens to them in reaction to teaching" (Zimmerman 2000: 65). Together, these ATL help students think, research, communicate, socialize and manage themselves effectively (IBO).

Approaches to Learning Continued...

Categories	Sub-skills
Thinking skills	• Critical-thinking skills (analysing and evaluating issues and ideas) • Creative-thinking skills (generating novel ideas and considering new perspectives) • Transfer skills (using skills and knowledge in multiple contexts) • Reflection/metacognitive skills ((re)considering the process of learning)
Research skills	• Information-literacy skills (formulating and planning, data gathering and recording, synthesizing and interpreting, evaluating and communicating) • Media-literacy skills (interacting with media to use and create ideas and information) • Ethical use of media/information (understanding and applying social and ethical technology)
Communication skills	• Exchanging-information skills (listening, interpreting, speaking) • Literacy skills (reading, writing and using language to gather and communicate information) • ICT skills (using technology to gather, investigate and communicate information)
Social skills	• Developing positive interpersonal relationships and collaboration skills (using self-control, managing setbacks, supporting peers) • Developing social-emotional intelligence
Self-management skills	• Organization skills (managing time and tasks effectively) • States of mind (mindfulness, perseverance, emotional management, self-motivation, resilience)

The G5 PYP Exhibition

Students in their 5th and final year of the PYP participate in a culminating project: The PYP Exhibition. The Exhibition celebrates students moving from the PYP to middle school. It also serves as a final celebration where each student is required to demonstrate engagement, understanding and the ability to integrate the 5 essential elements of the program: knowledge, concepts, skills, attitudes and action. All teachers from Kindergarten to Grade 5 play a role in preparing students for their PYPX journey. (IBO)

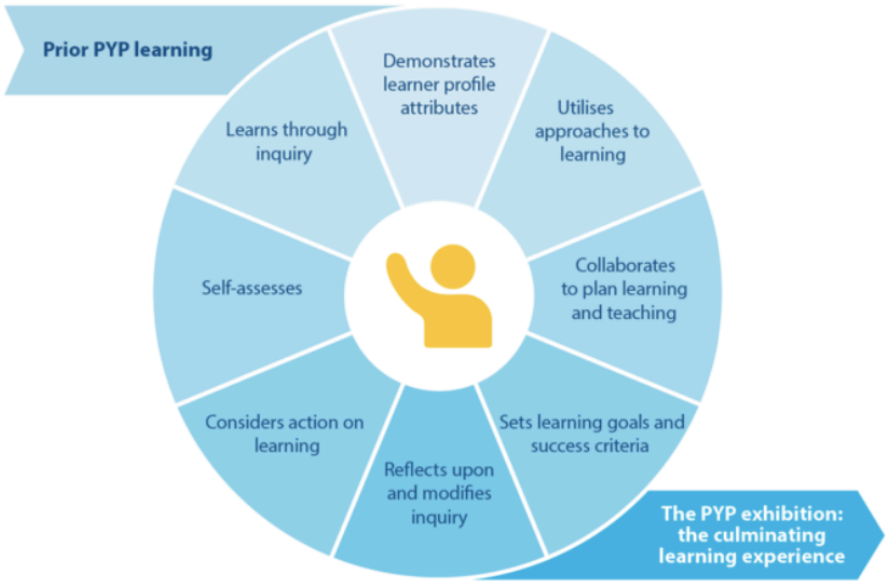
The Exhibition requires that students present an in-depth collaborative, transdisciplinary inquiry that involves them in identifying, investigating, and offering solutions to **real-life issues**. The Exhibition is so important that the entire school community is invited to celebrate this important event by observing the group presentations (IBO).

Key purposes of the Exhibition:

- Provide an opportunity for students to demonstrate independence and responsibility for their own learning.
- Provide opportunity for students to explore multiple perspectives.
- To demonstrate how students can take action as a result of their learning.
- To celebrate the transition into middle school.

Figure EX01

The PYP exhibition



How Do We Want Our Students to Act?

Action, the core of student agency, is integral to the Primary Years Programme (PYP) learning process and to the programme's overarching outcome of international-mindedness. Through taking individual and collective action, students come to understand the responsibilities associated with being internationally minded and to appreciate the benefits of working with others for a shared purpose. When students see tangible actions that they can choose to take to make a difference, they see themselves as competent, capable and active agents of change (Oxfam 2015).

Students take action in response to their inquiries or motivation to make a positive difference, bring about positive change (Boix Mansilla, Jackson 2011) or further their learning. As an integral part of the learning process, action can be embarked upon at any point and can take many forms, depending on individual development, learning and experiences. Action can be short or long term, revisited or ongoing. It may be individual or collective, small or large scale and may take place at home, at school or in local or wider communities. Some actions may not always be visible or immediately

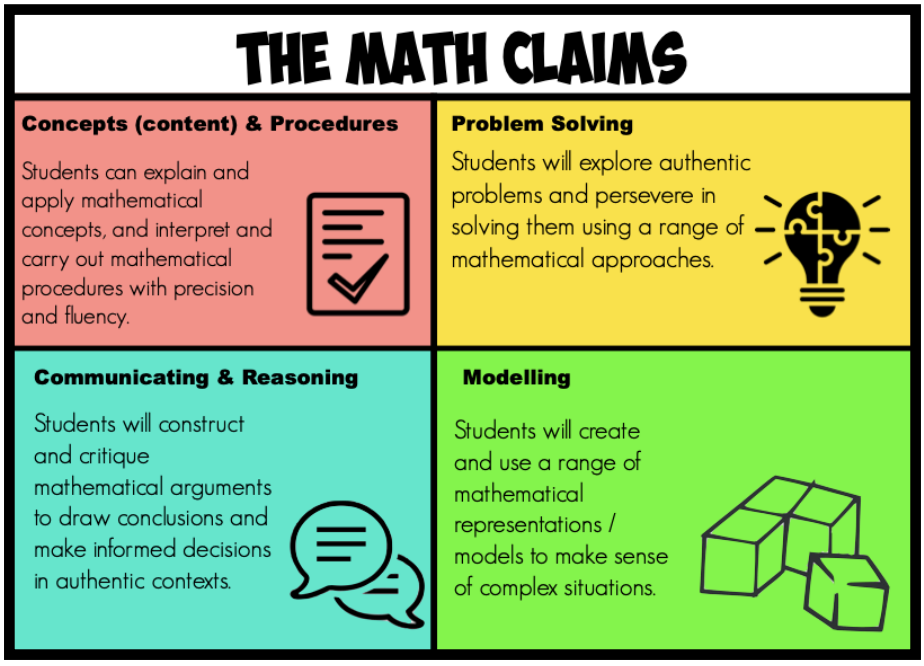
Math

AISA Philosophy

Proficient mathematics students at AISA are guided by the IBO's learner profile attributes and the Common Core's State Standards to build mathematical knowledge, conceptual understanding, skills and action at AISA. We view mathematics primarily as a vehicle to support inquiry, by providing a global language through which learners make sense of the world around them. It is intended that all learners become confident 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. 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. Learners should be provided opportunities to see themselves as "mathematicians" when exploring and learning about mathematics (Adapted from the *IBO).*

At AISA, we use the American Common Core State Standards. Which focus on math domains such as:

- Counting & Cardinality
- Operations & Algebraic Thinking
- Numbers & Operations Base Ten
- Numbers & Operations Fractions
- Measurement & Data
- Geometry



AT AISA we also implement a math workshop model with a focus on the 4 math claims above to develop confident mathematicians: Concepts & Procedures, Problem Solving, Communicating & Reasoning and Modelling. We also strive to not only focus on the answer but also what strategies students used to get to their answer.

Science

The American International School in Abu Dhabi has developed a unique approach to the teaching and learning of Science through the inclusion of the Next Generation Science Standards (NGSS) within the PYP curriculum framework. This approach enables students to develop an understanding of the Scientific Method.

Science is integrated into Transdisciplinary units of inquiry with a focus on building conceptual understanding, critical thinking and research skills. Students are encouraged to identify, reflect on, and ask questions about the major scientific concepts that drive each inquiry. Students also learn scientific skills. They are taught to handle tools, record and compare data, make accurate and detailed observations, and use them to formulate explanations.

The Science Curriculum is divided into four strands which are connected to one of the 6 Trandisciplinary Units mentioned above (Who We Are, Where We Are in Place and Time, Sharing the Planet, How We Express Ourselves, How The World Works, How We Organize Ourselves) to create our PYP Scope and Sequence.

Living Things: the study of the characteristics, systems, and behaviors of humans and other animals, and of plants; the interactions and relationships between and among them, and with the environment.

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.

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

Forces and Energy: the study of energy, its origin, storage and transfer and the work it can do; the study of forces; the application of scientific understanding through inventions and machines.

Literacy

At AISA we use the Common Core State Standards in alignment with Lucy Calkins' Reading and Writing Units of Study workshop model. Reading and writing workshops are deliberately designed to offer a simple and predictable environment so that the teacher can focus on the complex work of observing students' progress and teaching into their needs.

Workshop Model:

- Each session begins with a mini lesson. Kids sit with a long-term partner while in the mini lesson.
- The mini lesson ends with the kids being sent off to their own independent work.
- As students work, the teacher confers with them and leads small groups.
- Partway through independent work time, the teacher stands and delivers a mid-workshop teaching point.
- The workshop ends with a share.

Below are AISA's Literacy Agreements in alignment with the International Baccalaureate's Approaches to Teaching.

APPROACHES TO TEACHING		AISA Literacy Agreement
	**based on inquiry**	We believe in transdisciplinary learning and ensure that literacy content is integrated into our Units of Inquiry. We also believe in developing literacy skills for students to apply in their inquiry.
	**focused on conceptual understanding**	We believe in using the same visual scaffolds across learning settings to support transfer. Using and displaying universal AISA posters to support literacy is essential in developing students' conceptual understanding of literacies.
	**developed in local and global contexts**	We believe in reading literature that reflects our population cultural and linguistically. We also believe that all teachers are teachers of language as we recognize our large multilingual population.
	**focused on effective teamwork and collaboration**	We believe in shared reading and writing. We also believe in the power of peer learning and thus structure cooperative learning routines into our literacy teaching and learning.
	**differentiated to meet the needs of all learners**	We believe our literacy teaching should remove barriers to learning. Therefore we believe in small group instruction to ensure all students have access to consistently grow as readers and writers. We also believe in the use of mentor texts and exemplars in writing to exemplify literacy skills.
	**informed by formative and summative assessment**	We believe that assessment not only measures but drives learning. Measuring reading growth via running records, writing growth via on demands, and phonemic growth via observations and inventories ensures our literacy instruction is purposeful. We also recognized the role feedback plays in developing literacy skills in learners.

Social Studies

The American International School in Abu Dhabi has developed a unique approach to the teaching and learning of Social Studies through the inclusion of AERO within the PYP curriculum framework.

Like Science, Social Studies is integrated into Transdisciplinary units of inquiry with a focus on building conceptual understanding, critical thinking. The social studies standards are divided into our 6 Trandisciplinary Units of Inquiry mentioned above (Who We Are, Where We Are in Place and Time, Sharing the Planet, How We Express Ourselves, How The World Works, How We Organize Ourselves) to create our PYP Scope and Sequence.

AERO is driven by the following shared principles about high quality social studies education:

- Inquiry is at the heart of social studies.
- Social studies involves interdisciplinary applications and welcomes integration of the arts and humanities.
- Social studies is composed of deep and enduring understandings, concepts, and skills from the disciplines and emphasizes skills and practices as preparation for democratic decision-making.

Standard 1: Time, Continuity, and Change	Standard 2: Connections and Conflict	Standard 3: Geography	Standard 4: Culture
Students will understand patterns of change and continuity, relationships between people and events through time, and various interpretations of these relationships.	Students will understand causes and effects of interaction among societies, including trade, systems of international exchange, war, and diplomacy	Students will understand the interactions and relationship between human societies and their physical environment.	Students will understand cultural and intellectual developments and interactions among societies

Standard 5: Society and Identity	Standard 6: Government	Standard 7: Production, Distribution, and Consumption	Standard 8: Science, techonology, society
Students will understand social systems and structures and how these influence individuals	Students will understand why societies create and adopt systems of governance and how they address human needs, rights, responsibilities and citizenship.	Students will understand fundamental economic principles and ways in which economies are shaped by geographic and human factors	Students will understand how societies have influenced and been influenced by scientific developments and technological developments