

#### Overview

As of September 2018, The International School of Brno (ISB) has begun implementing the International Baccalaureate Primary Years Programme as a candidate school. The International Baccalaureate (IB) is a highly acclaimed educational program. The Primary Years Programme (PYP) was established in 1997 and provides a curriculum framework for students aged 3 - 12. Please visit our website to see the timeline for PYP authorization.

The IB offers a significant, challenging, engaging and relevant curriculum model that meets the needs of international student populations. It offers a framework that specifies what students learn, how they should learn and how they should be assessed. Schools use this framework to develop a high-quality curriculum that meets the needs of their student population and the local environment.

#### The Written Curriculum: What do students learn?

The PYP addresses students academic needs in addition to their social and emotional well-being. The IB identifies five key elements that students should develop: knowledge, understandings (concepts), skills and attributes.

#### Key Knowledge: Transdisciplinary Themes

The PYP is a transdisciplinary programme, meaning it consists mainly of integrated units of learning where traditional subjects like mathematics and language are learned in the context of the unit of inquiry. There are six subject areas, Language, Mathematics, Social Studies, Science, Arts, and Personal Social Physical Education, which are taught through six themes: Who We Are, Where We Are in Place & Time, How the World Works, How We Express Ourselves, How We Organize Ourselves and Sharing the Planet

<sup>\*\*</sup> More details about each subject is described further in this handbook.



Early Years classes (K1 - Year 1) have four units, while Primary School classes (Year 2 - Year 6) have six. The programme ends with the PYP Exhibition which is an exhibit by the year 6 students of their learning through their primary years.





### **Key Understandings (Concepts)**

The key concepts are essential to our programme and the way in which we plan to transfer learning between subject areas. You will see particular concepts identified within the units of inquiry.

#### **Form**

Key question: What is it like?

**Definition:** The understanding that everything has a form with recognizable features that can be observed, identified, described and

categorized.

#### **Function**

Key question: How does it work?

**Definition:** The understanding that everything has a purpose, a role or a way of behaving that can be investigated.

### **Causation**

Key question: Why is it like it is?

**Definition:** The understanding that things do not just happen, that there are causal relationships, and that actions have

consequences.

#### **Change**

Key question: How is it changing?

**Definition:** The understanding that change is the process of movement from one state to another.

#### Connection

**Key question:** How is it connected to other things?

**Definition** The understanding that we live in a world of interacting systems in which the actions of any individual element affect others.



#### **Perspective**

**Key question:** What are the points of view?

**Definition** The understanding that knowledge is led by perspectives; different perspectives lead to different interpretations, understandings and findings; perspectives may be individual, group, cultural or disciplinary

### Responsibility

Key question: What is our responsibility?

**Definition:** The understanding that people make choices based on their understandings, and the actions they take as a result do

make a difference

### Key Skills (Approaches to Learning)

The Approaches to learning are valuable, not only to the units of inquiry but for any teaching and learning experience, and are therefore integrated into everything that we do at ISB. They are planned for in every subject area, giving teachers and students a common language with which to support the making of connections between different areas of learning.

#### **Self Management skills**

Organization: Managing time and tasks effectively

States of mind: Using strategies that manage state of mind

#### **Social Skills**

Interpersonal relationships, social and emotional intelligence: Developing positive interpersonal relationships and collaboration

#### **Communication Skills**

Exchanging information: Listening, interpreting and speaking

Symbolic exploration and expression



#### **Research Skills**

Information literacy: Formulating and planning, data gathering and recording, synthesizing and interpreting, evaluating and

communicating

Media literacy: Interacting with media to use and create ideas and information

### **Thinking Skills**

Critical Thinking: Analysing, Evaluating and Forming Decisions

Creative Thinking: Generating novel ideas and considering new perspectives

#### **Key Attributes (Learner Profile)**

The aim of all IB programmes is to develop internationally minded people. Therefore, IB learners strive to be:

**Inquirers:** Asking good questions and seeking good answers.

**Knowledgeable:** Understanding the world in different ways and in different contexts.

Thinkers: Making ethical decisions through critical thinking.

**Communicators:** Expressing thoughts, emotions, ideas and opinions with confidence and clarity in multiple languages.

**Principled:** Acting with honesty, fairness, integrity, accountability and always respecting others.

**Open-minded:** Seeking to learn about new cultures and their history while also learning about and appreciating our own.

**Caring:** Being compassionate and making a genuine effort to make the world a better place.



Risk-takers: Welcoming challenges and change.

**Balanced:** Working to ensure that we take care of our emotional, physical, intellectual and spiritual well-being and helping others to do the same.

Reflective: Looking objectively about our own strengths and weaknesses and always setting goals.

### The Taught Curriculum: How do students learn?

The main approach in the PYP is an inquiry-based approach. Inquiry is the process that moves students from their current level of understanding to a new and deeper level of understanding. Inquiry can look like: exploring, questioning, experimenting, playing, solving problems in a variety of ways, making predictions, defending a position, making and testing theories, collecting data and reporting findings.

Students are given voice, choice, and ownership over their own learning. With teacher facilitation, they are expected to be active participants, develop independence and take responsibility for their learning. At ISB we recognize that students learn differently, therefore learning in all subjects is differentiated for the specific needs of each child.

#### The Assessed Curriculum: How do we know what students have learned?

Regular assessments are carried out to provide feedback on the learning process:

- **Pre-assessment:** before the students start a unit to find out what they already know.
- Ongoing assessment: throughout the unit to find out how they are progressing
- Summative assessment: at the end of the unit, to find out what students have learned.



Teachers use assessment to identify what students know, understand, can do and feel. The purpose, means and outcomes of assessments should be clearly explained to all members of the learning community through SeeSaw, conferences and shares (see page 17 for more information about each of these or review our assessment policy available on the school website).

### **Year 5 Units of Inquiry**

\*September 2 - 6: Unit 0 Orientation to learning at ISB

September 9 - October 23	October 31 - December 13	January 6 - February 13	March 3 - April 1	April 14 - May 29	June 1 - June 19
Where We Are in Time &	How We Express	How the World Works	Sharing the Planet	How we Organize	Who We Are
<u>Place</u>	<u>Ourselves</u>			<u>Ourselves</u>	
Central idea: Mankind's	Central idea: People can	Central idea: Energy	Central idea: Children	Central idea: Humans	Central idea:
desire to explore leads to	create or manipulate	exists in many forms and	worldwide face a range of	form communities based	Interactions between
new journeys and	messages to target	can be converted, stored	challenges, risks and	on their needs and local	body systems allow for
discoveries.	specific audiences.	and used in sustainable	opportunities.	resources.	the human body to
		ways.	Lines of Inquiry:		function properly.
Lines of Inquiry:	Lines of Inquiry:		-Challenges, risks and	Lines of Inquiry:	
-reasons people explore	-How images, text and	Lines of Inquiry:	opportunities that children	-Kinds of communities	Lines of Inquiry:
-feelings, attitudes and	music are used to	- forms of energy	encounter (local and	-How local circumstances	-The different body
attributes associated with	influence behavior of	- the storage and	global)	influence the formation of	systems
exploration	target audiences	transformation of energy	-How children respond to	a community	-Factors that affect the
-discoveries as a result of	-Critical evaluation of	- Conservation of energy	challenges,	-Effects of urbanization	function of the human
exploration	messages presented in		risks and opportunities		body
-methods of navigation	media	Key Concepts: Form,	-Ways in which	Key Concepts: Form,	-What can we do to keep
	-How people respond to	Function, Connection	individuals and	Function, Causation	our body systems healthy
Key Concepts: Change,	messages		organizations protect		
Form, Perspective	-How technology		children		Key Concepts: Function,
	influences media.		J 311		Form, Responsibility
			Key Concepts: Form,		
	Key Concepts:		Perspective,		
	Perspective, Connection		Responsibility		



#### **Science**

Throughout the early and primary years at ISB, students learn about the following strands of science: living things, earth and space, materials and matter, forces and energy. They develop skills which allow them to act as scientists and carry out their own inquiries.

Science learning is linked to the unit of inquiry and students engage in inquiries which allow them to use scientific knowledge and develop research and thinking skills. In year 5, students explore the following scientific topics: energy (unit 3), natural resources (unit 5) and body systems (unit 6)

#### **Social Studies**

Throughout the early and primary years at ISB, students learn about the following social studies strands: social organization and culture, continuity and change throughout time, human and natural environments, resources and the environment

Social studies learning is linked to the unit of inquiry and students engage in inquiries which allow them to develop an understanding of the world through globally significant themes. Using a variety of sources, students learn to ask compelling questions, are encouraged to share ideas and take action. In year 5, students explore the following social studies topics: journeys and discoveries (unit 1), media (unit 2), communities (unit 5) and children's rights.

#### **Mathematics**

Students are given the opportunity to see themselves as mathematicians, as they explore the following mathematical strands: data handling, measurement, shape and space, pattern and function and number.

When learning mathematics students take part in activities that allow them to understand mathematical concepts, transfer this meaning into symbols and apply independently with understanding.

#### When constructing meaning about mathematical concepts students may...

• explore their own personal experiences, understandings and knowledge



- reflect upon interactions with objects and ideas
- interact with manipulatives/tangible materials
- engage in conversations with others

#### When transferring meaning into symbols students may...

- use symbolic notation: pictures, diagrams, modelling with concrete objects, math symbols (e.g. +, -, x, :, %)
- describe their own method using symbolic notation
- transfer into equations

### When applying with understanding students may...

- engage in authentic activities (hands-on, problem solving, realistic situations)
- select their own method and explain their thinking
- justify answers and the processes by which they arrive at solutions
- make and evaluate their own and each other's idea

Students will be introduced to the learning objectives below during year 5 with the expectation that most year 5 students are applying each skill by the end of the school year. These objectives will be reviewed and consolidated in year 6.

	Data Handling	Measurement	Shape and Space	Pattern and Function	Number
When constructing meaning	Understand that different types of graphs have special purposes	Understand procedures for finding area, perimeter and volume	Understand the common language used to describe shapes	Understand that patterns can be generalized by a rule	Model numbers to millions or beyond
learners:	Understand that the mode, median, mean and range can summarize a set of data	Understand the relationship between area and perimeter and volume, and between volume and capacity	Understand the properties of regular and irregular polyhedra  Understand the properties of circles	Understand exponents as repeated multiplication  Understand the inverse relationship between exponents and roots	Model ratios  Model integers in appropriate contexts  Model improper fractions and mixed numbers



Can b ()-1) Unde betwee	erstand that probability be expressed in scale or percent (0% - 100%) erstand the difference ween experimental and pretical probability	Understand unit conversions within measurement systems (metric or customary)	Understand how scale (ratios) is used to enlarge and reduce shapes  Understand systems for describing position and direction  Understand that 2D representations of 3D objects can be used to visualize and solve problems  Understand that geometric ideas and relationships can be used to solve problems in other areas of mathematics and in real life	Understand that patterns can be represented, analyzed and generalized using tables, graphs, words and when possible, symbolic rules.	Simplify fractions using manipulatives  Model decimal fractions to thousandths of beyond  Model percentages  Understand the relationship between fractions, decimals and percentages
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When transferring meaning into symbols learners:	Collect, display and interpret data in circle graphs (pie charts) and line graphs  Identify, describe and explain the range, mode, median and mean in a set of data  Set up a spreadsheet using simple formulas to manipulate data and to create graphs  Express probabilities using scale (0-1) or per cent (0% - 100%)	Develop and describe formulas for finding area, perimeter and volume  Use decimal and fraction notation in measurement, for example, 3.2 cm, 1.47 kg, 11/2 miles  Read and interpret scales on a range of measuring instruments  Measure and construct angles in degrees using a protractor  Carry out simple unit conversions within a system of measurement (metric or customary)	Analyze, describe, classify and visualize 2D (including circles, triangles and quadrilaterals) and 3D shapes, using geometric vocabulary  Describe lines and angles using geometric vocabulary  Identify and use scale (ratios) to enlarge and reduce shapes  Identify and use the language and notation of baring (compass) to describe direction and position  Create and model how a 2D net converts into a 3D shape and vice versa  Explore the use of geometric ideas and relationships to solve problems in other areas of mathematics.	Represent the rule of a pattern by using a function  Analyze pattern and function using words, tables and graphs, and, when possible symbolic rules	Read, write, compare and order whole numbers up to millions or beyond  Read and write ratios  Read and write integers in appropriate contexts  Read and write exponents and square roots  Convert improper fractions to mixed numbers and vice versa  Simplify fractions in mental and written form  Read, write, compare and order decimal fractions to thousandths or beyond  Read, write, compare and order decimal fractions to thousandths or beyond  Read, write, compare and order decimal fractions to thousandths or beyond  Read, write, compare and order percentages  Convert between fractions, decimals and percentages



When
applying with
understanding
learners:

Design a survey and systematically collect, record, organize and display data in a bar graph, circle graph, line graph

Identify, describe and explain the range, mode, median and mean in a set of data

Create and manipulate an electronic database for their own purposes

Determine the theoretical probability of an event and explain why it might differ from experimental probability Select and use appropriate units of measurement and tools to solve problems in real-life situations

Determine and justify the level of accuracy required to solve real-life problems involving measurement

Use decimal and fractional notation in measurement, for example, 3.2 cm, 1.47kg, 11/2 miles

Use timetables and schedules (12-hour and 24-hour clocks) in real-life situations

Determine times worldwide

Understand that geometric ideas and relationships can be used to solve problems in other areas of mathematics and in real life

Develop and describe formulas for finding area, perimeter and volume

Use scale (ratios) to enlarge and reduce shapes

Apply the language and notation of bearing to describe direction and position

Use 2D representations of 3D objects to visualize and solve problems, for example using drawings or models Select appropriate methods to analyze patterns and identify rules

Use functions to solve problems

Select and use an appropriate sequence of operations to solve word problems

Use whole numbers up to millions or beyond in real-life situations

Use ratios and integers in real-life situations

Convert improper fractions to mixed numbers and vice versa in real-life situations

Simplify fractions in computation answers

Use fractions, decimals and percentages interchangeably in real-life situations

Select an efficient method for solving a problem: mental estimation, mental computation, written algorithms, a calculator

Use strategies to evaluate the reasonableness of answers

Use mental and written strategies for solving fraction and decimal problems in real- life situations

Make estimations in real-life situations involving fractions, decimals and percentages.



### **English Language**

English language learning includes the following strands: speaking and listening, viewing and presenting, reading and writing. Students participate in a wide range of activities using a variety of resources. English language learning occurs throughout the school day in all subjects, as well as during specific English language lessons.

Students begin learning the objectives below during year 5 with the expectation that most year 5 students are applying each skill by the end of the school year.

Listening & Speaking	Viewing & presenting	Reading	Writing
Listening & Speaking  Learners:  participate appropriately as listener and speaker, in discussions, conversations, debates and group presentations  generate, develop and modify ideas and opinions through discussion  listen and respond appropriately to instructions, questions and explanations  infer meanings, draw conclusions and make judgments about oral presentations  argue persuasively and defend a point of view	Learners: view and critically analyse a range of visual texts, communicating understanding through oral, written and visual methods describe personal reactions to visual messages; reflect on why others may perceive the images differently identify factors that influence personal reactions to visual texts with the intention of influencing the way people think and feel interpret visual cues in order to analyse and make inferences about the intention of the message	Learners: read a variety of books for pleasure, instruction and information; reflect regularly on reading and distinguish between fiction and non-fiction and select books appropriate to specific purposes read a wide range of texts with increased confidence, independence and understanding work in cooperative groups to locate and select texts appropriate to purpose and audience participate in class, group or individual author studies, gaining an in-depth understanding of the work and style of	Learners: Write independently, with confidence, demonstrating a personal voice as a writer write for many purposes, both creative and informative, using different types of structures and styles according to the purpose of the writing  adapt writing according to the audience and demonstrate the ability to engage and sustain the interest of the reader use appropriate paragraphing to organize ideas select vocabulary and supporting
understand that ideas and opinions can be generated, developed and presented through talk; they work in	recognize and name familiar visual texts and explain why they are or are not effective, for example, advertising, logos, labels, signs, billboards	a particular author and appreciating what it means to be an author	select vocabulary and supporting details to achieve desired effects



pairs and groups to develop oral presentations

use an increasing vocabulary and more complex sentence structures with a high level of specificity

paraphrase and summarize when communicating orally

realize that grammatical structures can be irregular and begin to use them appropriately and consistently

reflect on communication to monitor and assess their own learning.

verbalize their thinking and explain their reasoning

Recognize that different forms of grammar are used in different contexts

Appreciate that language is not always used literally; understand and use the figurative language of their own culture

discuss a newspaper report and tell how the words and pictures work together to convey a particular message

realize that cultural influences affect the way we respond to visual effects and explain how this affects our interpretation for example, the use of particular colours or symbols

realize that individuals interpret visual information according to their personal experiences and different perspectives.

discuss and explain visual images and effects using appropriate terminology, for example, image, symbol, graphics

experience a range of different visual language formats; appreciate and describe why particular formats are selected to achieve particular effects

observe and discuss the choice and composition of visual presentations and explain how they contribute to meaning and impact, for example, facial expressions, speech bubbles, word images to convey sound effects

realize that visual presentations have been created to reach out to a particular audience and influence the audience in some way; discuss the effects used and how they might influence the audience. begin to identify genre (including fantasy, biography, mystery) and explain elements and literary forms that are associated with different genres

appreciate structural and stylistic differences between fiction and non-fiction; begin to show understanding of this distinction when structuring their own writing

make inferences and be able to justify them

identify and describe elements of a story plot, setting, characters, theme and explain how they contribute to its effectiveness

distinguish between fact and opinion, and reach their own conclusions about what represents valid information

begin to use a range of strategies to solve comprehension problems and deepen their understanding of text (reference reading behaviors)

identify relevant, reliable and useful information and decide on appropriate ways to use it

access information from a variety of texts both in print and online

know when and how to use the internet and multimedia resources for research

reread, edit and revise to improve their own writing, for example, content, language, organization

respond to the writing of others sensitively

use appropriate punctuation to support meaning

use knowledge of patterns to accurately spell high-frequency and familiar words

use a range of strategies to record words/ideas of increasing complexity

vary sentence structure and length

realize that writers ask questions of themselves and identify ways to improve their writing, for example, "Is this what I meant to say?"

check punctuation, variety of sentence starters, spelling, presentation

use a dictionary and thesaurus to check accuracy, broaden vocabulary and enrich their writing

choose to publish written work in handwritten form or in digital format independently

use written language as a means of reflecting on their own learning

work independently, to produce written work that is legible and well-presented, written either by hand or in digital format.



### **Czech Language**

Native Czech speakers will follow and study Czech language according to the expectations of the Czech Ministry of Education. The Czech teacher makes attempts to connect learning to the units of inquiry. During year 5, students participate in developing their writing skills, work on their ability to understand adequate written and oral instructions, and use various methods to build up their grammar skills(focusing on nouns, adjectives and verbs). More details for the year 5 curriculum is available in the <a href="Czech curriculum programme">Czech curriculum programme</a> of our partner school.

#### **Czech Studies**

Non-native Czech speakers have the opportunity to develop their understanding and appreciation of the people and culture of Czech Republic by studying its language and traditions. Students learn Czech language through activities linked to real life situations.

The Czech Studies teacher makes attempts to connect learning to the units of inquiry. During year 5, students will learn basic vocabulary related to school, food, celebrations, clothing and body parts. They will learn about traditional clothing and food, research famous places and tourism in Czech Republic, and practice grammar and pronunciation.

### The Arts

Students learn to respond and create different forms of art: visual arts, music, dance and drama. Subject specialists teach visual arts and music once a week. Students engage in activities connected to the unit of inquiry as well as subject specific art lessons which allow students to explore concepts and techniques. Dance and drama is often integrated into visual arts and music lessons.

During year 5, students will learn to sing and play music in unison, create their own instruments and explore sound energy and learn songs and rhythmical movements related to topics and concepts in the units of inquiry. Students will be exposed to a variety of visual art forms and learn different techniques for creating their own works of art. They will further explore concepts from their units of inquiry by designing their own advertisements, creating art to support children in the local community and working collectively to produce art.



### Personal Social Physical Education (PSPE)

At ISB, we value the development of personal, social, and physical well-being. All teachers share responsibility for this. Class teachers dedicate time during the school day, often during circle time, to help students develop and understanding of their own identities and discover ways to foster and sustain positive interactions. The class teacher chooses activities which are developmentally appropriate and specific to strengthening the class and local community.

Physical education (PE) is taught once a week for two class periods. During PE students develop an understanding of the factors that contribute to developing a healthy lifestyle. Throughout year 5, students engage in physical activities including athletics, indoor and outdoor games, dance and gymnastics. Additionally, students visit an outside venue to learn ice skating and swimming as part of our PE program.

### Information and Communication Technology (ICT)

ICT learning is led by all teachers throughout the curriculum and responsible digital citizenship is emphasized when using ICT tools. ISB students are taught to use ICT as a tool for communication, creativity and collaboration.



### How can I stay informed/learn more about the curriculum?

There are several opportunities throughout the school year that will help build an understanding of the curriculum and the way in which we teach at ISB.

**Coffee Hours** are held once a month for parents and teachers to participate in workshops which focus on understanding one part of the curriculum. These workshops are organized and often lead by the PYP coordinator.

**SeeSaw** is an online portfolio where teachers post everything from pictures of daily learning experiences, homework, rubrics and assignments. You can download the SeeSaw App and stay informed about your child's learning at school.

**Summative shares** are an opportunity for students to share the final outcome of their learning after a unit of inquiry with the school community. These will occur at least two times during the school year.

**Conferences** provide an opportunity for teachers, parents and students to communicate about the learning process and identify next steps. Conferences will occur at least three times during the school year.

**Classroom involvement** is always welcome at ISB. We value parents as active members of the learning community and encourage parents to get involved as much as possible. With our open door policy, you are always welcome to visit the classroom. In addition, the classroom teacher will be in touch about volunteer opportunities, for instance, as a helper during trips, a guest speaker, or a surprise reader.

To learn more about the PYP curriculum you can reference the PYP page of the IB website: <a href="www.ibo.org">www.ibo.org</a> or contact the PYP coordinator: <a href="mailto:jennifer.berry@isob.cz">jennifer.berry@isob.cz</a>