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.

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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.

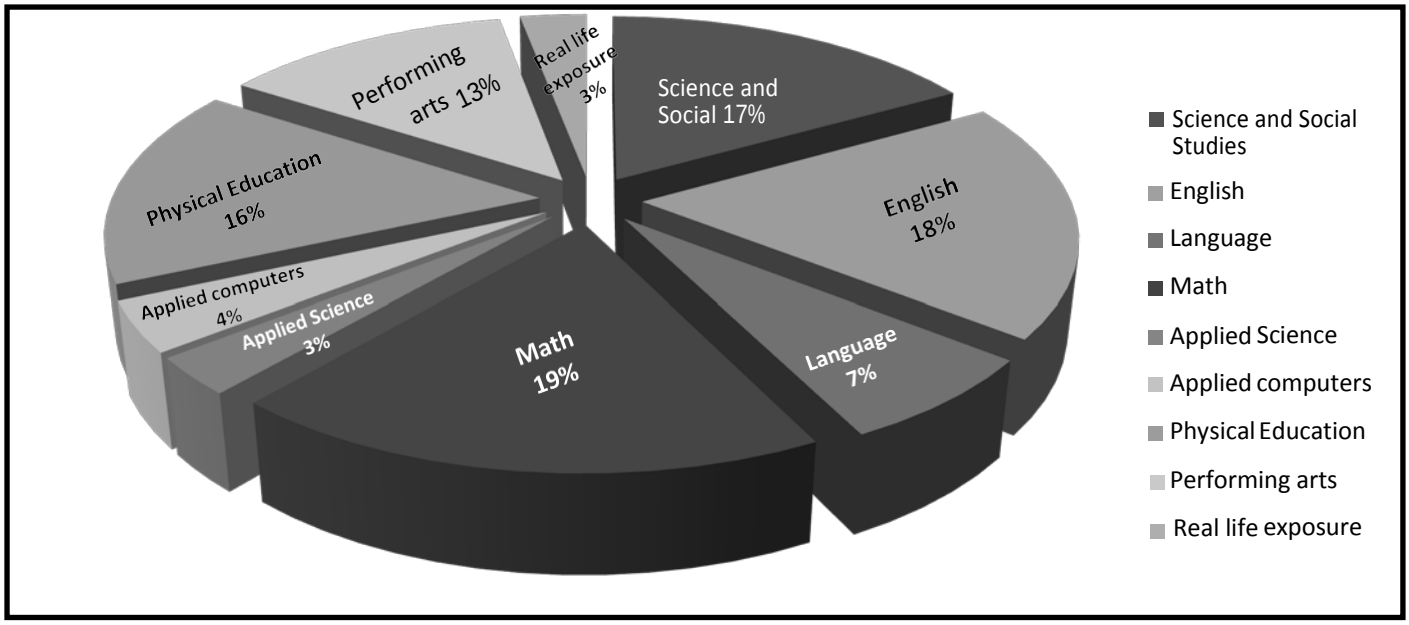
Parent Teacher Meeting

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 IV children will be inquiring into the following Transdisciplinary themes

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

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Our grade IV children will be inquiring into tran-disciplinary theme

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

Biodiversity results in the healthy ecosystems which ensures the natural sustainability of all life forms

Key Concepts

- Connections
- Causation
- Responsibility

Related Concepts

- Homeostatis
- Consequences
- Conservation

Lines of inquiry

- Understanding ecosystems, biomes and environments
- Interdependence of living organisms
- Consequences of imbalance within ecosystems
- Our responsibility in conserving Bio-diversity

Subject focus - Science, Social Science, Math

Strands

- Science : Living Things
- Social Studies : Resources and environment
- Math : Numbers and Data Handling

The learning outcomes - After the inquiry the students will be able to :

- recognize different habitats, and the animals and the natural resources in the habitat
- explain how plants and animals support/ depend on each other in the food chain or food web.
- understand how the disappearance of one species affects other species
- understand how human action help or hurt the ecosystem
- take steps or create awareness to conserve the Bio-diversity

Expected transdisciplinary skills while inquiring into this theme

- Social skills
- Self-management skills

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

- Caring
- Balanced
- Commitment

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

Reading Resources

- Food Chains
- Biodiversity - Carla Mooney
- Broken Chains
- Micro Food Chains
- Jurassic food chains
- Apex Predators
- Plant vs Animals

Possible hands on activities

- Paper Food Chains and Food Web
- How Environmental Changes Affect Food Webs

Key Vocabulary

- Ecosystem
- Biomes
- Environment
- Conservation
- Carnivore
- Interdependence
- Decomposres
- Endangered
- Omnivores
- Organisms
- Predators
- Imbalance

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

Effective civic engagement and the different systems of governance in societies help to achieve equal opportunities and social justice

Key Concepts

- Form
- Causation
- Perpesctive
- Responsibility

Related Concepts

- System
- Justice
- Human rights
- Gobal goals

Lines of inquiry

- Forms of Governments, and the basic services provided
- Human rights issues around the world
- Purpose and the process of making and impleminting laws
- Civic engament and sustainable developmental golas to achive social justice

Subject focus - Social Studies, Math, Arts and Language

Strands

- Social Studies : Continuity and Change Through Time
- Math : Data Handling
- Arts : Responding
- Language : Oral and Written

The learning outcomes - After the inquiry the students will be able to :

- understand the purpose and the different forms of government (for example, monarchy, democracy, dictatorship).
- explore a range of political systems and laws (for example, local, regional, national or international
- analyze the impact of decision-making on individuals, groups and society in a democratic country.
- develop an understanding of what human rights are
- appreciate the relationship between rights and responsibilities
- Participate as an global citizen with each other and with public officials on issues that concern the "public good'.

Expected transdisciplinary skills while inquiring into this theme

- Social skills
- Self-management skills
- Research skills

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

- Knowledgeable
- Principled
- Courageous

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

Reading Resources

- Right or wrong – What difference does it make? -Sarah Medina
- Fundamental Rights and Duties In Our Constitution – Ekalavya
- Human Rights – Mark Friedman
- Governing the UK – Ivan Minnis
- The Houses of Parliament -Nigel Smith
- Capitalism -David Downing
- Leading Lives -Winston Churchill -Fiona Reynoldson
- Women's Right - Kate Stearmen

Key Vocabulary

- Government
- Democracy
- Human rights
- Monarchy
- Responsibility
- Equality
- Opportunity
- Justice
- Theocrac
- Dictatorship
- Autocracy
- Elections

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

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How the world works : An inquiry into the natural world and its laws; the interaction between the natural world and human societies; how humans use their understanding of scientific principles; theimpact of scientific and technological advances on society and on the environment

Central idea

The properties and combination of materials leads to the understanding of how chemistry contributes to the inventions

Key Concepts

- Form
- Function
- Change

Related Concepts

- Properties
- Behaviour
- Transformation

Lines of inquiry

- Structure, components and properties of matter
- Chemical and physical change, and its practical applications and implications
- Creating and Exploiting New substances and new transformations

Subject focus - Science, Math and Arts

Strands

- Science : Materials and Matter
- Math : Fractions and Measurement
- Arts : Creating

The learning outcomes- After the inquiry the students will be able to :

- identify and describe properties of matter, including: flexibility, strength, transparency, hardness, water resistance, size, color, weight, and texture
- identify and describe three phases of matter: solid, liquid, and gas.
  differentiate physical and chemical changes.
- investigate the ways materials can be changed (for example, metal, sand).
  assess the benefits and challenges of changing materials to suit people's needs and wants.

Expected transdisciplinary skills while inquiring into this theme

- Research skills
- Thinking skills

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

- Inquirers
- Thinkers

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

Reading Resources

- Mixing Matters
- The science of baking
- The chemistry of art
- Curious Marie Curie
- Dmitri's table
- The science of Lemonade

Possible hands on activities

Experiment Mixtures, Solutions & Suspensions

Key Vocabulary

- Reversible
- Irrerversible
- Chemical
- Physical
- Atom
- Permanent
- Temporary
- Matter
- Mixture
- Elements
- Substances
- Materials

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

Artists can use scientific principles to create and express

Key Concepts

- Form
- Function
- Connection

Related Concepts

- Properties
- Behaviour
- Creativity

Lines of inquiry

- Exploring the properties of light, and Sound
- Creative expression using light and sound
- Light and sound technologies in arts

Subject focus - Science, Math, Arts and ICT

Strands

- Science : Forces and Energy
- Math : Shapes and Space, Pattern
- Arts : Responding and Creating
- ICT : Communicating, Investigating

The learning outcomes- After the inquiry the students will be able to :

- investigate the properties of light and sound energy
- to explore creative uses of light and sound
- to investigate if similar sounds can be made in different ways
- to explore different tools and instruments
- understand the literary, technical, and performance elements of drama and explore how these elements interrelate to achieve a desired effect

Expected transdisciplinary skills while inquiring into this theme

- Research skills
- Thinking skills

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

- Inquirers
- Thinkers
- Knowledgeable

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

Reading Resources

- Light Energy
- How does sound changes
- Sound effects Artists - Virginia Loh - Hagan
- Make a light your way - Rachael Thomas

Possible hands on activities

Exploration Explore Shadows
Experiment Refraction
Projects - Spinning Color Disks

Key Vocabulary

- Refraction
- Frequency
- Waves
- Convection
- Expression
- Compose
- Transformation
- Instruments
- Sensory
- Reflection
- Technologies
- Concert

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

How the world works: (Sub Unit) 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 ofscientific and technological advances on society and on the environment.

Central idea

Ending hunger around the world through creative and intended collaboration in view of achieving improved nutrition and strengthening food systems

Key Concept

- Causation
- Function
- Responsibility

Related concepts

- Crisis
- Food security
- Awareness

Lines of inquiry

Causes of hunger and malnutrition around the world
Components of food security and food systems
Strategies to achieve zero hunger

Subject Focus - Social, Science and Language

Strands

- Social Studies : Resources and Environment, Human Systems
- Science : Earth and Space
- Language : Oral, Visual and Written

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

- Research on the causes of hunger and malnutrition
- Research and analyze the people and places affected of hunger
- Explore sustainable developmental goals on zero hunger
- Research on effective food security systems and its function
- Collaborate with NGO'S to share solutions
- Think on creative strategies, awareness and actions that can be taken

Expected transdisciplinary skills while inquiring into this theme

- Self management skills
- Research skills
- Social skills

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

- Reflective
- caring
- communicators

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

Focus Books

- Don't Waste Your Food
- The Good Garden: How One Family Went from Hunger to Having Enough
- Poverty and Hunger
- Lulu and the Hunger Monster
- Don't Waste Your Food (Good to Be Green)
- Nature's Promise: A Baby Carrot's Journey: A children's book that teaches about food loss and waste
- One Grain of Rice: A Mathematical Folktale
- The Perfectly Wonky Carrot
- Food Safety Basics

Key Vocabulary

- Hunger
- Food security
- Sustainable
- Environmental health
- Malnutrition
- Effective systems
- Awareness
- Solutions
- Obesity
- Educating
- Nutrition
- Initiatives
- Strategies
- Achieving
- United Nations
- Risk factors

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

Earth's changing geology has an impact on human interactions and settlement

Key Concepts

- Form
- Change
- Causation
- Connection

Related Concepts

- Geology
- Transformation
- Pattern

Lines of inquiry

- Variability of geology around the world
- The causes and effects of catastrophic events throughout human history
- How the location influence the human settlement

Subject focus - Science, Social Science and Math

Strands

- Science : Earth and Space
- Math : Measurement
- Social Studies : Geology

The learning outcomes- After the inquiry the students will be able to :

- indetify the differnt physical features of earth
- analyze how the earth's structure has changed over years
- make inferences about Earth systems from observations of the natural world
- understand that changes on earth impacts the environmnet and human settlements
- integrate information from different sources and continue to learn

Expected transdisciplinary skills while inquiring into this theme

- Research skills
- Thinking skills
- Self managment skills

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

- Inquirers
- Thinkers
- Knowledgeable

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

Reading Resources

- Earth's changing Face
- What is inside planet Earth?,
- Landslides,
- Human Settlements
- Earth quakes,

Possible hands on activities

Experiment – Erosion

Key Vocabulary

- Geology
- Weathering
- Civilization
- Volcanoes
- Cotinents
- Sedimentary Rocks
- Urbanization
- Tectonic plates
- Transformation
- Structure
- Society
- Interaction
- landforms
- Settlments
- Weathering
- Features

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

Stories and Artifacts provide opportunities to understand history and dynamics of peoples, cultures, issues and events of our society

Key Concepts

- Connections
- Perspectives
- Change

Related Concepts

- System
- Values
- Transformation

Lines of inquiry

- Knowing history and family through Stories and Artifacts
- Stories about the dynamics of people, culture and diversity in a community
- Maintaining culture, identity and diversity

Subject focus - Social Studies, Math, Arts and ICT

Strands

- Social Studies : Community and Change Through Time
- Math : Number, Pattern
- Arts : Responding
- ICT : Communicating, Investigating

The learning outcomes- After the inquiry the students will be able to :

- find stories and artifacts and analyze historical information related to it
- understand how things have evolved and how world has changed over years
- research on the famous historic events

Expected transdisciplinary skills while inquiring into the theme

- Social skills
- Communication skills
- Reasrch skills

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

- Inquirers
- Communicators

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

- Ancient artifacts Rachel L Thomas https://www.youtube.com/watch?v=iC3SMrUDmDE
- What is culture – Bobbie Kalman https://www.youtube.com/watch?v=SEoHOQiUvII
- Cultures around the world – Jeonne Dustman https://www.youtube.com/watch?v=ggXjMVXcduU
- Around the world in eighty days – Jules Verne
- The three investigators Robert Arthur

Key Vocabulary

- History
- Belief
- Archeology
- Families
- Artefacts
- Perspectoive
- Choronolgy
- Celebrations
- Culture
- Revolution
- Civilization
- Identity
- Values
- Ancient
- Immigration
- Diversity

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

ANNUAL CURRICULUM OVERVIEW - ENGLISH		
Discipline	**Skills**	
English	**Reading Comprehension**	Warming up
		Analyze character
		Analyze Plot
		Analyze Setting
		Author's Purpose (Entertain)
		Author's Purpose (Inform)
		Author's Purpose (Persuade)
		Author's point of view
		Identify character's point of view
		Compare & Contrast
		Fact or Opinion
		Main idea and details
		Make inferences & Draw conclusions
		Problem & Solution
		Sequence events
	Writing	Informational report
		Biography
		Experimental writing
		Persuasive – pro – con
		Persuasive Opinion
		Descriptive
		Informational speech
		Realistic Fiction
		Fairy tale
	Language Skills	Warming up
		Nouns, Common nouns and Proper nouns
		Concrete & Abstract noun, Compound nouns & Number
		Uses of nouns 1 & 2, Nouns as objects
		Person of a pronoun & Number of a pronoun
		Subject and object pronouns
		Possessive pronouns
		Indefinite pronouns, Demonstrative pronouns
		Pronoun-Antecedent Agreement
		Types of verbs
		Simple verb Tenses, Singular and plural Verbs
		Irregular Verbs & Review
		Common and Proper Adjectives
		Demonstrative Adjectives & Forms of Adjectives

English	**Language Skills**	Adverbs & Types of Adverbs, Forms of Adverbs
		Prepositional phrases,
		Coordinating conjunctions
		Subordinating conjunctions & Conjunctions Review
		Interjections, Parts of Speech Review
		Simple and complete Subjects & Simple and complete Predicates
		Compound Subjects and Predicates
		Clauses
		Prepositional phrases, Sentence Fragments
		Run-On sentences & Rambling Sentences
		Double Negatives & Sentence Problems Review
		Subject- Verb Agreement & Subject- Verb Review
		Combining sentences using key words
		Combining sentences with phrases
		Sentence combining with Compound subjects and predicates
		Sentence combining Review
		Kinds of Sentences & Types of Sentences
		Compound Sentences
		Complex Sentences
		Expanding Sentences with Prepositional Phrases
		Sentence -Variety Review
	Vocabulary Cluster	Auxiliary and Helping Verbs & Time
		1, 342, 411, 2,16,24,52
		Time
		59,79
		83, 126,144, 233
		Comparison and Contrast
		5,27,252
		Pronouns
		299, 6,8,11,12,34
		Physical Location and Orientation
		9, 17, 20 ,21
		22,23,25,26,37,49, 390
		Cause and Effect
		430, 10,273
		Measurement, Size and Quantity
		15,18

English	**Vocabulary Cluster**	19,28
		33,73,130
		327,373,374, 14,61
		Verbal Interaction
		100,105,177
		198
		207, 255
		Attitudinals
		345,346, 383, 30,31, 285,369, 431, 439, 440
		Animals
		32,35
		64,70
		65
		82, 95, 117,155
		188,189, 194,309, 310,341
		Trees and Plants
		36,108,192
		269
		Movement and Action
		421, 38,39,44
		66,141,147, 169
		170,182,199,215,216,000
		280,282,283,300
		301,302,322,338
		Acquisition and Ownership
		403, 41,89,148
		171,184, 426,43
		Emotions and Attitudes
		45,55,291
		292,293, 311 312
		313,378,379,380,381
		Contractions
		416,417,422,427,428,81,85,235
		Reasoning and Mental Actions
		46,67,132,137
		154,225,249,277

Our language programme includes all aspects of English such as:

Reading 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 – Fairy Tale, 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 help the child identify the 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- प्यारा - सा एक पत्र 3. पाठ - परोपकारी शतपत्र 4. व्याकरण- संज्ञा, उपसर्ग, प्रत्यय 5. गिनती 1- 20 6. मेरी हिन्दी	SEM I
	1. पाठ – हिन्द देश का प्यारा झंडा 2. पाठ- मीठे बोल 3. व्याकरण- सर्वनाम और उसके भेद 4. गिनती 21- 40 5. मेरी हिन्दी	
	1. पाठ- हमारे उत्सव और त्योहार 2. व्याकरण- काल 3. गिनती 41- 50 4. मेरी हिन्दी	
	1.पाठ - कर लो पर्यावरण सुधार 2.पाठ – हिम्मत और समझदारी 3. व्याकरण- विशेषण, विशेष्य 4. गिनती 51- 60 5. मेरी हिन्दी	SEM II
	1. पाठ- आँखों की देखभाल 2. चाँद का कुरता 3. व्याकरण- क्रिया 4. गिनती 61- 70 5. मेरी हिन्दी	
	1. पाठ- गिलहरी और कबूतर 2. पाठ- चींटी से सीखो 3. व्याकरण- पुनरावृति 4. गिनती 71- 80 5. मेरी हिन्दी	

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लेखन कौशल

केन्द्रीय शिक्षण बिन्दु :

वाचन एवं अर्थ ग्रहण की क्षमता ।

शैक्षणिक उद्देश्य :

- अर्थ समझकर वाक्य बनाना
- संयुक्ताक्षर का अभ्यास
- शब्द निर्माण
- शब्द भंडार में वृध्दि
- विषय वस्तु संबंधित रचनात्मक कार्य करना और जानकारी इकट्ठा करना

पठन /वाचन कौशल :

केन्द्रीय शिक्षण बिन्दु :

- स्पषट एवं शुद्ध उच्चारण

शैक्षणिक उद्देश्य :

- सही उच्चारण के साथ पढ़ने का अभ्यास
- वार्तालाप का अभ्यास
- अर्थ बोध का ज्ञान

श्रवण कौशल :

केन्द्रीय शिक्षण बिन्दु :

- बोलचाल की भाषा के प्रति आत्मविश्वास जगाना

शैक्षणिक उद्देश्य :

- विचार व्यक्त करना
- कहानी बताकर उससे सम्बंधित प्रश्न पूछना
- शीर्षक के अनुसार अपने विचार प्रकट करना

संदर्भ ग्रंथ सूची :

पंखुड़ियाँ	-	वीवा एजुकेशन
स्वाति	-	सरस्वति हाउस प्रा. लि.
गुंजन	-	मधुबन एजुकेशनल बुक्स
वितान	-	मधुबन एजुकेशनल बुक्स
ज्ञान मंजरी	-	एशिया बुक हाउस
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	சொற்களின் பயன்பாடுகளையும், வாக்கியத்தில் அமைக்கும் முறைகளையும் தெரிந்து கொள்ளுதல். பாடக்கருத்துகள் சார்ந்து பத்தி அமைத்தல்.	SEM I
	அறவழிக் கருத்துக்களையும், வாழ்வில் கடைபிடிக்க வேண்டிய நல்வழிகளையும், வாக்கிய அமைப்பில் ஒருமை – பன்மை, திணை வகைகளையும் அறிதல்.	
	நல்ல கருத்துகளை உடைய கதைகள் வாயிலாக மாணவர்களின் அறிவுத்திறனை மேம்படுத்துதல்.	
	பத்தி, கட்டுரை வடிவாக்கத்தில் சொற்களின் பயன்பாடு, பொருளுணர்ந்து வாக்கியம் அமைத்தல் போன்றவைகளை அறிந்து கொள்ளுதல்.	SEM II
	சொல்வளப்பெருக்கம், வாக்கியங்களில் நிறுத்தற்குறியீடுகளின் பயன்பாடு, பத்தி அமைக்கும் முறையை அறிதல்.	
	கட்டுரை வாயிலாக நாட்டுப்பற்றுணர்வை வளர்த்துக் கொள்வதோடு ஒற்றுமையின் பலத்தை அறிதல்.	

LISTENING AND SPEAKING

LEARNING OBJECTIVES : (கற்றலின் குறிக்கோள்கள்)

- அறிமுகம் இல்லாத பொருள்களைப் பற்றி விவரிக்கும் திறன்.
- இடைநிறுத்தமின்றி இயல்பாகத் தொடர்ந்து பேசுதல்.
- எளிய வகுப்பறை விவாதங்கள், கலந்துரையாடல்கள்.
- செய்தித்தாள்கள் மற்றும் சிறுவர் கதைகளைப் புரிந்து விளக்கம் கூறல் .

READING

LEARNING OBJECTIVES : (கற்றலின் குறிக்கோள்கள்)

- சிறுவர்களுக்கான இதழ்கள், கையெழுத்து பிரதிகளை வாசித்துப் புரிந்து கொள்ளும் திறன்.
- செய்தித்தாள்கள், சுவர் ஒட்டிகள் வாசித்து பொருள் உணரும் திறன்.
- உரைநடை, செய்யுள் பகுதி படித்த பின் பொருள் விளங்கக்கூறல்.

WRITING

LEARNING OBJECTIVES : (கற்றலின் குறிக்கோள்கள்)

- வாய்மொழிக் கூற்றினை பிழையின்றியும் சொற்களை தெளிவாகவும், அழகாகவும் எழுதுதல்.
- நிறுத்தற்குறிகளை சரியான இடங்களில் பயன்படுத்துதல்.
- இலக்கண விதிகளின்படி வாக்கியத்தை அமைத்தல்.
- தலைப்பு சார்ந்து பத்தி அமைத்தல் பத்தியை மொழிபெயர்த்தல்.

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

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

ANNUAL CURRICULUM OVERVIEW - MATH			
Discipline	**Objectives**		
	Revisiting previous year concepts		
MATH	**Place value of whole numbers**	Numbers to 100,000	Write numbers to 100,000 in standard form, word form, and expanded form
		Comparing Numbers to 100,000	Compare and order numbers to 100,000
			Identify how much more or less one number is than another number
			Find the rules in a number pattern.
	Estimation and Number theory	Estimation	Round numbers to estimate sums, differences, products, and quotients
			Estimate to check that an answer is reasonable.
			Decide whether an estimate or an exact answer is needed
		Factors	Find the common factors and greatest common factors of two whole numbers
			Identify prime numbers and composite numbers
		Multiples	Find multiples of whole numbers
			Find common multiples and the least common multiple of 2 or more numbers
	Whole number Multiplication and Division	Multiplying by a 1digit number	Use different methods to multiply up to 4 digit numbers by 1 digit number, with or without
		Multiplying by a 2 digit number	Multiply by 2 digit numbers, with or without regrouping
			Estimate products
		Modeling division with Regrouping	Model regrouping in division
			Divide a 3-digit number by a 1-digit number with regrouping
		Dividing by a 1 digit number	Divide up to a 4 digit number by a 1 digit number with regrouping, and with or without remainders
			Estimate quotients
		Real world problems; Multiplication and Division	Solve real world problems
	Tables and line graphs	Making and interpreting a table	Collect ,organize and interpret data in a table
			Create a table from data in a tally chart and a bar graph
		Using a table	Read and interpret data in a table, using rows, columns, and intersections
		Line graphs	Make, read, and interpret line graphs
			Choose an appropriate graph to display a given data set

MATH	**Data and probability**	Average	Describe a data set using the average or mean
		Median, Mode and Range	Find the mean, median, mode and Range of a set of data
			Make and interpret line plots
		Stem-and -Leaf Plots	Make and interpret stem & leaf plots
		Adding fractions	Find equivalent fractions
			Add unlike fractions
		Subtracting Fractions	Find equivalent fractions
			Subtract unlike fractions
	Fractions and Mixed Numbers	Mixed Numbers	Write a mixed number for a model
			Draw models to represent mixed numbers
		Improper fractions	Write improper fraction for a model
			Express mixed numbers as improper fractions
		Renaming improper fractions and mixed	Use multiplication and division to rename improper fractions and mixed numbers
		Renaming Whole numbers when adding and subtracting fractions	Add fractions to get mixed number sums
			Subtract fractions from whole numbers
		Fraction of a set	Use a bar model to represent a fraction of a set
			Find a fractional part of a number
		Real world problems; Fractions	Solve real world problems involving fractions
	Decimals	Understanding tenths	Represent and interpret tenths models
			Read and write hundredths in decimal and fractional forms
		Understanding hundredths	Represent and interpret hundredths models
		Comparing decimal	Compare and order decimals
			Complete number patterns
		Rounding decimals	Round decimals to the nearest whole number or tenth
		Fractions and decimals	Express a fractions as decimals and a decimals as a fractions

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MATH	**Adding and Subtracting Decimals**	Adding decimals	Add decimals up to two decimals places
		Subtracting decimals	Subtract decimals up to two decimals places
		Real -world problems Decimals	Solve real- world problems involving addition and subtraction of decimals
	Angles	Understanding and Measuring Angles	Estimate and measure angles with a protractor.
			Estimate whether the measure of an angle is less than or greater than a right angle (90˚)
		Drawing Angles to 180°	Use a protractor to draw acute and obtuse angles.
		Turns and Right Angles	Relate ¼, ½ , ¾ and full turns to the numbers of right angles (90˚)
	Perpendicul ar and parallel Line segments	Drawing Perpendicular Line Segments	Draw Perpendicular line segments
		Drawing Parallel line Segments	Draw parallel line segments
		Horizontal and vertical Lines	Identify horizontal and vertical lines
	Squares and Rectangles	Squares and rectangles	Understand and apply the properties of squares and rectangles
		Properties of squares and Rectangles	Find unknown angle measures and side length of squares and rectangles
	Area and Perimeter	Area of a Rectangle	Estimate the area of a rectangle by counting grid squares.
			Find the area of rectangle using a formula
		Rectangles and Squares	Solve problems involving the area and perimeter of squares and rectangles
	Symmetry	Identifying Lines of Symmetry	Identify a line of symmetry of a figure
		Rotational symmetry	Related rotational symmetry to turns
			Trace a figure to determine whether it has rotational symmetry
		Making Symmetric Shapes and Patterns	Draw a shape or patterns about a line of symmetry and check for rotational symmetry
			Complete a symmetric shape or pattern.
			Create symmetric patterns on grid paper
	Tessellations	Identifying Tessellations	Recognize and make tessellations
			Identify the unit shapes used in a tessellations
		More Tessellations	Tessellate shapes in different ways

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 intertwined in the real world and in how students learn most effectively. STEM is an interdisciplinary and applied approach that is coupled with problem based learning.

Curriculum:
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 them as future creators, designers, and engineers to understand and explore the world around them.

Core values of STEM:

- New Opportunities for Creative and Critical Thinking
- Hands-On Lessons with Real-World Applications
- Fun and Inspired Learning, Safe Introduction to Technology
- Establish links between 'cause and effect'
- Actively build, explore, investigate, inquire, and communicate together.

Importance of STEM:

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

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	

WORKSHEET :
As they come in for each session, students will do worksheet for the modules practiced in the lab. All these worksheets will be recorded and maintained in the form of log book which will be evaluated.

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.

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 - 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
Serial & Parallel Circuits	Design and simulate the series and parallel circuits in Tinkercad	
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	SEM-II
Battery Series & Parallel Connections	Connect the batteries in different ways to understand the voltage current relationship and its various applications.	
Control RGB using Push button	Use pushbuttons to select red, green and blue color from the RGB LED.	
Transistor Circuits	Design a circuit using NPN and PNP transistors to understand the concept of role electronics switchesin circuits.	

ANNUAL CURRICULUM OVERVIEW – APPLIED COMPUTERS						
Objective		Focus	Technology Integration	Software Applications	Technical Skills	Time Frame
Inscribe	Students gather the facts from the Internet and create a report in two column format	About Microsoft Word Research the facts Picture Collection Page Layout Formatting Techniques	Language arts Science	Microsoft office word	Word Processing	Sem 1
Prezo	Students use Power Point to create a presentation with Shapes, Smart Art. Format the slides and use Hyper-link to link between the slides	About Presentation Make a Time-line Link Formatting Animation and Slide Show	Language arts Visual arts Social	Microsoft Office Power-point	Graphics Presentation	
Spread sheet	Students analyze financial data, add and manipulate the data to create a chart	About Excel Basics Functions Creating and inserting a chart Formatting Techniques	Language arts Maths	Microsoft Office Excel	Spreadsheet	Sem 2
Database	Students design a table, add records and modify using formatting tools and sort the data	About Microsoft Access Database Picture & Navigation keys Formatting techniques	Language Math Science	Microsoft Office Access	Database	

Applied Computers

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 and other applications.

ICT skills:
Word processing, Spreadsheets, Desktop publishing, Internet, Databases, Operating systems, Presentation skills

Learning Outcomes:
Students will be able to,

- create document in MS word using formatting and editing features
- create animated slides with time-line & linking with between slides using custom animation features
- create simple excel file to store data, analyze calculate and present it as graphical format
- create simple database to add, delete, modify, sort & filter data

Project Based Learning Approach:
Project Based Learning is a unique approach to teaching technology skills. 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	Objectives
Physical Education	**Soccer**	Receiving ball (controlling the ball at speed)
		Heading
		Dribbling (drills, basic dribbling, intermediate moves and advanced)
		Passing
		Throw-in
	Swimming	Breaststroke
		Backstroke
		Butterfly
		Freestyle
	Track & Field	Sprints
		Hurdles
		Relay
	Badminton	Straight line footwork, Forehand serves, clears
		Back hand serves, Service returns, Drives
		Drops & Net lifts

Performing Arts (PA)

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 PA 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.

Western Dance

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 & rhythm Different types of thalam Short songs	Asamyuktha Hasthas and Meaning	Basic posters Steps along with hand movements Bhavam in detail Combination of steps Eye movements & neck movements basics	Basic foot works Combination of foot work and beat Basic flexibility exercises Free style combination of steps Floor steps and balancing Basics of urban dance, hiphop, contemporary, bollywood and folk Body and face expressions Choreography knowledge

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