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 (PSPE) 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 his or 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.
- 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 2 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.

5 Initiatives 2022-23

TIPS group has taken a '5 point change' initiative to help our students become future ready and serve better to our community. The initiatives will provide parents and students scope to explore a variety of learning areas, building them into confident individuals who are ready to shape the world.

Following are the ***five select focus areas*** that will give impetus for the upcoming year:

1. **Introducing AI, Coding and Rocketry – Space Tech**

TIPS is taking a major leap by introducing new integrated ICT and Applied Science curriculum to better prepare our students for the future technological revolution along with introducing Rocketry (Space Tech) from primary years and participating in 75 Students' Satellite Mission. TIPS is the first and the only school to participate in this mega event.

a) The ICT-AI-Coding curriculum has been updated to include coding, app development, web development, and machine learning principles. The key advantages of this curriculum are that it successfully and practically teaches elementary students complex modern-day technologies through hands-on activities.

b) The STEM curriculum based Rocket laboratory to include all the components necessary to design and build model rocket including nose cones, body tubes, adapter cones and rocket motors. The lab will be equipped with remote ignition system and launcher apparatus. The best feature of the lab is the Propulsion Test Stand. This test lets the students measure various metrics of the rocket motor like total impulse and burn time, which is captured on a computer rig to receive data. This data is further used by the students to design rockets with predictable performance along with designing and launching Satellites.

c) 75 Student Satellite Mission- In the 75th year of Indian Independence, the nation is embarking on the launch of 75 student developed satellites. TIPS takes immense pride in being the first school to take part in this incredible project. This unique collaboration platform will provide our learners the distinctive opportunity to design and structure Cubesats under the guidance of the eminent scientists from ITCA and ISRO. The students who enroll for the 75 Students' Satellite Mission will be able to leverage the end-to-end lifecycle expertise including design, development, manufacture, integration, testing, launch services facilitation and satellite operation, thereby using a high-performance Space-Tech ecosystem at TIPS.

2. **Enhancements of offerings for AY 2022-23:**

Along with introducing the new initiatives, TIPS has enhanced offering in the following areas of school life.

a. **Online Third Language Learning :** In addition to meeting the needs of future students, **Mother Tongue and Foreign - language learning and acquisition** will be introduced from Grade I-V for AY 2022-23. Children can choose to learn the language of their choice for basic speaking, reading and writing every Saturday from the comfort of home in online classes. The language offered are as follows:

   National Languages: Tamil/ Kannada/ Telugu/ Malayalam/ Hindi

   Foreign Language: French/ Spanish/ German

b. **Virtual PTMs:** Parent teacher meetings are a prominent and notable feature of the school curriculum. Post COVID digital interaction is the need of the hour. The PTMs will be available from KG to 12 in both the modes (Physical meeting / Online Meeting) for all the parents as per their availability throughout the year.

c. **More to Extended School Program (ESP):** The ESP **program** will strive to provide Creative Arts along with various areas of Performing Arts & Sports already offered by us. This is offered to meet the needs of children and further enhance their skills in creative areas too.

d. **IXCEED Program:** IXCEED Program is being introduced from Grade I-VIII, to make children independent and confident in basic and core mathematical concepts and topics by giving level based additional practice worksheets. Children will be

attempting the level based mathematical problems independently and will continue to do others level worksheets as per their progress. Trained teacher support will be provided to the students. No concept teaching will be done by the staff.

3. **Internships: Skill Based Learning Program**

With the intention to provide our students platforms where they get an opportunity to apply knowledge learned and explore various career options, the school now plans to launch its ***Pilot Internship Program*** for Grades IX to DP2 students during the summer and winter breaks in the upcoming academic year (2022-23).The Program is divided into 2 groups –

a. Grade IX & X: 3 internship programs within the 2 year period, each consisting of a minimum duration of 1 week.
b. Grade XI & XII: 1 internship program of 1 month duration within the DP study period. (Mandatory)

4. **Moral and Social Responsibility**

The sense of being socially responsible starts from the early stages of a child's life. Engaging the students to help them evolve as a responsible person shouldering the responsibility of the nation, is the need of the hour. At TIPS we take this responsibility to heart and have initiated Farming and joining hands with AATRAL Foundation to extend our support in the building of national character through our own small steps.

a. **Farming: Introduction of Farming as a part of Indian social and cultural fabric:** Agriculture plays a critical role in the entire life and is a backbone of the economic system of a given country. This is especially true of India. TIPS has planned to offer Farming as part of the regular curriculum which will encourage the children to appreciate and understand the complexities of life. Farming practices for grade 3 to 9 & DP1 has been scheduled in such a way that there is coherence in the understanding and learning of them.
b. **Social Responsibility through Service:** The TIPS school community has decided to offer consistent and continuous programs to help the underprivileged involving Children, Parents, Teachers, Staff, and Local Community with focus on life skills learning. We expect our students to understand the realities of the world outside their protective zone and help in making the world a better place for all.

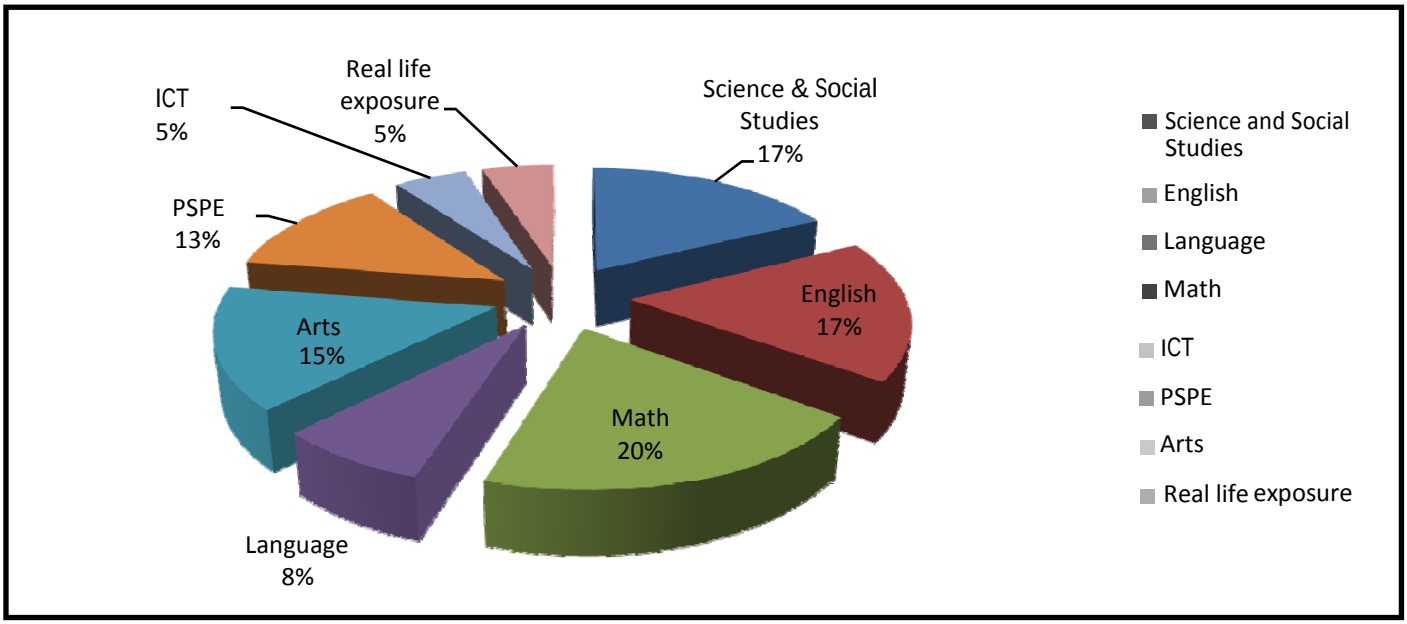
5. **TIPS Media Centre – An Initiative by the TIPS Students**

TIPSMedia Centre, led by the senior students is an initiative where the students will get a productive opportunity to express themselves. Specially post Pandemic times where students are more into gadgets, TIPS will provide an eco-system for the students to aperture their creative wisdom be it short films, advertisements, posters, shorts, reels and other creative ideas.

All the shared initiatives will ensure TIPS students the competitive edge by introducing our youngsters to the world beyond, by instilling and developing in them the skills and abilities needed to thrive in the ever-changing world. To this end, we plan to keep the momentum and keep ourselves ahead of time, as has been TIPS legacy.

Grade – I

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 I children will be inquiring into the following Transdisciplinary themes

ANNUAL CURRICULUM OVERVIEW - UOI		
Discipline	**Objectives**	**Time frame**
UOI	Who we are	SEM - I
	How we organize ourselves	
	How the world works	
	Where we are in place and time	SEM - II
	Sharing the planet	
	How we express ourselves	

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

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
The choices we make influence our health and well being

Key Concepts
• Connection • Function • Responsibility

Related concepts
• Health • Life style • Mind body connection • Well being

Lines of inquiry
• Basic needs for a healthy life (work, exercise, hygiene, sleep, play)
• Importance of balanced food in our daily routine
• Our roles and responsibilities for health and well being

Subject focus – Science, Math, Language and PSPE
Strands
- Science : Living Things
- Math : Measurement
- Language : Written Language – Writing and Reading, Oral Language
- PSPE : Active Living

The learning outcomes - After the inquiry the students will be able to:
• understand the role of sleep, play and hygiene for healthy life.
• identify the major food groups and be aware of the role they play in human development.
• demonstrate the consequences of choices.

Expected Trans-disciplinary skills while inquiring into this theme
• Thinking skills • Research skills • Self Management skills

While inquiring into this theme, children exhibit these learner profile attributes.
• Balanced • Principled • Reflective

Students have an access to the following resources during this inquiry.
Books
- Why should I eat this carrot – Louise Spilsbury
- Let's find out about good manners – Deborah chancellor
- Get some exercise – Angela Royston
- Eating right – Barbara sheen
- Active Kid – Bobbie Kalman
- Get some rest – Angela Royston
- Healthy Teeth – Angela Royston
- Keep Healthy – Angela Royston
- Teeth – Charlotte Guillian
- Food – Benita Sen
- Exercise – A R Schaefer

Key Vocabulary

• diet	• lifestyle	• routine	• minerals	• growth	• exercise
• choices	• habit	• protein	• carbohydrates	• energy	• sanitize
• vitamins	• hygiene	• disease	• fat	• yoga	• health
• vegetable	• fruit	• practice	• sequence	• schedule	• meditation

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

People develop transportation systems to help meet their needs

Key Concepts

- Form
- Change
- Causation

Related concepts

- Technology
- Systems
- Network
- Organization

Lines of inquiry

- Different types of transportation
- How transport systems have changed
- The impact of transportation systems on daily life

Subject focus – Social Studies, Math and Language.

Strands

- Social Studies : Continuity and change through time
- Math : Measurement
- Language : Written Language – Reading, Visual Language – Viewing and Presenting

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

- explain all modes and purpose of transport.
- create a timeline showing the improvements in transportation.
- explain the advantages and disadvantages of transport in daily life.
- explain the impact of technological advances in transport on the environment.

Expected Trans-disciplinary skills while inquiring into this theme

- Thinking skills
- Research skills
- Communication skills

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

- Risk- taker
- Inquirer
- Thinker

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

Books

- Planes – Chris Oxlade
- Transport – Benita Sen
- Boats – Heather Hammonds
- Transportation – Margaret C Hall
- Motorbikes – Chris Oxlade
- Cars – Chris Oxlade
- Newton and me
- Travel stories

Key Vocabulary

• transport	• travel	• journey	• route	• speed	• invented
• accident	• passenger	• environment	• globe	• responsibility	• vehicle
• pollution	• noise	• direction	• safety	• compass	• map
• place	• ground	• tour	• foreigner	• photograph	• rule

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

How the world works - An inquiry into the natural 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

All living things go through changes as they grow and develop

Key Concepts

- Change
- Connection
- Causation

Related concepts

- Transformation
- Cycle
- Progress
- Adaptation
- Chronology

Lines of inquiry

- Life cycle of living organisms
- Similarities and differences of cycles
- How living things adapt to their environment

Subject focus – Science, Math and PSPE

Strands

- Science : Living Things
- Math : Shape and Space, Pattern and Function, Number
- PSPE : Interaction

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

- describe the life cycles of a variety of living things.
- understand that all animals have a life cycle that includes being born, developing into an adult, reproducing, and eventually dying.
- compare the life cycles of different living things.
- demonstrate an understanding on how living things adapt to their environment.
- analyze the ways in which living things are interdependent on plants.

Expected Trans-disciplinary skills while inquiring into this theme

- Thinking skills
- Research skills
- Communication skills

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

- Caring
- Thinkers
- Inquirers

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

Books

- Life Cycles
- Life in the pouch
- Maggots, grubs and Nymphs
- The Mermaid's Purse
- Veligers and Polyps
- Pollywogs and Friends
- From Seedling to tree
- Life cycle of a Whale
- My Caterpillar Report
- Where Does the Seed Go
- How do plants grow
- Life cycle of a Penquin

Hands on activities

- **Project** : Human Life Cycle Sequence
- **Experiment** : Meal worm Life Cycles
- **Exploration:** Life Cycles of Edible Plants

Key Vocabulary

• adolescent	• embryo	• larva	• metamorphosis	• pupa
• adult	• monarch	• life cycle	• nymph	• develop
• childhood	• infant	• mammals	• organism	• tadpole
• stages	• animal	• change	• differences	• similarities

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

Understanding Earth's surface helps us to appreciate and protect the uniqueness of our planet

Key Concepts

- Form
- Function
- Responsibility

Related concepts

- Role
- Initiative
- Structure

Lines of inquiry

- How land and water make life possible on Earth
- Changes on Earth's surface
- Taking actions to protect Earth

Subject focus – Science, Math and Language

Strands

- Science : Earth and Space
- Social Studies : Resources and the environment
- Language : Written Language – Writing, Oral Language – Listening and Speaking

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

- understand that how Earth's land and water make life possible.
- identify the changes that occur on the Earth's surface.
- understand the importance of saving the environment.
- Identity and describe different landforms including hills, mountains, valleys and canyons.

Expected Trans-disciplinary skills while inquiring into this theme

- Social skills
- Research skills
- Self – Management skills

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

- Caring
- Knowledgeable
- Risk taker

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

Books

- Earth's Surface
- Arches National Park
- Land Under Water
- Along the Coast
- Impact Craters
- Valley

Hands on Process Activities

- Experiment - Erosion Control
- Experiment - Plant, water and sunlight

Project Based learning

- Making Land Useful

Key Vocabulary

• erosion	• survive	• surface	• planet	•ocean
• environment	• land form	• rock	• soil	• surface
• canyon	• cave	• cliff	• earth quake	• gravity
• island	•mountain	• volcano	• valley	• survive

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

People express themselves through celebrations

Key Concepts

- Perspective
- Causation
- Form

Related concepts

- Art
- Dance
- Music
- Beliefs

Lines of inquiry

- Celebrations around the world
- Reasons for various celebration
- Art forms in celebration

Subject focus – Social Studies, Math, Language and Arts

Strands

- Social Studies : Social Organization and Culture
- Math : Measurement
- Language : Visual Language – Viewing and presenting, Oral Language – Listening and Speaking
- Arts : Creating

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

- explore the various celebrations from around the world.
- identify the reasons for celebrations.
- recognize the importance of various forms of art as a part of celebrations.

Expected Trans-disciplinary skills while inquiring into this theme

- Social skills
- Communication skills
- Research skills

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

- Communicators
- Open-minded
- Knowledgeable

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

Books

- My Christmas - Monica Hughes
- My Baisakhi - Monica Hughes
- My Diwali - Monica Hughes
- My Birthday - Heather Hammonds
- My Id ul fitr - Monica Hughes
- Darby's Birthday Party - Brian Roberts
- Birthday Present for Mum - Alan Trussel Cullen
- The chase

Key Vocabulary

• celebration	• pongal	• decorate	• color	• anniversary
• festival	• harvest	• christmas	• culture	• party
• independence	• season	• dance	• music	• ceremony
• calendar	• winter	• fireworks	• decorate	• costumes

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

Public areas strengthen communities and provide people with opportunities to connect

Key Concepts

- Function
- Perspective
- Responsibility

Related concepts

- Cooperation
- Ownership
- Team work

Lines of inquiry

- Different public areas and their functions
- Necessities and maintenance of public areas
- How public places differ from private places

Subject focus – Social Science, Math and Language

Strands:

- Social Studies : Human systems and economic activities, social organization and culture
- Math : Shape and Space, Numbers
- Language : Visual Language – Viewing and Presenting, Written Language – Reading, Writing
- PSPE : Interactions

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

- identify and describe the functions of various public places in the community.
- demonstrate how various public places serve the needs of people in a community.
- compare and contrast the functions of public and private places.

Expected Trans-disciplinary skills while inquiring into this theme

- Research skills
- Social skills
- Self - Management skills

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

- Communicators
- Principled
- Caring

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

Books

- Who helps us in a hospital – Vic Parker
- A day in the life of Anna the nurse – Monica Hughes
- A day in the life of Harold the Doctor – Monica Hughes
- Stay safe – At home – Lisa Bruce
- Stay safe – Out and about – Lisa Bruce
- We work at the Hospital – Angela Aylmore
- Stay safe at school – Lisa Bruce
- Know all about police and fire workers

Key Vocabulary

• strengthen	• communities	• functions	• development	• public
• private	• government	• ownership	• responsibilities	• community
• organizations	• contribution	• worker	• places	• global

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

ANNUAL CURRICULUM OVERVIEW ENGLISH			
Discipline		Objectives	Time Frame
English	Reading Comprehension	Reading Readiness	Week 1 - 2
		Analyze Character	Week 3 - 5
		Author's Purpose (Entertain)	Week 6 - 8
		Author's Purpose (Inform)	Week 9 - 10
		Cause and Effect	Week 11 - 12
		Classify Information	Week 13 - 15
		Compare and Contrast	Week 16 - 18
		Fact or Opinion	Week 19 - 21
		Main Idea and Details	Week 22 - 24
		Make Inferences and Draw Conclusions	Week 25 - 27
		Problem and Solution	Week 28 - 30
		Reality and Fantasy	Week 31 - 33
		Sequence Events	Week 34 - 36
	Spelling	Warming up	Week 1 - 2
		The first 26 phonograms	Week 3
		Segmenting words	Week 4 - 5
		The letter tiles	Week 6 - 7
		The sound cards	Week 8 - 9
		Short vowels	Week 10 - 11
		Short A	Week 12
		Short I	Week 13
		Short O	Week 14
		Short U	Week 15
		Short E	Week 16
		S, X, and QU	Week 17 -18
		TH, SH, and, CH	Week 19
		Segmenting words with blends	Week 20 - 21
		Final blends	Week 22
		Initial blends	Week 23
		Letter C and K	Week 24
		Sounds of /k/ at the beginning	Week 25
		FF, LL, and SS	Week 26
		Sounds of /k/ at the end	Week 27
		Consonant team NG	Week 28
		Consonant team NK	Week 29 -30
		Compound words	Week 31 - 32
		Plural words	Week 33 - 34
		Open Syllables	Week 35- 36

English	**Language Skills**	Warming up	Week 1 - 2
		Capital Letters 1& 2	Week 3
		Capital Letters 3	Week 4
		Plurals 1	Week 5
		Plurals 2, Plurals review	
		ABC order 1-3	Week 6
		ABC order 4 – 6	Week 7
		Using the right word 1, 2	Week 8
		Using the right word 3	
		Using an opposite word	Week 9
		Nouns	Week 10
		Common and proper nouns	Week 11
		Singular and plural nouns	Week 12
		Pronouns	Week 13
		Verbs	Week 14
		Tenses of action verbs	Week15
		Linking verbs 1 & 2	Week 16
		Adjectives	Week 17
		Adjectives that compare	Week 18
		Parts of speech review	Week 19
		Writing sentences	Week 20
		Complete thoughts	Week 21
		The naming part	Week 22
		The telling part	
		Sentence parts	Week 23
		Telling sentences	Week 24
		Asking sentences	
		Exclamatory sentences	Week 25
		Sentence review	
		Periods	Week 26
		End marks	
		Commas	Week 27
		Apostrophes, Punctuation review	Week 28
		Writing in journals	Week 29
		Writing lists	Week 30
		Writing friendly notes	Week 31
		Writing friendly letters	Week 32
		Writing descriptions	Week 33
		Writing narratives	Week 34
		Writing How To's	Week 35
		Writing Reports	Week 36

Discipline		Objectives	Time Frame
English	Vocabulary Clusters	**Auxiliary and Helping verbs**	
		1	Week 1
		342, 411	Week 2
		Time	
		2, 16	Week 3
		24	Week 4
		29	Week 5
		52	Week 6
		59, 79	Week 7
		83, 126	Week 8
		144, 233	Week 9
		Comparison and Contrast	
		5, 27	Week 10
		252,299	Week 11
		Pronouns	
		6, 7	Week 12
		8, 11, 12, 34	Week 13
		Physical location and Orientation	
		9, 17	Week 14
		20, 21	Week 15
		22, 23	Week 16
		25, 26	Week 17
		37, 49, 390	Week 18
		Cause and Effect	
		10, 273	Week 19
		Measurement, Size and Quantity	
		13, 15, 18	Week 20
		19	Week 21
		33, 73	Week22
		130, 327, 373, 374	Week 23
		Verbal Interactions	
		14, 61	Week 24
		100, 105, 177	Week 25
		198, 207	Week 26
		255, 345, 346, 383	Week 27
		Attitudinals	
		30, 31, 285, 369	Week 28
		Animals	
		32, 35, 64	Week 29
		65, 82	Week30
		70, 95, 117	Week 31
		155, 188, 189	Week32
		194, 309,310,341	Week 33
		Trees and Plants	
		36,108,192,269	Week 34
		Movement and Action	
		38,39,40,44	Week 35
		66,141,147	Week 36

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

Spelling

Through ' All about spelling' students will learn encoding skills, reliable spelling rules and multi- sensory strategies to help them master the sounds of 26 letters and common combinations. With these tools , the students become proficient spellers for life.

Listening & Speaking

The language of the classroom is English. Our aim is that children will become comfortable speaking English in the classroom. Pupils are provided with many opportunities to convey ideas in class discussions. Listening skills are taught as a means of articulating clear responses upon reflection of ideas expressed by others. Children are reminded of the value of good listening skills so that they develop greater competency.

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 need Grammar/Structure/Punctuation to master their writing skills. This will be accomplished through the *Language skills* book which will be dealt with, in the class. They will learn *Verbs, Adverbs, Nouns, Plural nouns, Pronouns, Comparative & superlative adjectives, Commas, Use of contractions, Compound words, Difference between past & present tense, Past tense verbs.*

Dramatics

Dramatics is an essential area of learning in the PYP and is built in to the curriculum. Dramatics enables the development of creative skills, Verbal and non- verbal expression, an awareness of the perspectives of others and aesthetic appreciation. Drama encourages students, to communicate in powerful ways that go beyond their spoken language ability.

Dramatics in PYP identifies 6 major expectations:

- Creative exploration and expressions
- Technical incorporation
- Performance
- Personal and Social development
- Reflection, Evaluation & Appreciation
- Drama and society

Through drama, students can begin to construct an understanding of their community, their environment and their own feelings and emotions. They will also have opportunities to work cooperatively to put together a performance.

ANNUAL CURRICULUM OVERVIEW-HINDI

DISCIPLINE	OBJECTIVES	TIME FRAME
HINDI	1. वर्णमाला (क्रम से) 2. मेरा जन्मदिन, स्वर और व्यंजनों की पुनरावृति 3. पहचानो तो जानें 4. दो अक्षर वाले शब्द 5. बातूनी कछुआ- चित्र पाठ	**SEM-I**
	1. तीन और चार अक्षर वाले शब्द 2. घन आए- चित्र वर्णन 3. हरहर और खरखर 4. आ मात्रा का परिचय 5. आ की मात्रा के शब्द 6. मेरी हिन्दी	
	1. इ, ई,उ की मात्रा का परिचय 2. इ, ई,उ की मात्रा के शब्द 3. अनुच्छेद 4. मेरी हिन्दी	
	1.ऊ, ऋ,ए की मात्रा का परिचय 2.ऊ,ऋ,ए की मात्रा के शब्द 3. अनुच्छेद 4. मेरी हिन्दी	**SEM-II**
	1. ऐ,ओ,औ की मात्रा का परिचय 2. ऐ,ओ,औ की मात्रा के शब्द 3.अनुच्छेद 4. मेरी हिन्दी	
	1.अं, अ: की मात्रा का परिचय 2. अं, अ: की मात्रा के शब्द 3. अनुच्छेद 4. मेरी हिन्दी 5. पुनरावृति	

लेखन कौशल

केन्द्रीय शिक्षण बिन्दु :

आकृति बनाने की विधि

शैक्षणिक उद्देश्य :

- वर्णमाला को दोहराना
- स्वरों और उनकी मात्राओं की पहचान
- अनुस्वार (ं) और अनुनासिक (ँ) स्वरों की पहचान
- मात्रा पहचानकर पढ़ने का अभ्यास

पठन /वाचन कौशल :

केन्द्रीय शिक्षण बिन्दु :

- वर्ण एवं शब्दों के सही उच्चारण पर बल देना।

शैक्षणिक उद्देश्य :

- प्रतिदिन उपयोग में आनेवाले क्रियात्मक शब्दों के प्रयोग का अभ्यास
- चित्र द्वारा स्वर और व्यंजनों का परिचय
- चित्रों के माध्यम से शब्द भंडार में वृध्दि (Vocabulary Building).
- स्तर के अनुरूप कविताएँ और चित्र कथाएँ (Videos and Rhymes in Hindi)

श्रवण कौशल :

केन्द्रीय शिक्षण बिन्दु :

- बोलचाल की भाषा का अभ्यास
- उच्चारण की स्पष्टता के लिए श्रवण कौशल संबधित खेल

शैक्षणिक उद्देश्य :

- कविता – लय के साथ दोहराना
- बोलचाल की भाषा का प्रयोग

संदर्भ ग्रंथ सूची :

पंखुड़ियाँ	-	वीवा एजुकेशन
गुंजन	-	मधुबन एजुकेशनल बुक्स
उमंग प्रवेशिका	-	एकके। पब्लिकेशन्स
स्वाति	-	सरस्वति हाउस प्रा. लि .

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

ANNUAL CURRICULUM OVERVIEW - TAMIL

DISCIPLINE	OBJECTIVES	TIME FRAME
TAMIL	உயிர்,மெய் எழுத்துக்கள் மற்றும் உயிர்மெய் எழுத்துக்களில் அ,ஆ,இ வரிசை எழுத்துக்கள், அதற்குரிய சொற்கள், குறில்- நெடில் சொற்கள் சொற்கள் போன்றவற்றை அறிந்து கொள்ளுதல்.	SEM I
	உயிர்மெய் எழுத்துக்களில் ஈ, உ, ஊ வரிசை எழுத்துக்கள், அதற்குரிய சொற்களை அறிந்து கொள்ளுதல்.	
	உயிர்மெய் எழுத்துக்களில் எ, ஏ வரிசை எழுத்துக்கள், அதற்குரிய சொற்களை அறிந்து கொள்ளுதல்.	
	உயிர்மெய் எழுத்துக்களில் ஐ, ஒ,ஓ வரிசை எழுத்துக்கள், அதற்குரிய சொற்கள் மற்றும் ஒருமை - பன்மை போன்றவற்றை தெரிந்து கொள்ளுதல்	SEM II
	உயிர்மெய் எழுத்துக்களில் ஔ வரிசை எழுத்துக்கள், அதற்குரிய சொற்களை அறிந்து கொள்ளுதல், செய்யுள் பகுதியை வாசித்தல்.	
	வாக்கிய அமைப்புகள் மற்றும் பெயர் - வினைச் சொற்களை அடையாளம் கண்டு வாசிக்கவும், எழுதவும் தெரிந்து கொள்ளுதல்.	

LISTENING AND SPEAKING

LEARNING OBJECTIVES : (கற்றலின் குறிக்கோள்கள் *)*

- பாடல்களை உரிய செய்கைகளுடன், உடல் அசைவுகளுடன் ஒப்புவிக்கும் திறன்
- எளிய வினாக்களை புரிந்து பதில் அளிக்கும் திறன்

READING

LEARNING OBJECTIVES : : (கற்றலின் குறிக்கோள்கள் *)*

- எழுத்துக்களைத் தனியாகவும் சொற்களிலும் அடையாளம் காணுதல்.
- பெரிய மற்றும் சிறிய அச்சு எழுத்துக்களை பலகை அட்டைகளிலிருந்து படித்து அறிதல்.
- எழுத்துக்களையும் , சொற்களையும் தகுந்த ஒலியுடன் படித்தல்.

WRITING

LEARNING OBJECTIVES : (கற்றலின் குறிக்கோள்கள்)

- உயிர், மெய், உயிர்மெய் எழுத்துக்களை அறிதல்
- ஒன்று முதல் ஐந்து எழுத்துக்கள் கொண்ட

  சொற்கள் அமைத்தல்
- எளிய சொற்களைச் சரியான உச்சரிப்புடன்

  வாசித்து எழுதுதல்

RESOURCE BOOKS : அழகு தமிழ் , **TIPS TAMIL WORK BOOK,**

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

ANNUAL CURRICULUM OVERVIEW MATH				
Discipline			Objectives	Time Frame
	Revisiting Previous Year Concept			Week 1 - 2
	Numbers to 10	Counting to 10	Count from 0 to 10 objects	Week 3
			Read and write 0-10 in numbers and words	
		Comparing Numbers	Compare two sets of objects using one to one correspondence	
			Identify the set that has more, fewer, or the same number of objects	Week 4
			Identify the number that is greater than or less than another number	
		Making Number Patterns	Make number patterns	
	Number Bonds	Number Bonds	Find different number bonds for numbers to 10	Week 5
	Addition Facts to 10	Ways to Add	Count on to add	Week 6
			Use number bonds to add in any order	
			Write and solve addition sentences	
		Making Addition Stories	Tell addition stories about pictures	Week 7
			Write addition sentences	
		Real World Problems - Addition	Write addition stories	
			Solve real- world problems	
	Subtraction Facts to 10	Ways to Subtract	Take away to subtract	Week 8
			Count on to subtract	
			Count back to subtract	
			Use number bonds to subtract	
			Write and solve subtraction sentences	
		Making Subtraction Stories	Tell subtraction stories about pictures	
			Write subtraction sentences	Week 9
		Real world Problems: Subtraction	Write subtraction sentences	
			Solve real world word problems	
		Making Fact Families	Recognize related addition and subtraction sentences	
			Write fact families	
			Use fact families to solve real world problems	

	Shapes and Patterns	Exploring Plane Shapes	Identify, Classify and describe plane shapes	Week 10
			Make same and different shapes	
			Divide shapes into two and four equal parts	
			Describe the whole as the sum of its parts	
			Understand that dividing a whole into more equal parts creates smaller parts	
		Exploring Solid Shapes	Identify, Classify and sort solid shapes	
		Making Pictures and Models with Shapes	Combine and separate plane and solid shapes	Week 11
		Seeing Shapes Around Us	Identify plane and solid shapes in real life	
		Making Patterns with Plane Shapes	Use plane shapes to identify, extend and create patterns	
		Making Patterns with Solid Shapes	Use solid shapes to identify, extend and create patterns	
	Ordinal Numbers and Position Words	Ordinal Numbers	Use ordinal numbers	Week 12
		Position Words	Use position words to name relative positions	
	Numbers to 20	Count to 20	Count on from 10 to 20	Week 13
			Read and write 11 – 20 in numbers and words	
		Place Value	Use a place - value chart to show numbers up to 20	
			Show objects up to 20 as tens and ones	Week 14
		Comparing Numbers	Compare numbers to 20	
		Making Patterns and Ordering Numbers	Order numbers by making number patterns	
	Addition and Subtraction Facts to 20	Ways to Add	Use different strategies to add 1 - and 2 - digit numbers	Week 15
		Ways to Subtract	Subtract 1 - digit from a 2 - digit number with and without regrouping	Week 16 - 17
		Real – world Problems: Addition and Subtraction Facts	Solve real - world problems	

	Length	Comparing Two Things	Compare two lengths using the terms tall /taller, long/longer &short/shorter	Week 18
		Comparing more than Two Things	Compare two lengths by comparing each with a third length	
			Compare more than two lengths using the terms tallest, longest and shortest	
		Using a Start Line	Use a common starting point when comparing lengths	
		Measuring Things	Measure lengths using non standard units	
			Understand that using different non standard units may give different measurements for the same item	
		Finding Length in Units	Use the term “Unit” to describe length	
			Count measurement units in a group of ten and Ones	
	Weight	Comparing Things	Compare the weight of two things using the terms 'heavy', 'heavier', and 'as heavy as'	Week 19
			Compare the weight of more than two things using the terms 'lightest', and 'heaviest'	
		Finding the Weight in Things	Use a non-standard object to find the weight of things	
			Compare weight using a non-standard object as a unit of measurement	
		Finding the Weight of Units	Using the term 'unit’ when writing the weight of things	
			Explain why there is a difference in measurement when using different non-standard units	
			Arrange objects according to their weights	
	Picture Graphs and Bar Graphs	Picture Graphs	Understand the data shown in a picture graph	Week 20
		Tally Chart and Bar Graphs	Make a tally chart	
			Show data in a bar graph	
			Understand data shown in a bar graph	
		Counting to 40	Count on from 21 to 40	Week 21
			Read and write 21 to 40 in numbers and words	

	Numbers to 40	Place Value	Use a place-value chart to show numbers up to 40	
			Show objects up to 40 as tens and ones	
		Comparing, Ordering and Patterns	Use a strategy to compare numbers to 40	Week 22
			Compare numbers to 40	
			Order numbers to 40	
			Find the missing numbers in a number pattern	
	Addition and Subtraction to 40	Addition without Regrouping	Add a 2- digit number and one digit number without regrouping	Week 23
			Add two 2- digit number without regrouping	
		Addition with Regrouping	Add a two digit number and one digit number with regrouping	
			Add two 2-digit numbers without regrouping	
		Subtraction without Regrouping	Subtract a 1-digit number from a 2-digit number without regrouping	
			Subtract a 2-digit number from another 2-digit number without regrouping	
		Subtraction with Regrouping	Subtract a 1-digit number from a 2-digit number with regrouping	Week 24
			Subtract a 2-digit number from another 2 digit number with regrouping	
		Adding Three Numbers	Add three 1-digit numbers	
		Real- world Problems- Addition and Subtraction	Solve real world problems	
			Use related addition and subtraction facts to check the answers to real- world problems	
	Mental Math	Mental Addition	Mentally add 1-digit numbers	Week 25
			Mentally add a 1-digit number to a 2-digit number	
			Mentally add a 2-digit number to tens	
		Mental Subtraction	Mentally subtract a 1-digit number from a 2-digit number	
			Mentally subtract tens from a 2-digit number	
		Using a Calendar	Read a calendar	Week 26
			Know the days of the week and months of the year	
			Write the date	
			Know the seasons of the year	

	Calendar and Time	Telling Time to the Hour	Use the term o'clock to tell the time to the hour	Week 27
			Read and show the time to the hour on a clock	
		Telling time to the Half Hour	Read time to the half hour	
			Use the term half past	
			Relate time to daily activities	
	Numbers to 100	Counting to 100	Count on from 41 to 100	Week 28
			Read and write 41 to 100 in numbers and words	
		Place Value	Use a place-value chart to show numbers up to 100	
			Show objects up to 100 as tens and ones	
		Comparing, Ordering, and Patterns	Use a strategy to compare numbers to 100	Week 29
			Compare numbers to 100	
			Order numbers to 100	
			Find the missing numbers in a number pattern	
	Addition and Subtraction to 100	Addition without Regrouping	Add a 2-digit number and 1-digit number without regrouping	Week 30 & 31
			Add two 2-digit numbers without regrouping	
		Addition with Regrouping	Add a 2-digit number and 1-digit number with regrouping	
			Add two 2-digit numbers without regrouping	
		Subtraction without Regrouping	Subtract a 1-digit number from a 2-digit number without regrouping	Week 32
			Subtract a 2-digit number from another 2-digit number without regrouping	
		Subtraction with Regrouping	Subtract a 1-digit number from a 2-digit number with regrouping	
			Subtract a 2-digit numbers with regrouping.	
	Multiplication	Adding the same number	Use objects or pictures to show the total number of items in groups of the same size	Week 33
			Relate repeated addition to the concept of multiplication	
		Sharing Equally	Use objects or pictures to show the total number of items in each group when sharing equally	
			Relate sharing equally to the concept of division	
	Division	Finding the Number of Groups	Use objects or pictures to show the concept of division as finding the number of equal groups	Week 34

	Money	Penny, Nickel and Dime	Recognize and name penny, nickel and dime	Week 35
			Understand that ¢ stands for cents	
			Skip-count to find the value of a collection of coins	
			Exchange a coin of a greater value for a set of coins of equal value	
			Use different combinations of coins less than 25 ¢ to buy things	
		Quarter	Know and name a quarter	
			Exchange a quarter for a set of coins of equal value	
		Counting Money	Count money in cents up to $1 using the 'count on' strategy	Week 36
			Choose the correct value of coins when buying items	
			Use different combinations of coins to show the same value	
		Adding and Subtracting Money	Add to find the cost of items	
			Subtract to find the change	
			Add and subtract money in cents(up to $1)	
			Solve real-world problems involving addition and subtraction of money	

At TIPS we follow a structured curriculum based on "*Math in focus".*

This emphasizes problem solving and positive attitudes toward mathematics, while focusing on student development of skills, concepts, processes and meta-cognition. Students are encouraged to reflect on their thinking and learn how to self-regulate so that they can apply these skills to varied problem-solving activities. Thus development is holistic in this curriculum.

Each chapter contains numerous embedded problem-solving situations so that students learn to flexibly apply their mathematical knowledge. Additionally, Put On Your Thinking Cap! Problems require students to extend the concepts they have learned to non-routine situations to demonstrate mastery.

It also emphasizes a concrete to pictorial to abstract pedagogy. Students are first introduced to concepts with concrete manipulative, which allows them to experience and understand the math they are learning. They then learn to visually represent concepts using models, including number bonds and bar models. Finally, once students have a strong understanding of the concept, they move to the abstract stage where they use symbols, such as numbers and equations, to represent mathematical situations.

Math in Focus supports mathematical instruction at a variety of levels to target all learners, from struggling to gifted. It also emphasizes deep understanding, which is demonstrated through consistent opportunities to explain why mathematical concepts work. This is modeled for students throughout *Math in Focus* with thought bubbles, which display pictures of students expressing their understanding. Students then have the opportunity to justify their own understanding through activities such as Math Journals.

Math Key words

- Ascending
- Descending
- After
- Between
- Before
- Greater than
- Lesser than
- First
- Second
- Third
- Fourth
- Fifth
- Sixth
- Seventh
- Eighth
- Ninth
- Tenth
- Even
- Odd
- Skip
- Count
- Place value
- Ones
- Tens
- Hundreds
- Addition
- Subtraction
- Add
- Sum
- All together
- Take away
- Minus
- Right
- Left
- Straight
- Sides
- Corners
- Edges
- Faces
- Pattern
- Sequence
- Repeating
- Measurement
- Date
- Calendar
- Day
- Night
- Heavy
- Light
- Triangle
- Circle
- Rectangle
- Square
- Oval
- Crescent
- Cube
- Cuboid
- Sphere
- Prism
- Diamond
- Distance
- Duration
- Long
- Short
- Units
- Money
- Coins
- Time
- Hour
- Half-past
- Clock
- length

Math in Focus

SCHOOL to HOME Connections

Chapter 1 Numbers to 10

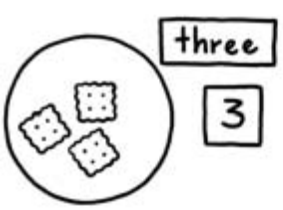
Dear Family,

In this chapter, your child will study numbers to 10.
Some of the skills your child will practice are:

- reading and writing numbers
- comparing and ordering sets and numbers

Activity Make and Compare Sets

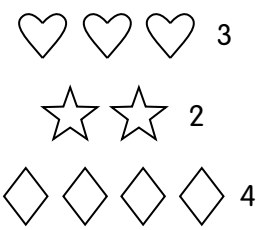
Comparing numbers is a fundamental math skill that your child will use throughout this program and in many everyday situations. Help your child become familiar with the vocabulary used for comparing numbers by doing this activity with him or her. Get some crackers and two plates. Make a set of flash cards with the numbers 0 to 10.



Three is less than five.
Five is greater than three.

- Show your child any two number cards. For each number card, have your child write the number word, then make a set of crackers on a plate to show the number.
- Ask your child which plate has more and which plate has fewer crackers. Then have your child say which number is greater and which is less.

Vocabulary to Practice



There are **more** ♡ than ☆.

3 is **greater than** 2.

There are **fewer** ♡ than ◇.

3 is **less than** 4.

2 is the **least** number.

4 is the **greatest** number.

Math in Focus

SCHOOL to HOME Connections

Chapter 2 Number Bonds

Dear Family,

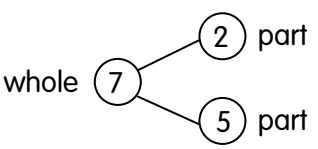
In this chapter, your child will learn about number bonds and how to make different number bonds for numbers to 10. Number bonds are visual models that show the parts that form the whole.

Activity Count and Combine Leaves

Understanding number bonds makes it easier for children to learn basic addition and subtraction facts and makes them more proficient in mental math calculations. Working together to group concrete objects can help your child quickly grasp the concept of number bonds.

For example, have your child collect some leaves from your backyard (approximately 10 big and 10 small leaves). You may substitute with shells (big and small) or beans (red and black) or any other small object.

- Ask your child to choose a number between 1 and 10, for example, 7. Have your child make two sets of leaves. These sets when combined must match the number given, for example, 6 and 1 or 5 and 2.
- Now, work with your child to draw number bonds for the number 7, and name the parts and the whole.

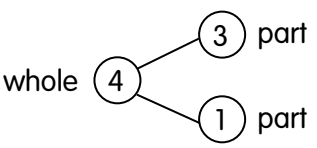


2 and 5 make 7.

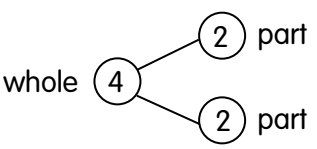
Vocabulary to Practice

Number bonds are visual models that show the parts that form the whole. Number bonds are used to find all the possible sets of two numbers that make a given number.

Here are 2 number bonds to show the number 4.



3 and 1 make 4.



2 and 2 make 4.

Math in Focus

SCHOOL to HOME Connections

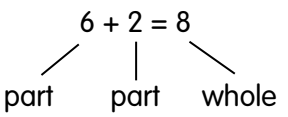
Chapter 3 Addition Facts to 10

Dear Family,

In this chapter, your child will learn basic addition facts up to 10. Some of the skills your child will practice are:

- counting on and using number bonds to add
- telling addition stories
- writing and solving addition sentences
- solving real-world problems

Vocabulary to Practice

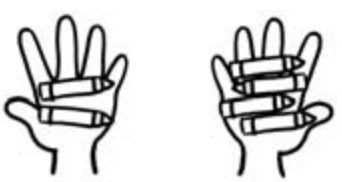


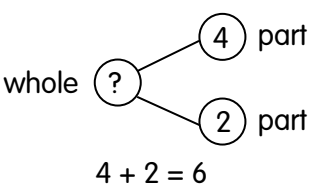
6 + 2 = 8 is an **addition sentence**.

Read it as *six **plus** two is **equal to** eight*.

Activity Add with Number Bonds

Addition is one of the four basic operations that form the foundation of arithmetic and is an essential part of the computation work in elementary school. When children understand and use these basic addition facts, they will have the confidence to solve real-world math problems. Work with your child, using 10 small objects such as crayons or building blocks. Hold some crayons in each hand.





4 + 2 = 6

- Ask your child how many crayons you have in all. Your child may choose to count on to add, for example, start with the greater number 4 and say, `4, 5, 6.´
- Draw a number bond on a piece of paper and have your child complete it. Then have your child write the addition sentences `4 + 2 = 6 and 2 + 4 = 6´.
- Repeat with other numbers. Ensure the sum does not exceed 10.

Math in Focus

SCHOOL to HOME Connections

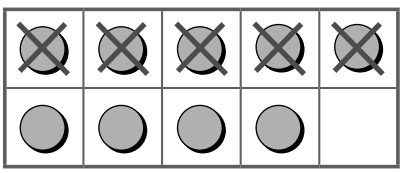
Chapter 4 Subtraction Facts to 10

Dear Family,

In this chapter, your child will learn basic subtraction facts up to 10. Some of the skills your child will practice are:

- taking away, counting on, and counting back to subtract
- telling subtraction stories
- writing and solving subtraction sentences
- writing fact families

Vocabulary to Practice



9 – 5 = 4

Crossing out 5 **takes away** 5.

5 **less than** 9 is 4.

9 – 5 = 4 is a **subtraction sentence**.

Read it as *nine* ***minus*** *five is* ***equal to*** *four.*

Activity Subtraction Stories

Subtraction is one of the four basic operations that form the foundation of arithmetic and is an essential part of the computation work in elementary school. When children understand and use these basic subtraction facts, they will have the confidence to solve real-world math problems.
You will need a plastic cup and objects that are the same shape and size and can be counted easily, such as toy cars or beads.

- Model the following word problems using the objects and have your child write the subtraction sentence for each of them.

I have 10 toy cars.
I give you 4 of my toy cars.
How many toy cars do I have left?

I have 8 beads in all.
3 beads are green and
the rest are red.
How many red beads do I have?

Math in Focus

SCHOOL to HOME Connections

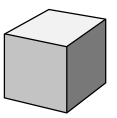
Chapter 5 Shapes and Patterns

Dear Family,

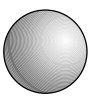
In this chapter, your child will learn about plane and solid shapes. Some of the skills your child will practice include:

- identifying, classifying, sorting, and describing plane and solid shapes
- making shapes that are the same or different
- identifying plane and solid shapes in real life

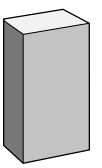
Vocabulary to Practice



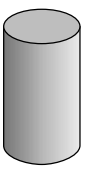
Cube



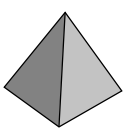
Sphere



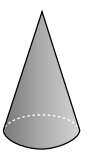
Rectangular prism



Cylinder



Pyramid



Cone

Activity Shapes Around Us

Identifying, classifying, and making plane and solid shapes are math skills that will help your child develop spatial reasoning. Working with your child to identify these shapes in familiar household objects can help them to remember the shapes better.

- Have your child identify 2-dimensional shapes such as circles, squares, or rectangles on the faces of some three-dimensional objects.
- Name a 3-dimensional shape and have your child find an object in the house that corresponds to the shape.

Math in Focus

SCHOOL to HOME Connections

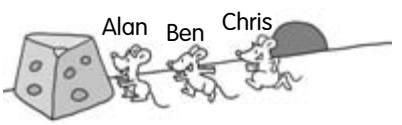
Chapter 6 Ordinal Numbers and Position

Dear Family,

In this chapter, your child will learn that numbers and words can be used to describe order and position. Your child will learn to:

- use ordinal numbers, such as first, second, ..., tenth
- use position words to name relative positions

Vocabulary to Practice



Alan is **before** Ben.

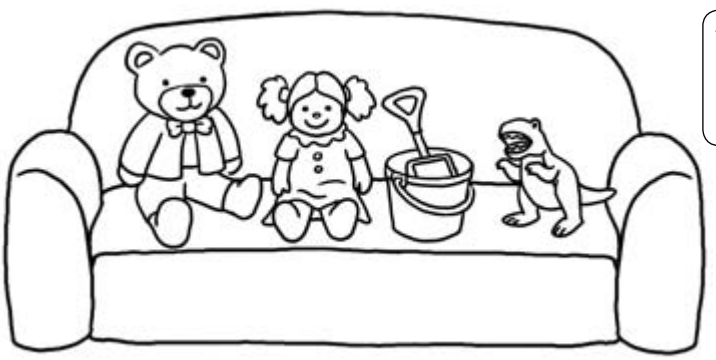
Chris is **behind** Ben and is **3rd**.

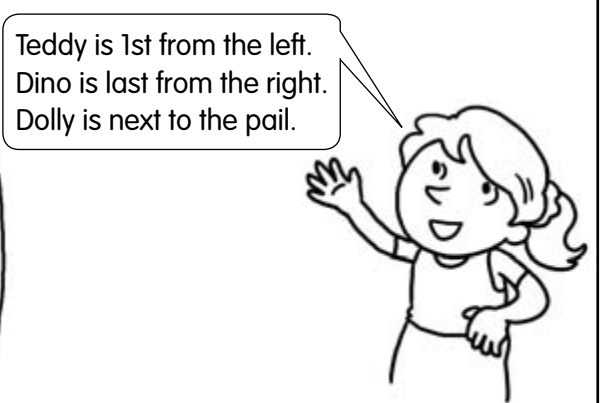
Ben is **between** Alan and Chris.

Activity Where Are They?

Order and position are important concepts in helping build your child's knowledge of number relationships. Use this activity to help your child practice some of the new vocabulary he or she has learned.

- Have your child arrange 4 or 5 of his or her toys in a row. Ask your child to describe the position of each toy.





Math in Focus

SCHOOL to HOME Connections

Chapter 7 Numbers to 20

Dear Family,

In this chapter, your child will study numbers to 20.
Some skills your child will practice are:

- using a place-value chart to show numbers up to 20
- showing objects up to 20 as tens and ones
- comparing numbers to 20 and ordering by making number patterns

Activity Count and Show

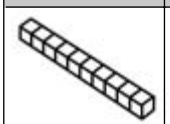
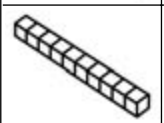
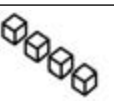
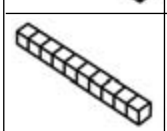
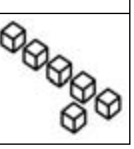
This is a key stage where children are introduced to the concept of place value, which will be the basis of the entire number system and help them deal easily with larger numbers. This chapter sets the foundation for developing the idea of tens and ones and being able to make sense of two-digit numbers. Use objects that are the same in shape and size and can be counted easily, such as buttons. Prepare number cards from 11 to 20.

- Say a number greater than 10 but less than 20, for example, 15. Ask your child to show the number using the buttons. Ensure your child makes a group of ten, then counts on to show the number. Have your child complete the statement `____ and ____ make 15.´ (Answers: 10, 5)
- Now, draw a place-value chart showing tens and ones place (see Vocabulary box above). Ask your child to use buttons to show the number 15 on the place-value chart.

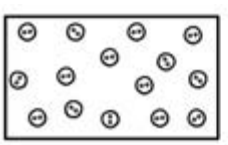
Vocabulary to Practice

A **place-value chart** shows how many tens and ones are in a number.

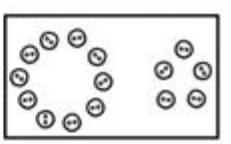
11	14	16

	Tens	Ones
11		
14		
16		

14 is **greater than** 11.
14 is **less than** 16.
16 is the **greatest** number.
11 is the **least** number.



15



10 and 5 make 15.

Math in Focus

SCHOOL to HOME Connections

Chapter 8 Addition and Subtraction Facts to 20

Dear Family,

In this chapter, your child will learn addition and subtraction facts to 20.

Some of the skills your child will practice are:

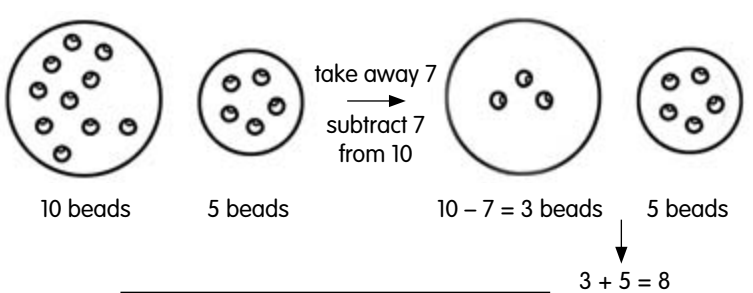
- using different strategies like doubles facts and doubles plus one facts to add 1-digit and 2-digit numbers
- subtracting a 1-digit from a 2-digit number
- solving real-world problems

Activity Make a Ten

Different strategies form the foundation for adding and subtracting greater numbers. Practice some of these strategies with your child by doing the following activity.

Work with your child, using 20 small objects such as crayons or beads.

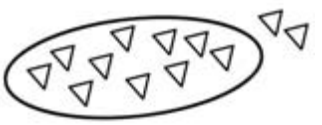
- Give your child a set of 10 beads and another set of less than 10 beads, say 5. Have your child take away a specific number of beads, say 7. Ensure he or she first tries to take away from the set with less than 10 beads. If this is not possible, take away from the set with 10 beads. Have your child write the corresponding subtraction sentence.



Subtraction sentence: 15 – 7 = 8

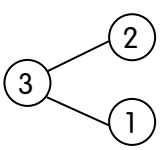
Vocabulary to Practice

Making a ten:
10 and 2 make 12.



2 + 2 = 4 is a **doubles fact**.

2 + 3 = ?



2 + 3 = 2 + 2 + 1

So, 2 + 3 is double 2 plus 1.

2 + 3 is a **doubles plus one fact**.

Math in Focus

SCHOOL to HOME Connections

Chapter 9 Length

Dear Family,

In this chapter, your child will learn about length and height. Some of the skills your child will practice are:

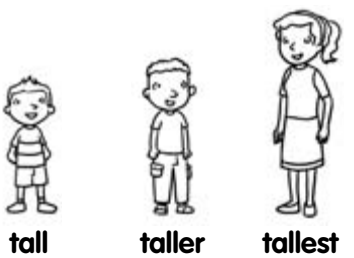
- comparing lengths using the terms tall/taller, long/longer, short/shorter, tallest, longest, and shortest
- using a common starting point when comparing lengths
- measuring lengths using non-standard units

Activity Measure and Compare

Using everyday objects to measure the lengths of other items helps to solidify the concept of length. Use paper clips, craft sticks, pencils, or crayons as non-standard units.

- Have your child measure three objects such as a spoon, a photo frame, and a toothbrush using paper clips or craft sticks as non-standard units. Ask your child to write down the measurements. Ensure that not more than 20 units of measurement are used.
- Ask your child which object is the tallest/longest. Ask which object is the shortest.
- Help your child to arrange the objects from tallest/longest to shortest or from shortest to tallest/longest.

Vocabulary to Practice

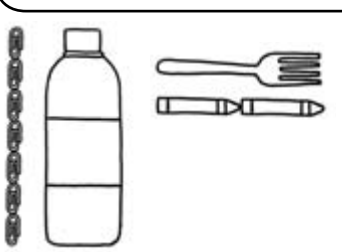


tall **taller** **tallest**

A B C

B is **longer** than C.
A is the **longest**.
C is the **shortest**.

Non-standard units are everyday objects put end to end to measure the lengths of other items.



Math in Focus

SCHOOL to HOME Connections

Chapter 10 Weight

Dear Family,

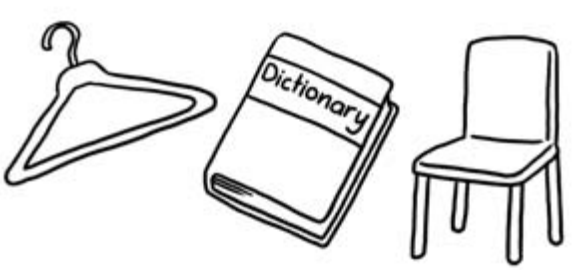
In this chapter, your child will learn about weight.
Some of the skills your child will practice are:

- comparing the weight of objects using the terms heavier, lighter, heaviest, lightest, and as heavy as
- measuring the weight of objects using non-standard units

Activity Heavy or Light

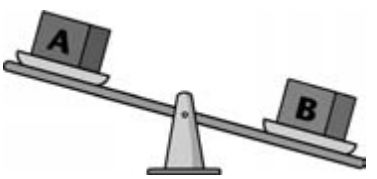
Measuring the weight of everyday objects and comparing them will help your child solidify the concept of weight. Use this activity to help your child verbalize what he or she has learned about the weight of objects. Get some objects from around the house, for example, a clothes hanger, a box of tissues, a dictionary, and a chair.

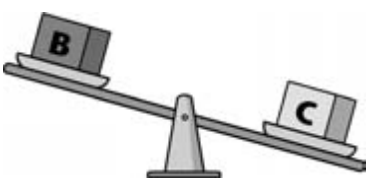
- Have your child lift each object individually and say which is light and which is heavy.
- Then have your child hold an object in each hand and say which one is heavier or lighter.
- Ask your child which is the heaviest and the lightest object in the group.



Vocabulary to Practice

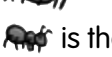
An elephant is **heavy**.
A feather is **light**.





Box B is **heavier than** Box A.
Box C is the **heaviest**.

 is **lighter than** the .

 is the **lightest**.

Math in Focus

SCHOOL to HOME Connections

Chapter 11 Picture Graphs and Bar Graphs

Dear Family,

In this chapter, your child will learn to make and interpret picture graphs, bar graphs, and tally charts.

Activity Make Tally Charts

Collecting and organizing data in graphs and tally charts is a math skill which makes it easier to understand amounts or data. Use simple activities around the house to let your child practice this skill.

You will need a sheet of paper and a pencil.

Name	Tally	Number of Hats
Name 1		
Name 2		
Name 3		
Name 4		

- Let your child collect data based on his or her interests. For example, your child may collect data about the number of hats each family member has.
- Draw a chart like the one above with the name of each family member on it. Ask your child to count the number of hats, recording each one with a tally mark in the appropriate column. Show your child that once all the data is collected, you can total all the tally marks and write the corresponding number in the total column.

Vocabulary to Practice

	Tally	Number of Toys
Mark	///	3
Janet	𝍸 𝍸	10
Rachel	𝍸 /	6

This is a **tally chart** showing data about the number of toys Annie's friends have.

Rachel has **fewer** toys than Janet.

Janet has 7 **more** toys than Mark.

Mark has the **fewest** toys.

Janet has the **most** toys.

Math in Focus

SCHOOL to HOME Connections

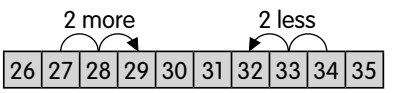
Chapter 12 Numbers to 40

Dear Family,

In this chapter, your child will learn numbers to 40.
Some of the skills your child will practice are:

- showing numbers up to 40 as tens and ones
- comparing and ordering numbers
- making number patterns

Vocabulary to Practice



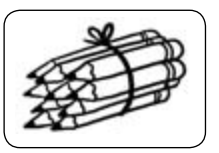
You can count on and count back using a **counting tape.**

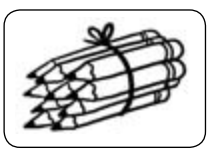
Activity Comparing by Making Tens

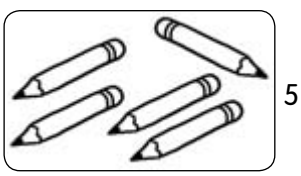
Grouping numbers into tens and ones allows children to make sense of greater numbers, and is also useful for mental addition and subtraction.

- Have your child group 25 into tens and ones.
- Then have your child make statements about the number 25 such as:

  20 and 5 make 25.
- Repeat this with other numbers between 20 and 40.
- Finally, name a pair of numbers between 20 and 40. Ensure the tens are different. Ask your child to write the numbers on a piece of paper. Then have your child identify which number is greater or less.


1 ten


1 ten


5 ones

2 tens and 5 ones make 25.

Math in Focus

SCHOOL to HOME Connections

Chapter 13 Addition and Subtraction to 40

Dear Family,

In this chapter, your child will learn to add and subtract numbers within 40 in vertical form.
Some of the skills your child will practice are:

- adding and subtracting with and without regrouping
- solving real-world problems

Activity Adding and Subtracting

Using place-value charts to add and subtract numbers is a useful skill for children, especially when dealing with greater numbers. Doing activities like the following with your child will help him or her master this skill.

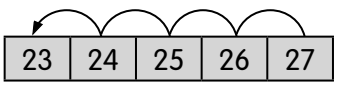
- Use the flash cards of numbers 0 to 9 from Chapter 1 or write the numbers 0 to 9 on index cards.
- Have your child pick any 4 cards and form two 2-digit numbers. Ensure the numbers do not add up to more than 40.

Tens	Ones
1	3
+ 1	8

Tens	Ones
1	8
– 1	3

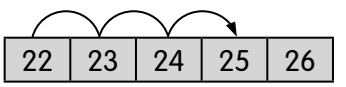
- Encourage your child to use place-value charts to add or subtract.
- Have your child add the two numbers.
- Next, have your child identify the number that is less and subtract it from the greater number.

Vocabulary to Practice



27 – 4 = 23

Count back from the greater number to find the answer.



22 + 3 = 25

Count on from the greater number to find the answer.

A **place-value chart** shows how many tens and ones there are in a number.

Tens	Ones
2	3

You **regroup** when you change 10 ones to 1 ten or 1 ten to 10 ones.

Math in Focus

SCHOOL to HOME Connections

Chapter 14 Mental Math Strategies

Dear Family,

In this chapter, your child will learn to add and subtract mentally using different strategies including:

- adding or subtracting ones
- adding or subtracting tens
- doubles facts
- doubles plus one facts
- recalling number bonds

Vocabulary to Practice

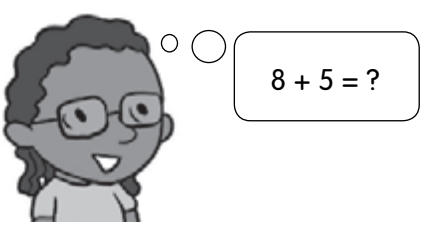
5 + 5 = 10
5 + 5 is a **doubles fact**.

7 + 6 = 6 + 6 + 1
= 12 + 1
= 13
7 + 6 is a **doubles plus 1 fact**.

Activity Mental Math Genius

Computing mentally is a key skill for your child to master. It has many real-life applications such as knowing how much change to expect from a cashier.

- You can give your child this quiz anytime you have a few minutes to spare or turn it into a game for the family to enjoy. For example, at the dinner table, ask each other addition sums of two 1-digit numbers or a 1-digit number and a 2-digit number. Each person should give the answer within 3 to 4 seconds.
- Ensure the numbers do not add up to more than 40.



Math in Focus

SCHOOL to HOME Connections

Chapter 15 Calendar and Time

Dear Family,

In this chapter, your child will learn to read calendars and clocks. Work in this chapter will include:

- reading a calendar and knowing the days of the week, and months and seasons of the year, and writing the date
- reading and showing time to the hour and half hour on a clock
- relating time to daily activities

Vocabulary to Practice

There are 7 **days** in one **week** and 12 **months** in one **year**.

Activity Remembering Birthdays

Reading a calendar helps your child understand the sequence of days in a week and months in a year. Thus, your child learns to relate the concept of day, week, and year to his or her daily life. Give your child a calendar and a marker.

- Write down the birth dates of all the family members on a sheet of paper.
- Help your child mark the dates on the calendar.
- Ask your child whose birthday is closest and in which season it falls. Ask what kind of clothes people wear during that season when they go outdoors.
- Now ask your child to describe what he or she would wish to do at different times on his or her birthday using the terms *o'clock* and *half past*. For example, your child may wish to go to the zoo at half past ten in the morning, and watch a movie at six o'clock in the evening. Your child may need to refer to a clock.

Math in Focus

SCHOOL to HOME Connections

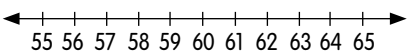
Chapter 16 Numbers to 100

Dear Family,

In this chapter, your child will study numbers to 100.
Some of the skills your child will practice are:

- counting on, reading, and writing up to 100 in numbers and words
- using a place-value chart and showing objects up to 100 as tens and ones
- using a strategy to compare and order numbers
- finding the missing numbers in a number pattern

Vocabulary to Practice

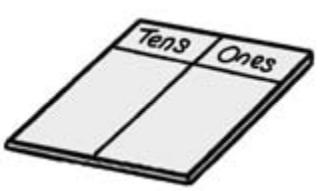


A **number line** is used to count and to compare numbers.

A **place-value chart** shows how many tens and ones there are in a number.

Activity Tens and Ones

Using the place value of digits to compare numbers is a basic math skill that helps children deal easily with greater numbers. This game will require them to form a strategy based on what they have learned about place value. Use flash cards 0 to 9 from Chapter 1 or write the numbers on index cards.
Make a place-value chart for each player like the one shown.
This game can be played by 2 or 3 family members.



- Each player takes turns drawing two cards from the deck.
- With each draw, a player decides whether to place the number on the card in the tens place or the ones place to form a 2-digit number closest to 100.
- The player forming the greatest number gets 5 points, the second greatest gets 3 points, and the third greatest gets 2 points.
- After 5 rounds, the player with the highest total wins the game.

Math in Focus

SCHOOL to HOME Connections

Chapter 17 Addition and Subtraction to 100

Dear Family,

In this chapter, your child will learn to add and subtract numbers within 100 in vertical form.

Vocabulary to Practice

A **place-value chart** shows how many tens and ones there are in a number.

Activity Adding and Subtracting

Before children start dealing with even bigger numbers, they must be comfortable adding and subtracting numbers in vertical form. Practice this skill with your child by doing the following activity.
On a sheet of paper, draw a grid as shown. Write `+´ or `–´ in the shaded box. Use the flash cards of numbers 0 to 9 from Chapter 1 or write the numbers 0 to 9 on index cards.

	Tens	Ones

- Have your child pick any four cards and form two 2-digit numbers. Ensure they add up to less than 100.
- Have him or her place two cards on the top row and two cards on the middle row.
- Ask your child to add or subtract the two numbers and write the answer in the bottom row. Your child should check to see that the greater number is on the top row before beginning to subtract.
- Check your child's answer. Practice with different numbers and with both `+´ and `–´ signs.

Math in Focus

SCHOOL to HOME Connections

Chapter 18 Multiplication and Division

Dear Family,

In this chapter, your child will be introduced to the concepts underlying multiplication and division.
Some of the skills your child will practice are:

- using objects or pictures to find the total number of items in groups of the same size
- using objects or pictures to find the number of items in each group when sharing equally

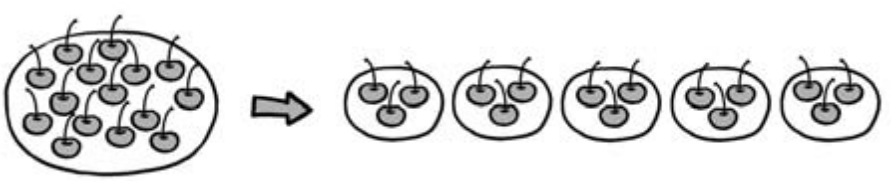
Vocabulary to Practice

There are 4 **groups**.
Each group has the **same** number of shoes.

Activity Sharing Equally

Before learning to multiply and divide numbers, children must understand the conceptual idea underlying these operations. Use simple activities around the house to help them grasp the idea of sharing objects equally. For example, prepare a number of cherries or strawberries (fewer than 20) which can be divided equally among the family at the dinner table with none left over.

- Have your child count the number of pieces of fruit.
- After dinner, tell your child the pieces of fruit are to be shared equally by everyone at the dinner table. Have your child distribute the fruit equally.
- Ask how many pieces of fruit each person gets after distributing equally.



5 people share 15 cherries equally. Each one gets 3 cherries.

Math in Focus

SCHOOL to HOME Connections

Chapter 19 Money

Dear Family,

In this chapter, your child will be introduced to the idea of counting and exchanging money.
Some of the skills your child will practice are:

- recognizing and naming pennies, nickels, dimes, and quarters
- skip-counting to find the value of a collection of coins
- using the `count on´ strategy to count money
- exchanging coins and buying things

Vocabulary to Practice

A **penny** has a value of 1¢.

A **nickel** has a value of 5¢.

A **dime** has a value of 10¢.

A **quarter** has a value of 25¢.

Activity Exchanging Coins

- Have your child start a collection of pennies. Add one penny each day.
- Help your child exchange coins whenever possible. For example, after 5 days, trade the 5 pennies for a nickel. After 5 more days, trade for another nickel, then exchange the 2 nickels for a dime.
- Count the total each day.

5 pennies = 1 nickel

2 nickels = 1 dime

SPACE SCIENCE & ROCKETRY PROGRAM

Introduction

In the Space Science & Rocketry program provides an opportunity for all students from grade 1 to 5 to learn about aerospace technology, scientific experiments, and space launches with a single aim to promote practical learning and effective application of theory by real world examples. This is exactly how we have designed our teaching module keeping in mind the curiosity, the subject of physics, the application and technical hobby in model rocketry. They will also learn about the history and the future of rockets as we know them here at ISRO, NASA, SpaceX, etc.

Engineering Design Process

The **Engineering Design Process(EDP)** is a series of steps engineers use to guide them in problem solving. Engineers must ask a question, imagine a solution, plan a design, create that model, experiment and test that model, then take time to improve the original all steps that are crucial to mission success. What makes this guide different from others is?

- There are no specific instructions or "recipes" for building the items;
- There are no given drawings. The emphasis is for students to understand that engineers must "imagine and plan" before they begin to build and experiment.

To successfully complete the **BEST (Beginning Engineering Science & Technology)** Activities, students must draw their ideas first before constructing.

Many of the activities have been adapted from others, and then aligned with the theme of efforts to return to the Moon with a focus on using the Engineering Design Process. Each activity features objectives, a list of materials, educator information, procedures, and student worksheets. When appropriate, the guide provides images, charts, and graphics for the activities. All activities are intended for students to work in teams.

Student success criteria:

- **ASK:** Students identify the problem, requirements that must be met, and constraints that must be considered.
- **IMAGINE:** Students brainstorm solutions and research ideas. They also identify what others have done.
- **PLAN:** Students choose two to three of the best ideas from their brainstormed list and sketch possible designs, ultimately choosing a single design to prototype.
- **CREATE:** Students build a working model, or prototype, that aligns with design requirements and that is within design constraints.
- **TEST:** Students evaluate the solution through testing; they collect and analyze data; they summarize strengths and weaknesses of their design that were revealed during testing.
- **IMPROVE**: Based on the results of their tests, students make improvements on their design. They also identify changes they will make and justify their revisions.

Implementation Process:

Student are given space to explores the basic physics, engineering, technology and mathematics around Rocket Ships. The unit plan was built with Boeing who are a leading manufacturer in aircrafts and work on rockets. Students work collaboratively to learn, design and build their own model rocket ships. The Aim of this project is to create a holistic, engaging project that develops students integrated knowledge and skills of multiple subjects and increase aspiration in Space Tech & Rocketry fields.

The project is completed in three stages:

1. Design Process
2. Launching
3. Landing

The design process focuses the structure, materials and methods used to build their very own model rocket ship. Their rocket ship designs need to incorporate how it can take off, space for a 'passenger' and consider its weight for landing. Students will produce blueprints using measurement and what materials they wish to use and a rationale for their reasonings. Once the blueprints are cleared the students will present their ideas to the class, allowing for students to refine and improve their designs. At the end of the process students are given time to build their rocket ships ready for the experiments.

Annual Curriculum Plan			
Module	**Unit**	**Learning Outcomes**	**Time Frame**
1	a) Introduction in Engineering	Students will be able to engineer an index card tower that will support a stuffed animal.	SEM – I
	b) Introduction to Technology Detectives	Students will be able to examine some technologies and brainstorm ways to improve them	
	c) Out of This World	Students will be able to introduced to rockets, Spaceships, rovers, and stomp rocket launchers	
	d) Paper Rockets ver 1.0	Students will be able to construct small flying rockets out of paper and propel them by blowing air through a straw.	
2	e) Boost Your Knowledge	Students will be able to test different variables that can affect the flight of a rocket. Each group will focus on one variable and share their findings.	SEM – II
	f) Countdown: Improve a Rocket	Students will be able to improve and complete their rockets or spaceship.	
	g) Engineering Showcase: Liftoff!	Students will be able to share their findings and offering advice to other groups, just as real engineers do, can be helpful. Engineers have to improve a design many times before it is complete.	

ANNUAL CURRICULUM OVERVIEW – ICT

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 provides students with easy-to-access information, accelerated learning, and fun opportunities to practice what they learn. It enables students to explore subjects and deepen their understanding of difficult concepts. Through the use of technology inside and outside the classroom, students can gain technical skills necessary for future occupations.

ICT skills: Word processing, Basic Programming, Animation, Internet and Presentation skills.

Learning Outcome:

Students will be able to:

- understand the basic parts and functioning of a computer system
- familiarize the keyboard
- understand the basic paint program for drawing
- learn their first programming language using Junior Scratch application
- type, edit, format in MS word
- create a simple presentation in MS PowerPoint

Application of Skills:

Project Based Learning is a unique approach for 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 creating documents, presentations and multimedia storyboard.

Module	Objective	Focus	Integration	Software Applications	Technical skills	Time Frame
PC	Students are introduced to the personal computer (PC). This introduction includes identifying computer parts, computer care, mouse skills, and input/output devices.	About computer Computer care Mouse terminology Formatting Devices Pointillism with pixels	Social Science, Language Art	MS Paint	Graphics	Sem 1
Building Blocks	Students are introduced to block-based coding to create their interactive stories & Animations using Junior Scratch	Introduction of Scratch Backgrounds Types of Blocks Decision making Loops Animation	Social Science, Art	Junior Scratch	Graphic Block based	
Typist	Students will publish their work with colorful templates. They learn the essential word processing skills that allow them to type, edit and illustrate. The focus is on the position and function of keys on the keyboard and ensure that students will develop their typing skills.	Keyboard skills Word processing Working in word Formatting Picture insertion	Science, Language	MS Office Word	Word Processing	Sem 2
Slide Master	Students will create a multimedia report. They will create slides that illustrate the facts. The presentation includes graphics, text, transitions that combine to make an amazing report. Students will be introduced to the basics of internet and its uses.	About PowerPoint Slide creation Design Picture insertion Formatting Transition and Slideshow What is internet?	Science	MS Office PowerPoint Web Browser	Presentation	

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- PSPE		
Discipline	Game	Basic Skills
Physical Education	Cycling	Starting
		Stopping
		Riding
		Looking
	Swimming	Bobbing
		Leg beat holding the wall
		Leg beat without holding the wall
		Floating
	Track and Field	Sprint
		Hurdles
		Relay
	Soccer	Ball control (Controlling the ball at speed)
		Dribbling (drills, basic dribbling, intermediate moves and advanced)
		Passing
		Throw-in

ANNUAL CURRICULUM OVERVIEW - PERFORMING ARTS				
Discipline	Music	Classical dance		Western dance
		Practical	Theory	
Performing Arts	• Music • Indroduction to music -Aathara Sruthi • Basic Swaras • Types of songs • Knowledge about lyrics • Pronunciation, meaning and expression of song • Tempos and pitches • Voice modulation	• Body postures • Namaskaram • Thattadavu • Nattadavu &Basic Postures	• Mudhras • Asamyuta Hasthas & Meaning	• Basic warm up • Basic footworks • Combination of basic movements • 4 & 8 count movements • Body language and face expression

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.

Drama perspective

Drama includes the development of creative skills, verbal and non-verbal expression, an awareness of the perspectives of others, and aesthetic appreciation. Drama enables all students to communicate in powerful ways that go beyond their spoken language ability. Through drama, students can begin to construct an understanding of their community, their environment and their own feelings and emotions. They will also have opportunities to work cooperatively to put together a performance and to experience situations from different viewpoints. Indian drama has rich variety of various forms. With TIPSC, students explore elements of drama as the very part of their unit of inquiry.

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.

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