



Franconian
International
School

MYP 4 and 5
Curriculum Booklet
2023 - 2025

Dear parents, guardians and students,

The purpose of this document is to support understanding of the International Baccalaureate's (IB) Middle Years Programme (MYP) and the courses we offer at the FIS. This booklet gives a brief overview of MYP philosophy and program model as well as subject specific overviews.

The FIS mission and vision aligns with the IB, and empowers students to inquire into a wide range of issues and ideas of significance locally, nationally and globally.

The MYP is guided by three principles which support students ages 11-16: holistic learning, intercultural awareness and communication. These are part of the IB learner profile attributes "balanced", "open-minded" and "communicators".

The key features of the MYP that help students develop both disciplinary and interdisciplinary understanding are:

- Approaches to Learning (ATL)- Developing skills for learning
- Approaches to Teaching - collaborative learning through Inquiry
- Concepts- The links between disciplines
- Global Contexts- ensuring learning takes place in context.

The Personal Project encourages students to strengthen their ATL skills and develop in an area of personal interest. Furthermore, Service as Action (community service) allows students to build authentic connections between what they learn in the classroom and what they encounter in the community.

An IB education empowers young people for a lifetime of learning, both independently and in collaboration with others. It prepares a community of learners to engage with complex global challenges through inquiry, action and reflection. Furthermore, it is an excellent foundation for transition into the Diploma Programme (DP) allowing them to acquire the necessary skills, knowledge and attitudes to be successful.

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FIS Guiding Statements

FIS Mission

To foster international-mindedness through a challenging curriculum in a caring and cooperative environment, inspiring students to become well-rounded citizens committed to the service of humanity.

FIS Vision

A community exemplifying progressive pedagogy, innovative technology, and service learning. Our students will exhibit integrity and the desire to make a positive impact in the world.

International Mindedness

All members of the FIS community are open, respectful and accepting. We seek to learn about others, recognizing both our differences and similarities, to create a better world.

High Quality Learning

Learning at the FIS is encouraged within authentic contexts, is constructivist, and inquiry-based, develops and thrives through creativity, and fosters critical thinking.

Grade 9 and 10 Course Overview for MYP 4 and 5

Works Cited:

"MYP From Principles into Practice", IBO, Nov 2022.

The MYP



The MYP begins in grade 6 with the first three years of the program (MYP 1 to 3), and continues into MYP 4-5 for its final two years in Grades 9 and 10.

The International Baccalaureate® (IB) Middle Years Programme (MYP) comprises eight subject groups:

- Language acquisition
- Language and literature
- Individuals and societies
- Sciences
- Mathematics
- Arts
- Physical and health education
- Design

The MYP requires at least 50 hours of teaching time for each subject group in each year of the program. In MYP years 4 and 5, students have the option to take courses from six of the eight subject groups to provide greater flexibility in meeting local requirements and individual student learning needs.

Compulsory Components

At the FIS, all students in MYP 4 & 5 must study the following:

- English and German: These may both be as Language and Literature (LL), or one as Language and Literature and one as Language Acquisition (LA).
- History or Geography
- Combined Sciences
- Mathematics (Mathematics or Extended Mathematics)
- Physical and Health Education
- Global Perspectives

For the MYP Certificate, students are also required to complete:

- 6 MYP onScreen assessments
- 1 ePortfolio
- Personal Project
- MYP Service As Action

MYP eAssessments

Guide

As a leader in international education, the International Baccalaureate (IB) is committed to preparing students for the challenges of today's world. IB programs assess understanding and skills that go beyond memorising facts and figures. In an era of rapid change and an ever increasing flow of information, students need to demonstrate their ability to organise knowledge and use it critically and creatively. The IB knows that students are increasingly digitally aware and engaged with technology, which is why the Middle Years Programme (MYP) is pioneering an innovative assessment model for Grade 5 students that goes beyond traditional examinations.

MYP external assessment provides a balanced and age-appropriate strategy that schools can use to validate student achievement. Students demonstrate their understanding and skills through classroom performance, onscreen final examinations and a personal project conducted over an extended period of time.

On-screen examination subjects	Mathematics	Language and literature	Sciences
	Language acquisition	Individuals and societies	Interdisciplinary
Individually, externally marked			
Coursework ePortfolio	Language acquisition	Physical and health education	Design
	Arts		
Internally marked, externally moderated (dynamic sampling)			
Personal project	Internally marked, externally moderated (dynamic sampling)		

Source: The IB's MYP From Principles into Practice (IBO, 2022).

Personal Project

Guide

The Personal Project is a capstone project for the MYP. Throughout the MYP, students are learning a variety of skills to help them become independent learners, in the MYP called “Approaches to Learning”: research, thinking, self-management, social and communication skills. The Personal Project is intended to allow students to choose a topic that is meaningful to them, and then undertake a long-term project to show their ability to implement these skills by doing research, thinking critically, working with others, creating and following through with a plan by managing their time, and reflecting on their experiences. One could argue that these skills are the most important skills they will learn in their whole school career – the skills that help them to be successful in any situation or workplace. In the immediate future, these skills set students up to work more independently and manage themselves more successfully in the IB Diploma Programme in Grades 11 and 12.

The Personal Project is assessed through a report in which students describe and show evidence of their planning, the application of their Approaches to Learning skills, and a reflection on the impact of the project on themselves and their learning.

Service as Action

Guide

Action in the MYP builds upon the action initiated in the PYP and continues as an essential component of the learning process, both as part of the programme’s educational philosophy and as a practical outcome of students’ learning. The MYP aims to help students develop their personal understanding, their emerging sense of self and their developmentally appropriate responsibility in their community.

The Service as Action program gives agency to students and allows them to:

- become more aware of their own strengths and areas for growth
- undertake challenges that develop new skills
- discuss, evaluate and plan student-initiated activities
- persevere in action
- work collaboratively with others
- develop international-mindedness through global engagement, multilingualism and intercultural understanding
- consider the ethical implications of their actions.

Source: The IB’s MYP From Principles into Practice (IBO, 2022).

Elective Courses

Electives are designed to match the developing needs and interests of students as they enter the MYP.

Careful thought should be given to the choice of electives, as decisions made now may have implications for a student's future choices and direction.

Because of timetabling and staffing constraints, not all combinations may be possible. Student choices will be looked at to finalise which choices will be offered.

Students choose three different courses, one from each group (A, B and C):

A	B	C
Geography	Visual Arts	Design
History	Theatre	Spanish (Language Acquisition)
	Music	Geography
	Design	
By school recommendation, Learning Strategies (LS) and Academic English Support (AES) may be offered as an alternative to one or more of the above subjects.		

Recognition in Germany

The MYP is recognized by the *Zeugnisenerkennungsstelle für den Freistaat Bayern* as an equivalent to the *Mittlerer Schulabschluss*, a school leaving certificate awarded at age 16.

Authoritative and detailed information on [MYP recognition is published by the Zeugnisenerkennungsstelle](#) and should be carefully consulted. More detailed information on the examinations for the MYP Certificate will be provided to students and parents at the beginning of Grade 9 (MYP 4). For any further information please reach out to Matt Chambers, Assistant Head of Secondary School (MYP) (matt.chambers@the-fis.de), or Manja Leib, Head of Marketing and Careers (manja.leib@the-fis.de).

Access to Learning

The following summarises the FIS approach to ensuring access to learning and how classes are designed, together with the supporting philosophy.

All children have the potential and capacity to learn. Children have different strengths, encounter different challenges, work at different paces, have different language, cultural and educational backgrounds and they may favour different approaches to learning. A totally homogenous group of students does not exist and any attempt to group students as such will always be imperfect.

This recognition of children as individuals is one of the great strengths of international schools. Learning about diversity, as well as what we have in common, amongst our community, contributes to international mindedness and interculturalism. To learn to listen, debate, collaborate and achieve with others, even when they do not necessarily believe and act as we do, provides an opportunity for our students to “exhibit integrity and a desire to make a positive impact in the world”. (FIS Vision)

At the FIS, our classes are composed of students of different backgrounds and abilities, enriching the learning environment. The positive impact is felt in academic as well as social and emotional learning. The curriculum, in its written and taught form, supports learning for all through differentiation. That is, a teacher responding to the needs of the individuals within the class to support effective learning for all. Teachers proactively and collaboratively plan varied approaches to what students need to learn, how they will learn it, and/or how they will demonstrate their learning.

Students following courses described in this booklet are, thus, taught in groups of mixed ability. To foster “a caring and cooperative environment”, at the FIS, the curriculum is differentiated to ensure it is challenging and appropriate to the needs of our students.

Learning Support

The Learning Support Department arranges co-taught, push-in and pull-out support to aid learning in some areas for students who have been diagnosed with learning exceptionalities and have presented a complete psychoeducational evaluation. At the recommendation of the department, a student with a learning exceptionality may substitute an exploratory course with a timetabled 'Learning Strategies' course.

English as an Additional Language (EAL)

The English as an Additional Language (EAL) department arranges in-class support and small group pull-out support to individual students or groups of students enrolled in the EAL program, in addition to running the MYP English Language Acquisition course and Academic English Support as recommended for some EAL students based on their English language proficiency level.

MYP Subject Groups and Courses

The Arts

In MYP arts, students function as artists as well as learners of the arts. Artists have to be curious. By developing curiosity about themselves, others and the world, students become effective learners, inquirers and creative problem-solvers. Students create, perform and present arts in ways that engage and convey feelings, experiences and ideas.

Through this practice, students acquire new skills and master those developed in prior learning. Development in the arts is a dynamic process, and not necessarily linear. Students move freely through a creative process towards a deeper understanding of the arts. The process of creating artwork, as well as the product, demonstrates what students have experienced, learned and attempted to convey. Arts in the MYP stimulate young imaginations, challenge perceptions, and develop creative and analytical skills.

The course encourages students to understand the context and cultural histories of artworks, supporting the development of an inquiring and empathetic world view. Arts challenge and enrich personal identity and build awareness of the aesthetic in a real-world context.

MYP arts has four objectives of equal importance and value: knowing and understanding; developing skills; thinking creatively; responding. Although the objectives can be addressed separately to scaffold learning, collectively they enrich teaching and learning of the arts. More information about the structure of the subject group can be found by following this link (MYP Arts Subject Brief).

All courses in the Arts subject group share the same Aims, Objectives, and Criteria. The MYP offers Theatre, Music, and Visual Arts as elective courses. The topics covered are course specific and can be found below.

Music

Music in the MYP gives students access to musical experiences that allow for the development of thinking skills, intuitive skills, practical abilities, communication and the ability to relate to others. Engagement with existing and emerging music from the local community and from around the world allows students to understand the significance of music to the cultures of the world and, by engaging in practical work, to develop understanding of how the act of making music is a significant and universal aspect of human expression.

What might students know and understand in music?

- Traditions and musical heritage from different parts of the world, for example, popular music, the music industry, musical theatre, developments in music technology
- Current and emerging musical practices
- Methods of recording and communicating musical ideas such as various notation systems

What skills might students develop in music?

- Their ability to develop and carry out performances
- Skills, techniques and processes to create their own music, finding ways to capture it in performance, notation, recording or presentation
- An ability to experiment with sound sources, improvisation, practice and rehearsal routines

How might students think creatively in music?

- By experimenting with the artistic processes involved in making music
- By initiating, exploring and developing projects that are rewarding and challenging
- By creating their own music or improvising sections added to published musical scores

How might students respond to, or through, music?

- By developing their own musical style inspired by a particular genre or artist
- Through participating in “listen and respond” activities
- By creating music that demonstrates their exposure to various musical cultures

Theatre

Theatre in the MYP engages students in an active relationship with theatre and encourages autonomous learning and exploration. It encourages the growth of creative, reflective and communication skills through practical work. Emphasis is placed on the artistic process and the students’ understanding of this process as an essential component to their artistic development through continuous investigation, planning, goal setting, rehearsing, performing, reflection and evaluation.

What might students know and understand in Theatre?

- Theatre from a variety of performance practices, genres, movements or styles
- The context and conditions from which drama emerges
- The language of drama, the production elements, and how they interplay in developing and communicating ideas and feelings through drama

What skills might students develop in Theatre?

- The various artistic processes involved in “making drama”, that is, the processes involved in transforming a performance concept into live action
- The various planning processes and methods of structuring the actual “making of drama” such as brainstorming, storyboards, scripts, rehearsal schedules and techniques
- The production elements to translate ideas into dramatic form, for example, dramatic writing, direction, costume, lighting, scenery, use of masks, sound and so on

How might students think creatively in Theatre?

- Through storyboarding narratives, designing sets and props, interpreting text visually
- By improvising scenarios and creating collaborative Theatre
- Through creative writing, character design and creating alternative endings to performances

How might students respond to, or through, Theatre?

- A stimulus and/or a personal concern could be interpreted using a dramatic form, style or genre, for example, a text, a song, a photo, a newspaper article and so on
- By developing a performance to address a particular theme, concern or issue within a context
- By reviewing theatrical performances and production elements encountered

Visual Arts

Visual art has contributed to all cultures and societies throughout time. Experience in a wide range of visual art activities adds a creative and cultural dimension to student development that will benefit them for the rest of their lives. While traditional practices in the arts (for example, painting, sculpture, ceramics and architecture) have historically provided cultural records, contemporary practice and access to technology have given the tools of visual art a very broad palette. Digital technology, time-based art, installation and performance, to name but a few, add to traditional practice and bring an extra dimension and meaning to the students' experience in the visual art. The process of making ideas a reality using the skills and practices of visual art is an integral part of the substance of the MYP arts curriculum.

What might students know and understand in visual art?

- Art styles, movements, artists' practices, and specific artworks
- The use of specialist terminology and principles required by the visual art form being developed, for example, the vocabulary of expressionist painting
- The language of visual communication

What skills might students develop in visual art?

- Technical skills, skills of observation and practical aspects of visual art that allow students to incorporate ideas into their own work
- Skills to investigate and respond to art styles, art movements, artists' practices and specific artworks
- Knowledge of existing visual art practice(s) to influence and shape their artwork

How might students think creatively in visual art?

- Through creative approaches to art-making
- Through manipulation of medium and tool to influence the presentation of artworks
- By developing series of visual images to document thought processes in the creation of art

How might students respond to, or through, visual art?

- Use of stimuli or a personal concern that can be interpreted using an art form, style or genre
- By developing an artwork in response to the works of a particular genre, style or artist by deconstructing the elements of art in an artwork and reconstructing them differently

Design

Design, and the resultant development of new technologies, has given rise to profound changes in society, transforming how we access and process information, adapt our environment, communicate with others, solve problems, work and live.

MYP design challenges students to apply practical and creative-thinking skills to solve design problems, encourages students to explore the role of design in historical and contemporary contexts, and raises students' awareness of their responsibilities when making design decisions and taking action. Inquiry and problem-solving are at the heart of design. MYP design requires the use of the design cycle as a tool, which provides the methodology to structure the inquiry and analyse problems, the development of feasible solutions, the creation of solutions, and the testing and evaluation of the solution. In MYP design, a solution can be a model, prototype, product or system independently created and developed by students.

Design is an optional course in MYP 4 and 5 and includes both digital and product design elements. MYP design enables students to develop not only practical skills but also strategies for creative and critical thinking.

Individuals and Societies

Students have the opportunity to study either History or Geography in MYP Years 4 and 5.

At the end of MYP 3, students opt for either History or Geography, which they then go onto study throughout Grades 9 and 10. In recognition of the strong interest many of our students have in Business Management and Economics, and its availability at Diploma Programme level, MYP Geography and History will both include Business Management/Economics concepts throughout the 2 year course. This enables the department as a whole to actively engage in interdisciplinary learning and gives opportunities to engage with the global contexts in and out of the classroom environment. In 2022-2023, the department co-lead an interdisciplinary trip to Belgium engaging in key concepts connected to historic warfare.

The aims of MYP Individuals and Societies are to encourage and enable students to:

- Appreciate human and environmental commonalities and diversity,
- understand the interactions and interdependence of individuals, societies and the environment,
- understand how both environmental and human systems operate and evolve,
- identify and develop concern for the well-being of human communities and the natural environment,
- act as responsible citizens of local and global communities,
- develop inquiry skills that lead towards conceptual understandings of the relationships between individuals, societies and the environments in which they live.

Through the study of History and Geography, students will have the opportunity to explore a variety of issues and concepts which will allow students to build a conceptual understanding of the subjects whilst also exploring different topics of study. (MYP Individuals and Societies Subject Brief)

Both subjects will be assessed through an e-Assessment at the end of MYP 5. For both subjects, there is a selection of areas which will be examined; these can be seen below in the discrete subject briefs.

Geography

Topics of study:

- Changing population: natural increase, structure and migration
- Sustainable management of urban systems and environments
- Globalisation: trade, aid, exchange and flows
- Resource management: management of the extraction, production, consumption of natural resources and their security
- Impacts and management of tourism
- Sustainable management of physical processes: river and coastal environments
- Global climate change: causes, consequences, and responses
- Impacts and management of natural disasters
- Impacts and management of tectonically active areas
- Sustainable management of natural environments: characteristics and human impact on aquatic, deserts, forests, grasslands, and Arctic/Tundra
- Application of geographic information systems (GIS) to enhance the understanding of Geography

Geographical concepts and a “Nexus Approach” to contemporary issues, at a variety of scales, are threaded throughout the MYP 4 and 5 Geography syllabus at the FIS. Building upon the global contexts and key concepts in MYP 1,2 and 3, students will think critically about the relationships between physical and human geographies whilst exploring a variety of means to express these complex relationships. Fieldwork skills, data presentation and analysis are used to utilise both primary and secondary sources of information. These transferable approaches to learning will be used to reinforce project aims and prove or disprove hypotheses based on geographic theories and concepts.

Further resources and insights can be found on the FIS LibGuide accessed [here](#).

History

- Superpowers, empires and supranational institutions and organisations
- Peace and conflict
- Significant individuals
- Independence and national identity
- Rights and social protest
- Industrialization, industry and labour
- Globalisation: trade, aid, exchange and flows
- Intellectual and ideological movements/developments
- Pioneers, innovators and developers
- Health and medicine
- Individual, household and daily life
- Social, cultural and artistic developments

The above topics are taught using an inquiry methodology via statements of inquiry and research questions which are factual, conceptual and debatable. Through the MYP Global Contexts, Key Concepts and Related Concepts, the MYP 4 and 5 History course explores 2500 years of human interactions, covering the following units of inquiry.

- Ancient Greece
- Byzantine Empire and the Plague of Justinian
- The First Crusade
- The Renaissance
- US Revolution
- Industrial and Ideological Revolutions
- Peacemaking and Warfare in the 20th century

Language Acquisition (English, German and Spanish)

- All students take German either as a Language Acquisition course or as additional Language and Literature Course, depending on the student's readiness level.
- Students may take Spanish as an additional option in MYP 4 and 5
- In the MYP, once students satisfy the assessment criteria for language acquisition phase 4 or 5, they either move to the next higher phase, or to the language and literature programme.
- Students who reach the assessment criteria for MYP phase 6, must move to the language and literature programme.
- Unless specifically stated in an IIEP, students are expected to progress to the next phase of language acquisition within two years.

The ability to communicate in more than one language is essential to the concept of an international education that promotes intercultural understanding, and is central to the IB's mission. The study of additional languages in the MYP provides students with the opportunity to develop insights into the features, processes and craft of language and the concept of culture, and to realise that there are diverse ways of living, behaving and viewing the world.

Acquiring an additional language, and exploring and reflecting on the cultural perspectives of our own and other communities:

- Is central to developing critical thinking and international-mindedness
- Provides an intellectual framework to support personal development, cultural identity and conceptual understanding
- Greatly contributes to the holistic development of students and to the strengthening of lifelong learning skills
- Equips students with the necessary multiliteracy skills and attitudes to communicate successfully in various global contexts

The aims of MYP language acquisition are to encourage and enable students to:

- Gain proficiency in an additional language while supporting maintenance of their mother tongue and cultural heritage
- Develop respect for, and understanding of, diverse linguistic and cultural heritage
- Develop the communication skills necessary for further language learning, and for study, work and leisure in a range of contexts
- Develop multi-literacy skills through the use of a range of learning tools
- Develop an appreciation of a variety of literary and non-literary texts and to develop critical and creative techniques for comprehension and construction of meaning
- Recognize and use language as a vehicle of thought, reflection, self-expression and learning in other subjects
- Understand the nature of language and the process of language learning
- Gain insight into the cultural characteristics of the communities where the language is spoken
- Gain awareness and understanding of the perspectives of people from own and other cultures
- Develop curiosity, inquiry and a lifelong interest in, and enjoyment of, language learning

German

The course content is organised around five broad topic areas which provide contexts for the acquisition of vocabulary and the study of grammar and structures. Through the study of these topic areas, candidates gain insight into target language countries and communities. The topic areas are:

- Family
- Friends
- Hobbies
- School
- Jobs
- Food
- House
- Clothes
- Media
- Health Body parts
- Weather
- Environment
- Holidays and celebrations
- City
- Future plans
- Dreams

IB Topics:

- Social relationships
- Communication and media
- Global issues
- Cultural diversity

- Customs and traditions
- Health
- Leisure
- Science and technology

Spanish

The course content is organised around five broad topic areas which provide contexts for the acquisition of vocabulary and the study of grammar and structures. Through the study of these topic areas, candidates gain insight into target language countries and communities. The topic areas are:

- Everyday activities
- Personal and social life
- The world around us
- The world of work
- The international world

English Language Acquisition

Topics (phases 2 to 4) include:

- Technology
- Exploration
- Environment and Wildlife
- Transport
- Competition
- Fashion
- Health
- Young and Old
- Culture and Society
- Happiness and Fulfilment
- Migrations
- Bilingualism and Multilingualism
- Human Rights

Language and Literature (English and German)

Language is fundamental to learning, thinking and communicating, as well as providing an intellectual framework to support conceptual development. It plays a central role in developing critical thinking, cultivating international-mindedness, exploring and sustaining personal development and cultural identity, and responsibly participating in local, national and global communities.

MYP language and literature courses equip students with linguistic, analytical and communicative skills that help to develop interdisciplinary understanding. Students develop skills in six domains— listening, speaking, reading, writing, viewing and presenting—both independently and with others. MYP language and literature courses include a balanced study of genres and literary texts, including a world literature component.

Students' interactions with texts generate moral, social, economic, political, cultural and environmental insights. Through their studies, students learn how to form opinions, make decisions, and engage in ethical reasoning. Depending on students' readiness level, they may take English, and or German Language and Literature courses. More information about Language and Literature shared aims and objectives can be found by following this link (MYP Language and Literature Subject Brief).

Topics covered in both the German and English Language and Literature courses include:

- Identity, heritage, culture, diversity
- Communities, globalisation, migration, displacement
- Social history, civilizations, journeys
- Media and mass communication
- Childhood, adolescence, youth, rebellion, innocence and experience
- Families, friendships, relationships
- Systems, power and protest, justice, peace and conflict, freedom and independence
- Health and well-being, environment, lifestyle
- Social roles, norms and expectations, gender, inclusion, minorities
- Utopias, dystopias, survival
- Religion, faith, values, ritual, spirituality, taboos
- Allegiance, betrayal, revenge, atonement, forgiveness (MYP eAssessment Topic List)

Mathematics

The framework for MYP mathematics outlines four branches of mathematical study:

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

The study of mathematics is a fundamental part of a balanced education. It promotes a powerful universal language, analytical reasoning and problem-solving skills that contribute to the development of logical, abstract and critical thinking. The MYP mathematics and extended mathematics courses promote both inquiry and application, helping students to develop problem solving techniques that transcend the discipline and are useful in the world outside school. Mathematics in the MYP is tailored to the needs of students, seeking to intrigue and motivate them to want to learn its principles. Students should see authentic examples of how mathematics is useful and relevant to their lives and be encouraged to apply it to new situations.

At the FIS, students may take Standard Mathematics or Extended Mathematics depending on readiness level.

Topics covered in Mathematics and the additional topics covered in Extended can be found by following this [link](#).

Physical and Health Education

MYP physical and health education aims to empower students to understand and appreciate the value of being physically active while developing the motivation for making healthy and informed life choices. To this end, physical and health education courses foster the development of knowledge, skills and attitudes contributing to a balanced and healthy lifestyle. Students engaged in physical and health education will explore a variety of concepts that help foster an awareness of physical development and health perspectives, as well as positive social interaction.

Physical activity and health are of central importance to human identity and global communities, creating meaningful connections among people, nations, cultures and the natural world. Through physical and health education, students learn to appreciate and respect the ideas of others, and develop effective collaboration and communication skills. This subject area also offers many opportunities to build positive interpersonal relationships that can help students to develop a sense of social responsibility and intercultural understanding. At the FIS, PHE is a required course for all students.

The aims of MYP physical and health education are to encourage and enable students to:

- Use inquiry to explore physical and health education concepts
- Participate effectively in a variety of contexts
- Understand the value of physical activity
- Achieve and maintain a healthy lifestyle
- Collaborate and communicate effectively
- Build positive relationships and demonstrate social responsibility
- Reflect on their learning experiences

MYP eAssessment: Students seeking IB-validated physical and health education course results must demonstrate their achievement of the subject group's objectives by submitting a Portfolio at the end of Year 5 in which they:

- Identify a target that incorporates physical and psychological dimensions of performance in physical and health education
- Create, implement and document progress towards their goal through multiple interim cycles of analysis
- Record and evaluate their final performance
- Reflect on their personal growth and interpersonal skills (MYP PHE Subject Brief)

Sciences

With inquiry at the core, the MYP sciences framework aims to guide students to independently and collaboratively investigate issues through research, observation and experimentation. The MYP sciences curriculum explores the connections between science and everyday life. As they investigate real examples of science applications, students discover the tensions and dependencies between science and morality, ethics, culture, economics, politics, and the environment. Scientific inquiry 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.

In the Middle School, MYP 1 to 3, the Science course incorporates multiple disciplinary perspectives. Starting in Grade 9, MYP 4, students take discrete courses focused on individual disciplines, while all discrete courses in the subject group share the same Aims, Objectives, and Criteria.

The FIS offers Biology, Chemistry or Physics as a mandatory course. The course specific topics that are covered can be found below:

Biology

- Cells (tissues, organs, systems, structure and function; factors affecting human health; physiology; vaccination)
- Organisms (habitat, ecosystems, interdependency, unity and diversity in life forms; energy transfer and cycles [including nutrient, carbon, nitrogen]; classification)
- Processes (photosynthesis, cell respiration, aerobic and anaerobic, word and chemical equations)
- Metabolism (nutrition, digestion, biochemistry and enzymes; movement and transport, diffusion; osmosis; gas exchange; circulation, transpiration and translocation; homeostasis)
- Evolution (life cycles, natural selection; cell division, mitosis, meiosis; reproduction; biodiversity; inheritance and variation, DNA and genetics)
- Interactions with the environment (tropism, senses, nervous system, receptors and hormones)
- Interactions between organisms (pathogens/parasites, predator/prey, food chains and webs; competition, speciation and extinction)
- Human interactions with environments (human influences, habitat change or destruction;

- pollution/conservation; overexploitation, mitigation of adverse effects)
- Biotechnology (genetic modification, cloning; ethical implications, genome mapping and application, 3D tissue and organ printing)

Chemistry

- Periodic table (metals and non-metals; transition metals, noble gases, trends, periods, groups)
- International Union of Pure and Applied Chemistry (IUPAC naming and classification of alkanes, alkenes, alcohols, carboxylic acids and esters; structural formulas)
- The atmosphere (characteristics of gases; atmospheric composition, testing and treatment; extraction, emission and environmental implications)
- Matter (states and properties of matter; particle/kinetic theory, diffusion; atomic structure [including Isotopes]; electron configuration and valency)
- Pure and impure substances (types of mixtures [solutions, oils, alloys, emulsions]; separation techniques, including filtration, distillation [including crude oil], chromatography)
- Bonding (structure and bonding, properties, chemical formulas, chemical reactions and the conservation of mass; balancing equations, the mole concept and chemical calculations; reaction kinetics [rates, and factors affecting rates/collision theory]; equilibria/reversible reactions; energy changes in reactions, endo- and exothermicity; combustion of fuels)
- Types of chemical reaction (acids and bases, neutral solutions, acid/base reactions, pH and indicators, formation of salts, uses of salts; redox reactions, reactivity series; extraction of metals, and corrosion, electrochemical cells)

Physics

- Forces and energy (measurement in science; states and properties of matter, kinetic theory, density; forces and effects of forces; forces and motion, speed, motion graphs, Newton's laws; pressure; work and power, efficiency; gravity and gravitational fields; energy sources and resources, fuels and environmental impact; energy transfer and transformation, conservation of energy)
- Electromagnetism (magnetism, electric and magnetic fields; static electricity; electromagnetic forces and induction, AC & DC; current, voltage, power, generation and transmission of electricity; electric circuits)
- Astrophysics (the solar system, planets and satellites, the Big Bang theory)
- Heat, light and sound (thermal physics; heat transfer, condensation and evaporation)
- Waves (longitudinal and transverse waves, sound waves; wave phenomena including reflection, refraction, diffraction; wave equation; electromagnetic spectrum, imaging and applications)
- Atomic physics (atomic structure, particles, charges and masses; radioactivity, decay and half-life, forms of radiation; uses and dangers) (MYP eAssessment Topic List)