THE LEARNING LAB



CORE PROGRAMMES

Primary 3 and 4

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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.

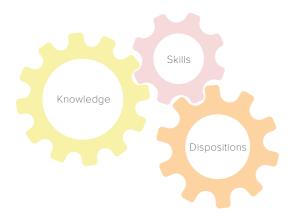
As you explore this programme booklet, discover the wide range of learning opportunities available to your child. Experience the breadth and depth of a curriculum that does not just prepare your child for the classroom but also demonstrates how what is learnt is so intertwined with the world he or she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

At Primary 3 and 4, our programmes focus on consolidating students' knowledge and skills in reading comprehension, writing and oral communication. These programmes aim to help prepare students for the PSLE through a sound grounding in the various language components and an awareness of exam success criteria.

Students are introduced to materials across a wide range of themes, enabling them to discuss issues, articulate thoughts, build social awareness and develop a curiosity to learn. They also develop positive learning attitudes, including being self-aware of their strengths and weaknesses, learning to understand task requirements, managing their learning and reflecting on their mistakes.

Primary 3 and 4 Curriculum

Students hone their writing skills by learning to plan and construct narratives according to a story curve. They also learn to vary sentence structures using grammatical devices and literary techniques such as slow-motion description and simple characterisation.

Additionally, learners sharpen their reading comprehension skills by developing question analysis, clue sourcing and inferential skills.

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 brochures, letters and reviews

Reading Comprehension

- Develop critical thinking and comprehension skills through:
 - the RISE framework which teaches reading comprehension as Reading
 Interpreting + Sourcing clues + Expression of answers. 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
 - modules and practices which include in-class discussions of current affairs featured in reading passages and in media studies

- 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 with the teacher's guidance
 - teacher and peer evaluation
- Develop oral communication skills through:
 - oral conversation practices
 - individualised teacher feedback

Grammar

- Consolidate grammar foundation through:
 - explicit instructional modules on grammar concepts, synthesis and transformation
 - intensive revision practices for reinforcement
 - activate grammar writing in lessons to master sentence variation

Vocabulary

- Build an extensive vocabulary through:
 - exposure to curated reading materials and licensed content from premier journalism sites and world-renowned publications
 - developing a knowledge of meaning relations among words

Key features of our Primary 3 and 4 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

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



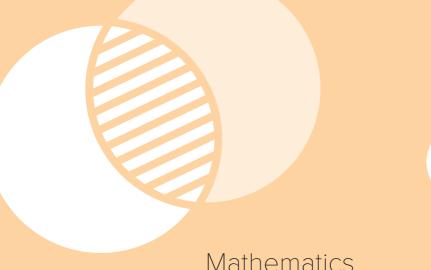
Reflective Learning

- 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 3 and 4 programmes focus on bridging the gap between lower primary and upper primary levels. Students will move from learning concepts through concrete manipulatives or pictorial aids to more abstract representations such as forming equations. Quizzes, games and real-world projects make the learning of Maths interactive, fun and real for our students.

A key feature of our programmes is the explicit teaching of heuristics in problem-solving. Rather than teach the mechanical application of formulae, our programmes emphasise 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.









Primary 3 Curriculum

In Primary 3, students will master new topics including area and perimeter, angles, parallel and perpendicular lines and bar graphs. Students will also hone their problem-solving skills by applying heuristics including advanced model drawing, making a supposition and forming equations. In addition, they will learn to use specific tools, including the set-square and a ruler to draw parallel and perpendicular lines.

Whole Numbers up to 10 000

Mastering:

- Number notation and place values
- Comparing and ordering numbers
- Forming numbers
- Number patterns

Addition and Subtraction

Mastering:

- Addition and subtraction within 10 000
- Mental addition and subtraction within 1 000
- Sum and difference
- · Word problems

Multiplication and Division

Mastering:

- Multiplication and division within the tables of 6, 7, 8 and 9
- Multiplication and division up to 3 digits by 1 digit
- Grouping and product
- Quotient and remainder
- · Word problems

Money

Mastering:

- Equivalent amount of money
- Converting an amount of money in decimal notation to cents and vice versa
- Adding and subtracting of money
- · Word problems

Fractions

Mastering:

- Notation and representations of fractions
- · Equivalent fractions
- Simplifying fractions
- Comparing and ordering fractions
- Addition and subtraction of fractions within one whole
- Word problems

Length

- Measuring and comparing length in compound units (km and m / m and cm)
- Estimating length of real-life objects (km, m and cm)

- Converting length in compound units to the smaller unit and vice versa (km and m / m and cm)
- · Solving word problems

Mass

- Measuring and comparing mass in compound units (kg and g)
- Estimating mass of real-life objects (kg and g)
- Converting mass in compound units to the smaller unit and vice versa (kg and g)
- Solving word problems

Volume

- Measuring and comparing volume of liquid in compound units (ml and l)
- Estimating volume of real-life objects (mf and f)
- Converting volume in compound units to the smaller unit and vice versa (ml and l)
- Solving word problems

Time

- Telling time using 'past' and 'to'
- Telling and comparing time in hours and minutes
- Converting time from hours and minutes to total number of minutes, and vice versa
- Finding the starting time, finishing time or duration given the other two quantities
- Solving word problems

Bar Graphs

- Reading and interpreting bar graphs
- Solving word problems

Geometry

Mastering:

- Right angles, acute angles and obtuse angles
- Parallel and perpendicular lines

Area and Perimeter

Mastering:

- Area and perimeter of squares, rectangles and composite figures
- Area involving transformation of shapes
- Area involving shaded parts

Primary 4 Curriculum

In Primary 4, students will master new topics such as decimals and symmetry. Students will also hone their problem-solving skills by applying heuristics including advanced model drawing, branching and unitary method. In addition, they will learn to use specific tools to measure and construct angles.

Whole Numbers up to 100 000

Mastering:

- Number notation and place values
- · Rounding off numbers
- Factors and multiples
- Prime numbers*
- Prime factorisation and factor tree*
- Order of operations*
- Word problems

Fractions

Mastering:

- Conversion between improper fractions and mixed numbers
- Addition and subtraction of improper fractions and mixed numbers
- Multiplication of fractions
- Word problems

Decimals

Mastering:

- Number notation and place values
- · Ordering decimals
- Conversion between decimals and fractions
- Addition and subtraction of decimals
- Multiplication and division of decimals
- Rounding off decimals
- Word problems

Area and Perimeter

Mastering:

- Area and perimeter of composite figures
- Area and perimeter involving borders, overlaps, optimisation and fractions

Patterns

Mastering:

- Grouping
- · Linear patterns
- Square patterns

Geometry

Mastering:

- Right angles, acute angles and obtuse angles
- Measuring and constructing angles using a protractor
- Angles in squares and rectangles
- Angles in triangles and quadrilaterals*
- Cardinal directions
- Parallel and perpendicular lines

Symmetry

- Identifying symmetric figures and lines of symmetry
- Completing symmetric figures

Tables and Graphs:

- Reading and interpreting tables, bar graphs and line graphs
- Solving word problems

Average*

Mastering:

- · Mean, median and mode
- · Change in average

Number Sequences*

- Recognising simple patterns from various number sequences
- Completing number sequences
- Triangular numbers, Pascal triangle, Fibonacci sequence and factorials

Tessellations*

- · Identifying unit shapes
- Drawing and completing tessellations

Key features of our Primary 3 and 4 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
- Exposure to a wide range of problem types including maths vocabulary/explanation and higher-order thinking problems
- Exposure to questions/ components of the GEP screening/selection test through GEP modules



Focus on Active Learning

- Students learn Maths through stories, interactive games and puzzles
- We use, where possible, Maths manipulatives so children form a deep understanding of basic Maths concepts



Applied Learning

 Exposure to real-world context and learning how to apply maths to solve problems through projects and infographics

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



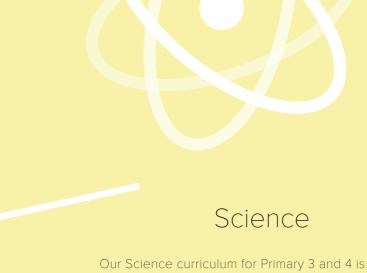
Success Criteria

 Develop answer precision by identifying key marking criteria and common pitfalls



Checking Techniques

 Learn systematic checking techniques to identify errors and learn how to correct them



Our Science curriculum for Primary 3 and 4 is designed to spark students' interest by introducing new topics in an engaging and fun manner, learning through experiment videos, virtual experiments, hands-on activities and interactive games. Real-world situations related to the topics are woven into the lessons for students to deepen their topical knowledge and develop an understanding of how science concepts are applied.

Comprehensive notes offer guidance to students for understanding concepts in real-world contexts, while tutorials allow students to apply their knowledge for various question types and promote critical thinking.

Beyond developing a strong foundation of science concepts, students also focus on applying strategies to analyse information given and identify important clues in questions. Students will also learn answering techniques to structure a complete and concise answer while avoiding common pitfalls.

Primary 3 and 4 Curriculum

Primary 3 Curriculum

In Primary 3, students will be introduced to a range of topics including diversity. They will learn about the key characteristics of animals, plants, fungi, bacteria, and materials, and identify the relevant properties of material through experiment videos and virtual experiments.

Students learn to substantiate answers by obtaining and using information that is presented in tables, flowcharts, classification charts and bar graphs. Topics such as life cycles, plant and human body systems, and magnets will also be covered in the Primary 3 curriculum.

Primary 4 Curriculum

In Primary 4, students master the abstract concepts of matter, light and heat, while observing the displacement of matter and identifying properties of light through experiment videos.

With guidance from our teachers, students learn to craft answers by identifying the relevant properties demonstrated in the experiment set-ups. Additionally, learners will revise topics such as diversity, life cycles, systems, and magnets.

Diversity

Classifying Things

· Classification methods

Classifying Living and Non-living Things

• Characteristics of living things

Classifying Plants

- Characteristics of plants
- Characteristics of plant parts

Classifying Animals

 Characteristics of mammals, birds, insects, fish, reptiles and amphibians

Classifying Fungi and Bacteria

- Characteristics of fungi
- · Uses and harmfulness of fungi
- Characteristics of bacteria
- Uses and harmfulness of bacteria

Classifying Materials

- Properties of materials
- Common materials

Systems

Human Body Systems

- Parts and functions of the circulatory, respiratory, muscular and skeletal systems
- Parts and functions of the digestive system

Plant System

• Parts and functions of plants

Interactions

Magnets

- Properties of magnets
- Comparing magnetic strength
 Losing magnetic strength
- Temporary magnets

Cycles

Life Cycles of Plants

- Stages in the life cycle of plants
- Parts and functions of seeds and seedlings
- Conditions for germination

Life Cycles of Animals

 Three-staged and four-staged life cycles

 Characteristics of stages in a life cycle

Matter

- Properties of matter
- States of matter and their properties
- Displacement of matter

Energy

Heat

- Sources of heat
- Transfer of heat
- Conduction of heat
- Effects of heat
- Heat energy

Light

- · Sources of light
- Properties of light
- Transmission of light
- Shadow formation
- Factors affecting shadows

Key features of our Primary 3 and 4 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

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