

## **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

\*\* 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.

### <u>Form</u>

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 3 Units of Inquiry

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

| September 9 - October 23<br>(32 days) | October 31 - December 13<br>(32 days) | January 6 - February 13<br>(28 days) | March 3 - April 1<br>(27 days) | April 14 - May 29<br>(25 days) | June 1 - June 19<br>(20 days) |
|---------------------------------------|---------------------------------------|--------------------------------------|--------------------------------|--------------------------------|-------------------------------|
| Where We Are in Time                  | How We Express                        |                                      |                                | How we Organize                |                               |
| & Place                               | <u>Ourselves</u>                      | How the World Works                  | Sharing the Planet             | <u>Ourselves</u>               | Who We Are                    |
| Central idea: Homes                   | Central idea: People                  | Central idea: People can             | Central idea: Water            | Central idea: Farm             | Central idea: Rights and      |
| reflect time periods,                 | express cultural identity             | apply their understanding            | plays an essential role in     | products are harvested,        | responsibilities allow a      |
| cultural influences and               | and recognize important               | of forces to solve real              | daily life but access to       | processed and distributed      | community to function.        |
| local conditions.                     | events through                        | world problems.                      | this resource can be           | to make the food we eat.       |                               |
|                                       | celebrations.                         |                                      | unequal.                       |                                | Lines of Inquiry:             |
| Lines of Inquiry:                     |                                       | Lines of Inquiry:                    |                                | Lines of Inquiry:              | -The different types of       |
| - What makes a home                   | Lines of Inquiry:                     | -Types of forces                     | Lines of Inquiry:              | - Origins of food              | communities                   |
| - How homes reflect                   | -Different cultures and               | -How people use simple               | - Where water comes            | - The processes and            | -The rights and               |
| family cultures                       | their celebrations.                   | machines to solve                    | from                           | preparation of food            | responsibilities within our   |
| - How homes reflect time              | -Significant times of the             | problems                             | - How water is used            | - Our responsibilities         | communities                   |
| and place                             | year for celebrations.                | -The process of design               | - Distribution and             | towards our food               | -The rights and               |
| - Factors that determine              | -The similarities in and              |                                      | availability of water          |                                | responsibilities we have      |
| where people live                     | differences between                   | Key Concepts: Function,              | - Human responsibilities       |                                | within our communities        |
|                                       | celebrations.                         | Form, Causation                      | regarding water                | Key Concepts: Function,        |                               |
| Key Concepts:                         |                                       |                                      |                                | Responsibility,                | Key Concepts: Form,           |
| Perspective, Change,                  | Key Concepts:                         |                                      | Key Concepts:                  | Connection                     | Function, Responsibility      |
| Causation                             | Perspective, Form,                    |                                      | Causation,                     |                                |                               |
|                                       | Connection                            |                                      | Responsibility,                |                                |                               |
|                                       |                                       |                                      | Perspective                    |                                |                               |



### 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 3, students explore the following scientific topics: force and motion (unit 3) the water cycle and filtration (unit 4), the food system and agriculture (unit 5).

## **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 3, students explore the following social studies topics: Homes around the world (unit 1), celebrations (unit 2), the availability of water (unit 4), and communities and responsibilities (unit 6).

## **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 3 with the expectation that most year 3 students are applying each skill by the end of the school year. These objectives will be reviewed and consolidated in year 4.

|  | Data Handling   | Measurement   | Shape and Space  | Pattern and Function  | Number   |
|--|---|---|--|---|--|
| When<br>constructing<br>meaning<br>learners: | Understand that data can be<br>collected, displayed and<br>interpreted using simple<br>graphs, for example, bar | Understand the use of standard units of measure perimeter, area and volume      | Understand common<br>language used to describe<br>shapes     | Understand that patterns<br>can be analyzed and rules<br>identified                               | Model numbers to<br>thousands or beyond using<br>the base 10 place value<br>system |
|  | graphs, line graphs   | Understand that measures<br>can fall between numbers<br>on a measurement scale, | Understand the properties of regular and irregular polyhedra | Understand that<br>multiplication is repeated<br>addition and division is<br>repeated subtraction | Model equivalent fractions   |

|  |  | 1   |   | -   |
|--|--|---|---|---|
| Understand that scale can<br>represent different quantities<br>in graphs | for example, 3.5 kg,<br>between 4 and 5 cm   | Understand the properties of circles  | Understand the inverse<br>relationship between<br>multiplication and division | Use the language of fractions, for example, numerator, denominator          |
| Understand that the mode<br>can be used to summarize a<br>set of data    | Understand the relationship<br>between units, for example,<br>meters, centimeters and<br>millimeters | Understand how scale<br>(ratios) is used to enlarge<br>and reduce shapes        | Understand the associative and commutative properties                         | Model decimal fractions to hundredths or beyond                             |
| Understand that one of the purposes of a database is to                  | Understand an angle as a measure of rotation   | Understand systems for<br>describing position and<br>direction                  | of multiplication   | Model multiplication and division of whole numbers                          |
| answer questions and solve problems                                      |  | Understand that 2D representations of 3D  |   | Use language of multiplication and division, for example, factor,           |
| Understand that probability<br>is based on experimental<br>events        |  | objects can be used to<br>visualize and solve<br>problems                       |   | multiple, product, quotient,<br>prime numbers, composite<br>numbers         |
|  |  | Understand that geometric ideas and relationships can be used to solve problems |   | Model addition and<br>subtraction of fractions with<br>related denominators |
|  |  | in other areas of mathematics and in real life                                  |   | Model addition and subtraction of decimals.                                 |

| When<br>transferring<br>meaning into<br>symbols<br>learners: | Collect, display and interpret<br>data using simple graphs, for<br>example, bar graphs, line<br>graphs<br>Identify, read and interpret<br>range and scale on graphs<br>Identify the mode of a set of<br>data<br>Use tree diagrams to<br>express probability using<br>simple fractions | Estimate and measure<br>objects using standard units<br>of measurement: perimeter,<br>area and volume<br>Describe measures that fall<br>between numbers on a<br>scale<br>Read and write digital and<br>analog time on 12-hour and<br>24-hour clocks | Sort, describe and model<br>regular and irregular<br>polygons<br>Describe and model<br>congruency and similarity in<br>2D shapes<br>Analyze angles by<br>comparing and describing<br>rotations: whole turn; half<br>turn; quarter turn; north,<br>south, east and west on a<br>compass<br>Locate features on a grid<br>using coordinates<br>Describe and/or represent<br>mental images of objects,<br>patterns and paths | Describe the rule for a<br>pattern in a variety of ways<br>Represent rules for patterns<br>using words, symbols and<br>tables<br>Identify a sequence of<br>operations relating one set<br>of numbers to another set                    | Read, write, compare and<br>order whole numbers up to<br>thousands or beyond<br>Develop strategies for<br>memorizing addition,<br>subtraction, multiplication<br>and division facts<br>Read, write, compare and<br>order fractions<br>Read and write equivalent<br>fractions<br>Describe mental and written<br>strategies for adding and<br>subtraction two-digit<br>numbers<br>Describe mental and written<br>strategies for multiplication<br>and division |
|--|---|---|--|--|--|
| When<br>applying with<br>understanding<br>learners:          | Design a survey and<br>systematically collect,<br>organize and display data in<br>pictographs and bar graphs<br>Select appropriate graph<br>forms to display data<br>Interpret range and scale on<br>graphs   | Use standard units of<br>measurement to solve<br>problems in real-life<br>situations involving<br>perimeter, area and volume<br>Select appropriate tools<br>and units of measurement  | Analyze and describe 2D<br>and 3D shapes, including<br>regular and irregular<br>polygons, using geometrical<br>vocabulary<br>Identify, describe and<br>model congruency and<br>similarity in 2D shapes<br>Recognize and explain<br>symmetrical patterns,   | Select appropriate methods<br>for representing patterns,<br>for example, using words,<br>symbols and tables<br>Use number patterns to<br>make predictions and solve<br>problems<br>Use the properties and<br>relationships of the four | Use whole numbers up to<br>thousands or beyond in<br>real-life situations<br>Use fast recall of<br>multiplication and division<br>number facts in real life<br>situations<br>Use decimal fractions in<br>real-life situations  |



| Use probability to determine<br>mathematically fair and<br>unfair games and to explain<br>possible outcomes<br>Express probability using<br>simple fractions | Use timelines in units of<br>inquiry and other real-life<br>situations | including tessellation, in the<br>environment<br>Apply knowledge of<br>transformations to<br>problem-solving situations | operations to solve<br>problems | Use mental and written<br>strategies for addition and<br>subtraction of two-digit<br>numbers and beyond<br>Use mental and written<br>strategies for multiplication<br>and division in real-life<br>situations |
|--|--|---|---------------------------------|---|
|  |  |   |                                 | Select an efficient method<br>for solving a problem, for<br>example, mental<br>estimation, mental or<br>written strategies, or by<br>using a calculator   |
|  |  |   |                                 | Use strategies to evaluate the reasonableness of an answer  |
|  |  |   |                                 | Add and subtract fractions<br>with related denominators<br>in real-life situations  |
|  |  |   |                                 | Add and subtract decimals<br>in real-life situations,<br>including money  |
|  |  |   |                                 | Estimate sum, difference,<br>product and quotient in<br>real-life situations, including<br>fractions and decimals   |



## **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 3 with the expectation that most year 3 students are applying each skill by the end of the school year.

| Listening & Speaking  | Viewing & presenting   | Reading  | Writing  |
|---|--|--|--|
| Listening & Speaking<br>Learners:<br>listen attentively and speak<br>appropriately in small and large group<br>interactions<br>listen to a variety of oral presentations,<br>including stories, poems, rhymes and<br>reports and respond to them with | Viewing & presenting<br>Learners:<br>view visual information and show<br>understanding by asking relevant<br>questions and discussing possible<br>meaning<br>discuss their own feelings in response<br>to visual messages; listen to other<br>responses, realizing that people react | Reading         Learners:         develop personal preferences,         selecting books for pleasure and         information.         read texts at an appropriate level,         independently, confidently and with         good understanding   | Writing Learners: engage enthusiastically in the process of writing write to communicate a message to a particular audience, for example, a news story, instructions, a fantasy story  |
| increasing confidence and detail<br>pick out the main events and relevant<br>points in oral texts<br>follow multi-step directions<br>retell familiar stories in sequence<br>anticipate and predict when listening to<br>text read aloud               | differently<br>realize that visual information reflects<br>and contributes to the understanding<br>of context<br>recognize and name familiar visual<br>texts, for example, advertising, logos,<br>labels, signs, ICT iconography   | recognize a range of different text<br>types, for example, letters, poetry,<br>plays, stories, novels, reports, articles<br>identify and explain the basic structure<br>of a story—beginning, middle and end;<br>may use storyboards or comic strips to<br>communicate elements<br>make predictions about a story, based<br>on their own knowledge and | use graphic organizers to plan writing,<br>for example, Mind Maps <sup>®</sup> , storyboards<br>organize ideas in a logical sequence,<br>for example, write simple narratives<br>with a beginning, middle and end<br>use appropriate writing conventions,<br>for example, word order, as required<br>by the language(s) of instruction<br>use familiar aspects of written<br>language with increasing confidence |

| use language for a variety of personal<br>purposes, for example, invitations<br>express thoughts, ideas and opinions                           | observe and discuss familiar and<br>unfamiliar visual messages; make<br>judgments about the effectiveness   | experience; revise or confirm<br>predictions as the story progresses<br>realize that there is a difference<br>between fiction and non-fiction and   | and accuracy, for example, spelling<br>patterns, high-frequency words,<br>high-interest words<br>use increasingly accurate grammatical                              |
|--|---|---|---|
| and discuss them, respecting<br>contributions from others  | scuss them, respecting<br>butions from othersdiscuss personal experiences that<br>connect with visual images  | use books for particular purposes, with teacher guidance  | constructs<br>write legibly, and in a consistent style  |
| participate in a variety of dramatic<br>activities, for example, role play,<br>puppet theatre, dramatization of<br>familiar stories and poems. | use actions and body language to reinforce and add meaning to oral presentations  | recognize and use the different parts<br>of a book, for example, title page,<br>contents, index   | write an increasing number of<br>frequently used words or ideas<br>independently  |
| use language to explain, inquire and compare   | select and use suitable shapes,<br>colours, symbols and layout for<br>presentations; practise and develop   | understand sound–symbol<br>relationships and apply reliable   | begin proofreading their own writing<br>and make some corrections and<br>improvements   |
| begin to understand that language use<br>is influenced by its purpose and the  | writing/calligraphy styles<br>realize that text and illustrations in  | phonetic strategies when decoding<br>print<br>use a range of strategies to<br>self-monitor and self-correct, for<br>example, meaning, context, rereading,<br>reading on, cross-checking one cue | begin using feedback from teachers<br>and other students to improve their<br>writing  |
| understand and use a specific  | reference materials work together to<br>convey information, and can explain<br>how this enhances understanding  |   | begin using a dictionary, and<br>thesaurus and word banks to extend<br>their use of language  |
| hear and appreciate differences  | with guidance, use the internet to access relevant information; process   | source against another  | begin keeping a log of ideas to write<br>about  |
| between languages<br>begin to communicate in more than   | and present information in ways that<br>are personally meaningful<br>through teacher modelling, become<br>aware of terminology used for visual<br>effects, for example, features, layout,<br>border frame | discuss their own experiences and<br>relate them to fiction and non-fiction   | over time, create examples of different<br>types of writing and store them in their<br>own writing folder   |
| one language   |   |   | with teacher guidance, publish written<br>work, in handwritten form or in digital<br>format   |
|  |   | texts<br>Instantly recognize an increasing bank<br>of high-frequency and high interest<br>words, characters or symbols  | participate in teacher conferences with<br>teachers recording progress and<br>noting new learning goals; self-monitor<br>and take responsibility for<br>improvement |



## **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 3, students focus on developing their reading and writing skills, work on their ability to understand adequate written and oral instructions, and use playful methods to build up their grammar knowledge. More details for the year 3 curriculum is available in the <u>Czech curriculum programme</u> 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 3, students will learn basic vocabulary related to school, home, neighborhood, celebrations, hobbies and nature. They will learn traditional poems and songs, locate important bodies of water in Czech Republic and practice polite greetings and phrases with the school community.

## 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 3, students will begin to build musical compositions, practice playing a variety of instruments 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 experimenting with force and motion, recreating crafts related to winter celebrations and creating water based 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 3, 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: <u>www.ibo.org</u> or contact the PYP coordinator: <u>jennifer.berry@isob.cz</u>