# THE LEARNING LAB



# CORE PROGRAMMES

Primary 5 and 6

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To sign up for our Primary Core Programmes: Please email enrollment@thelearninglab.com.sg or contact our service hotline at 6733 8711

# Dear Parent,

Over the past 20 years, our goal at The Learning Lab has always been to nurture the love of learning through an encouraging and engaging learning environment.

We are here to lend our support and guidance at every stage of your child's development in school, and to help your child acquire the knowledge, skills and dispositions needed to overcome challenges they face both in school and in life.

With the ever-evolving education landscape, we continuously strive to make advancements to our programmes to better prepare your child for his or her life ahead.

With dedicated teams of curriculum experts and highly trained teachers, we help your child build a strong foundation in literacy and numeracy, in writing and in communicating, and in strategic thinking and problem-solving. We are also committed to helping your child develop positive learning attitudes and habits.

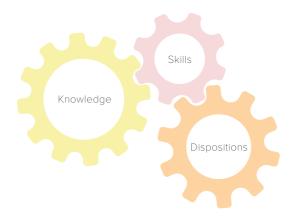
As you explore this programme booklet, discover the wide range of learning opportunities available to your child. Experience the breadth and depth of a curriculum that does not just prepare your child for the classroom but also demonstrates how what is learnt is so intertwined with the world he or she lives in today.

We look forward to being part of your child's learning journey.

Welcome to The Learning Lab.

# A Teaching and Learning Model that Puts Your Child First

Your child's rich and meaningful learning journey begins with us. In our classrooms, we create learning experiences that empower and motivate him or her. We believe that your child should be equipped with the right knowledge, skills and dispositions to be ready to learn and to be ready for school.



# Knowledge

Your child will attain the necessary skills at each stage of his or her learning journey. Whether your child is getting ready to learn well or getting ready for school, we help him or her achieve each milestone with confidence and joy. We also ensure that your child learns about the people, places and events that will further stimulate his or her intellectual curiosity.



# Skills

Your child will learn skills that are related to day-to-day learning and to formal learning. In class, teachers help your child hone specific skills to tackle each academic component or topic. A strong focus on communication skills and reflection means that your child will become a more confident, engaged and articulate thinker and learner who strives for improvement.

# Dispositions

Your child's education at TLL is about nurturing his or her whole person. Our programmes recognise the importance of helping your child develop positive attitudes, habits and mindsets towards learning as a journey. He or she will develop self-awareness and a growth mindset — always planning for the next stage of success and progress.

# Our Curriculum

We have a team of over 50 dedicated curriculum specialists continually researching, crafting and updating our weekly lesson materials. At The Learning Lab, we understand that lesson materials must engage the learner and be relevant to learning outcomes in order to meet students' learning needs.

# This is why our curriculum is designed based on the following principles:

- relevant to every student
- cultivates the curiosity to learn
- · develops the 'whole' student
- balances learning and exam needs with life skills
- current and research-informed





Our materials are prepared with your child's best interests in mind. These five design principles set the stage for meaningful learning in the classroom so that your child can make clear and significant connections between what goes on in class and what he or she sees in day-to-day life.

# Themes and Topics that Engage Your Child

Across all subjects and levels, we ensure that your child learns about the issues, themes, topics and concepts that are relevant to life and prepare your child for formal assessments. Whether the lesson is about cities of the world, interesting occupations or about the world's most interesting volcanoes, one thing remains the same — our belief that contextualised learning makes your child's lessons come alive.

# Enabling Your Child for Success

Helping your child to find success in learning stems from giving him or her the confidence to enjoy the learning journey and to face challenges with the right skills and attitudes.



# Grow What You Know

Gaining the Exposure to Knowledge Beyond the Classroom

Learning is not only about getting your child school and exam-ready but it is also about preparing for what lies beyond the classroom.

Our curriculum has the breadth and depth to help your child achieve this — with comprehensive lesson materials such as notes, practice papers and interactive games that strengthen areas requiring attention while exposing them to real-world contexts.



# Show What You Know

Unlocking the Key to Deep Learning

When your child is aware of their thought processes, he or she is able to refine their thinking and problem-solving skills to overcome problems in class or in life.

By equipping your child with a wide range of problem-solving strategies and techniques, he or she learns how to analyse questions, understand the success criteria and know which methods to use to solve the different problems they will be dealt with.



# Present What You Know

Applying the Knowledge Learnt

We see our students go from strength to strength in the subjects they undertake as they master answering techniques that allow them to address questions accurately. Using the right phrasings and terminologies, they learn how to craft the most precise and coherent answers.

These techniques are reinforced and practised throughout each year so that your child may grow in confidence and realise his or her personal bests, again and again.

Our Primary 5 and Primary 6 programmes focus on preparing students for success in their PSLE. We do this through a structured and systematic approach that strengthens skills and knowledge of techniques in reading comprehension, writing, grammar, vocabulary and oral communication.

As part of our exam-ready modules, we help students understand and apply the success criteria necessary to excel at each PSLE exam component. Students develop their ability to analyse questions, craft precise answers and learn from their mistakes.

Our programmes include helping students build an awareness of their own strengths and weaknesses and teaches strategies to help students with exam-readiness.

# Primary 5 and 6 Curriculum

In Primary 5 and Primary 6, our reading comprehension lessons help students refine their reading comprehension skills and develop critical reading skills to identify character traits and motivations as well as to phrase their answers accurately to address examination requirements.

Both situational and continuous writing components are addressed as students learn to expertly craft compositions that suit a variety of purposes, audiences and contexts.

Students also learn how to develop narratives with compelling plots, incorporate grammatical devices as well as use a range of literary techniques such as flashback and characterisation

# Writing

- Excel in writing skills through:
  - use of TLL's writing framework to understand the different elements that contribute to writing success
  - frequent continuous writing practices which focus on learning of grammatical devices and complex literary techniques, characterisation and development of relevant, coherent plots
- analysis of scaffolded responses to learn from models of good writing, evaluating errors and making edits for improvement
- Situational writing exercises for real-life purposes and contexts like reports, emails and letters

### Reading

- Excel in writing skills through:
  - the RISE framework which teaches reading comprehension as: Reading = Interpreting + Sourcing Clues + Expression of Answers.

The skills taught through this framework develops students' critical reading skills to:

- i) identify character traits and motivations
- ii) phrase their answers accurately to address examination requirements.
- iii) analyse questions
- iv) develop inferential skills for understanding concepts, themes, suggested meaning
- v) demonstrate logical reasoning

- Develop an interest in reading through:
  - access to a curated book collection including genres like Fantasy, Mystery and Classics
  - exposure to extracts and passages with excellent models of writing and storytelling
  - annual recommended reading list to appeal to advanced readers

#### Oral Communication

- Develop public speaking skills and experience through:
  - individual presentation lessons and debates with the teacher's guidance
  - teacher and peer evaluation
- Develop oral communication skills through:
  - oral conversation practices with individualised teacher feedback

#### Grammar

- · Consolidate grammar through:
  - instructional modules with clear explanations and examples on intermediate grammar concepts (infinitives and gerunds, active and passive voice, perfect tenses, phrasal verbs)
  - intensive revision practices to reinforce grammar and synthesis and transformation concepts
  - integrated grammar instruction with writing lessons to master sentence construction (introductory phrases, short sentences for impact)

### Vocabulary

- Build up an extensive vocabulary through:
  - exposure to curated reading material and licensed content from premier news sites and world-renowned publications
- Gain an exposure to linguistics through:
  - an introduction to homonyms, prefixes and suffixes

Key features of our Primary 5 and 6 English programmes

# Exposure: Grow What You Know



#### Specially Curated Materials

- Passages crafted from world-renowned journalistic publications such as New York Times, National Geographic, Washington Post, The Atlantic
- Comprehensive in-house developed guided notes with specific skills and steps for key examinable language components



### Active Learning

- Questioning techniques to help students engage in and explore topics
- Interactive games and quizzes that help students check on understanding and reinforce learning



# **Applied Learning**

- Introduction of exciting topics to students, like developments around the world (Tech and Science, Inspirational Youth etc.) so that they are more engaged and are able to develop content knowledge
- Creation of wide range of questions, following National Examination formats

# Analysis and Strategy: Show What You Know



# Question Analysis Skills

- Methods to systematically analyse and annotate question requirements
- Analysis of visual texts to answer comprehension questions



### Memory Techniques

 Mnemonics to recall steps and skills taught, like SETS — Subject + Evidence + Tense + Structure for Reading Comprehension answers



### **Problem-Solving Strategies**

- Teaching of brainstorming techniques to select and develop unique and engaging storylines
- Posing of questions on current topics to address real world problems to better understand Reading Comprehension passages and Oral topics

# Answering Technique: Present What You Know



### **Answering Techniques**

 Detailed scaffolded, sample answers that are analysed to help students with precision and clarity of answers



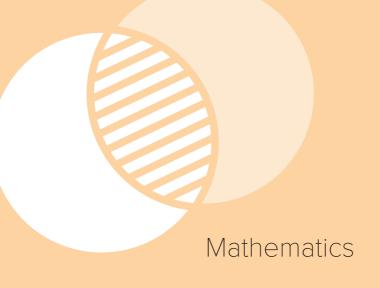
#### Reflective Learning

- Error analysis of answers to reinforce expectations of good answers
- Feedback and discussion on common mistakes so that similar pitfalls can be identified and avoided



#### Exam Excellence

- Formative assessment through low-stakes testing using topical tests to provide ongoing feedback
- Practice tests simulate exam conditions to prepare for examinations





Our Primary 5 and 6 programmes prepare students to achieve PSLE success. To help our students revise effectively, we provide comprehensive notes, concept maps and regular practice papers. Our curriculum materials keep up with prevailing PSLE trends to ensure that students are ready for the more current question types.

A key feature of our programmes is the explicit teaching of heuristics in problem-solving. Rather than teach the mechanical application of formulae, our programme emphasises deep conceptual understanding so that students are able to identify concepts, select and apply the correct methods to successfully solve all types of questions, including non-routine and higher-order-thinking ones.

Another key focus is on developing strong exam performance techniques. Students are taught to adeptly analyse questions so as to optimise the methods they choose to maximise time and effort in the examination. Error analysis exercises and checking techniques are covered as well.





# Primary 5 Curriculum

In Primary 5, students will learn new concepts in topics such as area of triangles, ratio, volume, rates, average and percentage. Additionally, they will learn and apply heuristics such as making a table, working backwards, forming equations, branching and unitary method to solve problems effectively. Students will also use calculators to solve word problems in Paper 2. They will hone examination skills such as error analysis and time management through practice tests.

# Whole Numbers up to 10 000 000

#### Mastering:

- Number notation and place values
- · Rounding off numbers
- Factors and multiples
- · Order of operations
- Prime factorisation and index notation\*
- Divisibility rules\*
- Word problems

#### Fractions

### Mastering:

- Four operations of mixed numbers and improper fractions
- Simplifying nested fractions\*
- Word problems

# Area of Triangles

- Identifying base and height of a triangle
- Proportionality of area and height of triangles with the same base
- Proportionality of area and base of triangles with the same height

#### Ratio

#### Mastering:

- Ratio of two or more quantities
- Equivalent ratios
- Word problems

#### Measurements

 Converting measurement (length, mass and volume) in compound units to the smaller unit and vice versa

#### Decimals

### Mastering:

- Four operations of decimals
- Recurring decimals\*
- Word problems

#### Area and Perimeter

#### Mastering:

- Overlapping areas
- Folded and enclosed areas.
- Area and perimeter of composite figures

#### **Average**

#### Mastering:

- · Average of given data set
- Finding unknown quantity given average
- Change in average

#### Volume and Surface Area

#### Mastering:

- Volume of cubes and cuboids.
- Surface area of cubes and cuboids
- Fitting cubes and cuboids in a container
- Finding volume in containers with holes, submerged objects and conjoined parts

#### Rates

- Constant rates
- Combined rates
- Multiple rates

#### Percentage

#### Mastering:

- Conversion between fractions, decimals and percentages
- Expression of one quantity as a percentage of another
- Finding percentage increase or decrease
- Word problems involving percentage, discount, tax and interest

#### Geometry

#### Mastering:

- Vertically-opposite angles, interior angles, corresponding angles and alternate angles
- Angle properties of triangles
- Angle properties of quadrilaterals (including trapeziums, parallelograms, rectangles, rhombuses, squares and kites)
- Geometrical construction of triangles and four-sided figures
- Geometrical properties of polygons\*

#### Tables and Graphs

#### Mastering:

- Reading and interpreting tables, bar graphs and line graphs
- Word problems

#### Number Patterns

#### Mastering:

- Gauss summation
- Triangular patterns
- Inference from diagrams
- Method of finite differences\*
- Introduction to Pascal's triangle, Fibonacci sequence and factorials\*

# Solid Figures\*

# Mastering:

- Views of a solid
- Nets

# Investigative Problem Solving\*

- Application-based questions
- Logical-reasoning questions

# Primary 6 Curriculum

In Primary 6, students will complete the PSLE syllabus including learning new topics such as algebra, circles, speed and pie charts.

Students will master key heuristics such as unitary method, units and parts and comparing difference to solve questions more efficiently.

Throughout the year, there will be a strong emphasis on exam preparation leading up to PSLE. Students will work through topical revision with noteworthy past PSLE questions and comprehensive concept maps. Additionally, examination techniques such as error analysis and answer checking will be reinforced.

### Algebra

#### Mastering:

- Simplifying algebraic expressions
- Evaluating simple algebraic expressions by substitution
- Word problems

#### Speed

#### Mastering:

- Relationship between distance, time and speed
- Word problems involving speed, average speed, 'meetup' and 'catch-up' concepts

#### Circles

#### Mastering:

- Area and circumference of circles
- Area and perimeter of semicircles and quarter circles

#### Area and Perimeter

- Overlapping areas
- Folded and enclosed areas
- Area and perimeter of composite figures involving squares, rectangles, triangles, semicircles and quarter circles

#### Solid Figures

#### Mastering:

- Two-dimensional representation of cubes, cuboids, cones, cylinders, prisms and pyramids
- Nets of cubes, cuboids, prisms and pyramids

#### Pie Charts

#### Mastering:

- Reading and interpreting pie charts
- Word problems

#### Rates

## Mastering:

- Direct proporti on
- Inverse proportion

# Whole Numbers (Revision)

# Mastering:

- Number notation and place values
- Rounding off numbers
- Factors and multiples
- Order of operations
- Word problems

#### Fractions (Revision)

#### Mastering:

- Four operations of mixed numbers and improper fractions
- · Word problems

#### Decimals (Revision)

#### Mastering:

- · Four operations of decimals
- Word problems

#### Percentage (Revision)

#### Mastering:

- Conversion between fractions, decimals and percentages
- Expression of one quantity as a percentage of another
- Finding percentage increase or decrease
- Word problems involving percentage, discount, tax and interest

# Ratio (Revision)

- Ratio of two or more quantities
- Equivalent ratios
- Word problems

#### Average (Revision)

#### Mastering:

- · Average of given data set
- Finding unknown quantity given average
- · Change in average

### Number Patterns (Revision)

#### Mastering:

- Gauss summation
- · Linear patterns
- Triangular patterns
- · Square patterns
- Inference from diagrams

#### Geometry (Revision)

#### Mastering:

- Vertically-opposite angles, interior angles, corresponding angles and alternate angle
- Angle properties of triangles
- Angle properties of quadrilaterals (including trapeziums, parallelograms, rectangles, rhombuses, squares and kites)
- Geometrical construction of triangles and four-sided figures

# Volume and Surface Area (Revision)

- Volume of cubes and cuboids
- Surface area of cubes and cuboids
- Fitting cubes and cuboids in a container
- Finding volume in containers with holes, submerged objects and conjoined parts

Key features of our Primary 5 and 6 Maths programmes

# Exposure: Grow What You Know



## 100% TLL Developed Materials

- Developed in-house, our weekly worksheets contain essential notes and examples to explain key concepts and show how to solve different question types
- Concept maps are provided for consolidation of key concepts and questions types to revise for the Prelim and PSLF



#### **Exam Training**

- Exam techniques
   handouts contain useful
   exam and study tips to
   tackle the different
   PSLE components and
   learn about anxiety
   management
- Regular practice tests are conducted to simulate exam conditions such as time management



# **Applied Learning**

 Exposure to questions in real-world context to equip students with the skills to handle the higher-order thinking/ non-routine questions in the PSLE

# Analysis and Strategy: Show What You Know



### Question Analysis Skills

 Learn to spot key information and identify problem types



### **Memory Techniques**

 Learn to use fun mnemonics and stories to better remember rules and concepts



# **Problem-Solving Strategies**

 Develop mastery of strategies for optimal problem-solving under time constraints

# Answering Technique: Present What You Know



#### Success Criteria

 Develop answer precision by identifying key marking criteria and common pitfalls



### **Checking Techniques**

 Learn systematic checking techniques to check for errors and learn how to correct them



In Primary 5 and Primary 6, the focus shifts to the integration of knowledge with performance skills for PSLE success.

Our curriculum is designed to expose students to new topics in an engaging manner while placing emphasis on how concepts apply to the world around them. Comprehensive topical notes and a wide range of practice questions equip students with a firm knowledge foundation.

Beyond developing a good grasp of concepts, students also focus on honing question analysis skills, giving them the flexibility to draw links between familiar concepts and unfamiliar situations. The use of structured answering techniques works synergistically with the other areas of knowledge and skills to allow students to craft comprehensive answers confidently.

# Primary 5 and 6 Curriculum

#### Primary 5 Curriculum

Primary 5 students will learn new topics such as water and changes of state, reproduction, cells and electrical system and deepen their understanding of concepts through experiment videos and virtual experiments.

During the year, students have regular revision of topics with greater exposure to questions involving experimental skills and the application of Science concepts. They will also practise common experiment-based questions and learn how to use appropriate Science keywords in context when answering specific questions.

# Primary 6 Curriculum

In Primary 6, students will learn new topics such as forces, sources and forms of energy, and environment and practise applying critical answering techniques to provide complete answers. To prepare for the PSLE, students will systematically revise all topics from Primary 3 to Primary 6.

During this crucial exam year, students will hone their exam techniques with multiple mock examinations that allow them to receive feedback and to gain a firm understanding of exam requirements.

### Systems

### Air and Living Things

#### Plant Transport System

 Parts and functions of plant transport system

# Respiratory System

- Parts and functions of respiratory system
- · Inhalation and exhalation
- Effects of exercising on breathing rate
- Human respiratory system and fish respiratory system

# Circulatory System

- Parts and functions of circulatory system
- · Flow of blood
- Effects of exercising on heart rate
- Human circulatory system and fish circulatory system

#### Cells

- Parts and functions of plant and animal cells
- Different types of cells
- Unicellular organisms

# **Electrical System**

- Electrical conductors and insulators
- · Electric circuit
- · Circuit card
- Arrangement of electrical components
- Electromagnet
- · Safety precautions
- Conservation of electricity

## Cycles

### Water and Changes of State

- Changes of state
- Melting
- Boiling
- Evaporation
- Freezing
- Condensation
- · Water cycle

#### Water Uses and Conservation

- Methods of water conservation
- Types of water pollution

### Reproduction and Heredity

- Parts and functions of human female reproductive system
- Parts and functions of human male reproductive system
- Fertilisation
- Heredity
- · Family tree

#### Reproduction in Plants

- Parts and functions of a flower
- Pollination
- Fertilisation
- Seed dispersal

# Energy

# Sources and Forms of Energy

- Sources of energy
- Forms of energy
- Energy conversion and transfer

# Energy and the Sun

- Process of photosynthesis
- Factors affecting photosynthesis

#### Interactions

#### Forces

- · Types of forces
- Effects of forces

#### Environment

- Non-living factors of the environment
- Living factors of the environment
- Organisation in an environment
- Habitats and their communities

#### **Environmental Interactions**

- Food chains and food webs.
- Transfer of energy in a food chain

- Effect of changes in population size on a food web
- Relationships between organisms in a food web
- Decomposition

### Adapting to the Environment

- Adaptations for surviving in various environments
- · Adaptations for obtaining food
- Adaptations for avoiding predators

### People and the Environment

- Depletion of natural resources
- Pollution
- Deforestation, soil erosion and greenhouse effect

# Revision of Lower Block Topics

- Diversity
- Life cycles of animals
- · Life cycles of plants
- Matter
- Magnets

- Human body systems
- Plant system
- Light
- Heat

Key features of our Primary 5 and 6 Science programmes

# Exposure: Grow What You Know



# Specially curated materials

- Comprehensive notes to introduce key concepts, common experiments and common graphs
- Tutorials provide exposure to a wide range of questions, including commonly tested types such as experimentbased questions and application questions



# Engaging delivery methods

- Virtual experiments, experiment videos and hands-on experiments are carried out to aid in visualisation of abstract concepts
- Interactive games and activities help to consolidate learning and check on understanding



# **Applied Learning**

- Application questions to provide exposure to realworld situations and develop an understanding of how science concepts are applied
- Handouts which go beyond the curriculum to introduce cutting-edge scientific news and how they relate to concepts learned in school
- A spiral approach to learning to constantly build upon knowledge by applying previously-learnt scientific concepts in increasingly complex questions

# Analysis and Strategy: Show What You Know



#### Question analysis

- Introduction to techniques to analyse questions systematically:
  - Study and highlight keywords on the question
  - Observe diagrams, analyse data and compare experiment set-ups
  - Identify topics and concepts tested
  - Jot down relevant keywords needed



#### Memory Techniques

 Fun mnemonics are used to facilitate easy recall of key science concepts



### Problem-solving

- Questions that highlight concepts in action in various real-life scenarios to build flexibility in applying concepts to unfamiliar situations
- Experiment-focused handouts stimulate critical thinking about how to design a fair experiment to achieve an aim

# Answering Technique: Present What You Know



## Answering technique

 Introduction to various techniques, such as the 'information – concept – conclusion' technique, to provide a complete and concise answer in a structured manner



## Metacognition

- Handouts focus on question analysis and experiment analysis to refine thinking processes and analytical skills
- Error analysis handouts introduce common mistakes so that similar pitfalls can be identified and avoided



#### Exam excellence

- Formative assessment through low-stakes testing using topical tests to provide ongoing feedback
- Practice tests simulate exam conditions to prepare for examinations

To sign up for our Primary Core Programmes: Please email enrollment@thelearninglab.com.sg or contact our service hotline at 6733 8711

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