



INTERNATIONAL SCHOOL
HANNOVER REGION

Curriculum Guide

ISHR

Grade 5

2019-20

Mission Statement

The International School Hannover Region is committed to providing a **high- quality, international education** within a **creative** and **caring** environment to enable its students to become life-long learners and open-minded, compassionate citizens.



Tell me and I forget. Teach me and I remember. Involve me and I learn.

Benjamin Franklin

Overview of the Primary Years Programme (PYP) At ISHR

The International School Hannover Region is an authorized International Baccalaureate (IB) School, offering the Primary Years Programme (PYP) of the IB. This is an international curriculum framework designed for children between the ages of 3 and 12 years. The program focuses on the total growth of the developing child, 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 program. The program 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?"



The aims of the PYP are expressed as a series of desired attributes and dispositions that characterize successful students. This is the kind of student who we hope will graduate from PYP schools, the kind of person we would an internationally minded citizen. Central to this definition are the attributes exemplified in the learner profile.

The Primary Years Programme 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 encourages students to become independent learners, and encourages them to make connections between life in school, life at home and life in the world.

The School encourages students to:

- Develop a strong set of problem solving strategies
- To think critically
- Develop knowledge and skills to apply to new situations or tasks
- Continue to question throughout their lives
- Develop a sense of international mindedness
- Take action as a result of the learning process.

Students will:

- Learn through inquiry
- Build on prior knowledge
- Work individually, with a partner and in groups
- Be listened to
- Be curious, be inquisitive, ask questions, explore and interact with the environment physically, socially and intellectually

- Be supported in their journey to become independent, autonomous learners
- Learn through differentiated experiences which accommodate for the range of abilities and learning styles

The IB PYP Learner Profile

The aim of all IB programmes is to develop internationally minded people by **encouraging students across the world to become active, compassionate and lifelong learners who understand that other people, with their differences, can also be right.** (From the IB Mission Statement) learners, including members of staff strive to be:



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.

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.

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.

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.

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.

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.

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.

Courageous

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.

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 recognize our

interdependence with other people and with the world in which we live.

Curriculum Framework

The aim of the PYP, to create a curriculum that is engaging, relevant, challenging and significant, is achieved through structured inquiry and the development of five essential elements: **knowledge, concepts, attitudes, skills** and **action**.

Knowledge: What do we want students to know?

While the PYP acknowledges the importance of traditional subject areas (language, mathematics, social studies, science, personal, social and physical education, and arts), it also recognizes the importance of acquiring a set of skills in context and of exploring content which transcends the boundaries of the traditional subjects and is relevant to students. The PYP has six transdisciplinary themes that provide the framework for learning. These themes are globally significant and support the acquisition of knowledge, concepts and skills of the traditional subjects. They are revisited throughout the students' time in the PYP. At the heart of the Primary Years Programme's philosophy is a commitment to structured inquiry as an ideal vehicle for learning. Teachers and students are guided by a series of transdisciplinary themes that are significant to children and have a local and global meaning.

Our Mixed-Kindergarten students complete four Units of Inquiry each year, two of which always fall under the "Who we are" and "How we Express ourselves" transdisciplinary theme.

The PYP Transdisciplinary Themes are:

Who we are	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.
Where we are in place and time	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.
How we express ourselves	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.
How the world works	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.
How we organize ourselves	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.
Sharing the planet	An inquiry into rights and responsibilities in the struggle to share finite resources with other people and with other living things; communities and the relationship within and between them; access to equal opportunities;

From Senior-Kindergarten to Grade 5, students complete six Units of Inquiry each year, one unit from each of the six themes. In Mixed Kindergarten the children complete four units.

Concepts: What do we want students to understand?

The following key concepts are used to support and structure the inquiries. The exploration of concepts leads to a deeper understanding and allows students to transfer knowledge learned in one area of the curriculum to another.

Form	What is it like? The understanding that everything has a form with recognizable features that can be observed, identified, described and categorized.
Function	How does it work? The understanding that everything has a purpose, a role or a way of behaving that can be investigated.
Causation	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.
Change	How is it changing? The understanding that change is the process of movement from one state to another. It is universal and inevitable.
Connection	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.
Perspective	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.
Responsibility	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.
Reflection	How do we know? The understanding that there are different ways of knowing and that it is important to reflect on our conclusions, to consider our methods of reasoning and the quality and the reliability of the evidence we have considered.

Attitudes

These are characteristics that are expressions of fundamental values, beliefs, and feelings about learning, the environment, and people.

Appreciation: Appreciating the wonder and beauty of the world and its people.

Commitment: Being committed to their own 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.

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

Empathy: Imagining themselves in another's situation in order to understand his or her reasoning and emotions, so as to be open-minded and reflective about the perspectives of others.

Enthusiasm: Enjoying learning and willingly putting the effort into the process.

Independence: Thinking and acting independently, making their own judgments based on reasoned argument, and being able to defend their judgments.

Integrity: Being honest and demonstrating a considered sense of fairness.

Respect: Respecting themselves, others and the world around them.

Tolerance: Being sensitive about differences and diversity in the world and being responsive to the needs of others.

Action

These are demonstrations of positive action and service. Students are encouraged to reflect, choose wisely, and to act responsibly with their peers, school staff, and in the wider community. The action component involves service in the widest sense, to fellow students, friends, family, and the community. Through such service, students are able to grow socially and personally, developing skills such as cooperation, problem solving, conflict resolution and creative and critical thinking. Action can happen in a small way but arises from genuine concern and commitment. Action as a result of learning often happens beyond the classroom, and teachers at ISHR are always keen to know about action that the students take outside of school.

Approaches to Learning (Formerly known as Transdisciplinary Skills)

Skills are those things the students need to be able to do to succeed in a changing, challenging world. The PYP identifies sets of “transdisciplinary” skills that are relevant and applicable to all disciplines. Outlined below, they are acquired through the process of structured inquiry within and across all disciplines.

Thinking Skills	The acquisition of knowledge, comprehension, application, analysis, synthesis, evaluation, dialectical thought, and metacognition.
Research Skills:	Formulating questions, observing, planning, collecting and recording data, organizing and interpreting data, and presenting research findings.
Communication Skills:	Listening, speaking, reading, writing, and non-verbal communication.
Self-Management Skills:	Gross and fine motor skills, spatial awareness, organization, time management, safety, a healthy Lifestyle, codes of behavior and making informed choices.
Social Skills:	Accepting responsibility, respecting others, cooperating, resolving conflict, group decision making, and adopting a variety of group roles.

Lower Primary

The Lower Primary programme at ISHR builds competent learners capable of building their own meaning. It provides a framework that supports them as active learners and inquirers, providing a sound beginning to the continuum of learning that goes on throughout the school. Young children need extended periods of time and as much space as possible to explore, investigate, and play with a variety of materials, in order to learn about themselves, other people, and the world around them. The school environment has a range of clearly defined areas to encourage exploration, investigation and play, both in and out of doors. In all, the Lower Primary program creates an environment that does the following:

- Emphasizes developmentally appropriate and engaging activities;
- Facilitates learning as an interactive process;
- Enables the initiating of inquiry, wondering, and the asking of questions;
- Enables active exploration and interaction with adults, other children, and materials;
- Encourages children to work collaboratively with others; — emphasizes language, activity, and movement;
- Facilitates hands-on, play-oriented opportunities for learning;
- Provides a safe and nurturing environment;
- Promotes the physical, social, creative, emotional, and cognitive development of young children.
- Sustains children’s interests and extends their knowledge and understanding;

- Provides opportunities for children to choose from a variety of activities, materials, and equipment in flexible and imaginative ways;
- Enables children to make choices and decisions;
- Provides a balance of rest and active movement, including outdoor experiences.

The PYP curriculum in the Lower Primary years is used in a developmentally appropriate way; it takes into account what young children should do and learn on the basis of what is best for their development in the long term, rather than simply on the basis of what works in the short term. This developmental approach takes into account the following:

- The characteristics, capabilities, and interests that are appropriate to the age group;
- The different rates at which children learn and the wide range of normal variation which can occur in an age group;
- That learning is a balance between the intellectual, the social, and the personal; each is important and each is interlinked with the others;
- That the maturity of each child depends on the sequence of developmental stages the child has already gone through and the effects of earlier experiences. The flexibility available in the program for the early years allows teachers to support children's interests, build their self-esteem and confidence, and respond to spontaneous events, as well as support the development of skills in all cognitive areas in ways that are significant and relevant.

Curriculum Areas Overview

Language Arts

Language is fundamental to learning, thinking and communicating. Structured, purposeful inquiry is the main approach to teaching and learning language in the PYP although other teaching strategies and styles may also be used. Language is developed across the whole curriculum and as a result all teachers at ISHR are language teachers, who model and teach the use of language. Learning takes place in authentic contexts, and literature plays a special role in enabling this to happen. Students learn language when they are using it through speaking, listening, reading and writing in order to understand and express ideas. Teachers provide opportunities for this to happen in a safe and stimulating environment in order to encourage risk-taking and learning. Our aim is to develop students' ability to express themselves fluently, confidently and accurately in oral, written and visual communication systems.

Language Strands

- Oral communication: listening and speaking
- Written communication: reading and writing
- Visual communication: viewing and presenting

German

Students learn or improve language skills in the areas of understanding, speaking, reading and writing German according to the student's grade level and to their previous knowledge; students develop or refine and build on reading and writing skills in German. Vocabulary, language structures, and research into the PYP units of inquiry are integrated in the German program according to the student's level.

Students in Senior Kindergarden to Grade 5 have four sessions of German per week.

Beginner German students learn the vocabulary needed to communicate with their teachers and peers in everyday situations. A number of interactive activities are employed which encourage the development of listening comprehension and oral expression in a natural, enjoyable way. They also begin reading and writing in German. For continuing German students, the program promotes the further development of these skills.

Mathematics

Mathematics in the PYP is primarily viewed as a vehicle to support inquiry, providing a global language through which we make sense of the world around us. Mathematics is taught in relevant, realistic contexts. In this way, students begin to use mathematics as a way of thinking, rather than seeing it as a series of facts and equations to be memorized. Our aim is to develop students who are fluent in the language of mathematics and can apply their knowledge and understanding to real world situations.

Mathematical Strands

- Data handling
- Measurement
- Shape and space
- Pattern and function
- Number

Science

In the PYP, science is viewed as the exploration of the behaviors 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. 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



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

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



Personal and Social Education

PSE 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 well-being. Well-being is intrinsically linked to **all aspects** of a student's experience at school and beyond and as such all teachers are responsible for it. 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.

For example:

- Students will develop an awareness of their self-identity and their strengths and weaknesses.
- They will show self-confidence and self-worth.
- They will learn to recognize, communicate and manage their own feelings and emotions.
- They will reflect on their own abilities and behavior and will set achievable personal goals.
- Students will show awareness of and take responsibility for the choices they make to maintain a healthy lifestyle.
- They will develop a sense of safety and an ability to protect themselves.
- Students will develop social skills when interacting with others in different situations, and they will develop and maintain appropriate relationships.
- They will recognize and deal appropriately with conflict situations.



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.

Music

Music is an integral part of the educational life at our school and we strive to inspire and nurture the love of music in each child. Students learn the necessary skills to fully express themselves in this important discipline of the Arts during weekly music lessons. Music is often incorporated into specific units of Inquiry, where it can be featured as a transdisciplinary or alternative means of communication.



Art

All primary students attend a specialized art class once per week. In classes, students will become more aware of their own interests and preferences in Art by responding to artists and art works as well as creating their own designs and art works. They will experiment with a variety of tools, materials and techniques. Students will show confidence in choosing tools and materials that are appropriate for their artwork. They will make initial sketches and become aware that artwork requires thought, planning, effort and revision. Students will be exposed to and will respond to artifacts and artworks of varied cultural origins. They will become familiar with reflection and how to appreciate their own and others' artworks.



PYP Exhibition

Toward the end of each school year the **Grade 5** students participate in the PYP Exhibition. The PYP Exhibition provides the culminating experience of the learner's engagement with the PYP. It unites the teachers, learners, and parents of a class in an activity that captures the essence of the PYP being a transdisciplinary inquiry conducted in a spirit of personal and shared responsibility. It marks a rite of passage, both symbolic and actual, from PYP to the Middle School. Most importantly it is a celebration; an event which synthesizes all that is best in the PYP and shares this with the whole community.

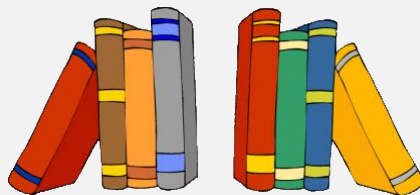
The exhibition should represent a significant event in the life of the school; encapsulating the essence of the PYP. Each group/individual works with a mentor, who is usually a teacher or faculty member within the school community. Over a series of weeks, students go through the inquiry process; investigating, analyzing, synthesizing and sharing their information in creative ways to prepare for an evening presentation to the wider community. This presentation includes both an insight into the knowledge and understandings they have gained from their inquiry as well as an overview of the process they went through as they collaborated.

Library

The library is viewed as the hub of a PYP School in which students develop essential information and literacy skills by accessing a range of media and texts. We believe that our library plays a vital role in lives of the children by:

- Promoting information literacy and encouraging a lifelong love for reading, viewing and listening;
- Ensuring that students and staff are effective, critical and ethical users of ideas and information.

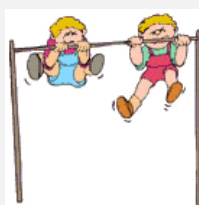
Instructional units based on library skills, information literacy and literature are taught when possible in the context of lessons, projects through the units of inquiry. Lessons are planned to meet the needs and abilities of each grade level.



Physical Education

Through Physical Education in the PYP, students are learning the “language” of physical movement, exploring the skills associated with the different areas of PE. Physical activity is an essential aspect of a balanced, healthy lifestyle and learning through PE helps build self-esteem, confidence, cooperation and fitness. Our aim is to stimulate students’ awareness of their own physical fitness and to simultaneously develop an interest and appreciation of sport.

We encourage our students to care about their physical fitness and to develop an understanding and appreciation of the importance of an active, healthy, and safety conscious lifestyle. Students will be exposed to fitness activities to promote an individual desire to be physically active throughout life; fostering enjoyment, developing self-confidence and social competencies.



Information Communication Technology (ICT)

In the PYP, the ever-increasing impact of Information and Communication Technologies (ICT) on teaching and learning is recognized. The use of technologies is integrated as much as possible into student inquiries. ICT provides opportunities for the enhancement of learning, and may significantly support students in their inquiries, and in developing their conceptual understanding. At ISHR, technology is considered as a tool for learning, albeit with its own set of skills, as opposed to an additional subject area.

Use of ICT:

- Documents the learning, making it available to all parties
- Provides opportunities for rapid feedback and reflection
- Provides opportunities to enhance authentic learning
- Provides access to a broad range of sources of information
- Provides students with a range of tools to store, organize and present their learning
- Encourages and allows for communication with a wide-ranging audience.

Our vision interprets technology as a natural and essential part of everyday school life for all members of our school community. Technology empowers and inspires students to develop critical thinking skills and supports continuous inquiry.



English as an Additional Language

Our English as an additional language program is designed to provide academic and social support for non-native speakers of English. The primary purpose of the program is to ensure that all students become proficient in English and achieve academic success. The EAL program helps students participate in mainstream classes to the best of their language proficiency. Therefore, language skills and strategies are integrated with content area and subject matter whenever possible. Based on the latest research regarding language and cognitive development, parents are encouraged to help their children maintain and develop their mother tongues. The diverse linguistic and rich cultural backgrounds brought to our school by the non-native English speakers enrich the learning opportunities for all students.

Students who are beginning learners of English need intensive support in order to:

- Learn basic survival English
- Become oriented into a new school culture
- Alleviate anxiety and frustration
- Progress from basic survival English to more complex forms of academic communication to allow for success in mainstream classes
- Develop confidence and independence
- Receive appropriate academic and social support

Students who are learning English are offered support in their individualized classes or through support in the mainstream classes to further develop their language.

Mother Tongue Language Maintenance

Research indicates that students benefit academically, socially and emotionally when they are encouraged to develop and maintain proficiency in their first language while they are learning English. Language skills and conceptual understanding are readily transferable from one language to another, provided there are no learning exceptionalities. The first language provides a foundation for developing proficiency in additional languages serves as a basis for emotional development and provides a vital link with the student's family and cultural background. A strong foundation in the first language can also help students to:

- Readily reintegrate into their home country
- Developmental flexibility
- Develop problem-solving skills
- Make connection between previous learning and new learning
- Communicate fully with family members
- Experience a sense of cultural stability and continuity
- Understand cultural and family values
- Develop awareness of global issues

Learning Support

At ISHR we have a rich variety of students with intellectual, physical, social, emotional, linguistic and other special learning characteristics, mirroring the multi-faceted world in which we live. Learning Support may include in-class learning support, individual or small group instruction, monitoring of students in the mainstream, and support for teachers in terms of differentiated instruction, accommodations and modifications of curricular programs. The nature and scope of such differentiated instruction varies with the age, diagnosis and abilities of the student.

Assessment

ISHR recognizes that teaching and learning, and the assessment of that learning, are fundamentally interdependent. Assessment is carried out in order to:

- Build up a clear picture of the student and his or her abilities and interests;
- Identify what and how the student is thinking and learning;
- Assess the effectiveness of the environment on the student's learning;
- Extend the student's learning.

Students:

- Have differing learning styles
- Have different cultural experiences, expectations and needs
- Perform differently according to the context of learning
- See self-assessment and peer assessment as a natural part of the learning process
- Need to know their achievements and areas for improvement in the learning process
- Should receive feedback that is honest, fair, positive and constructive

At ISHR, we promote the use of a range of assessment tools and strategies that are designed to give a clear picture of a student's prior knowledge and progress. Examples of these include anecdotal records, checklists, portfolios, continuums and rubrics.

Conferences and Report Cards

Parents, teachers and students are all viewed as partners in learning. Parent-teacher conferences and student-led conferences and report cards are used throughout the year as a means of informing students and parents of learning and progress. Parents are expected to attend all of the conferences. Parents are always welcome to arrange conferences at school and, likewise, the school may initiate a conference with parents at any time during the year. Student-led conferences are held once a year and are an opportunity for students to share their learning with their parents/carers. Students will share their portfolios during this time and also show their parents/carers around their class/school. All parents/carers and students are encouraged to attend student-led conferences.

Report cards are published twice a year to inform you of your child's progress in all subjects. If you have any questions or concerns regarding your child's report card, please do not hesitate to speak to the teacher concerned.

Parent Workshops and Newsletters

The beliefs, values and approaches of the PYP can be different compared to the curriculum that many families are used to. For this reason, ISHR believes strongly in communicating both the theory and the practices of the PYP. Parent workshops are organised throughout the year for parents to attend and learn more about the programme. Overall curriculum expectations for each grade level are sent to parents in monthly newsletters. In addition we publish a variety of newsletters throughout the year explaining various aspects of the PYP programme.

Portfolios

Students in the PYP create a portfolio based on a range of experiences and curriculum areas. The portfolio is a collection of work selected by the students and teachers and is a record of student's involvement in learning. It is designed to demonstrate success, growth, thinking skills, creativity, assessment strategies and reflection. It is a celebration of each student's active mind at work and provides a picture of progress and development over a period of time. Portfolios enable students to reflect with teachers, parents and peers in order to identify their strengths and growth as well as to identify further goals for development in a variety of areas both academic and social emotional.

German as an Additional Language Scope and Sequence – (Please note: This scope and sequence pertains to all grade levels and children enter upon it at different phases according to their already existing ability)

Listening

Phase 1		Phase 2	Phase 3	Phase 4
Conceptual Understandings <ul style="list-style-type: none"> Spoken words connect us with others. People listen and speak to share thoughts and feelings. People ask questions to learn from others. 		Conceptual Understandings <ul style="list-style-type: none"> The sounds of language are a symbolic way of representing ideas and objects. People communicate using different languages. Everyone has the right to speak and be listened to. 	Conceptual Understandings <ul style="list-style-type: none"> Spoken language varies according to the purpose and audience. People interpret messages according to their unique experiences and ways of understanding. Spoken communication is different from written communication—it has its own set of rules. 	Conceptual Understandings <ul style="list-style-type: none"> Taking time to reflect on what we hear and say helps us to make informed judgments and form new opinions. Thinking about the perspective of our audience helps us to communicate more effectively and appropriately. The grammatical structures of a language enable members of a language community to communicate with each other.
Level 1		Level 2	Level 3	Level 4
Active Listening	Listens attentively to others and responds with actions or words	Listens attentively to more than one literacy form (stories and poems)	Listens attentively to and understands a variety of literacy forms (oral presentations, stories, poems, drama), identifies a specific purpose	Demonstrates active listening by summarizing and identifying the speaker’s purpose, offering reflections, and interpreting the message
	Understands and follows oral directions	Listens attentively to others and provides feedback in small and large group interactions	Demonstrates active listening by asking questions in a variety of situations	Demonstrates active listening by participating appropriately as listener and speaker in a variety of situations
Follows classroom instructions		Follows three step directions		

Speaking

Phase 1		Phase 2	Phase 3	Phase 4
Conceptual Understandings <ul style="list-style-type: none"> Spoken words connect us with others. People listen and speak to share thoughts and feelings. People ask questions to learn from others. 		Conceptual Understandings <ul style="list-style-type: none"> The sounds of language are a symbolic way of representing ideas and objects. People communicate using different languages. Everyone has the right to speak and be listened to. 	Conceptual Understandings <ul style="list-style-type: none"> Spoken language varies according to the purpose and audience. People interpret messages according to their unique experiences and ways of understanding. Spoken communication is different from written communication—it has its own set of rules. 	Conceptual Understandings <ul style="list-style-type: none"> Taking time to reflect on what we hear and say helps us to make informed judgments and form new opinions. Thinking about the perspective of our audience helps us to communicate more effectively and appropriately. The grammatical structures of a language enable members of a

			language community to communicate with each other.
Speaking: Speaks for a variety of purposes			
	Level 1	Level 2	Level 3
Responding in groups by following conversational rules	<p>Express themselves with words and short sentences</p> <p>Begins to answer questions about e.g. themselves, family and friends, numbers and colors</p> <p>Begins to ask questions about e.g. themselves, family and friends, numbers and colors</p> <p>Begins to participate in basic conversations e.g. meeting and greeting</p>	<p>Takes turns as a listener and a speaker in a group</p> <p>Speaks in simple conversations with peers and adults</p> <p>Talks about e.g. about hobbies, family and friends, etc.</p> <p>Talks about e.g. subjects in school, activities in school, etc.</p>	<p>Listens, develops and presents ideas and opinions on familiar topics individually and in groups</p> <p>Engages in conversations and discussions e.g. explaining, sharing information, etc.</p>
Creative Dramatics	<p>Joins in with poems, rhymes and songs</p>	<p>Dramatizes stories</p>	<p>Dramatizes non-fiction and fiction</p>
Paraphrasing	<p>Talks about self-created pictures and models</p>	<p>Presents ideas and information in a logical sequence</p>	<p>Retells story or event in own words</p> <p>Maintains clear focus on details and/or main ideas</p> <p>Draws conclusions and summarizes</p>
	Level 4		
			<p>Listens, contributes ideas and seeks the ideas and opinions of others in a variety of situations</p> <p>Answers spontaneous questions in an informed, competent manner, making sure that listeners understand what is being said</p>
			<p>Dramatizes non-fiction and fiction in various ways</p>

Public Speaking	Speaks about something connected to self or an item	Gives basic oral presentation	Prepares and delivers basic oral presentation to a familiar audience using appropriate pace and volume	Delivers prepared presentations using complete sentences, selecting and pronouncing words at an appropriate pace and volume Uses some multi-media tools to enhance oral presentations
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Viewing and Presenting

Phase 1	Phase 2	Phase 3
<p style="text-align: center;">Conceptual Understandings</p> <ul style="list-style-type: none"> • Visual language is all around us. • The pictures, images, and symbols in our environment have meaning. • We can enjoy and learn from visual language. 	<p style="text-align: center;">Conceptual Understandings</p> <ul style="list-style-type: none"> • People use static and moving images to communicate ideas and information. • Visual texts can immediately gain our attention. • Viewing and talking about the images others have created helps us to understand and create our own presentations. 	<p style="text-align: center;">Conceptual Understanding</p> <ul style="list-style-type: none"> • Visual texts can expand our database of sources of information. • Visual texts provide alternative means to develop new levels of understanding. • Selecting the most suitable forms of visual presentation enhances our ability to express ideas and images. • Different visual techniques produce different effects and are used to present different types of information.

Visual Language: Interprets, uses and constructs visuals and multimedia in a variety of situations

	Level 1	Level 2	Level 3	Level 4
Awareness of visual media	<p>Recognizes familiar signs, labels and logos</p> <p>Makes personal connections to visual texts</p>	<p>Matches pictures with context</p> <p>Starts to discuss own feelings in response to visual messages</p> <p>Becomes aware and responds to visual cues</p>	<p>Connects visual information with own experiences to construct meaning</p> <p>Discusses own feelings in response to visual messages</p> <p>Begins to show empathy for the way others might feel</p> <p>Uses appropriate terminology in describing visual effects</p>	<p>Discusses personal experiences that connect with visual images</p> <p>Discusses own feelings in response to visual messages</p> <p>Listens to other's responses, realizing that people react differently</p> <p>Realizes effects are added for certain impact</p>
	Level 1	Level 2	Level 3	Level 4

Using and constructing visual media in a variety of situations	Communicates and conveys understanding through play, gestures, and facial expressions	Uses play, gestures, facial expressions and discussion to communicate ideas and feelings	Uses actions and body language to add meaning to speaking	Uses actions and body language to add meaning to oral presentations
	Uses color, size, and shapes in visual presentations	Starts to talk about illustrations in picture books and simple reference texts	Explains that text and illustrations in reference materials work together to convey information	Demonstrates that text and illustrations in reference materials work together to convey information
		Identifies different ways to present stories	Realizes the meaning of and uses appropriately colors, shapes, symbols, and images in visual presentations	Realizes the meaning of and uses appropriately colors, shapes, symbols, and images in visual presentations
		Uses colors, shapes, symbols, and size in visual presentations	Develops visual presentation skills	Applies basic knowledge of presentation techniques

Reading

Phase 1	Phase 2	Phase 3	
<p>Conceptual Understandings</p> <ul style="list-style-type: none"> • Illustrations convey meaning. • Print conveys meaning. • People read for pleasure. • Stories can tell about imagined worlds. • Printed information can tell about the real world. • There are established ways of setting out print and organizing books. 	<p>Conceptual Understandings</p> <ul style="list-style-type: none"> • The sounds of spoken language can be represented visually. • Written language works differently from spoken language. • Consistent ways of recording words or ideas enable members of a language community to communicate. • People read to learn. • The words we see and hear enable us to create pictures in our minds. 	<p>Conceptual Understanding</p> <ul style="list-style-type: none"> • Different types of texts serve different purposes. • What we already know enables us to understand what we read. • Applying a range of strategies helps us to read and understand new texts. • Wondering about texts and asking questions helps us to understand the meaning. The structure and organization of written language influences and conveys meaning. 	
Word Recognition: Uses the general skills and strategies of the reading process			
Level 1	Level 2	Level 3	Level 4

Pre-Reading Strategies	<p>Knows that pictures convey meaning</p> <p>Demonstrates understanding of print concepts</p> <p>Uses emerging reading skills to make meaning from print</p>	<p>Reads a wordless picture book by predicting story events using illustrations and prior knowledge</p> <p>Understands letters do not change</p> <p>Names letters from different fonts</p>	<p>Uses illustrations and prior knowledge to predict</p>	
Phonemic awareness	<p>Hears and discriminates the sounds of language</p> <p>Plays with words that rhyme</p>	<p>Recognizes rhymes in simple texts</p> <p>Separates beginning and ending sounds in familiar words</p> <p>Manipulates basic sounds with connected rhyming words</p>	<p>Identifies rhymes in simple texts</p> <p>Separates up to 3 phonemes</p>	<p>Matches the spoken sounds to written spelling patterns and homophones</p> <p>Matches the spoken sounds to single letters and syllables as well as to specific letter combinations</p>
Phonics	<p>Demonstrates knowledge of the alphabet</p>	<p>Identifies single consonant and short vowel sounds</p> <p>Uses phonemic awareness to read CVC words</p> <p>Begins to understand sound-symbol relationships</p> <p>Recognizes familiar sound/symbol/words of the language community</p>	<p>Understands sound-symbol relationships</p> <p>Applies reliable phonetic strategies when decoding print (rhymes, word families)</p> <p>Identifies long vowel sounds and a variety of consonant digraphs and consonant blends</p>	<p>Applies reliable phonetic strategies when decoding print</p>
Word Recognition	<p>Recognizes own name and those of most members of the class</p> <p>Can differentiate between letters and words</p> <p>Reads the first 12 high frequency words and recognizes them in different contexts</p>	<p>Reads the 100 high frequency words independently</p> <p>Recognizes some Unit of Inquiry words</p>	<p>Reads 250 sight words including some Program of Inquiry words and technical language words</p>	<p>Recognizes words using contextual cues and sight vocabulary</p>

Strategies for Decoding	Recognizes shapes in letter formation and letters Identifies initial letters/sounds in own name and other's names Uses sounds to decode CVC words	Uses a variety of strategies to decode unknown words (picture clues, rereading, reading on, chunking, prior knowledge, sight words, comprehension, syllables, phonological awareness, self-correction)	Uses a variety of strategies to decode unknown words, including knowledge of common letter patterns	Recognizes new words by using a variety of decoding skills,
Fluency	Participates in shared reading, (rhymes, refrains and repeated text) Recognizes own first name	Participates in guided reading situations (observing, following along with finger) Begins reading predictable texts with a pattern and pictures	Reads grade level texts aloud in phrases/sentences with pace and expression Reads independently with increasing fluency for longer periods of time with less familiar texts	Reads grade level texts aloud with accuracy, appropriate pausing, stress, intonation and phrasing Reads independently with increasing fluency for longer periods of time with less familiar texts

Literal Comprehension: Uses structural features of texts to facilitate comprehension

	Level 1	Level 2	Level 3	Level 4
Organizational Features of Non-Fiction Texts	Gains information from pictures and words	Recognizes the difference between fiction and non-fiction text	Recognizes the features of non-fiction texts (captions, headings, table of contents, glossary, index)	Identifies the features of non-fiction texts (titles, heading, table of contents, glossary, index)
Organizational Features of Fiction Text	Uses pictures to gain information	Uses title and pictures when reading Knows that stories have a beginning, middle and an end Knows the characters and setting of a story	Identifies the beginning, middle and end of a story and knows the purpose of these parts Identifies the characters, setting, problem and solution of a story	Identifies and describes the characters, setting, problem and solution of a story

Genre	Identifies fiction and non-fiction	Identifies fiction and non-fiction	Demonstrates an awareness of different genres (information report, instructions, fairy tales, stories)	Demonstrates an awareness of different genres (information report, biographies, instructions, realistic fiction, poetry, mysteries, scary and funny stories)
				Compares different genres to one another
Retelling	Listens to and responds to some questions about a narrative text	Identifies main characters, events, and ideas in narrative stories	Comments on events, characters and ideas in narrative stories	Retells a narrative in the correct sequence including setting and characters
	Listens to and responds to some questions about a non-fiction text	Identifies a fact from a non-fiction text	Retells some key information from a non-fiction text	Retells the key information from a non-fiction text

Inferential Comprehension: Uses reading strategies to retrieve and comment on ideas and information in a variety of texts including visual media

		Level 1	Level 2	Level 3	Level 4
Predicting and Interpreting	Fiction	Asks questions to clarify understanding	Asks questions about title, ideas, events and characters Relates texts to real life experiences	Expresses own view about texts and listens to the opinions of others	Discusses own interpretation of text and makes connections to the world around them
	Non-Fiction	Asks questions to clarify understanding	Asks questions about text or features e.g. tables, pictures etc. Relates texts to real life experiences	Expresses own view about texts and their features and listens to the opinions of others	Discusses texts, gives opinions and makes connections to the world around them

Engages with Text: Reads for a variety of purposes

		Level 1	Level 2	Level 3	Level 4
Reads for a variety of purposes		Enjoys listening to stories	Selects books and enjoys reading stories with some independence	Selects books and enjoys reading with increased independence	Chooses texts appropriate to reading level
					Shows a preference for a specific genre or author Plans personal reading goals

Writing

Phase 1		Phase 2		Phase 3		Phase 4	
Conceptual Understandings <ul style="list-style-type: none"> • Writing conveys meaning. • People write to tell about their experiences, ideas and feelings. • Everyone can express themselves in writing. • Talking about our stories and pictures helps other people to understand and enjoy them 		Conceptual Understandings <ul style="list-style-type: none"> • People write to communicate. • The sounds of spoken language can be represented visually (letters, symbols, characters). • Consistent ways of recording words or ideas enable members of a language community to understand each other's writing. • Written language works differently from spoken language. 		Conceptual Understandings <ul style="list-style-type: none"> • We write in different ways for different purposes. • The structure of different types of texts includes identifiable features. • Applying a range of strategies helps us to express ourselves so that others can enjoy our writing. • Thinking about storybook characters and people in real life helps us to develop characters in our own stories. • When writing, the words we choose and how we choose to use them enable us to share our imaginings and ideas. 		Conceptual Understandings <ul style="list-style-type: none"> • Writing and thinking work together to enable us to express ideas and convey meaning. • Asking questions of ourselves and others helps to make our writing more focused and purposeful. • The way we structure and organize our writing helps others to understand and appreciate it. • Rereading and editing our own writing enables us to express what we want to say more clearly. • 	
Ideas: Expresses ideas clearly							
Level 1		Level 2		Level 3		Level 4	
Non-Fiction	Expresses ideas through drawing and writes matching and simple words	Writes basic sentences about different but familiar topics	Writes about ideas that are topic related and include basic details	Writes with a clear purpose, follows a specific structure, ideas are on topic, include detail and are related	Writes about ideas that are topic related and include basic details	Communicates main ideas clearly	
	Starts to write basic sentences about themselves					Organizes main ideas into paragraphs with topic sentence and supporting details	
Fiction	Expresses ideas through drawing and writes matching and simple words	Starts to experiment with story writing	Writes simple, sequenced stories with a beginning, middle and end, includes simple description of characters	Writes with a clear purpose, follows a specific structure, ideas are on topic, include detail and are related	Writes simple, sequenced stories with a beginning, middle and end, includes simple description of characters	Uses a basic logical sequence	
	Expresses ideas through drawing and writes matching and simple words					Writes a story with a clear and developed beginning, middle and end, includes character and setting description	
Organization: Organizes writing for audience and purpose							
Level 1		Level 2		Level 3		Level 4	

Writing Process	Participates in shared writing activities	Participates in shared and guided writing activities Begins to use a graphic organizer to plan writing	Uses a graphic organizer to support the writing process	Plans, organizes and completes writing projects with support Reflects critically on own writing, edits to improve it with support	
	Genre	Listens to different text forms	Follows text structure features Begins to write labels, captions, and descriptions with support	Follows text structure features Begins to use labels, captions, recounts, descriptions, procedures, and narratives with support	
	Text Structure	Writes letters and words	Follows text structure features Writes recounts, descriptions, procedures, information reports, explanations, and narratives (orientation and complication focus) with support	Writes letters, narratives, stories, poems and text summaries of increasing complexity Organizes ideas into paragraphs Uses a range of text forms with an awareness of their purpose	
Word Choice and Voice: Writes with style and expression					
		Level 1	Level 2	Level 3	Level 4
Word Choice	Non-Fiction	Begins to use high frequency words	Experiments with words to describe ideas Uses high frequency words Begins to select vocabulary appropriate to text forms	Selects vocabulary appropriate to text forms	Selects vocabulary according to content, audience and purpose Uses vocabulary which is content and purpose specific

	Fiction	Begins to use high frequency words	Experiments with words to describe ideas Uses high frequency words	Works to include descriptive words and phrases Experiments with a thesaurus to find new and different descriptive words	Uses a thesaurus to find new and different descriptive words Uses a variety of descriptive vocabulary words Uses word choice to convey atmosphere and mood
	Voice	Starts to experiment with conveying feelings in drawing and writes simple words	Expresses feelings and emotions through in drawing and writes simple sentences	Starts to write in an individualized style Experiments with writing from an alternative view	Writes in an individual, creative and expressive style Writes from an alternative view
Sentence Fluency and Conventions: Uses conventions of writing appropriately					
		Level 1	Level 2	Level 3	Level 4
	Sentence Fluency	Begins to show evidence of simple sentence structure	Begins to use simple and compound sentences with time connectives	Uses correct verb agreement Uses a variety of sentence beginnings	Uses correct grammar and varies sentence structure length Uses paragraphs appropriately (topic sentence, details support topic)
	Spelling	Shows an awareness of at least 8 letter sounds Begins to show an awareness of the sound-symbol relationship Realises differences between English and German spelling	Spells high frequency words correctly and uses common spelling patterns Is aware of sounds that are special to the German language, e.g. Umlaute (ä, ö, ü) and Zwielaute (e.g. eu, au, äu) Capitalises the first letter in a sentence Capitalizes nouns	Spells previously learned words correctly and applies taught spelling patterns to unknown words Uses Umlaute (ä, ö, ü) and Zwielaute (e.g. eu, au, äu) Capitalises words with the endings – heit, -keit, -schaft, -ung, -nis. Writes –lich, -lig, ent-, ver-, vor-, words correctly	Spells previously learned words correctly and applies taught spelling patterns to unknown words Distinguishes between long and short vowels and understand the spelling consequences Uses ss and <u>ß</u> correctly Uses the various options to write a long vowel

<p style="text-align: center;">Handwriting</p>	<p>Writes legibly and in a consistent style</p> <p>Writes on standard handwriting paper</p> <p>Consistently uses spaces between words</p> <p>Consistently uses correct letter size</p>	<p>Writes legibly and in a consistent style (starting January)</p> <p>Writes on smaller standard handwriting paper</p>	<p>Uses a legible handwriting style consistently, including appropriate size, spacing and speed</p>	<p>Varies handwriting style according to audience and purpose</p>
<p style="text-align: center;">Punctuation and Grammar</p>	<p>Writes own first name with correct upper and lower case letters</p> <p>Recognizes last name</p> <p>Occasionally uses correct capitalization and punctuation</p>	<p>Identifies nouns and verbs</p> <p>Begins to use increasingly accurate grammatical constructs with subject-verb agreement</p> <p>Punctuation: capitalization for sentence beginnings and proper nouns, full stops</p>	<p>With support, uses quotation marks and commas in a list</p> <p>Identifies and uses common nouns, proper nouns, verbs, pronouns, prepositions and adjectives</p> <p>Uses correct articles definite/ indefinite</p> <p>Starts to use present, past, perfect and future tense</p> <p>Uses increasingly accurate grammatical constructs with subject-verb agreement</p> <p>Punctuation: capitalization, full stops, question marks, exclamation marks</p>	<p>Identifies and uses common nouns, verbs, pronouns, prepositions, adjectives, synonyms, antonyms</p> <p>Uses prefixes and suffixes correctly</p> <p>Consistently uses the correct tense for the writing genre with subject-verb agreement</p> <p>Uses present, past, perfect, and future tense correctly</p> <p>Punctuation: capitalization, full stops, exclamation marks, question marks, quotation marks, commas, direct speech</p>

Editing/Revising	Knows that writing is a process	Starts to edit writing for full stops and capitals at the beginning of sentences, with support	Begins to reread own writing to maintain word sequence Begins to edit writing for subject-verb agreement, capitalization, full stops and high frequency words Uses feedback from teachers to improve writing Uses resources for editing (dictionary, computer, peer, word wall)	Edits writing for word choice, ideas, paragraphing, grammar, spelling, capitalization and punctuation Revises for meaning
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Grade 5 Programme of studies

Who we are

Central Idea:

Changes in our interconnected body systems help ensure survival

Key Concepts: Change, Connection, Causation

Related Concepts: Biology, Growth, Cycles, Systems, Feelings, Choice

Lines of Inquiry

- The interconnected body systems (Connection, Change)
- The physical changes and transitions which people experience (Change, Causation)
- The social and emotional changes and transitions which people experience (Change, Causation)

Where we are in place and time

Central Idea

Passiveness in Inhumane Situations enables Oppression

Key Concepts: Form, Responsibility, Causation

Related Concepts: Humane and Inhumane, Passivity, Discrimination, Oppression

Lines of Inquiry

- Forms and levels of discrimination and oppression (Form)
- Reasons why people remain passive or take action (Causation)
- Our responsibility in inhumane situations (Responsibility)

How we express ourselves

Central Idea

Responses to injustice often brings about change

Key Concepts, Change, Causation, Responsibility

Related concepts:

Conflict, Rights, Injustice, Adversity, Citizenship, Justice,

Lines of Inquiry

- Nature of Injustice (Causation)
- Artistic responses to injustice (Responsibility)
- Actions through the arts that bring about change (Change)

How the world works

Central Idea

The Earth's future depends on the energy we use today

Key Concepts: Function, Connection, Responsibility

Related Concepts: Sustainability, Energy, Environment, Renewable Energy, Non-Renewable Energy

Lines of Inquiry

- Sources of energy (Function),
- Energy production and consumption and its consequences on the way we live our lives and the environment (Connection)
- Future energy production and consumption: local and sustainable (Responsibility)

How we organise ourselves

Central Idea

Data informs decision making and planning

Key Concepts: Responsibility, Causation, Perspective

Related Concepts: Sustainability, Rights, Roles, Interdependence

Lines of Inquiry

- Our responsibility as producers and consumers (Responsibility)
- The relationship between data and decision making (Connection)
- The role of data/information in creating and changing opinions (Perspective)

How we share the planet

EXHIBITION

Focussing on the issues in the world that the children themselves are passionate about.

Central Idea:

Empathy promotes deeper understanding and drives people to take action

Key Concepts: All key concepts are considered here

Related Concepts: Developed with students

Lines of Inquiry

- An issue of personal choice which challenges individuals or society to take action
- Individual inquiries into developed by the students under the guidance of the mentor and homeroom teachers

Mathematics Specific Expectations

Number

- Read, write and model whole numbers to at least 1,000,000 using the base 10 system
- Partition numbers into, millions, hundred thousands, ten thousands, thousands, hundreds, tens and ones and know what each digit represents
- Give one or more numbers lying between two numbers to 1,000,000
- Use read, write and spell correctly the vocabulary of ordering and comparing numbers including symbols and synonyms

- Use the symbols less than (<), more than (>) and equals (=), less than or equal to(\leq), greater than or equal to(\geq)
- Multiply and divide whole numbers and decimals by 10, 100, and 1000 etc. and explain the effect.
- Read, write and spell correctly the vocabulary of estimation and approximation
- Continue to use estimation as a tool to check the answer to calculations
- Approximate answers to calculations involving addition, subtraction, multiplication and division
- Consolidate rounding whole numbers to the nearest 10, 100, 1000 etc.
- Use negative numbers in everyday contexts and order negative numbers (or a mixed set of positive and negative numbers)
- Add and subtract two negative numbers or a positive and negative number in real contexts such as temperature
- Recognise and extend number sequences such as the sequence of square numbers or the sequence of triangular numbers 1, 3, 6, 10, 15
- Recognise squares of numbers to at least 12×12
- Understand and use exponents (index/power notation) to calculate (e.g. $10^4 = 10 \times 10 \times 10 \times 10 = 10,000$)
- Recognise simple square roots (to 12) and calculate more difficult square roots using a calculator
- Calculate simple cube roots e.g. cube root of 27 = 3
- Make general statements about odd or even numbers including the outcomes of products and divisions
- Recognise multiples up to 12×12 and beyond, know and apply simple tests of divisibility
- Find simple common multiples and the lowest common multiple (LCM)
- Recognise prime numbers to at least 20
- Factorize numbers up to at least 100 and demonstrate that any number (up to 100) is the product of its prime factors.
- Use, read, write and spell correctly fraction vocabulary and fraction notation, including that for mixed numbers and the vocabulary e.g. numerator and denominator
- Model equivalent fractions
- Order fractions such as $\frac{2}{3}$, $\frac{3}{6}$ and $\frac{4}{12}$ by converting them to fractions with a common denominator or by converting them to decimals

- Recognise the relationships between fractions e.g. $1/10$ is ten times bigger than $1/100$
- Estimate fractions and their decimal / percentage equivalent
- Reduce fractions to their simplest form by dividing both numerator and denominator by common factors
- Change improper fractions such as $33/8$ to the equivalent mixed number $4\frac{1}{8}$ and vice versa
- Use a fraction as an operator to find fractions e.g. $2/3$ of 60 cm
- Add and subtract fractions by converting them to fractions with a common denominator
- Multiply fractions
- Solve problems involving ratio, scale and proportion
- Use decimal notation for tenths, hundredths, thousandths, ten thousandths and beyond and know
 - what each digit in a number with up to 3 decimal places represents
 - Demonstrate that there is always a decimal fraction lying between two others e.g. between 3.4 and 3.5
 - Order a mixed set of mixed numbers with up to 4 decimal places.
 - Round decimals to the nearest whole number, tenth or hundredth
 - Recognise percentages as the number of parts in every 100
 - Find percentages of quantities including those greater than 100% e.g. 175% of 500
 - Demonstrate that fractions, decimals and percentages are different ways of describing parts of a whole
 - Recognise equivalence between simple decimals, fractions and percentages (e.g. $1/2$, $1/4$, $3/4$ etc.) including mixed fractions e.g. $2\frac{1}{2}$, 4.50
 - Know how to convert between more complicated fractions, decimals and percentages including those greater than 1 e.g. $1\frac{1}{2} = 1.5 = 150\%$
 - Derive quickly
 1. decimals that total one 2d.p. (e.g. $0.21 + 0.79$) or 10 (e.g. $3.51 + 6.49$)
 2. All pairs of numbers which total 1000
 3. All pairs of multiples of 5 which total 10000
 - Consolidate
 1. Knowledge of multiplication facts for 12×12 and related division facts.
 2. Squares of multiples of 10 to 100 (e.g. 60×60)
 3. Doubles of two digit decimals (e.g. 3.8×2) and corresponding halves

4. Doubles of multiples of 10-1000 (e.g. 670×2) and corresponding halves
 5. Doubles of multiples of 100-10000 (6500×2) and corresponding halves
- Approximate answers to calculations involving addition, subtraction, multiplication and division
 - Extend written methods for column addition and subtraction of numbers involving decimals
 - Extend written methods to short multiplication of numbers involving decimals (ThTU \times U)
 - Extend written methods to long multiplication of a three digit number by a 2 digit number including decimals
 - Consolidate written methods to short division of HTU by U
 - Consolidate written methods to division of HTU by TU
 - Extend written methods to short and long division of numbers involving decimals
 - Use the correct order of operations including the use of brackets
 - Develop calculator skills and use a calculator effectively

Measurement

- Use, read, write and begin to spell accurately standard metric units (km, m, cm, mm, kg, g, l, ml, degrees Centigrade or Fahrenheit) including their abbreviations
- Recognise and use relationships between units and convert smaller to larger units and vice versa (e.g. M to km, cm or mm to M, g to Kg, ml to L)
- Recognise and use units of measure used in non-metric systems such as e.g. Miles, yards, feet, inches, gallons, pints, etc.
- Select and use suitable units and/or measuring equipment to estimate, describe, compare and measure length, mass, temperature and capacity
- Use decimal and fractional notation in measurement (to three decimal places e.g. 3.234KM)
- Record estimates and readings from scales to a suitable degree of accuracy
- Explain and demonstrate that the accuracy of measurement depends on the situation and the tools being used
- Develop and describe formulas for calculating the perimeter and area of simple compound shapes that can be split into rectangles
- Develop and describe formulas for calculating surface areas of cubes and cuboids

- Develop and describe formulas for calculating areas of triangles
- Calculate the areas of more complex shapes that can be split into triangles and rectangles
- Develop and describe formulas for calculating volumes of cubes and cuboids
- Develop and describe formulas for calculating circumference and area of circles
- Use, read, write and spell accurately the vocabulary related to time and know the relationships between the measures
- Determine time in different time zones and appreciate different times around the world
- Suggest and use suitable units of time with which to estimate or measure.
- Use and construct timetables, schedules and timelines in both 12 hour and 24 hour format

Shape and Space

- Classify, describe and sort regular and irregular 2D shapes (2 to 10 sides) according to their properties such as symmetry, number of corners, parallel sides, angles etc. including quadrilaterals (square, rectangle, rhombus, parallelogram, trapezium, convex and concave kite)
- Review the properties of isosceles, equilateral and scalene triangles using criteria such as equal sides, equal angles, lines of symmetry etc.
- Classify, sort and describe regular and irregular 3D shapes according to their properties such as symmetry, the number of faces, sides/edges, parallel faces, vertices and angles
- Make shapes with increasing accuracy
- Identify, describe and model congruency and similarity in 2D shapes
- Investigate regular and irregular shapes that tessellate
- Describe and name parts of a circle (including circumference, diameter, radius, chord, sector, segment, arc)
- Visualise 3D shapes from 2D nets and vice versa (e.g. cube, cuboid, square based pyramid and triangular-based pyramid)
- Visualise and create cylinders and cones from 2D nets
- Identify and use scale/ratio to enlarge or reduce drawn/created shapes
- Know and use the vocabulary of lines, rays and segments: parallel and perpendicular

- Use and apply the vocabulary of four quadrant coordinates including its notation e.g. (-3, -2)
- Read and plot coordinates in all four quadrants
- Use the language and notation of bearings to describe position.
- Determine 3 figure bearings on coordinate grids and simple maps
- Translate points and shapes on coordinate grids and recognise where a shape will be after one or two translations
- Recognise where a shape will be after reflection in a mirror line. E.g.
 1. touching the shape at a point (sides of shape not necessarily parallel or perpendicular to the mirror line)
 2. or two mirror lines at right angles (sides of shape parallel or perpendicular)
- Recognise where a shape will be after a rotation through 90 degrees, 180 degrees or 270 degrees about one of its vertices clockwise or anticlockwise
- Know and use angle vocabulary (acute, obtuse, reflex, straight, degrees, etc.)
- Identify and estimate angles (acute, obtuse, reflex)
- Use a protractor to measure and draw angles to the nearest degree (acute, obtuse and reflex)
- Calculate angles around a point
- Check that the interior angles of a triangle add up to 180 degrees and those interior angles of quadrilaterals add up to 360 degrees.
- Investigate angles of other polygons
- Construct triangles when given information regarding two of the angles or length of line and one angle

Pattern and Function

- Model, create and explain number and other patterns
- Analyse and describe pattern and function using words, tables and graphs
- Demonstrate that patterns can be generalized by a rule
- Consolidate use of letters or symbols to express mathematical relationships using simple linear equations
- Understand exponents as repeated multiplication
- Describe the inverse relationships between exponents and roots
- Use functions to solve problems
- Consolidate use of the properties and relationships of the four operations to solve problems

- Develop, model and explain simple algebraic formulas in context such as $V = L \times W \times H$ etc.!

Data Handling

- Sort data according to multiple attributes
- Pose and answer questions accurately by systematically collecting, recording, organizing and displaying, data in tables, graphs, charts and diagrams e.g.
 1. Tables and charts
 2. Conversion graphs,
 3. Line graphs
 4. Bar charts with grouped discrete data e.g. test marks 0-5, 6-10 etc.
 5. Distance time graphs
 6. Pie charts
- Experiment with scale to determine the most suitable for a particular graph
- Discuss, and compare different graph forms including how well they communicate information in different contexts
- Find the mode and range of a set of data

English/ German Language Specific Expectations

Please note: The German scope and sequence document for advanced learners is identical to the English scope and sequence except for a few minor modifications with respect to spelling and grammar. German acquisition learners follow a modified version of this scope and sequence which is included in this document.

Listening:

Consistently demonstrates active listening

- Demonstrates active listening by participating appropriately as listener and speaker, in discussions, conversations, debates and group presentations by maintaining culturally appropriate eye contact (or body language), asking questions, or taking notes for a variety of purposes

Speaking:

Speaks for a variety of purposes

Responding in groups by following conversational rules

- Identify, describe and explain the mean and median of a set of data
- Use ICT as a tool to create data charts
- Set up an electronic spreadsheet/database using simple formulas to manipulate data and create graphs
- Describe events as likely or unlikely and discuss the degree of likelihood using such words as certain, equally likely, impossible etc.
- Place events in order of likelihood
- Determine the theoretical probability of an event and explain why it may differ from experimental probability
- Consolidate understanding of the difference between theoretical and experimental probability
- Use tree diagrams to express probability
- Represent probability in different forms (including decimals, percentages and fractions)
- Express probabilities using scale 0 – 1 (or) 0% - 100% etc.

- Answers spontaneous questions in an informed, competent manner, making sure that listeners understand what is being said
- Follows rules for communication for working constructively in large and small groups

Creative Dramatics

- Dramatizes non-fiction and fiction with use of props, readers' theatre and plays
- Verbally summarizes directions or selected reading
- Infers and draws conclusions and can justify them

Public Speaking

- Delivers prepared presentations using appropriate voice and body language
- Uses multi-media tools to enhance oral presentations

Viewing and Presenting:

Interprets, uses and constructs visuals and multimedia in a variety of situations

Awareness of visual media

- Knows that individuals interpret visual information according to their personal experiences and different perspectives
- Identifies factors that influence personal reactions to visual text

Using and constructing visual media in a variety of situations

- Shows how body language can be used to achieve effects and influence meaning
- Designs visual texts with the intention of influencing the way people think and feel
- Applies knowledge of presentation techniques in original and innovative ways
- Analyzes the selection and composition of visual presentations to explain uses of dominant images, colors, textures, and symbolism

Reading

Word Recognition: Uses the general skills and strategies of the reading process

Word Recognition

- Skims and scans for relevant information locating keywords

Strategies for Decoding

- Reads and interprets new words by using appropriate strategies
- Understands simple derivational words from other languages

Fluency

- Reads grade level texts with Self-corrections, intonation, phrasing and pausing while reading aloud
- Reads independently with increasing fluency for longer periods of time with less familiar texts

Literal Comprehension:

Uses structural features of texts to facilitate comprehension

Organizational features of non-fiction texts

- Use text organizers to locate information for a specific purpose

Organizational features of fiction texts

- Identifies and discusses the elements of plot (exposition, rising action, climax, falling action, resolution)

Genre

- Demonstrates understanding of different genres by making comparisons (historical fiction, fantasy, mystery)

Retelling

- Demonstrates comprehension of texts using both explicit and implicit information
- Makes informed judgments about the author's purpose

Inferential Comprehension:

Uses reading strategies to retrieve and comment on ideas and information in a variety of texts including visual media

Predicting and Interpreting

Fiction:

- Discusses and identifies the reasons why a text may be interpreted differently by different readers

Non-Fiction:

- Reads and analyses the purpose of image placement, image size; font color, size and script choice

Engages with Text: Reads for a variety of purposes

- Critically evaluates reading habits and preferences

Writing

Ideas: Expresses ideas clearly

Non-Fiction

- Writes with a clear and consistent focus on main ideas
- Uses a developed logical sequence

Fiction

- Writes engaging, developed stories with character, setting and plot

Organization: Organizes writing for audience and purpose

Writing Process

- Plans, organizes, drafts, edits, and completes writing projects independently and with increasing competence

Genre

- Follows text structure features
- Writes recounts, descriptions, expositions, discussions, responses, poetry, explanations, and narratives (orientation, complication, series of events and resolution)

Text Structure

- Uses clues logical sequence to reveal clues
- Uses a variety of text forms.
- Ending shows conclusion or summarizes key points.

Word Choice and Voice: Writes with style and expression

Non-fiction:

- Uses vocabulary effectively and precisely for different purposes

Fiction

- Chooses vocabulary to convey intended meaning, atmosphere and mood

Voice

- Writes from a personal or alternative perspective, including thoughts and feelings

Sentence Fluency and Conventions: Uses conventions of writing appropriately

- Uses a variety of sentence beginnings, varies sentence length and structure
- Uses paragraphs appropriately (topic sentence, details support topic)
- Uses metaphors, idioms, personification and, irony

Spelling

- Spells previously learned words correctly and applies taught spelling patterns to unknown words

Handwriting

- Uses a legible cursive handwriting style consistently, including appropriate size, spacing and speed

Punctuation and Grammar

- Consistently uses capitalization, punctuation, including quotation marks when referencing
- Consistently uses the correct tense for the writing genre with subject-verb agreement throughout text
- Uses cause/effect, compare/contrast connectives, conjunctions, subordinate clauses, dependent clauses
- Pronouns are used to refer back or forward to nouns and to a noun outside the text.



For further scope and sequence information please refer to the school's website