



Sandnes International School



**Sandnes International School  
PYP Curriculum Handbook  
Grade 5**



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## **Mission Statement**

Sandnes International School aims to create a better world by providing students with a rigorous international education and opportunities to take meaningful action and lead change in a safe and positive learning environment in which learners' needs are supported, differences are respected, and their unique qualities are valued and nurtured.

## **Vision**

To be the leading, English speaking and culturally diverse IB school in Norway. We inspire growth, empower excellence and enrich lives.

## **We aim to develop**

- Global Leaders

Global leadership is a mindset that enables us to initiate, lead, and participate in socially responsible actions.

- Entrepreneurs and Innovators

Entrepreneurs innovate by generating and applying new ideas designed to impact the world in positive ways.

- Effective Communicators

Effective communication involves both exchanging ideas in a clear and concise way to produce desired results and listening carefully to the perspectives of other individuals and groups.

**Core Values:** Integrity, Service and Respect

**Dear Parents,**

This Guide has been created to provide you with an overview of the curriculum offered in the Primary School at Sandnes International School (SdIS), with a particular focus on the learning that will be happening in Grade 5.

At Sandnes International School we offer a balanced and academically challenging education which is designed to develop individuals who are both independent learners and international citizens. Our curriculum in the Primary School is based on the International Baccalaureate (IB) Primary Years Programme (PYP). The PYP is an international framework which focuses on the development of the whole child addressing social, physical, emotional, cultural and academic needs for learners. SdIS offers the PYP from Grade 1 up to Grade 6.

The focus of the PYP is on student learning and developing an internationally minded person. The framework offers a comprehensive, inquiry-based approach to teaching and learning, providing opportunities for learners to construct meaning principally through concept-driven inquiry. At SdIS we focus on the development of skills and attitudes we would hope to find in a balanced, self-motivated, caring and ethical individual.

SdIS has been a Candidate School for the International Baccalaureate Primary Years Programme (PYP) since September, 2018 and expects to apply for authorization by October, 2020. The school will then go through a rigorous verification visit some time in the Spring of 2021 and expect to be granted PYP authorization by the fall of 2021.

As a Candidate school, SdIS is committed to following and further developing the Primary Years Programme to ensure that learning is engaging, relevant, challenging and significant and meets the diverse needs of the student.

At SdIS we believe that strong partnerships between the school and parents provide an important foundation for our children's learning. As parents you can best support your children when you have an understanding of the school's curriculum and approach to teaching and learning. After reading this Curriculum Guide, please contact us at [marykay.polly@sdis.no](mailto:marykay.polly@sdis.no) if you have any further questions.

We wish you and your children all the best in the year ahead.

**Mary Kay Polly**  
**PYP Curriculum Coordinator**

## **Developmental characteristics of a Grade 5 child**

Boys and girls at this year level are ten turning eleven. Some are quite grown up, but most have not reached this point of maturity. They are becoming more and more independent. Most are beginning to grow quite rapidly; the girls are generally outgrowing the boys.

They need a feeling of security and of belonging to the group. Parents and teachers can be especially effective by setting an example of thoughtfulness and kindness, and by showing them the importance of self-discipline.

### **Physical Growth**

- The ten year old may experience a period of rapid growth in height, preceded or followed by an increase in weight
- Girls may be expected to mature as much as two years earlier than boys
- Have enormous but capricious appetites
- Marked differences in sizes of children of the same age
- Uneven growth of different parts of the body
- Fatigue in games may be present
- Restlessness often apparent

### **Actions and Reactions**

- Energetic and daring
- Interested in organized games
- Desirous of group approval
- Marked interest in difference between boys and girls
- Rather self-conscious about participating in physical activity unless skilled
- Becoming sensitive to possibility of hurting people's feelings
- Good imagination
- Likes stories that are true to life
- Ability to analyze situations and to discuss problems with group
- Tendency toward awkwardness, poor posture, and laziness
- Long periods of concentration very difficult
- Tendency to associate with one's own gender
- Desire considerable adult guidance and control
- Boys still very interested in groups
- Boys' and girls' groups tease each other
- Interested in activities to earn money

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- Likely to be critical, changeable, and uncooperative
- Becoming aware of independence

### **Needs**

- Understanding adults with whom they can discuss their problems
- Attention and praise
- An understanding of family wants and family income
- A place where privacy and possessions are respected
- Opportunity to earn money
- The feeling of importance in family and group planning
- Opportunities to excel in some activity which is valued by his group
- Understanding of physical and emotional changes which adolescents experience
- Social activities for both boys and girls
- Activities to interest those who are approaching puberty as well as those who are not
- Affection and humor in adults
- Encouragement in establishing good health habits
- Challenging activities that foster spiritual growth

### **How Adults Can Help**

- Listen to problems and help to consider them
- Guide activities
- Encourage the development of special talents
- Spend time with them and their hobbies
- Provide social activities for them and their friends
- Provide patient direction in ways of self-discipline

## IB Learner Profile

The IB learner profile promotes education of the whole person for a life of active, responsible citizenship emphasizing intellectual, personal, emotional and social growth. The attributes and descriptions of the learner profile define the type of learner RIS hopes to develop through its programmes. All members of the SdIS Learning Community including students, teachers, administration, support staff and parents strive to develop these qualities.



### Inquirers

We nurture our curiosity, developing skills for inquiry and research. We know how to learn independently and with others. We learn with enthusiasm and sustain our love of learning throughout life.

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### Knowledgeable

We develop and use conceptual understanding, exploring knowledge across a range of disciplines. We engage with issues and ideas that have local and global significance.

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### Thinkers

We use critical and creative thinking skills to analyse and take responsible action on complex problems. We exercise initiative in making reasoned, ethical decisions.

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### Communicators

We express ourselves confidently and creatively in more than one language and in many ways. We collaborate effectively, listening carefully to the perspectives of other individuals and groups.

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### Principled

We act with integrity and honesty, with a strong sense of fairness and justice, and with respect for the dignity and rights of people everywhere. We take responsibility for our actions and their consequences.

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### **Open-minded**

We critically appreciate our own cultures and personal histories, as well as the values and traditions of others. We seek and evaluate a range of points of view, and we are willing to grow from the experience.

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### **Caring**

We show empathy, compassion and respect. We have a commitment to service, and we act to make a positive difference in the lives of others and in the world around us.

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### **Risk-takers**

We approach uncertainty with forethought and determination; we work independently and cooperatively to explore new ideas and innovative strategies. We are resourceful and resilient in the face of challenges and change.

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### **Balanced**

We understand the importance of balancing different aspects of our lives — intellectual, physical, spiritual and emotional — to achieve well-being for ourselves and others. We recognise our interdependence with other people and with the world in which we live.

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### **Reflective**

We thoughtfully consider the world and our own ideas and experience. We work to understand our strengths and weaknesses in order to support our learning and personal development.





## The PYP Curriculum Framework

The framework is composed of specific elements: **knowledge, concepts, approaches to learning (skills)** and **action** creating an inquiry structured curriculum that is engaging, relevant, challenging and significant.

### ***Knowledge: what do we want students to know?***

The PYP acknowledges the importance of traditional subjects; language, mathematics, science, social studies, arts, personal, social and physical education as inclusive components of the curriculum. In addition, it also recognizes the importance of students making connections, acquiring skills and exploring content in an integrated way that is relevant and meaningful.

The PYP framework is organized into six transdisciplinary themes of global significance that supports the acquisition of knowledge, concepts and skills of the traditional subjects. These themes are revisited throughout the students' time in the PYP.

### The Transdisciplinary Themes are:

<b>Who We Are</b>	An inquiry into the nature of the self; beliefs and values; personal, physical, mental, social and spiritual health, human relationships including families, friends, communities, and cultures; rights and responsibilities; what it means to be human.
<b>Where we are in Place and Time</b>	An inquiry into orientation in place and time; personal histories; homes and journeys; the discoveries, explorations and migrations of humankind; the relationships between and the interconnectedness of individuals and civilizations, from local and global perspectives.
<b>How We Express Ourselves</b>	An inquiry into the ways in which we discover and express ideas, feelings, nature, culture, beliefs and values; the ways in which we reflect on, extend and enjoy our creativity; our appreciation of the aesthetic.
<b>How the World Works</b>	An inquiry into the natural world and its laws; the interaction between the natural world (physical and biological) and human societies; how humans use their understanding of scientific principles; the impact of scientific and technological advances on society and on the environment.
<b>How We Organize Ourselves</b>	An inquiry into the interconnectedness of human-made systems and communities; the structure and function of organizations; societal decision-making; economic activities and their impact of humankind and the environment.
<b>Sharing the Planet</b>	An inquiry into rights and responsibilities in the struggle to share finite resources with other people and with other living things; communities and the relationships within and between them; access to equal opportunities; peace and conflict resolution.



The students' inquiry into and learn about these global issues through the six transdisciplinary themes known as the Programme of Inquiry. Each unit of inquiry addresses a specific central idea, concepts, related concepts and lines of inquiry. The lines of inquiry are linked to both the transdisciplinary theme and central idea providing the driving force behind the inquiry process.

**Concepts: What do we want students to understand?**

The PYP is a concept-driven curriculum that encourages students to construct meaning through critical thinking and the transfer of knowledge. Students deepen their understanding and learn to approach the concepts from different perspectives. The PYP identifies seven key concepts used to support and structure the inquiries.

<b>Form:</b> What is it like?	The understanding that everything has a form with recognizable features that can be observed, identified, described and categorized.
<b>Function:</b> How does it work?	The understanding that everything has a purpose, a role or a way of behaving that can be investigated.
<b>Causation:</b> Why is it like it is?	The understanding that things do not just happen, that there are causal relationships at work and that actions have consequences.
<b>Change:</b> How is it changing?	The understanding that change is the process of movement from one state to another. It is universal and inevitable.
<b>Connection:</b> How is it connected to other things?	The understanding that we live in a world of interacting systems in which the actions of any individual element affect others.
<b>Perspective:</b> What are the points of view?	The understanding that knowledge is moderated by perspectives; different perspectives lead to different interpretations, understandings and findings; perspectives may be individual, group, cultural or disciplinary.
<b>Responsibility:</b> What is our responsibility?	The understanding that people make choices based on their understandings, and the actions they take as a result do make a difference.

**Approaches to Learning/Skills: What do we want the students to be able to do?**

Applying and acquiring transdisciplinary skills is an essential part of the programme. Students' develop these lifelong learning skills within the traditional subjects, units of inquiry, in the classroom and from their interaction in the real world. The five approaches to learning skills are:

Thinking skills

Research skills

Social skills

Communication skills

Self-Management skills

**Action: How do we want students to act?**

Student-initiated action is a major component of the PYP. It is believed that in order for students to put action into practice, they need to experience and engage in successful inquiry learning that will encourage them to choose, act and reflect. By going through the process of choosing, acting and reflecting, students develop skills in problem-solving, conflict resolution, critical thinking and collaboration. In addition, through actions students develop and demonstrate the Learner Profile Attributes of the program. Students are encouraged to consider action through the lens of participation, social justice, social entrepreneurship, lifestyle choices and advocacy. In doing so students recognise they have a voice, they can make choices and can take ownership of their learning. This is shown in the following diagram:



The action component can take on different forms that show services within and outside the school community. It is not necessary for the services to be grand, what is important is its effectiveness in showing a sense of responsibility and respect to the self, others and the environment.



## Grade 5 Programme of Inquiry

Gr 4, 5, 6	WHO WE ARE	WHERE WE ARE IN PLACE AND TIME	HOW WE EXPRESS OURSELVES	HOW THE WORLD WORKS	HOW WE ORGANIZE OURSELVES	SHARING THE PLANET
<b>Trans disciplinary Themes</b>	An inquiry into the nature of the self; beliefs and values; personal, physical, mental, social and spiritual health; human relationships including families, friends, communities, and cultures; rights and responsibilities; what it means to be human.	An inquiry into orientation in place and time; personal histories; homes and journeys; the discoveries, explorations and migrations of humankind; the relationships between and the interconnectedness of individuals and civilizations, from local and global perspectives.	An inquiry into the ways in which we discover and express ideas, feelings, nature, culture, beliefs and values; the ways in which we reflect on, extend and enjoy our creativity; our appreciation of the aesthetic.	An inquiry into the natural world and its laws; the interaction between the natural world (physical and biological) and human societies; how humans use their understanding of scientific principles; the impact of scientific and technological advances on society and on the environment.	An inquiry into the interconnectedness of human-made systems and communities; the structure and function of organizations; societal decision-making; economic activities and their impact on humankind and the environment.	An inquiry into rights and responsibilities in the struggle to share finite resources with other people and with other living things; communities and the relationships within and between them; access to equal opportunities; peace and conflict resolution.
	<p><b>#3</b></p> <p><b>Central idea:</b> People’s cultural background has an impact on their beliefs, values and actions.</p> <p><b>Key Concepts:</b> form, connection, perspective</p> <p><b>Related Concepts:</b> interpretation, identity, subjectivity</p> <p><b>An inquiry into:</b> -What constitutes culture -How people use different experiences to inform their perspectives -The connections between beliefs and values, and the actions taken in response to them</p>	<p><b>#1</b></p> <p><b>Central idea:</b> Human migration is a response to challenge, risks and opportunities.</p> <p><b>Key Concepts:</b> Causation, change, responsibility</p> <p><b>Related Concepts:</b> population, settlement, diversity, refugees</p> <p><b>An inquiry into:</b> -The reasons why people migrate -Migration throughout history -The effects of migration on communities, cultures and individuals</p>	<p><b>#5</b></p> <p><b>Central idea:</b> People can create or manipulate messages to target specific audiences</p> <p><b>Key Concepts:</b> function, perspective, reflection</p> <p><b>Related Concepts:</b> media, advertising, propaganda</p> <p><b>An inquiry into:</b> -How images, text and music are used to influence behavior of target audiences -Critical evaluation of messages presented in the media -How people respond to messages</p>	<p><b>#2. October, Climate Action program</b></p> <p><b>Central idea:</b> Making sustainable choices for energy and fuel consumption requires an understanding of where these resources come from and how their use affects the environment.</p> <p><b>Key Concepts:</b> form, causation, responsibility</p> <p><b>Related Concepts:</b> energy, sustainability, resources</p> <p><b>An inquiry into</b> -The sources of energy and fuel  -How energy is converted for use -Sustainable use of energy and fuel</p>	<p><b>#6</b></p> <p><b>Central idea:</b> Government systems influence the lives of their citizens</p> <p><b>Key Concepts:</b> form, function, connection</p> <p><b>Related Concepts:</b> governance, systems, citizenship, rights</p> <p><b>An inquiry into:</b> -The different types of government systems -The role and responsibilities of governments -How governments function and interact with each other -How citizens can monitor and influence the actions of their government</p>	<p><b>#4 Grades 4, 5</b></p> <p><b>Central idea:</b> Children worldwide encounter a range of challenges, risks and opportunities</p> <p><b>Key Concepts:</b> form, perspective</p> <p><b>Related Concepts:</b> equality, rights, resilience, health &amp; safety</p> <p><b>An inquiry into:</b> -Challenges, risks and opportunities that children encounter (locally and globally) -How children respond to challenges, risks and opportunities -Ways in which individuals and organizations work to protect children from risk* <b>* UN Declaration of the Rights of a Child (1948)</b></p>



## Subject Overviews

Acknowledging that learning is a developmental process, the IB presents a set of developmental continuums for **Language and Math** that are designed as diagnostic tools to assist teachers in planning learning experiences for students, and in monitoring students' development throughout the primary years. The overall expectations are therefore presented in developmental phases rather than by age range. In Grade 5 the majority of students will be working within Phases 4 and 5 for Language and Phases 3 and 4 for Math. Teachers cover these outcomes over the academic year and will communicate which outcomes are being focused on through the Unit of Inquiry Newsletter. Please note that some outcomes will be ongoing and will be developed across the year.

### Language

Sandnes International School believes that all teachers and educators, within the school, regardless of speciality, are language teachers. Learning a language is part of forming our own identities, exploring thoughts and having an impact on the thoughts and identities of others.

SdIS considers that the home language development is crucial for maintaining cultural identity and emotional stability and that acquisition of more than one language enriches personal growth and helps facilitate international understanding. International schools have a special responsibility to recognise and support each and every aspect of language development. Language is central to every child's intellectual, social and emotional development, and is the major connecting element across the curriculum, playing an essential role in all learning areas.

Students learn language when they are using it through **speaking, listening, reading and writing** in order to understand and express ideas. Our aim is to develop students' ability to express themselves fluently, confidently and accurately in oral, written and visual communication systems.

Within the classroom, the language profile of every student is unique. This is typical in any school, but particularly so in an international school where students come with such varied experiences of English, many as second language English learners. At SdIS the range of learning needs is recognized and we differentiate our programme accordingly. Language learning is supported by the IB PYP Language continuum for Reading and Writing for Oral Language and Visual Language. The IB PYP continuums along with Bonnie Campbell Hill's Developmental Continuums for Reading and Writing, are designed as diagnostic tools to assist teachers in planning learning experiences for students, and in monitoring students' development throughout the primary years. Overall expectations and outcomes are therefore presented in developmental phases rather than by age range.

Students participate in **Guided Reading** weekly, where they read in a small group with the teacher or teaching assistant to focus on comprehension skills and making connections to the text being read.

### **Language strands**

Oral language-listening and speaking

Visual language- viewing and presenting

Written language-reading

Writing language-writing

### **Oral Language – Listening and Speaking**

#### **Phase 1**

Learners show an understanding of the value of speaking and listening to communicate. They recognize that sounds are associated with objects or with symbolic representations of them. They are using language to name their environment, to get to know each other, to initiate and explore relationships, to question and inquire.

#### **Phase 2**

Learners show an understanding that sounds are associated with objects, events and ideas, or with symbolic representation of them. They are aware that an object or symbol may have different sounds or words associated with it in different languages. They are beginning to be cognizant about the high degree of variability of language and its uses.

#### **Phase 3**

Learners show an understanding of the wide range of purposes of spoken language: that it instruct, informs, entertains, reassures; that each listener's perception of what they hear is unique. They are compiling rules about the use of different aspects of language.

#### **Phase 4**

Learners show an understanding of the conventions associated with speaking and listening and the value of adhering to those conventions. They are aware that language is a vehicle for becoming knowledgeable, for negotiating understanding and for negotiating the social dimension.

#### **Phase 5**

Learners are able to understand the difference between literal and figurative language and how to use language differently for different purposes. They are aware that they are building on their previous experiences and using language to construct new meaning.

## **Visual Language – Viewing and Presenting**

### **Phase 1**

Learners show an understanding that the world around them is full of visual language that conveys meaning. They are able to interpret and respond to visual texts. Although much of their own visual language is spontaneous, they are extending and using visual language in more purposeful ways.

### **Phase 2**

Learners identify, interpret and respond to a range of visual text prompts and show an understanding that different types of visual texts serve different purposes. They use this knowledge to create their own visual texts for particular purposes.

### **Phase 3**

Learners show an understanding that visual text may represent reality or fantasy. They recognize that visual text resources can provide factual information and increase understanding. They use visual text in a reflective way to enrich their storytelling or presentations and to organize and represent information.

### **Phase 4**

Learners show an open-mindedness about the use of a range of visual text resources to access information. They think critically, and are articulate about the use of visual text to influence the viewer. They are able to use visual imagery to present factual information or to tell a story.

### **Phase 5**

Through inquiry, learners engage with an increasing range of visual text resources. As well as exploring the viewing and presenting strategies that are a part of the planned learning environment, they select and use strategies that suit their learning styles. They are able to make connections between visual imagery and social commentary. They show more discernment in selecting information they consider reliable. They are able to use visual imagery to support a position

## **Written Language – Writing**

### **Phase 1**

Learners show an understanding that writing is a form of expression to be enjoyed. They know that how you write and what you write conveys meaning; that writing is a purposeful act, with both individual and collaborative aspects.

### **Phase 2**

Learners show an understanding that writing is a mean of recording, remembering and communicating. They know that writing involves the use of codes and symbols to convey meaning to others; that writing and reading use the same codes and symbols. They know that writing can describe the factual or the imagined world.

### **Phase 3**

Learners show an understanding that writing can be structured in different ways to express different purposes. They use imagery in their stories to enhance the meaning and to make it more enjoyable to write and read. They understand that writing can produce a variety of responses from readers. They can tell a story and create characters in their writing.

#### **Phase 4**

Learners show an understanding of the role of the author and are able to take on the responsibilities of authorship. They demonstrate an understanding of story structure and are able to make critical judgments about their writing, and the writing of others. They are able to rewrite to improve the quality of their writing.

#### **Phase 5**

Learners show an understanding of the conventions pertaining to writing, in its different forms, that are widely accepted. In addition, they demonstrate a high level of integration of the strands of language in order to create meaning in a manner that suits their learning styles. They can analyze the writing of others and identify common or recurring themes or issues. They accept feedback from others.

### **Written Language – Reading**

#### **Phase 1**

Learners show an understanding that print represents the real or the imagined world. They know that reading gives them knowledge and pleasure; that it can be a social activity or an individual activity. They have a concept of a “book” and an awareness of some of its structural elements. They use visual cues to recall sounds and the words they are “reading” to construct meaning.

#### **Phase 2**

Learners show an understanding that language can be represented visually through codes and symbols. They are extending their data bank of printed codes and symbols and are able to recognize them in new contexts. They understand that reading is a vehicle for learning, and that the combination of codes conveys meaning.

#### **Phase 3**

Learners show an understanding that text is used to convey meaning in different ways and for different purposes—they are developing an awareness of context. They use strategies, based on what they know, to read for understanding. They recognize that the structure and organization of text conveys meaning.

#### **Phase 4**

Learners show an understanding of the relationship between reading, thinking and reflection. They know that reading is extending their world, both real and imagined, and that there is a reciprocal relationship between the two. Most importantly, they have established reading routines and relish the process of reading.

#### **Phase 5**

Learners show an understanding of the strategies authors use to engage them. They have their favourite authors and can articulate reasons for their choices. Reading provides a sense of accomplishment, not only in the process, but in the access it provides them to further knowledge about, and understanding of, the world.



## Mathematics

Mathematics in a PYP classroom is all about structured, purposeful inquiry. It is about making maths meaningful, building on children's existing understanding and using maths in real-life problem solving. Students are encouraged to ask questions and try out new ideas. They are involved in relevant and realistic contexts that encourage them to investigate, discuss and justify their ideas.

Students are engaged through the use of open-ended questions so that they have opportunities to communicate their understanding. By using the language of mathematics, students learn to appreciate that the focus is not only on obtaining the answer to problems but on the process by which these answers have been found.

### Math strands

Data handling

Measurement

Shape and space

Pattern and function

Number

### Data Handling

#### Phase 1

Learners will develop an understanding of how the collection and organization of information helps to make sense of the world. They will sort, describe and label objects by attributes and represent information in graphs including pictographs and tally marks. The learners will discuss chance in daily events.

#### Phase 2

Learners will understand how information can be expressed as organized and structured data and that this can occur in a range of ways. They will collect and represent data in different types of graphs, interpreting the resulting information for the purpose of answering questions. The learners will develop an understanding that some events in daily life are more likely to happen than others and they will identify and describe likelihood using appropriate vocabulary.

#### Phase 3

Learners will continue to collect, organize, display and analyse data, developing an understanding of how different graphs highlight different aspects of data more efficiently. They will understand that scale can represent different quantities in graphs and that mode can be used to summarize a set of data. The learners will make the connection that probability is based on experimental events and can be expressed numerically.

#### **Phase 4**

Learners will collect, organize and display data for the purposes of valid interpretation and communication. They will be able to use the mode, median, mean and range to summarize a set of data. They will create and manipulate an electronic database for their own purposes, including setting up spreadsheets and using simple formulas to create graphs. Learners will understand that probability can be expressed on a scale (0–1 or 0%–100%) and that the probability of an event can be predicted theoretically.

### **Measurement**

#### **Phase 1**

Learners will develop an understanding of how measurement involves the comparison of objects and the ordering and sequencing of events. They will be able to identify, compare and describe attributes of real objects as well as describe and sequence familiar events in their daily routine.

#### **Phase 2**

Learners will understand that standard units allow us to have a common language to measure and describe objects and events, and that while estimation is a strategy that can be applied for approximate measurements, particular tools allow us to measure and describe attributes of objects and events with more accuracy. Learners will develop these understandings in relation to measurement involving length, mass, capacity, money, temperature and time.

#### **Phase 3**

Learners will continue to use standard units to measure objects, in particular developing their understanding of measuring perimeter, area and volume. They will select and use appropriate tools and units of measurement, and will be able to describe measures that fall between two numbers on a scale. The learners will be given the opportunity to construct meaning about the concept of an angle as a measure of rotation.

#### **Phase 4**

Learners will understand that a range of procedures exists to measure different attributes of objects and events, for example, the use of formulas for finding area, perimeter and volume. They will be able to decide on the level of accuracy required for measuring and using decimal and fraction notation when precise measurements are necessary. To demonstrate their understanding of angles as a measure of rotation, the learners will be able to measure and construct angles.

### **Shape and Space**

#### **Phase 1**

Learners will understand that shapes have characteristics that can be described and compared. They will understand and use common language to describe paths, regions and boundaries of their immediate environment.

#### **Phase 2**

Learners will continue to work with 2D and 3D shapes, developing the understanding that shapes are classified and named according to their properties. They will understand that examples of symmetry and transformations can be



found in their immediate environment. Learners will interpret, create and use simple directions and specific vocabulary to describe paths, regions, positions and boundaries of their immediate environment.

### **Phase 3**

Learners will sort, describe and model regular and irregular polygons, developing an understanding of their properties. They will be able to describe and model congruency and similarity in 2D shapes. Learners will continue to develop their understanding of symmetry, in particular reflective and rotational symmetry. They will understand how geometric shapes and associated vocabulary are useful for representing and describing objects and events in real-world situations.

### **Phase 4**

Learners will understand the properties of regular and irregular polyhedra. They will understand the properties of 2D shapes and understand that 2D representations of 3D objects can be used to visualize and solve problems in the real world, for example, through the use of drawing and modelling. Learners will develop their understanding of the use of scale (ratio) to enlarge and reduce shapes. They will apply the language and notation of bearing to describe direction and position.

## **Pattern and Function**

### **Phase 1**

Learners will understand that patterns and sequences occur in everyday situations. They will be able to identify, describe, extend and create patterns in various ways.

### **Phase 2**

Learners will understand that whole numbers exhibit patterns and relationships that can be observed and described, and that the patterns can be represented using numbers and other symbols. As a result, learners will understand the inverse relationship between addition and subtraction, and the associative and commutative properties of addition. They will be able to use their understanding of pattern to represent and make sense of real-life situations and, where appropriate, to solve problems involving addition and subtraction.

### **Phase 3**

Learners will analyse patterns and identify rules for patterns, developing the understanding that functions describe the relationship or rules that uniquely associate members of one set with members of another set. They will understand the inverse relationship between multiplication and division, and the associative and commutative properties of multiplication. They will be able to use their understanding of pattern and function to represent and make sense of real-life situations and, where appropriate, to solve problems involving the four operations.

### **Phase 4**

Learners will understand that patterns can be represented, analysed and generalized using algebraic expressions, equations or functions. They will use words, tables, graphs and, where possible, symbolic rules to analyse and represent patterns. They will develop an understanding of exponential notation as a way to express repeated products, and of the inverse relationship that exists between exponents and roots. The students will continue to use their understanding of pattern and function to represent and make sense of real-life situations and to solve problems involving the four operations.

## Number

### Phase 1

Learners will understand that numbers are used for many different purposes in the real world. They will develop an understanding of one-to-one correspondence and conservation of number, and be able to count and use number words and numerals to represent quantities.

### Phase 2

Learners will develop their understanding of the base 10 place value system and will model, read, write, estimate, compare and order numbers to hundreds or beyond. They will have automatic recall of addition and subtraction facts and be able to model addition and subtraction of whole numbers using the appropriate mathematical language to describe their mental and written strategies. Learners will have an understanding of fractions as representations of whole-part relationships and will be able to model fractions and use fraction names in real-life situations.

### Phase 3

Learners will develop the understanding that fractions and decimals are ways of representing whole-part relationships and will demonstrate this understanding by modelling equivalent fractions and decimal fractions to hundredths or beyond. They will be able to model, read, write, compare and order fractions, and use them in real-life situations. Learners will have automatic recall of addition, subtraction, multiplication and division facts. They will select, use and describe a range of strategies to solve problems involving addition, subtraction, multiplication and division, using estimation strategies to check the reasonableness of their answers.

### Phase 4

Learners will understand that the base 10 place value system extends infinitely in two directions and will be able to model, compare, read, write and order numbers to millions or beyond, as well as model integers. They will develop an understanding of ratios. They will understand that fractions, decimals and percentages are ways of representing whole-part relationships and will work towards modelling, comparing, reading, writing, ordering and converting fractions, decimals and percentages. They will use mental and written strategies to solve problems involving whole numbers, fractions and decimals in real-life situations, using a range of strategies to evaluate reasonableness of answers.

## The Sciences

In the PYP, science is viewed as the exploration of the behaviours of, and the interrelationships among, the natural, physical and material worlds. Science in the curriculum encourages curiosity, develops an understanding of the world and enables students to develop a sense of responsibility regarding the impact of their actions on themselves, others and the world. Students actively construct and challenge their understanding of the world around them by combining scientific knowledge with reasoning and thinking skills. The scientific process, by encouraging hands-on experience and inquiry, enables the student to make informed and responsible decisions.

June, 2020



Our aim is to develop scientific concepts and knowledge through hypothesizing, making accurate observations and thinking critically about findings.

**Science strands**

Living things , Earth and space , Materials and matter , Forces and energy

Students will develop their observational skills by using their senses to gather and record information, and they will use their observations to identify patterns, make predictions and refine their ideas. They will explore the way objects and phenomena function, identify parts of a system, and gain an understanding of cause and effect relationships.

Students will examine change over varying time periods, and will recognize that more than one variable may affect change. They will be aware of different perspectives and ways of organizing the world, and they will show care and respect for themselves, other living things and the environment. Students will communicate their ideas or provide explanations using their own scientific experience.

<b>Science strands</b>	
<b>Living things</b>	The study of the characteristics, systems and behaviors of humans and other animals, and of plants; the interactions and relationships between and among them, and with their environment.
<b>Earth and space</b>	The study of planet Earth and its position in the universe, particularly its relationship with the sun; the natural phenomena and systems that shape the planet and the distinctive features that identify it; the infinite and finite resources of the planet.
<b>Materials and matter</b>	The study of the properties, behaviors and uses of materials, both natural and human-made; the origins of human-made materials and how they are manipulated to suit a purpose.
<b>Forces and energy</b>	The study of energy, its origins, storage and transfer, and the work it can do; the study of forces; the application of scientific understanding through inventions and machines.

**Social Studies**

In the PYP, social studies is viewed as the study of people in relation to their past, their present and their future, their environment and their society. The social studies curriculum encourages curiosity and develops an understanding of a rapidly changing world. Students develop an understanding of their personal and cultural identities through social studies, as well as the skills and knowledge needed to participate actively in their classroom, their school, their community and the world: to understand themselves in relation to their community.

June, 2020



Our aim is to develop students' understanding of the world around them, historical and geographical influences and the role of individuals in communities.

Students will increase their understanding of their world, focusing on themselves, their friends and families and their environment. They will appreciate the reasons why people belong to groups, the roles they fulfil and the different ways that people interact within groups. They will recognize connections within and between systems by which people organize themselves. They will broaden their sense of place and the reasons why particular places are important to people, as well as how and why people's activities influence, and are influenced by, the places in their environment. Students will start to develop an understanding of their relationship with the environment. They will gain a greater sense of time, recognizing important events in their own lives, and how time and change affect people. They will become increasingly aware of how advances in technology affect individuals and the environment.

### Social Studies strands

Human systems and economic activities

Social organization and culture

Continuity and change through time

Human and natural environments

Resources and the environment

<b>Social studies strands</b>	
<b>Human systems and economic activities</b>	The study of how and why people construct organizations and systems; the ways in which people connect locally and globally; the distribution of power and authority.
<b>Social organization and culture</b>	The study of people, communities, cultures and societies; the ways in which individuals, groups and societies interact with each other.
<b>Continuity and change through time</b>	The study of the relationships between people and events through time; the past, its influences on the present and its implications for the future; people who have shaped the future through their actions.
<b>Human and natural environments</b>	The study of the distinctive features that give a place its identity; how people adapt to and alter their environment; how people experience and represent place; the impact of natural disasters on people and the built environment.
<b>Resources and the environment</b>	The interaction between people and the environment; the study of how humans allocate and manage resources; the positive and negative effects of this management; the impact of scientific and technological developments on the environment.

## **Personal, Social and Physical Education (PSPE)**

PSPE in the PYP is concerned with the individual's well-being through the promotion and development of concepts, knowledge, attitudes and skills that contribute to this wellbeing. Well-being is intrinsically linked to all aspects of a student's experience at school and beyond. It encompasses physical, emotional, cognitive, spiritual and social health and development, and contributes to an understanding of self, to developing and maintaining relationships with others, and to participation in an active, healthy lifestyle. PSPE is actually the combination of two curriculum areas – PE and PSE – which are described below.

### **Physical Education (PE)**

The aim of Physical Education is to stimulate students' awareness of their own physical fitness and to simultaneously develop an interest and appreciation of sport and physical activity. Using various skills, students explore different ways to solve problems, address physical challenges, cooperate as part of a group or team, manipulate equipment or apparatus, and express themselves in numerous situations. Students are exposed to a wide range of activities and transferable skills that promote physical, intellectual, emotional and social development. In addition, students learn the importance of a balanced and healthy lifestyle that will help build self-esteem, confidence, cooperation and fitness.

### **Personal and Social Education (PSE)**

Personal and Social Education (PSE) in the PYP provides the models, processes and values for handling social and personal issues and ensuring health and wellbeing. Through PSE, students will 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. PSE is integrated into all areas of the curriculum and helps students develop positive attitudes and behaviours in order to meet challenges, make healthy lifestyle choices and serve as responsible, respectful members of society.

### **PSPE strands**

Identity

Active living

Interactions

## The Arts

Arts are integral to the PYP. They are a powerful mode of communication through which students explore and construct a sense of self and develop an understanding of the world around them. Arts provide students with a wide range of opportunities and means to respond to their experiences and engage with historical, social and cultural perspectives. The students are stimulated to think and to articulate their thoughts in new ways and through a variety of media and technologies.

The PYP recognizes that not all learning can be supported solely through language and that arts as a medium of inquiry also provide opportunities for learning, communication and expression. Learning about and through arts is fundamental to the development of the whole child, promoting creativity, critical thinking, problem-solving skills and social interactions. At SdIS, the arts are identified as dance and visual arts. All students in the PYP also participate in a dance for the International Festival each fall.

### Arts Strands

Responding

Creating

## Norwegian Language

All students receive Norwegian language lessons 4 times per week. They are split into 2 groups: Norwegian A ,for students who are proficient in Norwegian language and Norwegian B, for students who are beginners in Norwegian. When possible, the Norwegian lessons support the units of inquiry through development of specific vocabulary and conceptual understandings and ideas.

According to the Norwegian Educational law regarding a private/free school, our school follows the Norwegian language teaching guided by two curricula. The first one refers to the students with Norwegian language as mother tongue and is the ordinary curriculum in Norway ([NOR01-06](#)). The second one refers to minority language students ([§ 2A-4](#)) and is a curriculum in basic Norwegian language for linguistic minorities ([NOR07-02](#)).

Norwegian A lessons focus on the development of skills in writing, conversation and vocabulary building.

The teaching and assessment are guided by the national curriculum for Norwegian language. Students from this group are mainly using resources and books for regular Norwegian language training.





The assessment is stage-based and according to the national Norwegian language curriculum first stage evaluation happens after second grade. Competence goals and assessment have three stages in PYP Norwegian language curriculum. However, at our school there are formative assessments during the whole year and the teachers comment on student learning in the twice yearly progress reports.

Through Norwegian A lessons, students will become confident language users and become aware of their own linguistic and cultural identity within an inclusive community where multilingualism is valued as a resource.

Norwegian B lessons focus on acquisition of vocabulary and conversation.

The teaching and assessment are guided by the curriculum in basic Norwegian for linguistic minorities. Students in this group are entitled to special/basic Norwegian education until they have sufficient competence to follow training according to the ordinary curriculum in Norwegian.

Basic Norwegian lessons are age-independent and level-based according to the curriculum. There are four main areas:

- Language and culture
- Read and write
- Language learning
- Listen and talk

Each area has three levels prepared on the basis of the first four levels of the European framework (A1, A2, B1 and B2) and are assessed through the Norwegian language evaluation document for linguistic minorities. However, at our school there are formative assessments during the whole year and the teachers comment on student learning in the twice yearly progress reports.

- Level 1 (nivå 1)
- Level 2 (nivå 2)
- Level 3 (nivå 3)

Basic Norwegian for linguistic minorities is a bridge for students which helps to understand the Norwegian culture, to communicate, to form and develop the identity. The subject can lay the foundation for social participation and further qualification for professional life.

## **Norsk språk**

Alle elevene får norskundervisning 4 ganger per uke. De er delt inn i to grupper: norsk A, for studenter som har kunnskaper i norsk og norsk B, for studenter som er nybegynnere på norsk.

Når det er mulig, støtter norskundervisningen de forespørsel enhetene (UOI) gjennom utvikling av spesifikke ordforråd og konseptuelle forståelser og ideer.



I henhold til den norske opplæringsloven om privat / gratis skole, følger skolen vår norskopplæringen ført av to læreplaner. Den første refererer til elever med norsk språk som morsmål og er den ordinære læreplanen i Norge (NOR01-06). Den andre refererer til minoritetsspråklige elever (§ 2A-4) og er en læreplan i grunnleggende norsk språk for språklige minoriteter (NOR07-02).

Norsk A-timene har fokus på utvikling av ferdigheter i skriving, samtale og ordforråd.

Undervisningen og vurderingen styres av den nasjonale læreplanen for norsk språk. Elevene fra denne gruppen bruker hovedsakelig ressurser og bøker som i vanlig norskopplæring.

Evalueringen er trinnbasert og i henhold til den nasjonale læreplanen for norskopplæring blir førsteklasse ikke evaluert, kun etter andre klassen. Kompetansemål og vurdering har tre utviklingstrinn i den norsk grunnskole læreplanen. På skolen vår er det imidlertid formative vurderinger i løpet av hele året, og lærerne skriver utviklingsrapporter i elevens mappe to ganger i skoleåret.

Gjennom norsk A-timene skal studentene bli trygge språkbrukere og bli klar over sin egen språklige og kulturelle identitet i et inkluderende samfunn der flerspråklighet blir verdsatt som en ressurs.

Norsk B-timene fokuserer på å skaffe til eleven et godt ordforråd og muligheten til å holde et samtale.

Undervisningen og vurderingen styres av læreplanen i grunnleggende norsk for språklige minoriteter. Elevene i denne gruppen har rett til spesial / grunnleggende norskopplæring inntil de har tilstrekkelig kompetanse til å følge opplæring i henhold til den ordinære læreplanen i norsk.

Grunnleggende norsktimer er aldersrelatert og nivåbaserte i henhold til læreplanen. Det er fire hovedområder

- Språk og kultur
- Lese og skrive
- Språklæring
- Lytt og snakk

Hver del/område har tre nivåer utarbeidet på grunnlag av de første fire nivåene i det europeiske rammeverket (A1, A2, B1 og B2) og blir vurdert gjennom det norske kartlegging for språklige minoriteter elever. På skolen vår er det imidlertid formative vurderinger i løpet av hele året, og lærerne skriver utviklingsrapporter i elevens mappe to ganger i skoleåret.

- Nivå 1
- Nivå 2
- Nivå 3

Grunnleggende norsk for språklige minoriteter er en bro som hjelper studentene til å forstå den norske kulturen, til å kommunisere, til å danne og utvikle identiteten. Faget kan legge grunnlaget for sosial deltakelse og videre kvalifisering for yrkesliv.



## **Curriculum Policies**

Curriculum Policies can be found on the school's website [sdis.no](https://sdis.no) as well as by clicking on the links below.

**Language Policy** [click here for link](#)

**Assessment Policy** [click here for link](#)