IB Mission Statement

The International Baccalaureate aims to develop inquiring, knowledgeable and caring young people who help to create a better and more peaceful world through intercultural understanding and respect. To this end the organization works with schools, governments and international organizations to develop challenging programs of international education and rigorous assessment. These programs encourage students across the world to become active, compassionate and lifelong learners who understand that other people, with their differences, can also be right.

TIPS Mission Statement

"To nurture inquiring, knowledgeable and caring young lifelong learners who are engaged citizens of our world through intercultural understanding and respect".

Dear Parents,

At the outset, we would like to welcome you all to the new academic year. A combination of Performing Arts (PA), Physical Education (PE) and Academics has been incorporated in a well balanced manner to give children an all-round development.

Learning experiences throughout the year are designed towards fostering skill development, independent and collaborative decision making in order to prepare the students for smooth transitions every year. Students work in partnership with their peers, parents and teachers – each recognizing their individual and collective responsibilities to create a community of global learners ready to take on the challenges of the 21st century.

The learning environment at TIPS aims at the all round development of the child. It provides ample opportunities for development in academic, physical, emotional and social spheres. Individual attention is ensured as the staff caters to the distinctive needs and talents of a child which is nurtured in a full -fledged manner.

How can parents assist students?

Parents can help their child in a variety of ways:

- Establish a regular routine to complete the homework and assigned tasks independently in an appropriate location that best suits thefamily.
- Available to discuss homework assignments.
- Exhibit support by being focused on time management and choice of resources.
- As a courtesy to classroom teachers, parents are requested to notify, in writing, any change in the student's regular routine. Examples of these include: changes in bus routine or afternoon pick up or after school programs/schedule changes. It is recommended that notification occurs through:
  - Email: a day before (or as soon as possible)
  - A message in the student's diary

Communication with teachers

At TIPS, all teachers value open and constant communication. We encourage students and parents to work in partnership with each other to foster self-responsibility by reflecting on daily routines. Any concerns of teachers and parents should be communicated in a respectful congenial manner. We also encourage parents to use the parent portal for communication/concern.

If you wish to discuss any serious matter with the child's class teacher, please send us an email with the issue on hand and request for an appointment. We do not encourage appointments for general progress updates, since six open forums have been scheduled periodically throughout the year.

Communication Diary: The student diary contains important information concerning school expectations, and procedures. The purpose of the diary is to support students in their efforts to develop organizational and time management skills. It is an important means of communication between school and home.

School circulars: Specific information regarding class routines and organizational matters are communicated through circulars. Additional detailed curriculum information will also be sent home throughout the year in the form of circulars or flyers.

Enhanced PYP

The Primary Years Programme endorses a belief that students learn best when the learning is authentic, relevant to the real world and transdisciplinary, where the learning is not confined within the boundaries of traditional subject areas but is supported and enriched by them.

Agency and the learning community

The learning community recognizes that agency and self-efficacy are fundamental to learning. A learning community that supports agency offers opportunities for students to develop important skills and dispositions, such as critical and creative thinking, perseverance, independence and confidence. These are vital to the learning process and the development of self-efficacy. The learning community further offers students multiple opportunities to experience the impact of their choices and opinions, which support their evolving perceptions of their identity.

TIPS is a school, with a focus on agency considers its perceptions of how children learn, children's capabilities and the overall value of childhood. When teachers consider their beliefs around children's identities and rights, they are examining personal beliefs, theories, cultural backgrounds and values. For example, the teachers' beliefs and values will influence their choices of how to allocate time, how to set up learning spaces, choose and arrange materials and foster relationships within the classroom and the broader community.

Students have voice, choice and ownership for their own learning. When students' have agency, the relationship between the teacher and students becomes a partnership. Students with a strong sense of self-efficacy bring a stronger sense of agency to the learning community. The learning community supports agency and fosters self-efficacy.

PYP students with agency use their own initiative and will, and take responsibility and ownership of their learning. They direct their learning with a strong sense of identity and self-belief, and in conjunction with others, thereby building a sense of community and awareness of the opinions, values and needs of others.

Transdisciplinary: Transdisciplinary learning is the exploration of a relevant concept, issue or problem that integrates the perspectives of multiple disciplines in order to connect new knowledge and deeper understanding to real life experiences Transdisciplinarity provokes the learner to reflect upon, and reconsider, what he or she believes about the world and about hisor her place in it. Students will feel obliged to respond when faced with challenges relating to themselves or to any issues in the world.

Engaging with the concept of transdisciplinarity forces a paradigm shift that moves most teachers out of their comfort zone and an effective implementation of the PYP will bring about "a change in the relationship between students and teachers", whereby students "become co-investigators in dialogue with the teacher and jointly responsible for a process in which all grow".

PYP Curriculum Model

Contributing to transdisciplinary learning in the PYP is the student engagement with units of inquiry at each year level. These units are consolidated into a matrix known as the transdisciplinary programme of inquiry, whereby the themes of global significance, listed below, frame the learning throughout the primary years. The development of each unit of inquiry is focused on a central idea that supports conceptual development and extends understanding of the transdisciplinary theme. The PYP key concepts, themselves transdisciplinary, are embedded in the central ideas. Thus, the knowledge component of the written curriculum is built up of transdisciplinary layers, one supporting the other in the following six themes.

Transdisciplinary Themes

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 with regard to time & place; personal histories; homes and journeys; the discoveries, explorations and migrations of humankind; the relationships between 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, values; the aesthetic sense and creativity.

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 on 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 relationships within and between them; access to equal opportunities; peace and conflict resolution.

Programme of Inquiry: The programme of inquiry is a matrix made up of the six transdisciplinary themes running vertically, and the age groups running horizontally. Organizing the curriculum around the six transdisciplinary themes contextualizes the learning for the students. It enables them to experience a balance of subject-specific knowledge, concepts and skills in order to develop an understanding of the transdisciplinary themes.

Unit of Inquiry : A unit of inquiry is a 6-8 week in-depth exploration of a concept. Students will inquire into a central idea or a main understanding by being guided by lines of inquiry and Prompting questions.

Central Idea: Each of the six units of inquiry has a central idea based on each theme. The central idea is written in one sentence that expresses precisely the context. Each central idea will support student's understanding of the particular transdisciplinary theme it is connected to, and would challenge and extend student's prior knowledge.

Lines of inquiry: Each unit will contain three or four lines of inquiry. The lines of inquiry clarify the central idea and define the scope of the inquiry. These contributing aspects of the central idea extend the inquiry, focus student research, and deepen student's understanding. Connections are made, as appropriate, between the lines of inquiry as well as with the central idea.

Concepts:

A concept - driven curriculum, helps the learner to construct meaning through improved critical thinking and the transfer of knowledge and understanding. The PYP key concepts— form, function, causation, change, connection, perspective, responsibility are themselves transdisciplinary and increase coherence across the curriculum. By identifying concepts that have relevance within each subject area, and across and beyond all subject areas, the PYP has defined an essential element for supporting its transdisciplinary model of teaching and learning. These concepts provide a structure for the exploration of significant and authentic content. In the course of this exploration, students deepen their understanding of the concepts and learn to think conceptually.

In planning units of inquiry, related concepts derived from the subject areas are also identified. These related concepts may be seen as subject-specific versions of the PYP key concepts, for example, transformation in science is a version of the key concept "change". These related concepts deepen an understanding of the subject areas while providing further opportunities to make connections throughout the learning, from one subject to another, and between disciplinary and transdisciplinary learning.

Key Concepts

- **Form:** The understanding that everything has a form with recognizable features that can be observed, identified, described and categorized.
- **Function:** The understanding that everything has a purpose, a role or a way of behaving that can be investigated.
- **Causation:** The understanding that things do not just happen, that there are causal relationships at work, and that actions have consequences.
- **Change:** The understanding that changes is the process of movement from one state to another. It is universal and inevitable.
- **Connection:** The understanding that we live in a world of interacting systems in which the actions of any individual element affect others.
- **Perspective:** 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:** 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 : These inquiries also allow students to acquire and apply a set of transdisciplinary skills: social skills, communication skills, thinking skills, research skills, and self-management skills. These skills are relevant to all learning, formal informal, in the school, and in events experienced beyond its boundaries. Students also develop skills and strategies drawn from the subject areas, but aligned with the five transdisciplinary skills.

For example, becoming literate and numerate enhances student's communication skills. The acquisition of literacy and numeracy, in their broadest sense, is essential as these skills provide students with the tools of inquiry. Within their learning throughout the program, students acquire a set of transdisciplinary skills - social, communication, thinking, research and self management. These skills are valuable not only in the unit of inquiry, but also for any teaching and learning that goes on within the class room and in life outside the school.

Thinking skills

- Critical-thinking skills: Analysing and evaluating issues and ideas
- Creative-thinking skills: Generating novel ideas and considering new perspectives
- Transfer skills: Using skills and knowledge in multiple contexts
- Reflection/metacognitive skills: (re)considering the process of learning

Research skills:

- Information-literacy skills: Formulating and planning, data gathering and recording, synthesizing and interpreting, evaluating and communicating
- Media-literacy skills: Interacting with media to use and create ideas and information
- Ethical use of media/information: Understanding and applying social and ethical technology

Communication skills

- Exchanging-information skills: Listening, interpreting, speaking
- Literacy skills: Reading, writing and using language to gather and communicate information
- ICT skills: using technology to gather, investigate and communicate information

Social skills

- Developing positive interpersonal relationships and collaboration skills: Using self-control, managing setbacks, supporting peers
- Developing social-emotional intelligence

Self-management skills

- Organization skills: Managing time and tasks effectively
- States of mind: Mindfulness, perseverance, emotional management, self motivation, resilience

IB Learner Profile Attributes:

The kind of student we hope, who graduates from a PYP school, will be laying the foundation upon which international mindedness will develop and flourish. The attributes of such a learner, as shown below are relevant to both students and adults in a PYP school. They are interpreted and modeled for students. The purpose of the modeling is not to encourage students to mimic but to provide support a metacognitive framework, to help students reflect on and develop their own set of values, albeit in the context of that being demonstrated. The teacher looks for authentic demonstrations of these attitudes in the daily life of the students in order to make them inquisitive, and build an appreciation for them.

IB learners 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.

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.

Balanced: We understand the importance of balancing different aspects of our lives intellectual, physical, 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.

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.

SLC Overview

Student Led Conference is a platform to get a better picture of each child. It forces parents and teachers to sit down with each student and review strengths and weaknesses. These conversation/ presentations inform teaching and learning more than perhaps conventional assessments. **Student**-led Conferences communicate not only how a student is performing but also why. It also enable **the** student to take responsibility and control of their own efforts to learn and at the same time be a team member and ensure success for all.

Schedule of SLCs & PTMs:

- Students of Grade 1 to 5 will have 3 SLCs and 3 PTMs in an Academic Year (PTM 1 & SLC 1 - Online Meeting).
- SLC may be scheduled in between or before completion of the ongoing inquiry.
- SLC 1 & 2 will be held on a scheduled date in two sessions.
- SLC 3 - Project Exhibition and Presentation.

SLC Format:

- **SLC-1** to focus on the curriculum covered from the beginning of the academic year to the date of first SLC.
- **SLC -2** to focus on the curriculum covered from the first SLC to second SLC across subject areas.
- **SLC-3** the final SLC to focus on an elaborate Science Project undertaken by the students as part of their Science Learning till date.
    - Students will be able to choose from one of 3 science projects given to them based on the science learning completed during the academic year.
    - Students in their groups to develop and exhibit their understanding of the selected project with the help of working models/ ppts / displays and oral presentation as specified by the project document.
    - The assessment criteria and rubrics will be shared with the students for their selected science project.
    - The students would be assessed for their individual as well as group performance.
    - Project selection and project details will be completed by Nov/Dec to provide ample time for successful project completion.

SLC Overview – (1 & 2):

- At the beginning of each SLC timeframe, each student to be assigned in a group.
- Group to consist of 3 or 4 students.
- Each member of the group to choose a subject and topic to present for 5 mins
- All group members to choose different subjects to present
- Group members to prepare and support each other in planning
- Each member to present independently during the SLC
- Each SLC will cover the learning experiences of the students from one SLC to another.
- Presenters may make use of PPT/ Working Model/ Live demonstration/ Experiment/ Manipulative/ Note-books etc to showcase their learning experiences

Presentation Format: time allotted 5 mins for each team member (20 mins per group)

- Introduction
- Significance of the topic
- Content development
- Conclusion
- Acknowledgements

Essential conditions for SLC:

- Parental participation in all the SLCs is mandatory. The student will be assessed by both the parent and the teacher.
- Absentees will be marked zero
- Parents to assess on the given criteria, out of FIVE points.
- Teachers to assess each member of the team on the given criteria, out of TEN.
- The final points will be an yearly average of all SLC's

Expectations from the Parents:

- Be present for the SLC on time
- Encourage the child in her/his preparation
- Ask relevant questions to prepare the child as per the expectations
- Assess the child without bias

SLC Assessment: Each child is assessed on the following criteria by parents and teachers alike.

- Presentation style and confidence
- Clarity
- Subject content
- Self-Management skills
- Team work

Both parents and teachers are integral in ensuring student success.

Project-based learning

Project-based learning (PBL) is an instructional framework that encourages critical thinking, creativity, innovation, inquiry, collaboration and communication. Students investigate real-world questions and solve authentic challenges. Science-based PBL integrates science, technology, engineering, math, language arts, and other content areas.

Each PBL pack presents a scenario that establishes a problem to be solved and asks a **Driving Question**. This question sets a purpose for a student-driven investigation or challenge. Then students design a solution to the problem, develop a project, and deliver a presentation to the audience.

Based on the PBL units,

- Students are segregated in groups.
- Each group will research, plan, create and present the project based on the driving question of the unit.
- Each child will be receiving a student booklet which comprises of Project Outline, Project planner, Vocabulary, KWLS, Recommended Reading, Project Ideas, Project Description, Project Check Up, Presentation Rubric, and Team Reflection.

Parents participation is very essential in organizing the groups, providing the materials needed and supporting the child in every step to complete the project.

This inquiry based student-directed instruction will help the children to communicate and collaborate with others to solve problems which is an integral part in the real world.

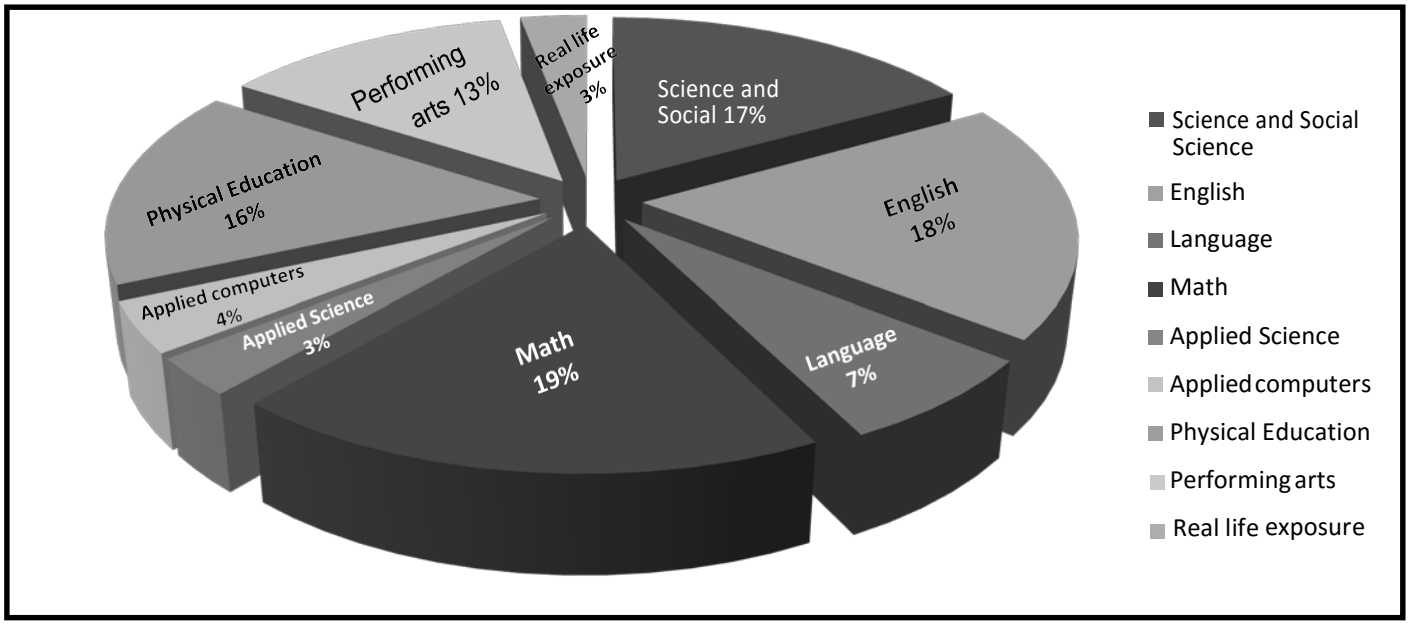
Parent Teacher Meeting

PTM is an informal session in the class room of your child with the class teacher. The Coordinators can also be met on the same day. This is an opportunity for parents to review their child's progress and discuss other issues with the class teacher. Parental participation in PTM is mandatory. School will organize 3 PTMs in an Academic Year.

Management Review Meetings:

The management of TIPS receives feedback about the academic year from the parents as well as shares the future plans with them. This platform provides another opportunity for parents to communicate and put forward their suggestions directly. The management provides an excellent platform for direct communication to the parents. They receive individual feedback about the academic year and about the future plans of the school.

ANNUAL CURRICULUM PLAN



This pie- chart gives you an approximate break-up of the various disciplines offered by the TIPS curriculum. **The subjects focused in each theme will be integrated in the units of inquiry.**

Our grade V children will be inquiring into trans-disciplinary themes

ANNUAL CURRICULUM OVERVIEW – UOI		
Discipline	**Transdisciplinary Themes**	**Time frame**
UOI	How the world works	**Sem 1**
	How we express ourselves	
	Who we are	
	How we organize ourselves	**Sem 2**
	Sharing the planet	
	Where we are in place & time	

Our grade V children will be inquiring into trans-disciplinary theme

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.

Central idea

Forces produce motions that are integral part of our daily life

Key Concepts

- Form
- Causation
- Change

Related concepts

- Force
- Motion
- Transformation

Lines of inquiry

- Types of forces around us
- How forces affect the motion of objects
- Forms of energy and energy transformation

Subject focus – Science, Language, PSPE

Strands

- Science : Force and Energy
- Language : Written Language
- PSPE : Active Living

The learning outcomes after the inquiry are that the students will be able to:

- identify the difference between contact forces & non contact forces and their effects
- associate various forces available in everyday life experiences and make connections about force, motion, and energy
- Understand the Newton's laws of motion and their real life application
- identify various forms of energy and investigate energy transformation in everyday lives

Expected trans-disciplinary skills while inquiring into this theme

- Thinking skills
- Research skills

While inquiring into this theme, children exhibit these learner profile attributes

- Reflective
- Inquirers
- Thinkers

Students have an access to the following resources during this inquiry.

Reading Resources

- Force & Motion
- Soccer
- Gravity in the Solar System
- Race cars
- Roller Coasters
- Perpetual Motion: Fact or Fiction?

Possible Hands on Activity

Exploration – Rubber Band Forces: Energy and Mass

Key Vocabulary

- Potential energy
- Acceleration
- Weight
- Velocity
- Mass
- Momentum
- Motion
- Gravity
- Centripetal force
- Perpetual motion
- Electromagnetism
- Horse power
- Friction
- Magnus effect
- Inertia
- Kinetic Energy

Note to parents: If you find any other useful books / website please email to us.

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.

Central idea

Media in today's world shapes our thinking and decision making

Key Concepts

- Function
- Perspective
- Responsibility

Related concepts

- Communication
- Influence
- Values

Lines of inquiry

- Different types of media created to meet the needs of society
- Influence of media on society/individuals
- Responsible utilization of media

Subject focus – Social studies, Language, Art

Strands

- Social Studies : Social Organization and Culture
- Language : Visual Language - Viewing and Presenting
- Art : Creating

The learning outcomes after the inquiry are that the students will be able to:

- Explore the different types of media (print media, digital media, broadcast media etc.)and their functions
- Research and analyze the positive and negative impacts of media on society
- Understand the responsible uses of media and explore the purpose of digital literacy and digital citizenship

Expected transdisciplinary skills while inquiring into this theme

- Communication skills
- Social Skills

While inquiring into this theme, children exhibit these learner profile attributes

- Principled
- Communicators
- Open minded

Students have an access to the following resources during this inquiry.

Reading Resources

- The world-wide web - Linda Bullock
- Communications - Jane Shuter
- Inventing the printing press - Liza Mullins
- Is television a Bad Influence
- Going Digital - Raintree Steck Vaughan
- Newspapers - Chris Oxlade

Key Vocabulary

- plagiarism
- communication
- journalism
- blog
- broadcast
- cyber crime
- editing
- credibility
- expression
- billboard
- browsing
- surfing
- periodical
- podcast
- perception
- magazines

Note to parents: If you find any other useful books / website please email to us.

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.

Central idea

Different body system function together to support the well being of living organisms

Key Concepts

- Form
- Connection
- Function

Related concepts

- Structure
- Independence
- Wellbeing

Lines of inquiry

- Levels of organization in living organism
- Interdependence of body systems
- Ability to resist and fight against diseases

Subject focus – Science, Language, PSPE

Strands

- Science : Living Things
- Language : Written Language, Reading and Writing
- PSPE : Identity

The learning outcomes after the inquiry are that the students will be able to:

- Understand the different levels of organization (cells, tissues, organs, system etc) in living things
- Locate the cell organelles within the cell and describe their functions
- explain how body systems interact with each other for the smooth functioning of the living organism
- realize the role and importance of healthy lifestyle for better living

Expected transdisciplinary skills while inquiring into this theme

- Research skills
- Self-management skills

While inquiring into this theme, children exhibit these learner profile attributes

- Balanced
- Reflective

Students have an access to the following resources during this inquiry.

Reading Resources

- Inside Living Things
- Incredible Eyes
- Transport Systems in Plants
- Parasites
- You've Got a Lot of Nerve!
- Fighting Infection!

Possible Hands on Activities

Project – Cell model
Experiment – Lung capacity
Exploration – Changing pulse rates

Key Vocabulary

- Antibodies
- Arteries
- Capillaries
- Cell membrane
- Cell wall
- Cytoplasm
- Mitochondria
- Multicellular
- Pathogens
- Veins
- Plasma
- Pores
- Tissue
- Unicellular
- Vacuoles
- Nucleus

Note to parents: If you find any other useful books / website please email to us.

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 on humankind and the environment.

Central idea

Economic activity relies on systems of production, exchange and consumption of goods and services

Key Concepts

- Connection
- Function
- Responsibility

Related concepts

- inequity
- Interdependence
- Fair trade

Lines of inquiry

- The role of supply and demand in the economy
- The distribution of goods and services
- Rights and responsibilities of producer & consumer

Subject focus – Social studies, Math, Language

Strands

- Social Studies : Human System and Economic Activities
- Math : Number
- Language : Oral Language - Listening and Speaking

The learning outcomes after the inquiry are that the students will be able to:

- identify the difference between goods and service
- recognize how supply determines the demand in the economy
- explore the ideas of production, distribution and consumption
- understand the rights and responsibilities of the producer & consumer for the upliftment of the economy

Expected Trans-disciplinary skills while inquiring into this theme

- Social skills
- Communication skills

While inquiring into this theme, children exhibit these learner profile attributes

- Communicators
- Thinkers
- Risk takers

Students have an access to the following resources during this inquiry.

- Advertising - Catherine Chambers
- Reduce and Reuse - Sally Hewitt
- Advertising and Marketing - Clive Gifford
- Economics – Scot Fetzer comp

Key Vocabulary

- Economy
- Inflation
- Trade
- Consumption
- Taxation
- Manufacturer
- Barter
- Distribution
- Commodity
- Franchise
- Disbursement
- Entrepreneur
- Scarcity
- Retail
- Wholesale
- Satisfaction

Note to parents: If you find any other useful books / website please email to us.

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; peace and conflict resolution.

Central idea

Access to medical care around the world varies and can influence how diseases are spread

Key Concepts

- Form
- Connection
- Responsibility

Related concepts

- Difference
- Interdependence
- Equality

Lines of inquiry

- Understanding communicable and non-communicable diseases
- Availability and access to medical care, water, sanitation and hygiene (WASH) services
- Role of global organizations in providing medical care

Subject focus – Science, Social Studies

Strands

- Science : Living Things
- Social Studies : Resources and Environment

The learning outcomes after the inquiry are that the students will be able to:

- Differentiate communicable and non communicable diseases with examples
- Explore the importance of health care facility worldwide
- Understand the importance of WASH (water, sanitation and hygiene) in the present world
- Research the functions of global organizations like WHO, UNICEF etc.

Expected transdisciplinary skills while inquiring into this theme

- Research skills
- Self-management skills

While inquiring into this theme, children exhibit these learner profile attributes

- Knowledgeable
- Caring
- Reflective

Students have an access to the following resources during this inquiry

- Planet under pressure - Health and disease - Claire Wallerstein
- Pandemics - World Book
- Medical Ethics - Robert Snedden

Key Vocabulary

- communicable
- hygiene
- sanitation
- pandemic
- vaccine
- immunization
- disease
- endemic
- eradication
- heredity
- accessibility
- organization
- diagnosis
- influenza
- infection
- ethics

Note to parents: If you find any other useful books / website please email to us.

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.

Central idea

Exploration beyond space leads to the discovery of the expanding universe

Key Concepts

- Form
- Change
- Function

Related concepts

- Exploration
- Transformation
- Role

Lines of inquiry

- Exploration of outer space
- Expansion of the universe
- Role of technology in understanding the universe

Subject focus – Science, Social Studies, Math

Strands

- Science : Earth and Space
- Social Studies : Human and The Natural Environment
- Math : Measurement

The learning outcomes after the inquiry are that the students will be able to:

- explain the features of deep space
- explore the changes due to the expansion of universe
- analyze the importance of technology in understanding the universe

Expected Transdisciplinary skills while inquiring into this theme

- Thinking skills
- Research skills

While inquiring into this theme, children exhibit these learner profile attributes

- Inquirers
- Knowledgeable

Students have an access to the following resources during this inquiry.

Reading Resources

- Outside the Solar system
- The Voyager Program
- Galaxies Far, Far Away
- Nebulae
- Powerful Telescopes
- Exoplanets

Possible Hands on Activity

Project – Deep-Space Model

Key Vocabulary

- Astronomer
- Black hole
- Cluster
- Cosmologist
- Deep space
- Exo planet
- Galaxy
- Light-year
- Luminosity
- Nebula
- Orbit
- Solar system
- Supernova
- Cosmos
- Universe
- Constellation

Note to parents: If you find any other useful books / website please email to us.

Where we are in place and time: (subunit) 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.

Central idea

Past civilizations shape present day systems and technologies

Key Concepts

- Form
- Connection

Related concepts

- Civilization
- Relationship

Lines of inquiry

- Explore the structure & function of ancient civilizations
- Influence of the past civilizations in the present world

The learning outcomes after the inquiry are that the students will be able to:

- analyze the aspects of various civilizations
- investigate the factors that lead to the rise and fall of civilization
- explore the discoveries and inventions of the past and make connections to the modern world

Expected Trans-disciplinary skills while inquiring into this theme

- Social skills
- Research skills

While inquiring into this theme, children exhibit these learner profile attributes

- Inquirers
- Thinkers
- Knowledgeable

Students have an access to the following resources during this inquiry.

- Great Ancient Civilizations - Hello friend
- Time travel guide Ancient Egypt - Liz Goge
- Time travel guide Ancient Rome - John Malam
- Time travel guide Ancient Greece - Anna Claybourne
- 100 Amazing facts Discoveries and inventions - Hello friend

Key Vocabulary

- Civilization
- Discoveries
- Inventions
- Empire
- Currency
- Provenance
- Culture
- Society
- Ancient
- Archaeology
- History
- Settlement
- nomad
- Urban
- dockyard
- Excavation

Note to parents: If you find any other useful books / website please email to us.

PYP EXHIBITION

The Primary Years Programme exhibition represents a significant event in the life of students and is a celebration of their learning. It gives children a chance to demonstrate their skills, knowledge, conceptual understanding and gives them a voice to make a difference in the community. As a culminating experience it is an opportunity for students to exhibit the attributes of IB learner profile that have been developing throughout their learning engagement with the PYP.

Students are required to engage in a collaborative, trans-disciplinary inquiry process that involves them in identifying, investigating and offering solutions to real-life issues or problems. It provides opportunity for the students to share their message with their community and even the world. The Exhibition involves the entire learning community - students, teachers, pedagogical leadership team, mentors and parents/guardians.

The central idea for the exhibition will be framed by our 5th graders and a detailed investigation will be done by them. They will present their findings to the school community and parents during the last SLC of the academic year. The Exhibition journey is an opportunity for students to demonstrate the application of the IB Mission Statement - to develop inquiring, knowledgeable and caring young people who help to create a better and more peaceful world.

ANNUAL CURRICULUM OVERVIEW - ENGLISH		
Discipline	**Skills**	
English	**Reading Comprehension**	Warming up
		Analyze Character
		Analyze Plot
		Analyze Setting
		Author's Point of View
		Author's Purpose (Entertain)
		Author's Purpose (Inform)
		Author's Purpose (Persuade)
		Cause and Effect
		Compare and Contrast
		Identify Character Point of View
		Main Idea and Details
		Make Inferences and Conclusions
		Problem and Solution
		Reality and Fantasy
		Sequence Events
	Writing	Informational Report
		Informative Speech
		Persuasive Pro and Con
		Experimental Report
		Biography
		Personal narrative
		Persuasive Opinion
		Realistic fiction
		Descriptive writing
	Language Skills	Nouns, Common and Proper Nouns
		Concrete and Abstract Nouns, Singular and Plural nouns, Gender of nouns
		Uses of Nouns, Nouns as Objects
		Person of a Pronoun, Number of Pronouns
		Subject and Object Pronouns, Possessive Pronouns,Indefinite Pronouns
		Relative and Demonstrative pronouns
		Pronoun- Antecedent agreement
		Types of Verbs, Linking Verbs, Helping Verbs
		Simple Verb tenses, Perfect Tenses
		Active and Passive Verbs, Irregular Verbs
		Irregular Verbs Review
		Proper and Common Adjectives, Predicate Adjectives

English	**Language Skills**	Indefinite Adjectives, Forms of Adjectives
		Types of Adverbs
		Forms of Adverbs
		Prepositional Phrases
		Coordinating & Subordinating Conjunctions
		Conjunctions Review
		Interjections, Parts of Speech Review
		Simple Subjects and Predicates
		Compound Subjects and Predicates
		Clauses
		Prepositional Phrases
		Sentence Fragments
		Run-on Sentences
		Rambling Sentences
		Double Negatives
		Sentence Errors Review
		Subject-Verb Agreement
		Subject-Verb Agreement Review
		Combining Sentences using keywords
		Combining Sentences with a series of Words or Phrases
		Combining Sentences with Phrases
		Combining sentences with compound subjects and predicates
		Kinds of Sentences
		Types of Sentences
		Simple and Compound Sentences
		Compound Sentences
		Complex Sentences
		Expanding Sentences with Prepositional Phrases
		Sentence variety Review
	Vocabulary Cluster	Categories of people
		56, 94, 111, 203, 204
		205, 206
		227, 317, 330, 343, 344
		Color
		382, 432, 444, 57
		58
		415, 72
		243, 368, 60, 106
		121, 190, 210 ,321, 324, 335

English	**Vocabulary Cluster**	Shapes
		364, 365, 366, 399, 400, 69, 99
		142, 193, 218, 270, 303, 326
		Occupations
		68, 88, 146, 167, 173
		229, 236, 257, 264
		265, 266, 297, 333
		355, 357, 358, 359, 360, 361, 392, 393
		The Human body
		394, 395, 396, 397, 436, 75, 76, 80, 115, 140
		157, 160, 191
		Combustion and Temperature
		213, 336, 437, 78, 220
		376, 414, 442, 84, 103
		156
		165, 175
		Water
		87, 101, 102
		127, 296
		Weather and Nature
		352, 353, 391, 424, 90, 226, 307, 375, 406
		Parts of dwellings
		91, 113, 123
		Machines and Tools
		134, 217, 284, 92
		96, 118, 119, 163
		242, 254
		275, 276, 314 ,315, 316, 419
		Vehicles and transportation
		420, 93 ,97, 120, 128
		159, 234, 318
		Groups
		98
		200, 258
		Money/goods
		298,401,104,109
		116,122,201
		Containers, Materials and buildings
		214,107
		164,181

Our language programme includes all aspects of English such as:

Reading and Comprehension

At TIPS, the students will be going through a complete Reading Programme which motivates them to read in an engaging way. The multi-sensory approach and the hands-on activities help them learn the important components of reading -Phonological awareness, Decoding, Vocabulary, Fluency and Comprehension. This curriculum aims at laying a firm foundation of learning and create interest in reading for a lifetime.

Writing

Pupils learn to write in a range of genres or styles, organizing and developing their ideas logically, using appropriate vocabulary and a variety of sentence structures. By the end of the academic year children would have progressed in their writing skills and will be able to write *Biography, Descriptive, Experimental report, How to, Informational Report, Informative Speech, Narrative FairyTale, Personal Narrative, Realistic Fiction, Persuasive – Opinion and Persuasive – Pro-Con.*

Listening & Speaking

The language of the classroom is English. Our aim is that children will become comfortable speaking English in the classroom. Children will be given the opportunity to express their opinions and ideas on a range of issues. They will be expected to listen appreciatively to the viewpoints of others.

Vocabulary – Clusters

Robert J. Marzano identified basic and advanced vocabulary which a speaker who wishes to communicate in the English language should know. These words are grouped into clusters. Grades 1 - 3 will be given basic vocabulary, while Grades 4 & 5 will be given advanced vocabulary. We will be sending home sets of words which will be discussed in the class. Your child will illustrate his / her understanding of the word in the space provided. We will send this home every day and children have the liberty to complete the work throughout the week rather than in one sitting. Allow your child to take time to look at the word, recall the meaning and illustrate. This will the help the child identify word in a text and use the same while writing as well.

Language Skills

Children will learn grammar using the *Language skills* book. The topics which will be dealt with are *Parenthesis, Pronouns, Possessive nouns, Conjunctions, Future tense verbs, Simple, compound & complex sentences and Adjectives*. In addition, they will also be given grammar practice every day for which *Write Rights* resource book will be used.

ANNUAL CURRICULUM OVERVIEW HINDI

DISCIPLINE	OBJECTIVE	TIME FRAME
HINDI	1. पुनरावृति- स्वर, व्यंजन, बारहखड़ी 2. पाठ - लकड़ी का हंस 4. व्याकरण- विराम चिह्न, क्रिया 5. गिनती 1- 20 6. मेरी हिन्दी	SEM I
	1. पाठ- मैं इंटरनेट हूँ 2. पाठ - मैं सबसे छोटी होऊँ 3. व्याकरण- संज्ञा, विशेषण- विशेष्य 4. गिनती 21-40 5. मेरी हिन्दी	
	1. पाठ - जीना सीखो 2. पाठ - हम होंगे कामयाब 2. व्याकरण- कारक, योजक, क्रिया विशेषण 3. गिनती 41- 50 4. मेरी हिन्दी	
	1. पाठ- सिंदबाद के चमत्कार 2. पाठ- दोहे 3. व्याकरण- संबंधबोधक, समुच्यबोधक (परिचय) 4. गिनती 51- 60 5. मेरी हिन्दी	SEM II
	1. पाठ - मैं तुम्हारी शक्ति हूँ 2. पाठ - त्योहार 3. व्याकरण- संज्ञा, सर्वनाम, विशेषण (पुनरावृत्ति) 4. गिनती 61- 80 5. मेरी हिन्दी	
	1. पाठ - हम दुनिया बदल देंगे 2. पाठ - फूलों की घाटी की सैर 3. व्याकरण- काल, उपसर्ग, प्रत्यय 4. गिनती 80- 100 5. मेरी हिन्दी	

लेखन कौशल

केन्द्रीय शिक्षण बिन्दु :

भाषा प्रयोग क्षमता का विकास

उच्च स्तर की बौद्धिक क्षमताओं का विकास

शैक्षणिक उद्देश्य :

- भाषा ज्ञान
- अर्जित ज्ञान का सही उपयोग करना
- शब्द भंडार में वृध्दि
- भाव प्रकट करने की क्षमता
- कलपना शक्ति का विकास

पठन /वाचन कौशल :

केन्द्रीय शिक्षण बिन्दु :

- स्पषट एवं शुद्ध उच्चारण और अर्थ बोध का ज्ञान

शैक्षणिक उद्देश्य :

- भाषा प्रस्तुतीकरण का अभ्यास
- अभियनात्मक पठन
- वार्तालाप की क्षमता का अभ्यास
- सामान्य बोलचाल की भाषा के प्रयोग का अभ्यास

श्रवण कौशल :

केन्द्रीय शिक्षण बिन्दु :

- मौखिक अभिव्यक्ति का विकास

शैक्षणिक उद्देश्य :

- कहानी सुनना और सुनाना
- वार्तालाप और संवाद
- चित्रकथा, कविता, व्याकरणिक प्रयोग

संदर्भ ग्रंथ सूची :

पंखुड़ियाँ	-	वीवा एजुकेशन
स्वाति	-	सरस्वति हाउस प्रा. लि.
गुंजन	-	मधुबन एजुकेशनल बुक्स
वितान	-	मधुबन एजुकेशनल बुक्स
पल्लवी	-	एलाइट पब्लिशर्स प्रा. लि.

Websites :

www.akhlesh.com ,
www.Hindiclassroom.com
www.indg.in/primary-education/Shiksha

ANNUAL CURRICULUM OVERVIEW - TAMIL

DISCIPLINE	OBJECTIVES	TIME FRAME
TAMIL	எழுத்துக்களின் வகைகளோடு எளிய, கடினச் சொற்களின் பொருள், சொல் வகைகளை சான்றுகளுடன் அறிந்து கொள்ளுதல்.	SEM I
	வாக்கிய அமைப்பில் இனவெழுத்துகளின் பயன்பாடு, எச்சத்தொடர்களை பொருளுணர்ந்து முடித்தல் போன்றவற்றை அறிந்து கொள்ளுதல்.	
	வாக்கிய அமைப்பில் அதன் வகைகள், பகுப்பு மற்றும் கடினச் சொற்களின் பொருள் உணர்தல் போன்றவைகளை அறிதல்.	
	வாக்கியங்களில் எழுவாய், பயனிலை, செயப்படுபொருள் ஆகியவற்றை உணர்ந்து, கருத்துக்களை புரிந்து கொள்ளுதல்.	SEM II
	பத்திகளில் நிறுத்தற்குறியீட்டின் பயன்பாட்டினையும், பல சொற்களைக் கொண்டு ஒரு பொருள் உணர்த்தும் முறையையும் அறிதல்.	
	வாக்கியங்களில் தகுந்த இடத்தில் மரபுச் சொற்களை கையாளும் விதத்தையும், அதனுடைய பொருள் மற்றும் விளக்கங்களையும் தெரிந்து கொள்ளுதல்.	

LISTENING AND SPEAKING

LEARNING OBJECTIVES: (கற்றலின் குறிக்கோள்கள்)

- முன்னறிமுகமில்லாத சூழலில் கலந்துரையாடல்கள் மற்றும் வசனங்களைப் புரிந்து கொள்ளுதல்.
- சூழ்நிலைகளையும் நிகழ்வுகளையும் விவரிக்கும் திறன்.
- இயல்பாகவும் சரளாமாகவும் பேசுதல், தெரிந்த தலைப்புகளில் பேசுதல்.
- செய்தித்தாள்கள், கதைகள், நகைச்சுவைத் துணுக்குகள் போன்றவற்றின் மூலம் செய்திகளை உணர்தல்.

READING

LEARNING OBJECTIVES: (கற்றலின் குறிக்கோள்கள்)

- அச்சு எழுத்துக்களையும் கையெழுத்துப் பிரதிகளையும் சுலபமாக வாசித்து அறிதல்.
- செய்தித்தாள்களையும் மற்ற அச்சிட்ட செய்திகளையும் வாசித்தல்.
- கலந்துரையாடல் மூலம் வினாக்களைப் புரிந்து விடையளிக்கும் திறன்.

WRITING

LEARNING OBJECTIVES: (கற்றலின் குறிக்கோள்கள்)

- எண்ணத்தின் வெளிப்பாடுகளை நல்ல கருத்துடைய சொற்களைக் கொண்டு வெளிப்படுத்துதல்.
- தலைப்பு சார்ந்தும், .சூழ்நிலை நிகழ்வுகளையும் பத்தி, கடிதம், கட்டுரை வடிவில் வெளிப்படுத்துதல்.
- அனைத்து ஒலி வேறுபாட்டுச் சொற்கள், நிறுத்தற்குறியீடுகளைப் பயன்படுத்தி வாக்கியம் அமைத்தல்.

RESOURCE BOOKS : **அழகு தமிழ், வண்ணத்தமிழ் இலக்கணப் பயிற்சி நூல்.**

WEBSITES : ***www.tamilnoolagam.com*** **,** ***www.tamilcube.com*****, www.tamilvirtual.com**

ANNUAL CURRICULUM OVERVIEW - MATH			
Discipline	**Objectives**		
Math	**Revisiting Previous Year Concepts**		
	Whole numbers	**Numbers up to 10,000,000**	Count by ten thousands and hundred thousands to 10,000,000
			Use place-value charts to show numbers to 10,000,000
			Read and write numbers to 10,000,000 in standard form and word form
		Place value	Identify the place value of any digit in numbers to 10,000,000
			Read and write numbers to 10,000,000 in expanded form
		Comparing numbers to 10,000,000	Compare and order numbers to 10,000,000
			Identify and complete a number pattern
			Find a rule for a number
		Rounding and estimating	Round numbers to the nearest thousand
			Locate numbers on a number line
			Use rounding to estimate or check sums, differences and products
			Use related multiplication facts to estimate quotients
	Whole number Multiplication and division	**Using a calculator**	Use your calculator to add, subtract, multiply and divide whole numbers
		Multiplying by Tens, Hundreds or Thousands	Multiply numbers by 10, 100, or 1,000 using patterns
			Multiply numbers up to 4 digits by multiples of 10, 100, or 1,000
			Use rounding to estimate products
		Multiplying by 2-digit numbers	Multiply a 2-, 3-, 0r 4 -digit number by a 2-digit number
		Dividing by tens, hundreds or thousands	Divide numbers by 10, 100, or 1000 using patterns
			Divide numbers up to 4 digits by multiples of 10, 100, or 1000
			Use rounding and related multiplication facts to estimate quotients
		Dividing by 2-digit numbers	Divide a 2-, 3-, or 4-digit number by a 2-digit number
		Order of operations	Use order of operations to simplify a numeric expression
			Evaluate numerical expressions with parentheses, brackets and braces
		Real -world problems: Multiplication	Use efficient strategies to solve multi- step problems involvingmultiplication and division
		division	Express and interpret the product or quotient appropriately
	Fraction and mixed numbers	**Adding unlike fractions**	Add two unlike fractions where one denominator is not a multiple of the other
			Estimate sums of fractions
		Subtracting unlike fractions	Subtract two unlike fractions where one denominator is not a multiple of the other
			Estimate differences between fractions

Math	**Fraction and mixed numbers**	**Fractions, Mixed numbers & division expressions**	Understand and apply the relationships between fractions, mixed numbers, and division expressions
		Expressing fractions, division expressions and mixed numbers as	Express fractions, division expressions, and mixed numbers as decimals
		Adding mixed numbers	Add mixed numbers without renaming
			Estimate sums of mixed numbers
		Subtracting mixed numbers	Subtract mixed numbers with or without renaming
			Estimate differences between mixed numbers
		Real-world problems fractions and mixed numbers	Solve real-world problems involving fractions and mixed numbers
	Multiplying and dividing fractions and mixed numbers	**Multiplying proper fractions**	Multiply proper fractions
		Real-world problems: multiplying with common fractions	Solve real-world problems involving multiplication of proper fractions
		Multiplying improperfractions byfractions	Multiply improper fractions by proper or improper fractions
		Multiplying mixed numbers and whole numbers	Multiply mixed numbers and whole numbers
			Solve real-world problems involving multiplication of whole numbers and mixed numbers
		Dividing a fraction by a whole number	Divide a fraction by a whole number
			Divide a whole number by a unit fraction
		Real-world	Solve real-world problems involving
		problems: Multiplying and dividing with fractions	multiplication and division in fractions
			Solve real-world problems involving division of a whole number by a unit fraction
	Algebra	**Using letters as numbers**	Recognize , write and evaluate simple algebraic expressions in one variable
		Simplifying algebraic expressions	Simplify algebraic expressions in one variable

Math	**Algebra**	**Inequalities and equations**	Write and evaluate inequalities
			Solve simple equations
		Real world problem: Algebra	Solve real-world problems involving algebraic expressions
	Area of a Triangle	**Base and Height of a triangle**	Identify the base given the height of a triangle
			Identify the height given the base of a triangle
		Finding the area of a triangle	Find the area of a triangle given its base and its height
	Ratio	**Finding ratio**	Read and write ratios
		Equivalent ratios	Find equivalent ratios
		Real-world problems: Ratios	Solve real-world problems involving ratios
		Ratio in fraction form	Interpret ratios given in fraction form
		Real-world problems: more ratios	Solve real-world problems involving ratios and fractions
		Comparing three quantities	Use ratios to compare three quantities
	Decimals	**Understanding Thousandths**	Read and write thousandths in decimal and fractional forms
			Represent and interpret thousandths in models or in place-value charts
			Write a fraction with denominator 1,000 as a decimal
		Comparing and rounding decimals	Compare and order decimals to 3 decimal places
			Round decimals to the nearest hundredth
		Rewriting	Rewrite decimals as fractions and
		decimals as fractions and mixed numbers	mixed numbers in simplest form
	Multiplying and Dividing decimals	**Multiplying decimals**	Multiply tenths and hundredths by a 1-digit whole number
		Multiplying by tens, Hundreds and Thousands	Multiply tenths and hundredths by 10, 100, and 1,000
			Multiply tenths and hundredths by multiples of 10, 100, and 1,000
		Dividing decimals	Divide tenths and hundredths by a 1- digit whole number
			Round quotients to the nearest tenth or hundredth
		Dividing by tens, hundreds and thousands	Divide tenths and hundredths by 10, 100, 1,000
			Divide tenths and hundredths by multiples of 10, 100, and 1,000
		Estimating decimals	Estimate decimal sums, differences, products, and quotients
		Real-world problems: Decimals	Solve real-world problems involving decimals

Math	**Percent**	**Percent**	Relate and compare percents, decimals and fractions
		Expressing fractions as percents	Express fractions as percents
	Graphs and probability	**Making and interpreting double bar graphs**	Make and interpret a double bar graph
		Making and interpreting Line plots	Make a line plot to represent data given in fractions of a unit
			Use operations on fractions to solve problems from the information presented
			Read points on a coordinate grid
			Plot points on a coordinate grid
		Graphing an equation	Graph an equation
		Combinations	List and count all possible combinations
			Draw a tree diagram to show all possible combinations
			Use multiplication to find the number
	Angles	**Angles on a line**	Understand and apply the property that the sum of angle measures on a line is 180°
		Angles at a Point	Understand and apply the property that the sum of angle measures on a line is 360°
		Verticals angles	Understand and apply the property that vertical angles have equal measures
		Verticals angles	Understand and apply the property that vertical angles have equal measures
	Properties of triangles and four sided figures	**Measures of angles of a triangle**	Understand and apply the property that the sum of the angle measures of a triangle is 180°
		Right, isosceles and equilateral triangles	Understand and apply the properties of right, isosceles, and equilateral triangles
		Triangle inequalities	Understand that the sum of the length of any two sides of a triangle is greater than the length of the third side
		Parallelogram, Rhombus and Trapezoid	Understand and apply the properties of parallelogram, rhombus, and trapezoid
	Three-dimensional shapes	**Prisms and pyramids**	Identify and classify prisms and pyramids
			Identify the solid figure that can be formed from a net
		Cylinder, sphere and cone	Identify and classify cylinders, spheres, and cones
	Surface area and volume	**Building solids using unit cubes**	Build solids using unit cubes
			Determine the number of unit cubes in an irregular solid
		Drawing cubes andrectangular prisms	Draw a cube and a rectangular prism on dot paper
			Complete a partially drawn cube and rectangular prism on dot paper

Math	**Surface area and volume**	**Nets and surface area**	Find the surface area of a prism by adding the area of each face
		Understanding and measuring volume	Find the volumes of cubes and rectangular prisms
			Find the volume of a solid constructed from unit cubes
			Compare volumes of cubes, rectangular prisms, and other objects

APPLIED SCIENCE - STEM

STEM inculcates Science, Technology, Engineering and Mathematics. We focus on these areas together not only because the skills and knowledge in each discipline are essential for student success, but also because these fields are deeply interwined in the real world and in how students learn more effectively. STEM is an interdisciplinary and applied approach that is coupled with problem based learning.

Curriculum Introduction:
Our unique curriculum is an attempt to integrate the "hands-on" science and practical application with the regular school curriculum for STEM subjects (Science, Technology, Engineering, and Mathematics).

STEM through Robotics:

An early introduction to robotics through STEM encourages our children's essential growth and expression, engaging their cognitive, critical, and creative potential. When used in this way, robotics can help these future creators, designers, and engineers to better understand and explore the world around them.

Core values of STEM:

- New Opportunities for Creative and CriticalThinking
- Hands-On Lessons with Real-WorldApplications
- Fun and Inspired Learning, Safe Introduction toTechnology
- Establish links between 'cause and effect'
- Actively build, explore, investigate, inquire and communicatetogether

Importance of STEM:

A curriculum that is STEM-based has real-life situations to help the student learn. Programs like Engineering For Kids integrates multiple classes to provide opportunities to see how concepts relate to life in order to hopefully spark a passion for a future career in a STEM field. STEM activities provide hands-on and minds-on lessons for the student. Making math and science both fun and interesting helps the student to do much more than just learn.

Annual Curriculum Overview - STEM		
Topics	**Objectives**	**Time Frame**
Traffic light System - multiple leds	Write a program to control multiple leds like a traffic light signal by enabling the respective timer in Arduino	SEM-I
RGB LED	Interface RGB LED with Arduino and generate various colours using PWM concept	
Push Button Interface	Interface Push button with Arduino and write a code to read its value and select the colors in RGB LED based on the selection of push button.	
Led bar Graph	To connect 8 LED's to Arduino and simulate bar graph results and can be modified to create any measuring device	
7 Segment Display	Learn how to connect 7 segment display with Arduino and write a program to display the numbers from 0-9 in display.	SEM-II
Range Finder - Ultrasonic sensor	Interface Ultrasonic sensor with the Robot to detect the range and Program the Robot to avoid Obstacle	
Light Controlled Robot	Interfacing LDR to detect light and make the Robot to follow the light	
Getting Started With Servo	Interface servo motor with Arduino and write a program to control the servo rotation and understand how the servo exactly stops in required angle	

APPLIED SCIENCE – SPARK

Learning science through inquiry-targeted activities replaces the cook book approach science investigations with the thrill of discovery. The science standards are very clear about the significance of student inquiry in teaching. Inquiry is central to science learning. When engaging in inquiry, student formulates questions and device ways to answer them; they collect data and decide how to represent them. They organize data to generate knowledge and they test the reliability of logical thinking and consider explanations. In this way, students actively develop their understanding of science by combining scientific knowledge with reasoning and thinking skills.

In traditional investigations, students spend most of their time carrying out low level tasks – following procedures and collecting data. They often completely miss the purpose of an investigation- how it is designed and how the data are related to the under lying science. By seeing a graph that summarizes the data during an investigation, students can not only learn about the particular graphical representation, but they can also pair that representation in real time with the investigation's context, inspiring questions that analyze the experimental design and results. This experience had been shown by researchers to produce dramatic increases in motivation and understanding. The SPARK lab activity guides, provides students with hands on and minds on learning experiences, making it possible for them to master both the scientific inquiry process and the tools that prepare them to conduct.

Annual Curriculum Overview - SPARK		
Topics	**Objectives**	**Time Frame**
Bread board & Switches	Understand how to connect the components in a breadboard and use of switches in circuits	SEM-I
Volt and Ammeter	Measuring voltage and current passes through the individual component in a circuit	
Application of pot	Design a simple circuit to understand the various application of potentiometer in electronics industry	
Switching Circuit	Design and build a circuit with various switches to understand the real time application of it	
Transistor Circuits	Design a circuit using NPN and PNP type transistors to understand the concept of switch electronic signals and electric power	SEM-II
S4A:- Sensor Interface	Design an Arduino based circuit with potentiometer and write program to control LED brightness based on POT value	
Motion Detector	Build a security system with buzzer & piezo to detect the movements in restricted area	
Control RGB using Push button	Use pushbuttons to select red, green and blue color from the RGB LED.	

About the SPARK lab

This lab presents teacher- developed activities using 21st century technologies to help the students explore topics, develop scientific inquiry skills and prepare for state level standardized exams.

The technology uses sensors, interfaces to collect and display real time graphs to understand a concept or a phenomenon such a process of inquiry using technology involves following activities:

- Observe phenomena that occur to quickly or are too small, occur over to long in time-span, or are beyond the range of observations for an unaided human sense organ.
- Perform measurements using equipment that can be used repeatedly over the years.
- Rapidly collect graphical display and analyze data so class room time is used effectively.
- Practice using equipment and interpreting data produced by equipment that is similar to the tools students might use in their adult careers and personal activities.

Learning Outcomes:

- Critical thinking- posing good questions, developing experimental strategies, finding and fixing operational errors
- Procedural expertise-calibrating equipment and collecting data
- Proficiency in design and construction-assembling apparatus, following safety measures, mixing solutions
- Analytical skills-graphing modeling statics

Stages of development of inquiry based learning activities

The students engaged in inquiry based learning are taken through a series of stages so that target knowledge and skills are assimilated by the students gradually but systematically:

- Establishing the foundation by the following strategies
- Making the students familiar
- Cooperative learning
- Forming students team with assigned roles for each members
- Creating opportunities
- Fostering inquires skills using the following strategies
- Creating multiple opportunities for students to work with the equipments, analyze data and communicate, discuss conclusion
- Hands on activities using 21st century tools
- Comparing and interpreting data
- Using data to support hypothesis and debate topical issues
- Brainstorm related questions
- Cultivating students -direct inquiry by allowing the students to plan with procedure and identifying independent and dependent variable
- Check point to assess progress
- Communicating the results of students directed inquiry by formal research papers, Power Point presentations, video productions and poster presentations
- Sharing the results in community resources such as media or conservation groups

Annual Curriculum Overview – Applied Computers						
	Objective	**Focus**	**Technology Integration**	**Software Applications**	**Technical Skills**	**Time Frame**
Archive	Students gather the facts from the Internet and add hyperlink to link a web page and use formatting techniques to design a web page	Web critic Searching Techniques Planning and building a web page Alignment Formatting Edit the web page	Science Social Studies Language	Microsoft office word	Word Processing	SEM 1
Enumerate	Students analyze financial data and use basic functions to manipulate the data to create a chart	About Microsoft Excel Basics Functions Creating and inserting a chart Formatting Techniques	Math	Microsoft Office Excel	Spreadsheet	
Webpage	Students create a web page using basic HTML tags and use formatting techniques to design a web page	Introduction to HTML Tags Table Formatting List Frame	Visual Arts	Notepad Internet Explorer	Graphics	SEM 2
Database	Students gather the facts and create the table with required data type and use Navigation keys to move the records and export it to the form	About Microsoft Access Database Navigation keys Formatting Techniques	Science Social Studies	Microsoft Office Access	Database	

Mission:
Our Mission is to combine Education and Technology to provide children with the core computing skills that will best prepare them for the future.

Technology Integration:
Technology projects have detailed step by step instructions that are used to integrate technology into curriculum effectively to create meaningful learning opportunities for students. Each technology project contains theme- related assignments that use Microsoft applications.

Learning Outcomes:
Students will be able to:

- write a report, article, or letter using Word
- record, calculate, graph, and analyze data with Excel
- store and manipulate data on a topic using Access
- create a simple webpage

Application of skills:
Project Based Learning is a unique approach in applying the skills learned by students. With project based learning students complete technology projects that focus around problem solving tasks. Students learn technology skills gradually as they complete activities such as publishing a magazine, creating a multimedia storyboard, or developing a website.

Physical Education (PE)

PE involves human movement in relation to the physical environment. It is concerned with learning about physical activity and through physical activity. PE offers students the opportunity to discover the capabilities of their body and the variety of ways in which they are able to use their body to solve problems, address physical challenges, function as part of a group, manipulate equipment or apparatus and express themselves in a range of situations. Through movement, students develop personally, socially, emotionally as well as physically. They learn to understand and accept their own strengths and weaknesses in Physical fitness sessions.

Students will be exposed to a number of activities that will develop motor skills, which may later be applied in various physical activities within and beyond the school setting. They will become aware of a number of positive leisure-time pursuits. In PE, students are exposed to a wide range of physical and health-related activities and experiences so that they can make informed choices throughout their lives.

Students are encouraged to participate in an active lifestyle and recognize the ways in which exercise affects their body and their overall fitness or well-being, developing an understanding of the role of physical activity in a healthy lifestyle. Students also come to recognize that PE takes place within a cultural context that should be appreciated. PE offers students the opportunity to set themselves physical objectives, gaining pleasure or satisfaction from
accomplishing these physical tasks or challenges and reflecting on their performance.

The PE component of the curriculum also provides opportunities for students to:

- learn about body control and spatial awareness
- master new skills and techniques in a variety of physical activities
- manipulate equipment or apparatus
- recognize the importance of fair play
- understand how strategies can assist them when participating in physical activities
- use cooperative behaviours in order to function as part of a group or team
- use proper safety precautions while engaged in physical activities

Annual Curriculum Overview – PHYSICAL EDUCATION		
Discipline	**Game**	**Skills**
Physical Education	Cricket	Batting
		Bowling
		Fielding
	Swimming	Breaststroke
		Backstroke
		Butterfly
		Freestyle
	Track	Sprint
		Hurdles
		Relay
	Basketball	Dribbling
		Passing
		Shooting

Performing Arts

Arts are viewed by the PYP as a form of expression that is inherent in all cultures. They are a powerful means to assist in the development of the whole child, and are important for interpreting and understanding the world. Arts in the PYP promote imagination, communication, creativity, social development and original thinking.

Learners of the arts are both active and reflective. As well as being actively involved in creating and performing, students reflect on their work and on the work of others. Collaborative activities with other students in their own classes or other classes are essential; inquiring, working and reflecting with other students (older or younger) in a two-way learning process.

The arts component of the curriculum also provides opportunities for students to:

- develop proficiency as musicians, actors and visual artists
- acquire audience skills such as listening and viewing responsively
- interpret and present their own or others works to a range of audiences
- evaluate the different roles of artists in society such as to entertain, provoke debate or challenge views and perceptions
- create and critique plays, compositions and artwork using a selection of tools and techniques
- express feeling, ideas, experiences and beliefs in a variety of ways
- improve coordination, flexibility, agility, strength and fine motor skills.

Music perspective

Music includes the study and exploration of sound and the expressive use of musical elements. Students will join together in musical activities using their voices, bodies and simple instruments to develop concepts about sound and musical awareness. Students will be exposed to and work on, a wide range of musical stimuli. They will participate both individually and in groups. Students will read, develop and record musical ideas in composition. They will develop an awareness and appreciation of music from a range of times, places and cultures. The development of listening skills will be constantly reinforced through live and recorded performances. Students will have opportunities for practice and consistent exposure to music in order to produce mastery and lifelong appreciation.

Dance perspective

Dancing is the act of moving the body in rhythm, usually in time to music. It seems natural for people to express themselves through rhythmic movement. Young children jump up and down when they are excited and sway gently when content or at rest. Dancing is both an art form and a form of recreation. Dance as an art form may tell a story, set a mood, or express an emotion. Some dances consist of symbolic gestures that tell a story completely through movement. As recreation, dancing has long been a people's source of fun, relaxation, and companionship.

Health benefits

Dancing can be a way to stay fit for people of all ages, shapes and sizes. It has a wide range of physical and mental benefits including:

- Improved condition of the heart and lungs
- Increased muscular strength, endurance and motor fitness
- Weight management
- Stronger bones and reduced risk of osteoporosis
- Better coordination, agility and flexibility
- Improved balance and spatial awareness
- Greater self-confidence and self-esteem
- Better social skills

Annual Curriculum Overview – PERFORMING ARTS				
Discipline	**Music**	**Classical Dance**		**Western Dance**
		Theory	**Practical**	
Performing Arts	Including different ragas Pitches Practicing different tempos Different types of thalam Short songs	Neck, Eye, Eyebrows, Head movements with description	Basic postures Step along with the body movement Navarasam (Basics) Different types of classical dance Advanced combination of steps (Korvai adavu)	Basic warm ups Basic foot works Combination of foot work and beat knowledge Basic flexibility exercises Free style combination of steps Steps into style Basics of specific style Floor steps and balancing Basics of Hiphop, dance, contemporary, bollywood and folk Body and face expressions Basic concepts for choreography

* **The above is the planned schedule. There may be alterations which will be informed through circulars.**