

2019-2020 School Year

Program of Inquiry in Grade 4

Grade 4 Age: 9-10 years old						
Transdisciplinary Theme	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 nature of the self; beliefs and values; personal, physical, mental, social and spiritual health ; human relationships including families, friends, communities, and cultures; rights and responsibilities; what it means to be human.	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 on 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
Central Idea	The human body is a complex machine dependent on its systems	Human migration is a response to challenges, risks and opportunities	Inventions shape the lives of humankind	Light and sound help people experience their world	Economic systems guide decision making	Our use of natural resources entails social and environmental consequences
An inquiry into	<ul style="list-style-type: none"> Body systems and how they function The interdependence of body systems Our responsibility in maintaining healthy body systems 	<ul style="list-style-type: none"> Reasons why people migrate Migration throughout history Effects of migration on communities cultures and individuals. 	<ul style="list-style-type: none"> How inventions stem from ideas Evolution of inventions Impact of inventions on everyday life 	<ul style="list-style-type: none"> Sources of light and sound Ways light and sound are experienced How light and sound can be changed 	<ul style="list-style-type: none"> Characteristics of economic systems How different economic systems work together internationally How economic systems have an impact on us 	<ul style="list-style-type: none"> What natural resources are Consumption of natural resources The responsibility of stakeholders in conserving natural resources.

Languages

English

English is our shared language of instruction and communication. In a PYP school, the focus is not just on learning language in isolation, but also on the application of language skills across the subject areas and throughout the Programme of Inquiry. Some language is taught as 'stand-alone', while other aspects of language are taught in the context of our Units of Inquiry.

Students develop skills in the following strands of language learning:

Reading:

Students will read a variety of texts with fluency from diverse cultures, including fiction, nonfiction, graphic and informational texts. Students will read for accuracy and comprehension and use different strategies to suit that purpose either independently or while participating in Literature Circles.

Writing:

Students will follow the steps of the writing process while working on informative texts, historical fiction, narratives, and persuasive writing during their writer's workshop.

Listening and Speaking:

Students will be able to identify purpose for listening and speaking in a variety of situations, adapt different listening and speaking strategies to show their understanding, as well as analyze and reflect on these strategies to perfect them.

Viewing and Presenting:

Students will be able to view, analyze, interpret, and express their opinion on a range of media, including film, posters and models.

Arabic

- مع نهاية العام الدراسي، سيكون المتعلم قادراً على:
- الإصغاء إلى نصوص مسموعة والإجابة عن أسئلة تتعلق بها.
- قراءة نصوص تدرج تحت الفنون الأدبية (القصة، المقالة، السيرة والذكريات ...) وفهمها فهماً مُجملاً ومُفصلاً. وقراءة قصص حرّة والاستماع إليها بهدف الاستمتاع.
- التعبير شفهيّاً عن أفكاره ومشاعره وتقديم عروض شفهيّة مُستخدمًا لغة فصحي سليمة وكتابة فقر صحيحة المضمون والأسلوب.
- اكتساب مهارات القواعد اللغويّة والإملائيّة المقرّرة للصفّ الرابع وتطبيقها تطبيقاً صحيحاً.
- * المتعلمون الذين يتابعون برنامج اللّغة العربيّة كلغة أجنبيّة سوف يتبعون منهاجاً خاصّاً بهم.

French as an Additional Language

The aim of the program is to offer students a valuable educational experience and the opportunity to develop a basic usable command of the French language that can be expanded through further study or contact with French-speaking people. The students will use the language as a tool to ask and answer questions about immediate needs, as well as begin to express themselves orally and in writing in the language. Their learning will be assessed through different forms of evaluation.

Mathematics

The aim of our Mathematics Programme is to develop students' mathematical thinking, demonstrate mastery of the subject and show the ability to creatively apply their knowledge to solve problems in many ways.

Mathematics lessons are usually differentiated, with students working on a variety of tasks in various different flexible groupings, in order to challenge and support all students, regardless of their competency level or experience.

The different strands of Mathematics are:

The different strands of Grade 4 Mathematics Program are:

Number Sense:

Students will:

- read, represent, compare, and perform mathematical operations on whole numbers, fractions, and decimals using a variety of strategies.
- *Solve problems including addition and subtraction, multiplication and division of single and multi-digit whole numbers and involving addition and subtraction of decimal numbers to the tenths using a variety of strategies*

Shape and Space:

- *Identify quadrilaterals and three dimensional figures and classify them by their geometric properties and compare various angles to benchmarks.*
- *Construct three dimensional figures using two dimensional shapes*
- *Identify and describe the location of an object using a grid map and reflect two dimensional shapes*

Measurement:

- *Estimate, measure and record length ,perimeter, area, mass , capacity and elapsed time using standard units and a variety of strategies*
- *Determine the relationships among units and measurable attributes including area and perimeter of rectangles*

Data Handling:

- *Collect, organize, display, and interpret data using charts and graphs. Students will be able to describe probability in everyday situations through simple games.*

Patterns and Function:

- *Describe, extend, and create a variety of numeric patterns, make predictions related to patterns, and investigate repeated patterns.*

- *Demonstrate an understanding of the concept of equality pairs of expressions using addition, subtraction and multiplication*

Science

“In the PYP, science is viewed as the exploration of the biological, chemical and physical aspects of the natural world, and the relationship between them.... 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 the world.... .” (Making the PYP Happen, 2009, p.93)

Science does not appear as a stand-alone on the student’s timetable; rather, it is embedded within the units of inquiry. The **knowledge** component of **science** in the **PYP** is arranged into four elements: living things, Earth and space, materials and matter, and forces and energy.

Unit of Inquiry	Science Strand
Who we are	Living things (focus on biology)
Where we are in place and time	
How the world works	Forces and energy (focus on forms of energy: light and sound energy)
How we organize ourselves	
Sharing the Planet	Materials and matter (focus on properties and use of materials)
How we express ourselves	Forces and energy (focus on technological advances)

To ensure that students are well informed and confident, the following science skills are tackled throughout the academic year. Students will be able to:

- Observe carefully in order to gather data
- use a variety of instruments and tools to measure data accurately
- use scientific vocabulary to explain their observations and experiences
- identify or generate a question or problem to be explored
- plan and carry out systematic investigations, manipulating variables as necessary
- make and test predictions
- interpret and evaluate data gathered in order to draw conclusions

- consider scientific models and applications of these models including their limitations

Social Studies

“In the PYP, social studies is viewed as the study of people in relation to their past, their present and their future, their environment and their society. Social studies encourages curiosity, and develops an understanding of a rapidly changing world. Through social studies, students develop an understanding of their personal and cultural identities. They develop the skills and knowledge needed to participate actively in their classroom, their community, and the world: to understand themselves in relation to their communities.” (Making the PYP Happen, 2009, p. 103)

Social studies does not appear as a standalone on the student’s timetable; rather, it is embedded within the units of inquiry. The **knowledge** component of **social studies** in the **PYP** is arranged into five elements: human systems and economic activities, social organizations and culture, continuity and change through time, human and natural environments, and resources and the environment.

Unit of Inquiry	Social Studies Strand
Who we are	
Where we are in place and time	Continuity and change through time (focus on history; migration) Human and natural environments (related concept: population)
How the world works	Resources and the environment (focus on sustainability)
How we organize ourselves	Human systems and economic activities (focus on employment and cooperation)
Sharing the Planet	Resources and the environment (focus on sustainability)
How we express ourselves	The study of the relationship between people and events through time (Related concept: innovation)

To ensure that students are well informed and confident, the following social studies skills are tackled throughout the academic year. Students will be able to:

- formulate and ask questions about the past, the future, places and society
- use and analyze evidence from a variety of historical, geographical and societal sources
- orientate in relation to place and time
- identify roles, rights and responsibilities in society
- assess the accuracy, validity, and possible bias of sources

Arts

One way to foster the development of the whole child is by learning about and through the Arts. It promotes creativity, critical thinking, problem-solving skills and social interactions. Through our Arts Programme, students develop appreciation, empathy and Learner Profile attributes such as being a communicator and a risk-taker.

Visual Art units in Grade 4 include:

- Engage students in making 2D and 3D art projects.
- Create self-portraits using coloring pencils, markers and watercolor.
- Identify the elements and principles of art (line, shape, color, emphasis ...).
- Study proportion and gesture of human body.
- A glance at the history of art timeline and famous artists...

Music units in Grade 4 include:

- Listening to classical music, describing and analysing it.
- Performing with percussions to show tempo, dynamics, and style.
- Creating simple music phrases in response to what they listened to.

Personal Social and Physical Education

Personal and Social Education

As twenty-first century learners, students need to develop as autonomous and responsible people who take responsibility for their learning and their wellbeing be it physical, emotional, spiritual or social. All areas of the PYP curriculum address personal and social education and hence it is the shared responsibility of *all* teachers at the Elementary School to develop this aspect of the learner's education.

Students are encouraged to develop positive attitudes and behaviors in order to meet challenges, make healthy lifestyle choices, and become lifelong learners.

Physical Education

Learners understand the interconnectedness of the factors that contribute to a safe and healthy lifestyle, and set goals and identify strategies that will help develop well-being. They understand the physical, social and emotional changes associated with puberty. They apply movement skills appropriately, and develop plans to help refine movements, improve performance and enhance participation in a range of physical contexts.

PE units in Grade 4 include:

- Health Related Fitness (healthy eating, personal safety and injury prevention, human development)
- Movement Composition (gymnastics, Rhythmic Movement Skills: Line Dance, Musical Game, Creative Rhythmic)
- Racket Games (tennis, Badminton, table tennis, Scoop Games)
- Individual Pursuits/ Track And Field (Running, Throwing, Jumping)
- Adventure Challenge (Group Challenges Games)

Information and Communication Technology (ICT)

We recognize the pivotal role that information and communication technology (ICT) plays in the educational process. Most of the time, technology is integrated through all curriculum areas to make learning more authentic. A variety of multimedia resources such as laptops, tablets ... is used to equip students with the necessary skills and knowledge that they need as twenty- first century learners. To provide more student support, the grade level teachers work together with the Technology Coordinator in integrating technology into the curriculum

The ICT skills and knowledge are evaluated using the following NETS Standards for students: Multi literacies

- Design thinking
- Computational Thinking
- Spreadsheets
- Digital Citizenship & Online Safety
- Multimodalities

