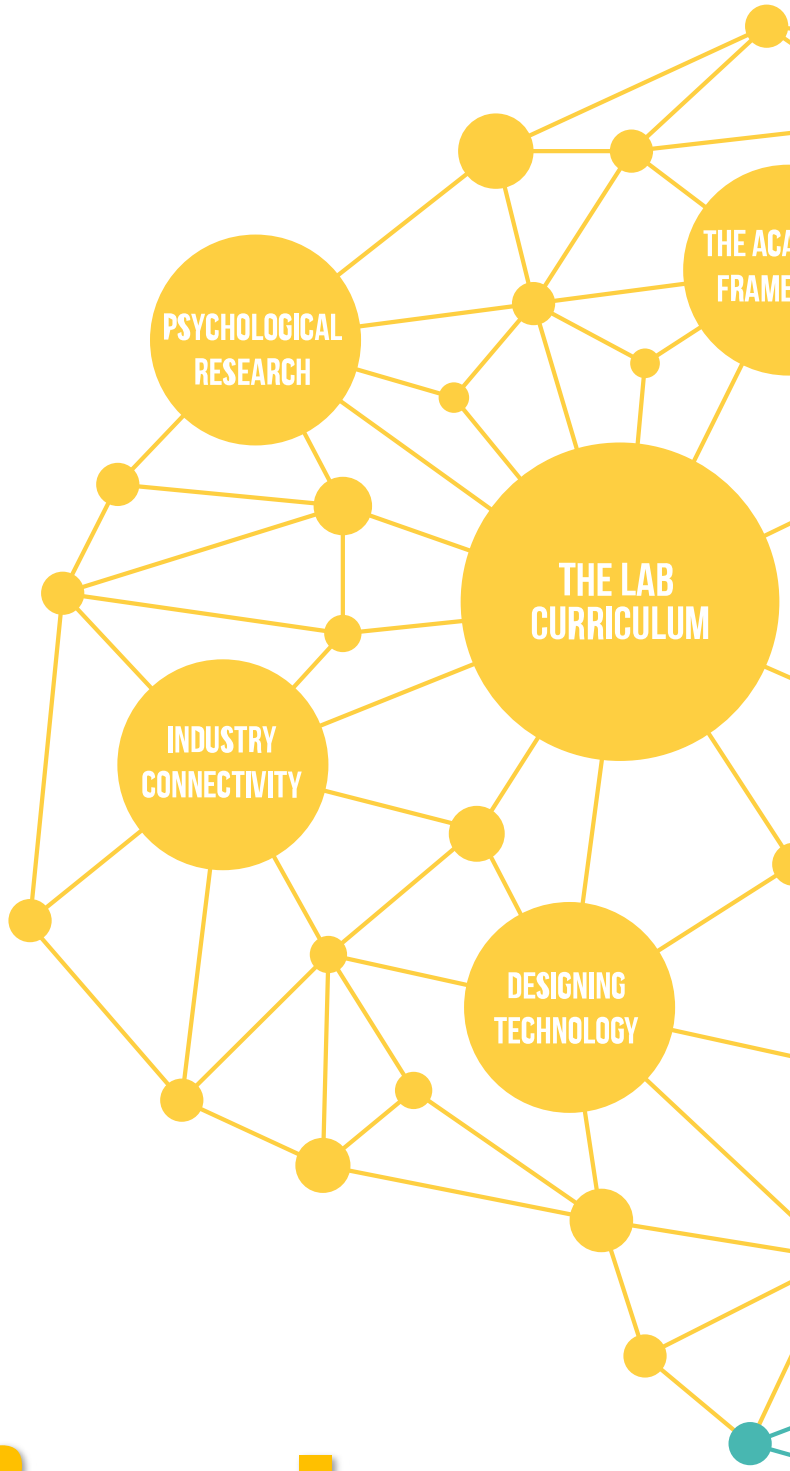

THE LAB
LEARNING WITHOUT BOUNDARIES

THE LAB INFANT

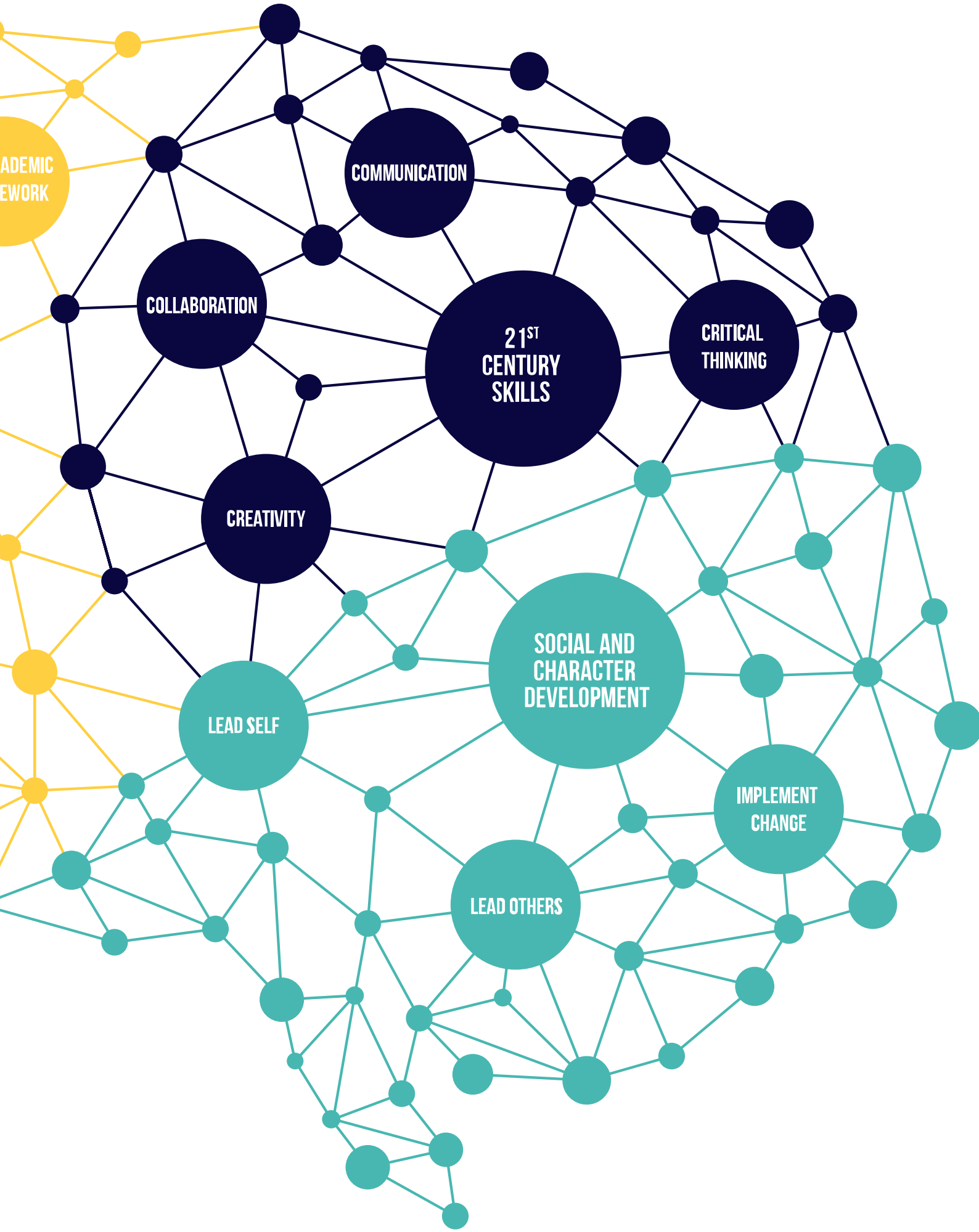
Early Childhood is a wonderful time to spark a kid's interest in Coding, Robotics, Engineering. Young children are curious about the world around them, and today that would include technology.

But how best to promote positive, creative and educational engagement with technology?

We got the answer for you.


PSYCHOLOGICAL RESEARCH
THE ACA FRAME
THE LAB CURRICULUM
INDUSTRY CONNECTIVITY
DESIGNING TECHNOLOGY

Curriculum


ADEMIC
EWORK
COMMUNICATION
COLLABORATION
21ST CENTURY SKILLS
CRITICAL THINKING
CREATIVITY
SOCIAL AND CHARACTER DEVELOPMENT
LEAD SELF
IMPLEMENT CHANGE
LEAD OTHERS

Senior Team

Dr. Oka Kurniawan
The Lab Curriculum Specialist

Dr. Oka is a Senior Lecturer for Singapore University of Technology and Design. His research areas include Computer Science Education.

Dr. Scarlett Mattoli
Child Psychologist Specialist

Dr. Scarlett is a Psychotherapist/Counsellor, Coaching Psychologist & Supervisor and Psychometrist, specialising in psychological and therapeutic support.

Dr. Collin Ang
Technology/Industry Specialist

Dr. Collin is the Managing Director of Decision Science and is a thought leader in the industry for digital transformation and analytics.

Students

Empowering through Computational Thinking

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For Ages 5 - 6

The curriculum is an introductory course to the world of technology and programming. The curriculum promotes Computational Thinking (Programming) and Engineering Design Process (Building) through play. It stresses cultivating the right habits in the use of technology to students at an early age.

The curriculum is also built upon the MOE Primary 1 Math syllabus, hence providing a sneak preview of your child's Primary 1 learning journey in a fun and interactive way.

Class-based structure	Fuses Coding with multiple disciplines
100 mins per week, across 10 weeks	Ratio 1:4

PROGRAM OUTLINE

TERM 1

Week	Topic	Math/Science Concept	Tech/Eng Concept
1	Primary and Secondary Colours	Identification of Primary Colours Sorting and Classification of Primary Colours with objects	LED Matrix Touch Senor Inputs and Outputs
2	Electric Circuits and Electrical Conductivity, Length 1	Electric Circuit Identification and Classification of objects with and without electrical conductivity Length	Manipulation of Snap Circuits Manipulation of LED Matrix through Coding Touch Sensor
3	Numbers to 10 and Introduction to Sequence	Numbers to 10	Sequence Gyro Sensor Buzzer
4	Ordinal Numbers (Positions to 6^{th})	Ordinal Numbers (Positions to 6^{th})	Manipulation of Motors LEGO Build and Code: Robot Car
5	Math Operators	Greater/Lesser Than	Conditionals LEGO Build and Code: Robot Wally
6	Moments	Moments – Clockwise and Anti-clockwise	LEGO Build and Code: Fishing Rod
7	Living Things	Additions within 10 Concept of clockwise and anti-clockwise	Gyro Sensor Servo Motor
8	Positive and Negative Numbers	Subtraction within 10 and Negative numbers	LEGO Build and Code: A Crocodile Jaw
9	Additions to 10 and Sequence	Numbers and Additions to 10	Sequence Manipulation of Motors LEGO Build and Code: Terminator
10	**Final Project**		

PROGRAM OUTLINE

TERM 2

Week	Topic	Math/Science Concept	Tech/Eng Concept
1	Animations	X Y axis	LED Display Animation
2	Fractions, Concept of Random and Money	Fractions and The Value of Money	Randomness Sequence LEGO Build and Code: A spinning wheel
3	Sequence and Angles	Understanding of Angles in Geometry	Sequence Code-A-Pillar
4	Subtraction within 10	Numbers and Subtraction within 10	Manipulation of Motors LEGO Build and Code: Robot Tank
5	Additions and Subtraction within 10	Concept of Symmetry Mechanism of a Balancing Beam	Strawbees
6	Sound	Concept of Sound	Buzzer Lego Build and Code: EV3 Brick
7	3D Visualization	Mapping 3D visualization	Sequence Code-A-Pillar
8	Introduction to Gearing and Moments	Simple Multiplications	Gearing Moments Krazy Gear
9	Introduction to Drone	Map Visualization Aerodynamics of a Drone	Drone
10	**Final Project**		

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PROGRAM OUTLINE

TERM 3

Week	Topic	Math/Science Concept	Tech/Eng Concept
1	Components of an Electric Circuit	Circuitry	Electricity
2	Sequencing with Mindstorms Programming	Music	Sequence
3	Moments with additions and graphs	Additions to 20 Graphs – X and Y axis	Moments with Mechanical Engineering
4	Exploring sensors with Mindstorms	Binary Greater/Less Than	Touch sensor Ultrasonic sensor
5	Gears and Sequence	Gearing	Sequence Lego Build and Code: Automatic Door
6	Concept of Time and 3D visualization	3D Concept of Time: Analog vs Digital	Sequence Time Lego Build and Code: Automatic Door
7	Mechanism of a Robot Hand	Robotic hand	Lego Build and Code: Grabber
8	Building structures with additions and subtraction to 20	Additions and subtraction to 20	Engineering – Stabilization of structures
9	Math Operators with Ultrasonic sensor	Math Operators	Ultrasonic Sensor Lego Build and Code: Robot Cat
10	**Final Project**		

PROGRAM OUTLINE

TERM 4

Week	Topic	Math/Science Concept	Tech/Eng Concept
1	Sequencing with Speed	Speed	Sequence Manipulator of motors
2	3D printing	3D visualization X, Y, Z axis	Mechanism of a 3D printing
3	Learning aerodynamics with Touch sensor	Aerodynamics	Touch sensor
4	Introduction to AR	Directions	Augmented Reality
5	Remote Controlled Devices		Infra-red Bluetooth Wifi
6	Concept of Light	Concept of Light Reflection/Refraction Light Intensity/luminosity	Lego Build and Code: Light sensor robot Light Intensity
7	Touch sensor with positive/negative numbers	Positive and Negative numbers	Touch sensor Loop Lego Build and Code: Robot car
8	Colour sensor with sound	Colours Concept of Sound	Engineering – Stabilization of structures
9	Introduction to VR		VR with Oculus
10	**Final Project**		

PROGRAM OUTLINE

FOUNDATION CLASS TO JUNIOR

Week	Topic	Learning Objectives
1	Laptop and Mouse	• Components of a computer • Using a mouse and keyboard of a laptop
2	Basic Programming Concepts	• Understanding of basic programming concepts • Programming concepts in Mindstorms
3	Symmetrical Structures Part 1	• Increase spatial reasoning skills through Lego pieces • Learn to build symmetrical structures
4	Symmetrical Structures Part 2	• Increase spatial reasoning skills through Lego pieces • Learn to build symmetrical structures
5	Basic Programming Concepts Part 1	• Solidify understanding of basic programming concepts
6	Basic Programming Concepts Part 2	• Solidify understanding of basic programming concepts
7	Spatial reasoning and Orientation skills	• Increase spatial reasoning and orientation skills through various activities
8	Problem Solving Skills	• Improve problem solving skills of students • Learn to break down problems into bite sized pieces • Learn to be efficient through problem solving
9	Self-directed Learning	• Increase their ability to ask effective questions • Develop their observational skills
Presentation		

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Membership Fees

Exclusive Access

Elective Workshops at members' prices

Merchandise at members' prices

Access to The Lab Library

Access to The Lab as a birthday venue provider

10 Classes	$600 ($60/class)
40 Classes	$2,080 ($52/class)

** Registration fee is $80 per student.

Lab Schedule

	Katong	Wisteria	Online
Monday	CLOSED	Infant: 3 pm Junior: 5 pm	CLOSED
Tuesday	Junior: 3 pm	Infant: 5 pm Junior: 3 pm	Junior: 5 pm
Wednesday	Infant: 3pm/5pm Junior: 5 pm	CLOSED	Junior: 3 pm
Thursday	Junior: 3 pm	Junior: 3 pm	Junior: 5 pm
Friday	Infant: 3pm/5pm Junior: 5 pm	Junior: 5 pm	Junior: 3 pm
Saturday	Infant: 10am/ 1pm/ 4pm Junior: 10am/1pm	Infant: 4 pm Junior: 10am/1pm	Junior: 1 pm Junior: 4 pm
Sunday	Infant: 10am/ 1pm/ 4pm Junior: 10am/1pm	Infant: 4 pm Junior: 10am/1pm	Junior: 1 pm Junior: 4 pm

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CONTACT US

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The Lab Operating Hours:

Tues to Fri 1 p.m. to 8 p.m.

Sat, Sun, Public and School Holidays 10 a.m. to 7.30 p.m.

Customer Service:

Mon to Fri 12 p.m. to 6 p.m.

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