

Grade 4

International Baccalaureate Primary Years Programme (IBPYP)

The International School Rheintal is now an authorized IBPYP school. The school received authorization in June 2006. ISR follows the standards set by the IB for the Primary Years.

The IBPYP is an international curriculum framework designed for all children between the ages of 3 and 12 years. The programme focuses on the total growth of the developing child, affecting hearts as well as minds and addressing social, physical, emotional and cultural needs in addition to academic welfare. The PYP combines the best research and practice from a range of national systems with a wealth of knowledge and experience from international schools to create a relevant and engaging educational programme.

The programme offers a comprehensive, inquiry-based approach to teaching and learning. It provides an internationally designed model for concurrency in learning and incorporates guidelines on student learning styles, teaching methodologies and assessment strategies. The curriculum framework is an expression and extension of three inter-related questions: What do we want to learn? How best will we learn? How will we know what we have learned? Children are expected to begin learning a modern foreign language in order to enhance an international perspective.

The aims of the PYP are expressed as a series of desired attributes and dispositions that characterize successful students. This 'student profile' is outlined below.

INQUIRERS – Their natural curiosity has been nurtured. They have acquired the skills necessary to conduct purposeful, constructive research. They actively enjoy learning and this love of learning will be sustained throughout their lives.

THINKERS - They exercise initiative in applying thinking skills critically and creatively to make sound decisions and to solve complex problems.

COMMUNICATORS – They receive and express ideas and information confidently in more than one language, including the language of mathematical symbols.

RISK TAKERS – They can approach unfamiliar situations without anxiety and have the confidence and independence of spirit to explore new roles, ideas and strategies. They are courageous and articulate in defending those things in which they believe.

KNOWLEDGEABLE – They have spent time in school exploring themes which have global relevance and importance. In doing so, they have acquired a critical mass of significant knowledge.

PRINCIPILED – They have a sound grasp of the principles of moral reasoning. They have integrity, honesty and a sense of fairness and justice.

CARING – They show sensitivity towards the needs and feelings of others. They have a sense of personal commitment to action and service.

OPEN MINDED – They respect the views, values and traditions of other individuals and cultures and that they are accustomed to seeking and considering a range of points of view.

WELL BALANCED – They understand the importance of physical and mental balance and personal well-being.

REFLECTIVE – They give thoughtful consideration to their own learning and analyze their own personal strengths and weaknesses in a constructive manner.

At the heart of the programme is structured inquiry. Inquiry is the cornerstone of critical thinking and real world problem solving. Six organizing questions provide the framework for our exploration of knowledge at each grade level. The questions are:

- Who are we?
- Where are we in place and time?
- How do we express ourselves?
- How does the world work?
- How do we organize ourselves?
- How should we share the planet?

The units of study at each grade level represent a selection of important knowledge from the traditional school subjects of history, geography, science, literature, art, math and language. Some specific aspects of reading, writing and mathematics are more appropriately learned in their own right and these may be learned through more traditional approaches. Students will be working to develop communication, social, research, self-management and thinking skills.

The written curriculum (**what do we want to learn?**) is described in further detail over the next few pages. The planning of the curriculum is focused on the written curriculum to suggest key questions and around which to structure inquiry. Teaching focuses on facilitating inquiry in the classroom and beyond. The taught curriculum (**how best will we learn?**) is the written curriculum in action. The learned curriculum (**how will we know what we have learned?**) is the theory and application of effective assessment. Assessment is integral to all teaching and learning, it is integral to the taught curriculum. It focuses on the quality of student learning during the process of inquiry and the quality of student learning that is evident in the products of the inquiry. Through assessment we analyze student learning, the effectiveness of our teaching and it is used as a foundation on which to base future planning and practice.

What do we want to learn?

The written curriculum

The PYP strives for a balance between the search for understanding, the acquisition of essential knowledge and skills, the development of positive attitudes and the opportunity for positive action. The PYP emphasizes five components of the written curriculum. These are called the **Essential Elements** of the curriculum.

The Five Essential Elements

- 1. Concepts** are powerful ideas which have relevance within and across all of the subject disciplines which students will explore and re-explore in order to develop understanding. The concepts are designed to have a great significance within the subject disciplines and they transcend disciplinary barriers. Together the concepts form a powerful set of ideas that drives the teacher/ student constructed research projects and drives the units of inquiry. The concepts in the PYP are in the form of key questions. These questions shape the unit of inquiry giving it direction and purpose.
- 2. Knowledge** is significant, relevant and is the subject matter we wish the students to explore and know about. The PYP has identified organizing themes – areas of knowledge. The themes address the fields of knowledge which form the traditional disciplines but present these in a way which transcends these disciplines, facilitating transdisciplinary planning and teaching. The themes, as well as the student profile, provide the organizing structure for ISR’s Programme of Inquiry.
- 3. Skills** are those things the students need to be able to do to succeed in a changing, challenging world. The construction of meaning and understanding is complemented by the students’ acquiring and applying a range of skills.
- 4. Attitudes** are dispositions which are expressions of fundamental values, beliefs and feelings about learning, the environment, and people.
- 5. Action** is a demonstration of deeper learning in responsible behaviour through positive action and service; a manifestation in practice of the other **essential elements**.

1. PYP key concepts and related questions

Reflection

Definition:

The understanding that there are different ways of knowing and that it is important to reflect on our own conclusions, both with respect to the methods of reasoning we have employed and the quality and the reliability of the evidence we have considered.

Rationale:

This idea was selected for a series of interrelated reasons. It challenges the students to examine their evidence, methods and conclusions. In doing so, it extends their thinking into the higher order of metacognition, begins to acquaint them with what it means to know in different disciplines and encourages them to be rigorous in examining evidence for potential bias or other inaccuracy. This approach provides experience in the type of thinking demanded of students in such courses of study as the Theory of Knowledge component of the IBO’s Diploma Programme.

Examples of related concepts:

metacognition, reason, evidence, introspection, reliability

Key question: How do we know?

Responsibility

Definition:

The understanding that we are not passive observers of events but that we can make and must make choices and that, by doing so, we can make a difference.

Rationale:

This idea was selected because of the need to develop in our students the disposition towards identifying and assuming responsibility and towards taking positive action. This idea is directly linked to the action component of the essential elements in the PYP curriculum, which itself interfaces with the CAS programme of the IBO's Diploma Programme.

Examples of related concepts:

rights, duty, custodianship, citizenship, values, justice, initiative

Key question: What is our responsibility?

Perspective

Definition:

The understanding that knowledge is not constructed only from the perspective of a particular discipline, individual or group.

Rationale:

This idea was selected because of the compelling need to develop in our students the disposition towards rejecting simplistic, biased interpretations, towards seeking and considering the points of view of others and towards developing defensible interpretations.

Examples of related concepts:

subjectivity, fact, opinion, bias, prejudice, empathy

Key question: What are the points of view?

Connection

Definition:

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

Rationale:

This idea was selected because of the importance of appreciating that nothing exists in a vacuum but, rather, as an element in a system; that the relationships within and among systems are often complex and that changes in one aspect of a system will have consequences, even though these may not be immediately apparent; that we must consider the impact of our actions on others, whether at the immediate, personal level or at the level of far-reaching decisions affecting environments and communities.

Examples of related concepts:

systems, relationships, networks

Key question: How is it connected to other things?

Change

Definition:

The understanding that change is the process of movement from one state to another. It is universal and inevitable.

Rationale:

This idea was selected, not only because it is such a universal feature of all existence, but also because it has particular relevance to students in international schools for whom change in their own lives is often frequent and inescapable, and who are growing up in a world in which the pace of change is accelerating.

Examples of related concepts:

adaption, modification, cycles, sequences

Key question: How is it changing?

Causation

Definition:

The understanding that things do not just happen, that there are causal relationships at work and that actions have consequences.

Rationale:

This idea was selected because of the importance of prompting students to ask "Why?" and of helping them to recognize that actions and events have reasons and consequences. The analysis of causal relationships is significant within and across all disciplines.

Examples of related concepts:

consequences, sequences, patterns, impact

Key question: Why is it like it is?

Function

Definition:

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

Rationale:

This idea was selected because the ability to analyse function, role, behaviour and the ways in which things work, is fundamental to learning within and across all disciplines.

Examples of related concepts:

behaviour, operations, pattern, role, systems

Key question: How does it work?

Form

Definition:

The understanding that everything has a form with recognizable features which can be observed, identified, described and categorized.

Rationale:

This idea was selected because the ability to observe, identify, describe and categorize is fundamental to human learning within and across all disciplines.

Examples of related concepts:

properties, structure, features, categories, patterns

Key question: What is it like?

2. Knowledge

Organizing Themes for Units of Inquiry

The units of inquiry are organized under six organizing themes. Each class from Kindergarten to Grade 6 will study six units of inquiry in a year. I.S.R. has a two year Programme of Inquiry (twelve units per split grade level) called Year A and Year B. This ensures that each student will only study any unit of inquiry once.

Who we are

An exploration of the nature of the self; of our beliefs and values; of personal, physical, mental, social and spiritual health; of our families, friends, communities and cultures; of our rights and responsibilities; of what it means to be human.

Where we are in place and time

An exploration of our orientation in place and time; of our personal histories; of history and geography from local and global perspectives; of our homes and journeys; of the discoveries, explorations and migrations of humankind; of the contributions of individuals and civilizations.

How we express ourselves

An exploration of the ways in which we discover and express our nature, ideas, feelings, beliefs and values through language and the arts.

How the world works

An exploration of the physical and material world; of natural and human-made phenomena; of the world of science and technology.

How we organize ourselves

An exploration of human systems and communities; of the world of work, its nature and its value; of employment and unemployment and their impact on us and the world around us.

Sharing the planet

An exploration of our rights and responsibilities as we strive to share finite resources with other people and with other living things; of communities and of the relationships within and between them.

3. Skills (transdisciplinary)

Social Skills

In the Primary Years Programme at I.S.R. there is a requirement for all students to demonstrate a certain level of social skills to enable all students to have a good working environment. The teachers and adults who work in the community model and encourage all students to demonstrate the following social skills.

Accepting responsibility

Taking on and completing tasks in an appropriate manner; being willing to assume a share of the responsibility.

Respecting others

Listening sensitively to others; making decisions based on fairness and equality; recognizing that others' beliefs, view points, religions and ideas may differ from one's own; stating one's opinion without hurting others.

Cooperating

Working cooperatively in a group; being courteous to others; sharing materials; taking turns.

Resolving conflict

Listening carefully to others; compromising; reacting reasonably to the situation; accepting responsibility appropriately; being fair.

Group decision making

Listening to others; discussing ideas; asking questions; working towards and obtaining consensus.

Adopting a variety of group roles

Understanding what behaviour is appropriate in a given situation and acting accordingly; being a leader in some circumstances, a follower in others.

Thinking skills

Thinking skills are developed through the school's Programme of Inquiry. All students are monitored and assessed during the Primary Years Programme and supported individually to develop their thinking skills.

Acquisition of knowledge

Gaining specific facts, ideas, vocabulary; remembering in a similar form.

Comprehension

Grasping meaning from material learned; communicating and interpreting learning.

Application

Making use of previously acquired knowledge in practical or new ways.

Analysis

Taking knowledge or ideas apart; separating into component parts; seeing relationships; finding unique characteristics.

Synthesis

Combining parts to create wholes; creating, designing, developing and innovating.

Evaluation

Making judgments or decisions based on chosen criteria; standards and conditions.

Dialectical thought

Thinking about two or more different points of view at the same time; understanding both points of view; being able to construct an argument for either point of view based on knowledge of the other; realizing that others can also take one's own point of view.

Metacognition

Analysing one's own and others' thought processes; thinking about thinking and thinking about how one thinks and how one learns.

Research skills

Research skills are developed through the school's Programme of Inquiry. All students are monitored and assessed during the Primary Years Programme and supported individually to develop their research skills.

Formulating Questions

Identifying something one wants or needs to know and asking compelling and relevant questions which can be researched.

Observing

Using all the senses to notice relevant details.

Planning

Developing a course of action; writing an outline; devising ways of finding out necessary information.

Collecting data

Gathering information from a variety of sources, such as measuring, maps, polls, surveys, direct observation, resource books, films, people and exhibitions.

Recording data

Describing and recording observations, by drawing, note taking, making charts, tallying, writing statements.

Organizing data

Sorting and categorizing information; arranging into understandable forms, such as narrative descriptions, tables, timelines, graphs and diagrams.

Interpreting data

Drawing conclusions from relationships and patterns which emerge from organized data.

Presenting research findings

Effectively communicating what has been learned; choosing appropriate media.

Self Management skills

Self management skills will be developed individually on an on-going basis.

Gross Motor skills

Exhibiting skills in which groups of large muscles are used and the factor of strength is primary.

Fine motor skills

Exhibiting skills in which precision in delicate muscle systems is required.

Spatial awareness

Displaying a sensitivity to the position of objects in relation to oneself or each other.

Organization

Planning and carrying out activities effectively.

Time management

Using time effectively and appropriately.

Safety

Engaging in personal behaviour which avoids placing oneself or others in danger or at risk.

Healthy lifestyle

Making informed choices to achieve a balance in nutrition, rest, relaxation and exercise; practising appropriate hygiene and self-care.

Codes of behaviour

Knowing and applying appropriate rules or operating procedures of groups of people.

Informed choices

Selecting an appropriate course of action or behaviour based on fact or opinion.

Communication skills

Students will be encouraged to develop the following communication skills.

Listening

Listening to directions; listening to others; listening to information.

Speaking

Speaking clearly; giving oral reports to small and large groups; expressing ideas clearly and logically; stating opinions.

Reading

Reading a variety of sources for information and pleasure; comprehending what has been read; making inferences and drawing conclusions.

Writing

Recording information and observations; taking notes and paraphrasing; writing summaries; writing reports; keeping a journal or record.

Non-verbal communication

Recognizing the meaning of visual and kinaesthetic communication.

4. Attitudes

Attitudes: what do we want the students to feel?

While recognizing the importance of concepts, knowledge and skills, the PYP believes that these alone do not make an internationally educated person. We focus on the development of positive attitudes towards people, towards the environment and towards learning.

The PYP does not believe it effective to rely on these attitudes being fostered in an implicit way, as some form of hidden curriculum. We address them consciously and explicitly within the written curriculum, we design activities which promote positive attitudes and we consider attitudes when we are designing assessment strategies.

Appreciation

- Appreciating the wonder and beauty of the world and its people.

Commitment

- Being committed to their learning, persevering and showing self-discipline and responsibility.

Confidence

- Feeling confident in their ability as learners, having the courage to take risks, applying what they have learned and making appropriate decisions and choices.

Cooperation

- Cooperating, collaborating and leading or following as the situation demands.

Creativity

- Being creative and imaginative in their thinking and in their approach to problems and dilemmas.

Empathy

- Imaginatively projecting themselves into another's situation, in order to understand his/her thoughts, reasoning and emotions.

Curiosity

- Being curious about the nature of learning and of the world, its people and cultures.

Enthusiasm

- Enjoying learning.

Independence

- Thinking and acting independently, making their own judgements based on reasoned principles and being able to defend their judgements.

Integrity

- Having integrity and a firm sense of fairness and honesty.

Respect

- Respecting themselves, others and the world around them.

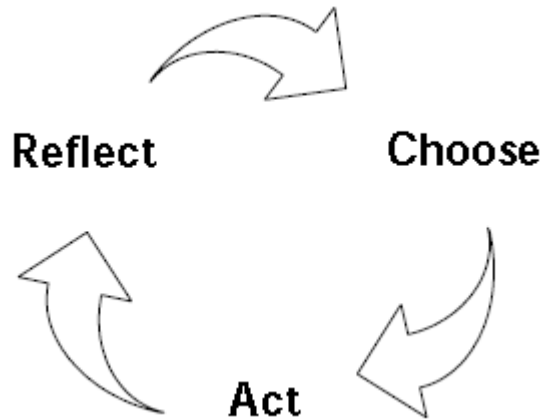
Tolerance

- Feeling sensitivity towards differences and diversity in the world and being responsive to the needs of others.

5. Action

The PYP believes that international education must extend beyond intellectual attainment to include not only responsible attitudes but also thoughtful and appropriate action. International schools can meet the challenge of offering all learners the opportunity and the power to choose their actions, to act and to reflect on these actions in order to make a difference in and to the world.

The PYP believes that every student, every year, has the right and the duty to be involved in such action. In order to make the action component of the curriculum as powerful as possible in terms of student learning the PYP advocates a cycle of involvement which provides students with opportunities to engage in meaningful action.



The action component of the PYP involves service in the widest sense of the word: service to fellow-students, to the staff and to the community. Through such service, students are able to grow both socially and personally, developing skills such as cooperation, problem solving, conflict resolution and creative and critical thinking. These actions are, moreover, ways in which the students exhibit their commitment to the attitudes that we seek to engender within the PYP classroom.

Units of Inquiry Grade 4 2010-11

Theme: Where we are in place and time

Unit title: On the Move

Central Idea: People move from place to place for different reasons.

Lines of inquiry:

- Where people move from and to
- Why people move
- What changes when people migrate

Theme: How we organize ourselves

Unit title: Ancient Civilizations

Central Idea: The systems of past civilizations are linked to societies and cultures of the present day.

Lines of inquiry:

- The time and place of ancient civilizations
- The systems developed by those civilizations
- How they are linked to the world we live in now

Theme: How the world works

Unit Title: Air Power

Central idea: Understanding how air works allows us to make practical applications.

Lines of inquiry:

- The properties of air
- How air is used to make things move
- The link between structures and materials on air powered movement

Theme: How we express ourselves

Unit title: Advertising – Take your pick

Central Idea: How we react to the power of advertising can influence our choices.

Lines of inquiry:

- The use of persuasive language, images and sounds for specific target groups
- The effect of advertising on our everyday choices

Theme: Sharing the Planet

Unit title: Habitats

Central Idea: Living things depend on their surroundings for survival

Lines of inquiry:

- Different life forms have different habitats
- Features of a habitat
- Changes that can affect a habitat

Theme: Who we are

Unit title: Rights and Responsibilities

Central Idea: Understanding our rights and responsibilities helps us to live together peacefully

Lines of inquiry:

- What it is to have our rights met
 - What it means to take responsibility
- Making the link between rights and responsibilities

Mathematics ages 9-12

Specific Expectations

Data Handling:

By the end of this age range students should be able to:

- design a survey and systematically collect, organize and record the data in displays: pictograph, bar graph, circle graph (pie chart), line graph
- create, interpret, discuss and compare data displays (pictograph, pie chart, bar/line graph) including how well they communicate information
- find, describe and explain the range, mode, median and mean in a set of data and understand their use
- create and manipulate an electronic database for their own purposes
- set up a spreadsheet, using simple formulas, to manipulate data and to create graphs
- use a numerical probability scale 0 to 1 or 0% to 100%
- determine the theoretical probability of an event and explain why it might differ from experimental probability.

Measurement:

By the end of this age range students should be able to:

- select and use appropriate standard units of measurement when estimating, describing, comparing and measuring
- use measuring tools, with simple scales, accurately
- understand that the accuracy of a measurement depends on the situation and the precision of the tools
- develop procedures for finding area, perimeter and volume
- determine the relationships between area, perimeter and volume
- estimate, measure, label and compare, using formal methods and standard units of measurement, the dimensions of area, perimeter and volume
- use decimal notation in measurement: 3.2cm, 1.47kg
- understand that an angle is a measure of rotation
- measure and construct angles in degrees using a protractor
- use and construct timetables (12-hour and 24-hour) and time lines
- determine times worldwide.

Shape and Space:

By the end of this age range students should be able to:

- use the geometric vocabulary of 2-D and 3-D shapes: parallel, edge, vertex
- classify, sort and label all types of triangles and quadrilaterals: scalene, isosceles, equilateral, right-angled, rhombus, trapezium, parallelogram, kite, square, rectangle
- understand and use the vocabulary of types of angle: obtuse, acute, straight, reflex
- understand and use geometric vocabulary for circles: diameter, radius, circumference
- use a pair of compasses
- understand and use the vocabulary of lines, rays and segments: parallel, perpendicular
- describe, classify and model 3-D shapes
- turn a 2-D net into a 3-D shape and vice versa
- find and use scale (ratios) to enlarge and reduce shapes
- use the language and notation of bearing to describe position
- read and plot coordinates in four quadrants.

Pattern and Function:

By the end of this age range students should be able to:

- understand and use the relationship between multiplication and addition
- understand and use the relationship between multiplication and division (inverse function)
- understand and use the relationship between division and subtraction
- model and explain number patterns
- use real-life problems to create a number pattern, following a rule
- develop, explain and model simple algebraic formulas in more complex equations: $x + 1 = y$, where y is any even whole number
- model exponents as repeated multiplication
- understand and use exponents and roots as inverse functions: 9^2 , $\sqrt{81}$.

Number:

By the end of this age range students should be able to:

- read, write and model numbers, using the base 10 system, to millions and beyond; and to thousandths and beyond
- automatically recall and use basic number facts
- create and solve multiple digit multiplication and division problems
- read, write and model addition and subtraction of fractions with related denominators
- read, write and model improper fractions and mixed numbers
- compare and order fractions
- model equivalency of fractions: $2/4 = 1/2$
- simplify fractions
- use the mathematical vocabulary of fractions: improper, mixed numbers
- read, write and model the addition and subtraction of decimals to the thousandths
- read, write and model multiplication and division of decimals (with reference to money)
- round decimals to a given place or whole number
- read, write and model percentages
- interchange fractions, percentages and decimals
- find and use ratios
- read, write and model integers
- read, write and model addition and subtraction of integers (negative numbers)
- read, write and model exponential notation
- select and defend the most appropriate and efficient method of solving a problem: mental estimation, mental arithmetic, pencil and paper algorithm, calculator.

Language ages 9-12

Oral Communication: listening and speaking

By the end of this age range students should be able to:

- use discussion to generate, develop, modify and present ideas
- participate appropriately in complex discussions, conversations, class and group meetings, debates and group presentations.
- argue persuasively and practice debating skills, presenting a point of view that is not necessarily their own
- understand how language can influence points of view and the responses of others
- infer meanings, draw conclusions and make judgments
- prepare and deliver an individual presentation for a variety of purposes (to entertain, to inform, to persuade, to direct)
- use a wide vocabulary and complex sentence structures with a high level of accuracy
- understand and use a variety of literary devices such as metaphor, simile, personification
- give complex instructions, directions and messages and respond appropriately to those of others
- listen appropriately for a sustained period and for a variety of purposes (e.g. to seek information, to gain knowledge, for instructions, for enjoyment)
- show an active interest in and respect for other languages
- identify and appreciate differences and similarities between languages
- communicate in more than one language.

Written Communication: reading

By the end of this age range students should be able to:

- critically evaluate their own choices in books and distinguish and appreciate commendable or notable literature
- identify the elements of plot (exposition, rising action, climax, falling action, resolution) and the pattern in story outline (choice, reversal, understanding)
- categorize literature (fable, myth, biography, novel, essay)
- identify genre (e.g. science fiction, mystery, historical novel)
- read widely across the genre and show an interest in a variety of literature
- identify the different types of conflict in a story
- make informed judgments about the author's purpose
- show appreciation of different writing styles
- recognize and understand figurative language (e.g. similes, metaphors, idioms)
- identify and discuss forms and structures
- independently select the appropriate reading strategy for the purpose of the activity (e.g. scanning, skimming, rereading)
- be familiar with the standard organization of informational text
- locate, access, organize and synthesize information from a variety of sources
- generate new questions after reading and connect these to prior knowledge and experience
- show awareness that poems have layers of meaning and that they need to be read and reread, and questioned and reflected on to yield their meaning
- be aware that poems are open to a range of interpretations
- understand that words can evoke mental images
- use specific vocabulary to comment on and analyse poetry (line, couplet, stanza, rhyme scheme etc).

Written Communication: writing

By the end of this age range students should be able to:

- participate in an appropriate writing process (e.g. group discussions, brainstorming, webbing, planning, drafting, revising, editing)
- use an appropriate writing process independently and confidently to communicate
- effectively and fluently
- display a sense of audience by writing in a variety of styles for a range of purposes: matching the style of writing to the task, adapting writing according to the audience and demonstrating the ability to engage and sustain the interest of the reader.

- plan, organize and complete writing projects of increasing length and complexity
- show individuality and creativity in writing style
- use a range of modes in writing: narrative, descriptive, persuasive, expository
- use writing independently and effectively to structure thinking and to communicate
- use a range of pre-writing strategies
- use a variety of strategies for collecting and organizing ideas, details and information
- revise writing to clarify ideas, provide examples, change sequence and to improve smooth flow of ideas
- use appropriate paragraphing
- edit and proofread their own and peers' writing before completing a final copy
- use appropriate punctuation and grammar (e.g. semicolons, colons, apostrophes, quotation marks)
- use correct syntax and increasingly complex sentence structure
- recognize and use the main parts of speech correctly (noun, verb, pronoun, adjective, adverb).
- use a range of vocabulary including content-specific vocabulary, which clearly and precisely conveys meaning and creates atmosphere and mood
- use figurative language appropriately in writing (e.g. simile, metaphor, alliteration, idiom)
- use standard spelling for most words and use appropriate resources to check spelling
- complete a bibliography to list resources
- have a fluent and legible style of handwriting and show competency in word processing
- write engaging stories that have a recognizable and appropriate structure
- use complex literature-response writing
- use a variety of note-taking and study skills to comprehend oral and written text and gather information during research
- experiment composing different forms of poetry, including free verse and those with specific structures.

Visual Communication: viewing and presenting

By the end of this age range students should be able to:

- define the role of advertising as part of media presentation.
- interpret and analyse the purpose and point of view of a visual presentation (television programme, advertisement, video)
- recognize that our interpretations of visual presentations are influenced by our backgrounds and experience
- develop an awareness of how characters in film are constructed
- analyse the different meanings that can be conveyed in different versions of the same story (eg film/film, film/book, comic strip)
- identify and analyse the structures and features characteristic of a range of visuals
- recognize that visuals are constructed for particular reasons
- understand that the form and quality of the presentation of their work reflects their thinking and attitudes.

The English-as-an-Additional-Language (EAL) Philosophy

ISR's EAL philosophy includes the creation of a supportive, non-threatening and inclusive environment where students can succeed in enhancing their language proficiency. We hope that the whole family will feel welcome here from the moment they enter the school. A support system will be established to ensure success, both academically and socially. In language teaching, we use a holistic and balanced approach by integrating the strands of reading, writing, listening, and speaking. We want to integrate our new students immediately and would like them to teach our school community about their culture. We support the maintenance of the mother tongue and encourage our students to use and advance their first language.

The ESL/EAL program

In-class support: Students in the EAL program receive in-class support which is based upon the current PYP Unit of Inquiry. Regular collaboration with the classroom teacher will determine which language aspects of the unit to develop. In the classroom, the EAL teacher will assist the students individually and in small groups in order to fully explain the tasks at hand and to help conduct them. Classroom visits help the EAL teacher determine the immediate needs of the student while identifying specific strategies to work on to help the students learn best in their classrooms.

Pull-out: Some students in the EAL program are withdrawn from their classes at times, depending on their needs. In these pull-out EAL classes, the students learn language skills that are often integrated with the current class units. The students perform tasks and engage in activities to help them become familiar with basic vocabulary that is of everyday use to them. In every unit, there is a grammar component which will give students an understanding of how the language works and the rules of syntax.

German - Native Speakers ages 9-12

Speaking and listening

By the end of this age range students should be able to:

- talk with confidence and expression in a variety of situations, describe events and convey opinions have an increasing awareness of the power of language
- use a wide range of linguistic structure and features to present ideas and information
- listen carefully to others during discussions, make contributions and ask questions that are responsive to others' ideas and views
- talk with appropriate use of German vocabulary and grammar
- reflect upon communication to monitor and assess their learning.

Reading

By the end of this age range students should be able to:

- read a range of texts fluently, accurately, and independently, for pleasure and for class inquiries
- read aloud with fluency, clarity and expression
- select important paragraphs from a text, make inferences and draw conclusions where appropriate
- identify key-features, themes and characters
- recognise and appreciate various literary styles, forms, and structures
- appreciate structural and stylistic differences between fiction and non-fiction
- retrieve and collate information and ideas from a range of resources
- raise questions and opinions about texts, refer to texts when expressing views
- appreciate a wide range of forms of literature and begin to recognise meaning beyond the literal
- read daily for enjoyment and information, for sustained periods
- skim read a text to find specific things
- explain their ideas about the differing styles of various authors, and describe how writers
- use language to achieve particular effects
- concentrate on reading for an extended period of time
- appreciate a wide range of forms of literature.

Writing

By the end of this age range students should be able to:

- write a creative and original account or story interesting to others,
- prepare written reports that are original and give insight into special topics
- write independently for a variety of different purposes
- use correct punctuation, including commas
- use varying types of sentence structure
- match different styles and structures of writing to the task
- write clearly structured stories (beginning – main part – ending) including structural elements such as characterisations, descriptions of places, people's feelings and sub plots
- use apt vocabulary and words for effect
- spell correctly a diverse range of complex vocabulary
- use an appropriate writing process independently and confidently to revise spelling, punctuation and structure of their writing to improve it
- develop their own voice and style
- distinguish "Nomen", "Verben" and "Adjektive."

German Beginner and Intermediate ages 9-12

Overall expectations:

Students new to the German language develop conversational skills and an appreciation of Swiss, Austrian and Liechtenstein culture. Students at higher levels develop reading and writing skills. Each class is divided into ability groups for instruction.

Oral communication: Listening and speaking

This process is very active. They have to listen and hear a lot to begin speaking.

By the end of this age range the students should be able to:

- understand much more than he/she can vocalise
- understand learned words and sentences in context
- understand simple and single sentences spoken at a slow rate
- understand a series of single sentences at near normal rate of speech
- understand complex sentences with some help
- understand German with slight modifications.

In reproductive speaking it is important that the reproduction is correct. In communication we concentrate on the content of what is said.

By the end of this age range the students should be able to:

- repeats and knows single words
- speaks in simple sentences in a given context
- speaks in simple sentences using fairly complex vocabulary
- speaks in complex sentences in a given context
- should be able to express him/ herself freely in an understandable manner
- speaks near a native speaker's level.

Productive, every day vocabularies have to be built up. Grammar will cover the basics in verbs, sentence construction, nouns and prepositions.

By the end of this age range the students should be able to:

- repeat basic sentences consisting of noun and verb
- use basic sentences (noun, verb) according to a given pattern
- use complex sentences (noun, verb, attribute) in the present tense in a given context
- use complex sentences in the past tenses in a given context
- use complex sentences freely
- use a variety of grammatical structures.

Written communication: Reading and Writing

Understanding the reading is done during the quiet reading process. Students will share a range of German texts to enhance learning.

Writing is seen as an additional aid for learning. Understanding is developed through storytelling, listening, mime, games and role playing.

By the end of this age range the students should be able to:

- write simple words
- simple sentences
- spell correctly learned words
- use complete sentences with full stops/ periods or question marks in the right place
- write nouns with capital letters
- write a simple story.

Visual communication: viewing and presenting

The goals are similar to the ones in language age range 7-9.

By the end of this age range the students should be able to:

- use a wide variety of different games
- read and work through books together
- present one of the books at the end of the year.

Science and Technology ages 9-12

Students will be exposed to the study of Living Things, Earth and Space, Materials and Matter and Forces and Energy through the schools Programme of Inquiry and class science investigation areas.

By the end of this age range students should be able to:

- use their senses and selected observational tools to gather and record observed information in a number of ways, and reflect on these findings to identify patterns or connections, make *predictions*, and test and refine their ideas with increasing accuracy.
- explore the way objects and phenomena function, identify parts of a system and gain an understanding of increasingly complex cause and effect relationships.
- examine change over time and recognize that change may be affected by one or more *variables*.
- be aware of different perspectives and ways of organizing the world, and will be able to consider how these views and customs may have been formulated.
- use their learning in science to plan positive and realistic action to improve their welfare and that of other living things and the *environment*.
- Communicate their ideas or provide explanations using their own scientific experience, and that of others.

Information Technology ages 9-12

Information technology is taught as an integrated part of the Primary Years Programme. Students are taught skills in specific I.T. lessons and then the skills are used and applied to the students' inquiries. Students will use I.T. as a tool for inquiry and research.

Specific expectations

The students should understand important issues of a technology-based society and should exhibit ethical behaviour in the use of computer and other technologies. The students should demonstrate knowledge and skills in the use of computer and other technologies.

By the end of this age range the students should be able to:

- Use imaging software
- Identify different types of image files
- Use the tool bar in various applications
- Open new documents and files
- Save documents and files
- Print documents and files
- Draw lines, ellipses, circles, squares and rectangles
- Enter, edit and format text
- Use the eraser tool
- Change the size of an image
- Use foreground and background colours
- Use the fill, brush and airbrush tools
- Use the palette to make your own colours
- Change colours of lines and objects
- Incorporate images from scanners and digital cameras
- Incorporate images from the internet
- Apply images as a background to the desktop
- Understand appropriate and inappropriate images at school
- Know about and respect copyright
- Use word processing software
- Find and insert images and clip art into a document
- Copy and paste pictures
- Edit pictures
- Move pictures
- Change Font, Font size, Font colour
- Use Word Art
- Move text within a document
- Develop editing skills
- Use WP software templates
- Write short texts and letters
- Make Posters
- Make Letterhead Paper

Social Studies All Grades

Social Studies curriculum is arranged into three main strands: **history, geography** and **society**.

History is the study of what we think is important about the human past. Through it the students develop an understanding of the past, its influences on the present and its implications for the future.

Geography considers the relationship between people and their environment, both natural and built. Through it students develop a sense of place and an understanding of human interaction with the Earth's surface and resources.

Society is the study of people and their relationships in society. Through it students develop an understanding of the ways in which individuals, groups and societies interact with each other and how their values shape our social systems. It incorporates the disciplines of anthropology, economics, ethics, politics, psychology and sociology.

Although these strands are considered separately, in practice they are inextricably linked. Social studies is essentially about people: how they think, feel and act; how they interact with others; their beliefs, aspirations and pleasures; the problems they have to face; how and where they live (or lived); how they interact with their environment; the work they do and how they organize themselves. Social studies provides opportunities for students to look at and think about human behaviour realistically, objectively and with sensitivity. It aims to guide students and teachers towards a deeper understanding of themselves and others, and of their place in an increasingly global society.

The social studies curriculum provides opportunities for students to:

- learn how to ask compelling and relevant questions that can be researched
- gain a secure understanding of their own identity and their place in the world
- develop an understanding of other cultural groups and an appreciation of other ideas and beliefs
- gain knowledge that is of genuine importance in understanding the human condition, through the exploration of themes that have significance for all students in all cultures
- gain conceptual understanding through participating in learning experiences that foster sensitivity, creativity and initiative, leading to socially responsible action
- gain a sense of time and place in relation to their own experience and the experience of other people
- gain an understanding of humankind's role in and dependence on the natural world, and learn to apply this knowledge in responsible ways.

Social Studies ages 9-12

By the end of this age range students should be able to:

- investigate aspects of human society, focusing on themselves and others within their own community as well as groups of people that are distant in time and place
- extend their understanding of how and why groups are organized within communities and how participation within groups involves both rights and responsibilities
- gain an appreciation of how cultural groups may vary in their customs and practices, but reflect similar purposes
- deepen their understanding of how people influence and are influenced by places in the environment
- appreciate the significance of developing a sense of belonging and stewardship towards the environment, valuing and caring for it, in the interests of themselves and future generations
- extend their understanding of time, recognizing how ideas and actions of people in the past have changed the lives of others and appreciating how the past is recorded and remembered in different ways
- gain an understanding of how and why people manage resources and why different systems for the exchange of goods and services have developed

- have the opportunity to identify and reflect on the organizing themes, through the central ideas defined in the programme of inquiry, by making connections between the questions asked and the concepts that should be driving the inquiry
- become aware of the relevance these concepts have to all of their learning.

Drama ages 9-12

Creative exploration and expression

By the end of this age range students should be able to:

- use drama to explore and engage in concepts taken from the units of inquiry
- express and explore feelings and emotions, including those of others, through role play
- use a variety of materials to convey location and character symbolically
- recognize the value of individual creative thought and make suggestions to develop it
- script an original story and follow through to production
- find appropriate ways to take action through the performing arts.

Technical incorporation

By the end of this age range students should be able to:

- perform using a series of props, sets, costumes and make-up
- portray a character using special effects such as make-up, wigs and costumes
- understand the importance of appropriately incorporating props, set, make-up, costume, sound and lighting into a production
- write a script using plot, tension, climax and resolution and follow through to production
- play a character within a production with confidence, memorizing lines and complex stage directions.

Performance

By the end of this age range students should be able to:

- maintain an appropriate stage presence
- use performance as a problem-solving tool
- choose and use numerous formats and performance types appropriately, for example, polished musical versus improvised mime
- use persuasive techniques in body language and facial expression
- improvise sequentially, freely and immediately with confidence and imagination
- use performance within the PYP exhibition.

Personal and social development

By the end of this age range students should be able to:

- understand and maintain appropriate behaviours in drama
- work to enhance the creative ideas and performances of others
- exhibit increasing self-confidence in both formal and informal performances.

Reflection, evaluation and appreciation

By the end of this age range students should be able to:

- discuss performance and presentation experiences, to identify what has been effective and what needs to be developed, paying attention to what worked well, and why
- develop rubrics and checklists for self, peer and group assessments.

Drama in society

By the end of this age range students should be able to:

- experience a wide variety of live performances
- recognize varying cultural perspectives and how they are expressed through drama
- identify and communicate with local community theatre groups
- understand and appreciate some of the varied roles of theatre practitioners and interview, research and write about careers within the performing arts.

Music ages 9-12

Performing: singing

By the end of this age range students should be able to:

- sing songs or voice parts with increasing control, confidence and expression in a wider pitch range
- sing more complex songs with increasing accuracy, including: singing notes of increased intervals; singing accurate note lengths; being aware of dynamics and tempo; using appropriate singing style
- sing from traditional notation
- sing songs from a variety of times and cultures
- sing with others, using ensemble skills and develop an awareness of audience.

Performing: playing instruments

By the end of this age range students should be able to:

- play a wide range of instruments with increasing accuracy in solo and ensemble performances
- perform complex rhythmic and melodic patterns in different simple and compound metres
- perform expressively to show tempo, dynamics, texture, style and articulation
- play music using non-traditional or traditional notation
- respond to directions from a conductor.

Creating and Composing

By the end of this age range students should be able to:

- create music in response to a range of stimuli
- continue to explore, create, select and organize sounds in simple musical forms
- purposefully organize sounds in simple musical forms including rondo
- use devices of motif and sequence in composition
- perform compositions using classroom instruments and other sound sources
- use a variety of textures in compositions
- use detailed notation to record and communicate ideas.

Notation

By the end of this age range students should be able to:

- use non-traditional and traditional notation to represent and record sound events songs
- use traditional and/or folk song material to learn appropriate melodic content
- use notation to practise and perform a piece of music
- read and notate using basic rhythm values of quarter note, eighth note, half note and whole note; quarter, half and whole rests
- begin to read and notate using rhythm values of sixteenth note
- begin to read and notate using dotted rhythms in compound metres.

Listening and Appreciation

By the end of this age range students should be able to:

- continue to distinguish and describe musical elements such as rhythmic patterns, melodic patterns and form
- continue to distinguish a range of instrumental sounds, including orchestral, non-orchestral, non-western and multi-ethnic
- describe music using appropriate vocabulary, giving reasons for preferences
- continue to develop an awareness and appreciation of music from different sources and cultures; its uses and associations.

Physical Education ages 9-12

Adventure Challenge

By the end of this age range students should be able to:

- solve challenging problems, individually, in pairs or in groups
- participate in group activities to accomplish a common goal.

Athletics

By the end of this age range students should be able to:

- practise specific techniques for jumping, throwing and running events
- learn and apply the rules of various events
- learn how to collect and record results
- understand and apply the safety rules in these events
- evaluate their athletic performance and understand how they can improve their performance.

Movement to Music

By the end of this age range students should be able to:

- demonstrate controlled combinations of movement, changing speed and direction
- combine locomotor and non-locomotor skills in order to refine rhythmic responses
- respond through movement to a range of stimuli
- express feelings and moods using imagination and original ideas
- create more complex movement sequences
- be exposed to a range of dances containing more complex step patterns
- master dances containing complex step patterns with partners and in small groups
- begin to recognize techniques and forms of dance
- be aware of the different purposes and types of dance
- appreciate the dances of different countries and cultures.

Game Skills

By the end of this age range students should be able to:

- develop coordination, manipulation, balance and spatial awareness
- participate in activities that refine locomotor skills
- become competent in handling different apparatus and small equipment
- participate in lead-up games
- participate in scaled-down or adapted versions of the recognized sports, for example invasion games, fielding and striking games, net games and target games
- develop their own innovative games and related activities.

Gymnastics

By the end of this age range students should be able to:

- combine movements to create sequences
- refine the traditional gymnastic skills, involving physical agility, flexibility, strength and coordination
- interpret and answer movement tasks in their own way, and at their own level, on the floor
- interpret and answer movement tasks in their own way, and at their own level, using apparatus
- combine locomotor and non-locomotor skills while manipulating small equipment.

Health-Related Activities

By the end of this age range students should be able to:

- identify and recognize the elements of a healthy lifestyle (rest, well-balanced nutrition, exercise etc)
- identify and recognize the benefits of a healthy lifestyle
- be aware of the importance of physical activity in daily life
- recognize the physical changes that occur to their bodies when exercising
- demonstrate and apply safety when exercising.

Swimming

By the end of this age range students should be able to:

- Be comfortable in and under the water (shallow and deep)
- Practice a variety of safe entries into deep and shallow water
- Execute basic swimming skills confidently, including breathing, floating, gliding and kicking on the front and back.
- Perform basic technique of the breaststroke, backstroke and front crawl, as well as underwater swimming
- Practice water safety skills: treading water, transport swimming, survival floats
- Explore fitness components through pulse rate activities.

Visual Arts ages 9-12

Creative process

By the end of this age range students should be able to:

- become increasingly independent in the realization of the creative process
- use sketchbooks as an everyday tool to reflect, to discover and to develop personal interests, and as a source of ongoing information
- combine and use a variety of media, including IT, to explore and express ideas
- incorporate visual arts (2-D and 3-D) into the PYP exhibition.

Elements of art and design

By the end of this age range students should be able to:

- continue to develop sensitivity, skill and understanding of the elements and principles of art and design
- identify the elements and principles of art and design and use them in appropriate ways when producing and responding to works of art.

Visual arts in society

By the end of this age range students should be able to:

- recognize individual, community and social uses of art
- compare works on a similar theme from various periods and cultures
- be exposed to both western and non-western male and female artists
- understand and appreciate career opportunities as an artist and interview, research and share information about artists.

Reflection and appreciation

By the end of this age range students should be able to:

- appreciate art as a form of communication and as an expressive language in its own right
- develop a sensitivity to artistic works
- be aware that people have used artwork as an expression of their feelings or as a response to a situation
- develop a critical awareness of their own environment and the place of art within it
- begin to think and behave like an artist.

Personal and social education

Personal and social education is arranged into four main strands: **self-concept, health and safety, interaction with others, organization for learning.**

In **self-concept**, students develop an awareness of their feelings, beliefs and behaviour. They learn to recognize their own strengths and weaknesses.

In **health and safety**, positive lifestyle choices to promote and maintain health are encouraged, and the development of safe behaviour practices at home, school and in the community are considered.

In **interaction with others**, social norms and values are considered, including strategies for the management of conflict as well as the study and acceptance of cultural, racial and religious similarities and differences.

In **organization for learning**, strategies and choices in relation to becoming a successful learner are developed.

Although these strands are considered separately, in practice they are inextricably linked. Students should develop aspects of PSE continually, across the strands, through different disciplines and at their own pace. PSE provides the models, processes and values for handling social and personal issues and ensuring health and well-being.

Through PSE, students should develop:

- their self-identity, use appropriate social skills when interacting with others in a range of situations, and learn to communicate and manage their feelings, emotions and opinions
- attitudes, behaviours and skills that are closely aligned with the PYP student profile
- positive attitudes and behaviours in order to meet challenges, make healthy lifestyle choices and serve as responsible, respectful members of society.

Students must be prepared to address moral issues in their lives and should act upon a set of positive values such as justice, respect for human rights and dignity. It is through exposure to new and difficult issues in a non-threatening environment that students are able to develop their own positive values and prepare for their role as international citizens.

Personal and Social Education ages 9-12

By the end of this age range students should be able to:

- develop an awareness of their self-identity and their strengths and weaknesses
- show self-confidence and self-worth
- learn to recognize, communicate and manage their own feelings and emotions
- reflect on their own abilities and behaviour and will set achievable personal goals
- show awareness of and take responsibility for the choices they make to maintain a healthy lifestyle
- develop a sense of safety and an ability to protect themselves from danger and abuse
- Show initiative and self-direction with increasing independence, and will approach learning with flexibility, creativity and commitment
- develop social skills when interacting with others in different situations, and develop and maintain appropriate relationships
- show awareness of and respect for the views, needs and rights of others
- show appreciation of cultural, racial, social, linguistic and religious differences
- recognize and deal appropriately with conflict situations
- have the opportunity to identify and reflect on the organizing themes, through the central ideas defined in the programme of inquiry, by making connections between the questions asked and the concepts that should be driving the inquiry
- become aware of the relevance these concepts have to all of their learning.

Developmental and Relationship Education ages 9-12

This program will be planned for grades 5 and 6. It may be addressed in grade 4 if necessary. The program will be supported by the Health, PE, German and classroom teachers. Students may be separated by gender for certain topics.

By the end of this age range students should be able to:

- Identify and explain the stages of human life in general terms
- Understand the anatomy and physiology of the human reproductive system
- Understand how our bodies change and grow during adolescence and recognize that there are a large variation in the ages at which young people's bodies mature
- Understand how the male and female reproductive systems work
- be aware of the importance of personal hygiene and caring for the body.