Learn while having fun

avocado lab
math \& science
Holiday Workshops
Nov/Dec 2021

## Nov/Dec 2021 Onsite Programmes

| Workshop | For | Date/Time |
| :---: | :---: | :---: |
| GEP 2021 Crash Course | GEP Selection Round 2021 Candidates | 5, 12, 19 Nov Fridays $3-5$ pm <br> 6, 13, 20 Nov Saturdays 1-3pm |
| Maths for GEP 2022 (Math Olympiad) | P2/3 2022 | Run 1: 22 \& $23 \operatorname{Nov}$ (9-11am) <br> Run 2: 1 \& 2 Dec (9-11am) <br> Run 3: 6 \& 7 Dec (9-11am) |
| English for GEP 2022 | P2/3 2022 | Run 1: 24 \& $25 \operatorname{Nov}$ (9-11am) Run 2: 29 \& 30 Nov (9-11am) Run 3: 8 \& 9 Dec (9-11am) |
| Dash to Excellence (Math Olympiad) | P3+ | Run 1: 1 Dec - 3 Dec (2-4pm) <br> Run 2: 8 Dec - 10 Dec (2-4pm) |
| Gone Crazy (Math Olympiad) | P5+ | Run 1: 29 \& 30 Nov (12noon-2pm) Run 2: 6 \& 7 Dec (12noon-2pm) |
| Mega Cyborg Hand | P5+ | $24 \operatorname{Nov}(12-4 p m)$ |
| PSLE Math Problem Solving | P6 2022 | Run 1: 29 Nov- 3 Dec (9am-12 noon) Run 2: 13 Dec - 17 Dec (9am - 12 noon) |
| PSLE English Crash Course | P6 2022 | Dec 8 \& Dec 9 (11.15am - 1.45pm) |
| Power up for P4 Math | P4 2022 | Run 1: $8 \mathrm{Dec}-10 \mathrm{Dec}(9 \mathrm{am}-12$ noon) <br> Run 2: $15 \mathrm{Dec}-17 \operatorname{Dec}(9 \mathrm{am}-12$ noon) |
| Power up for P5 Math | P5 2022 | Run 1: $8 \mathrm{Dec}-10 \operatorname{Dec}(1 \mathrm{pm}-4 \mathrm{pm})$ Run 2: 15 Dec $-17 \operatorname{Dec}(1 \mathrm{pm}-4 \mathrm{pm})$ |
| Real World Economics with Zombie OutBreak! | P3+ | Run 1: 22 Nov 1-4pm <br> Run 2: 6 Dec 1-4pm <br> Run 3: 23 Dec 9am-12noon |
| Design thinking with Dirty Money | P3+ | Run 1: 23 Nov 1-4pm Run 2: 23 Dec 1-4pm |
| Do you want to play a Squid Game with Debtzilla | P4+ | Run 1: 29 Nov 1-4pm Run 2: 14 Dec 1-4pm |
| Design your own game with Combo Paradise Ice Cream | P1+ | Run 1: 2 Dec 1-4pm <br> Run 2: 6 Dec 9 am - 12 noon <br> Run 3: 14 Dec 9am - 12 noon |

We are a bright, clean and friendly centre for children to learn to stretch themselves to their highest potential while having fun.

Small, exclusive classes for the discerning


Very Small Class Sizes (max 8), parent-teachers, contacł your coach anytime, hoards of world-class resources, crazy class discussions, cool atmosphere

# GEP 2021 Crash Course 

5, 12, 19 Nov Fridays 3-5pm
6, 13, 20 Nov Saturdays 1-3pm
Price: $\$ 480 / 12$ hours (includes over $\$ 100$ of self-study materials)

We are offering a 12 -hour series of succinct and condensed lessons to help kids who are otherwise talented but have had limited exposure to Math Olympiads or specialised GEP preparation training.

## Do you need this?

The 12 hours will cover

- A quick recap of key Math and Math Olympiad concepts
- A comprehensive coverage of abstract and logical reasoning questions
- Lots of visualisation and 3D questions (many such questions in 2020)

V How to improve your vocabulary quickly

Deal with inference-type comprehension questions

- Exposure to common logic and math brainteasers

Both the student and parent will have to be prepared to spend at least 2 hours daily outside of lesson time leading up to the selection test. There will be both online and paper-based materials to go through.

## What's next?

Whether or not your child eventually gains admission into the GEP, we hope that the course have sparked your child's interest in higher-order maths. We will give you specific recommendations on how your child can chart a path towards excellence for DSA, PSLE and the Olympiads.

## About the Coach

The founder of Avocado Lab, Garry has extensive experience in helping children stretch their potential in Math Olympiads. A dad of 2 GEP kids, he has a strong track record of producing winners, with a track record of $>90 \%$ of all P3 students passing the GEP screening test and $>50 \%$ being selected eventually.

He delivers his lessons in a uniquely whimsical style, while dissecting the core concepts and strategies with surgical precision. This level of profound understanding is the key to genuine appreciation of mathematics, and gives his students the power to approach any problem with myriad solutions in the blink of an eye. Garry does not prescribe monotonous drilling and spoon feeding, as these kill the curiosity and the creativity your children innately possess.

## Maths for <br> GEP 2022

Run 1: 22 Nov (Monday) \& 23 Nov (Tuesday) 9-11am daily
Run 2: 1 Dec (Wednesday) \& 2 Dec (Thursday) 9-11am daily


Run 3: 6 Dec (Monday) \& 7 Dec (Tuesday) 9-11am daily
Pricing: $\$ 160 / 4$ hours

Is your P1/2 child showing potential in Mathematics and yearning to learn more outside of the syllabus? Or are you wondering how what type of questions appear in the GEP selection tests?

Prepare them for challenging questions that stretch their capabilities and boost their confidence! Many "difficult" questions can be solved by understanding simple insights that are not taught in schools.

We provide the tools and encourage creative application to uncover elegant solutions to these "difficult" questions. Your child will marvel at their own hidden talents and be motivated to keep improving their skills!

Students will also be exposed to basic Math Olympiad concepts such as calculation shortcuts, method of assumption, arithmetic progression, number parity, magic squares, counting of shapes and more.


## Are you ready?

This workshop is targeted at P3s 2022, but younger kids who are more advanced are also welcome.

If you are comfortable with the following, then you are ready for this course.

1) Understanding of the basic operations (Addition, Subtraction, Multiplication, Division)
2) Ability to add/subtract 2-digit mentally or by working
3) Mastery of the times tables up to 10 (more or less)

## Do you need this?

If you have prior training or exposure in lower primary Math Olympiads and can comfortably solve the following questions, then this class may only be a refresher for you.

1) What is the sum of all the numbers from 1 to 1000 ?
2) A train that is 180 meters long passes a stationary cow in 90 seconds. How long will it take it to cross a bridge that is 360 meters long?
3) Which is greater, the sum of all even numbers from 0 to 100 or the sum of all the odd numbers from 1 to 99 ? By how much?

## What's next?

If you find the workshop fun and interesting, you may be interested in our regular weekly Math Olympiad classes where students continue to explore lots of interesting concepts and applications.

High-ability P2s will be invited to join the dedicated P3 GEP Preparation class where they will be challenged to improve their thinking and logical skills.

# English For <br> GEP 2022 

Run 1: 24 Nov (Wednesday) \& 25 Nov (Thursday) 9-11am daily
Run 2: 29 Nov (Monday) \& 30 Nov (Tuesday) 9-11am daily


Run 3: 8 Dec (Monday) \& 9 Dec (Tuesday) 9-11am daily
Pricing: $\$ 160 / 4$ hours
Class Size: 4-6

Many highly talented children have failed to make it into the GEP programme due to their weaknesses in English. This December holidays, our GEP English workshop aims to promote in your child a love of the English language as they acquire a range of critical language skills which will benefit them in their education journey.

We hope that by the end of the course, our students would be also be armed with a range of skill sets required in the upper primary syllabus and beyond, giving them a competitive edge over their peers!

Topics covered will include

- Longer comprehension texts and questions
- More extensive upper primary vocabulary
- Higher-order cloze reading passages
- Knowledge of word classes (nouns, adjectives, etc)
- English R* Puzzles
- Pattern Manipulation Exercises
- Discussion of Current Affair topics
- Learning about Point of Views


## Are you ready?

Lessons for this workshop are fun, cheery, dynamic and not "drills" in nature. This workshop is targeted at P3s 2022, but younger kids who are more advanced are also welcome.

## Do you need this?

If your vocabulary level is at P6 level and you can handle inference-type comprehension questions with ease, then this workshop may only be a refresher for you.

## What's next?

If you find the workshop fun and interesting, you will be interested in our regular weekly Math Olympiad classes where students continue to explore lots of interesting concepts and applications. High-ability P2s will be invited to join the dedicated P3 GEP Preparation class where they will be challenged to improve their thinking and logical skills.

## About the coach

Teacher Faith graduated with a Bachelor Degree in Arts and a Diploma in Education and also holds a professional cert from the London Guildhall School of Drama.

She has been teaching Primary and Secondary school students for more than two decades and uses her own PAC approach in her fun-filled classes which focus on 3 major elements: Participation, Active Learning and Critical Thinking.

She also pursued her studies in the Orton-Gillingham Approach, a multisensory, direct and structured approach to help dyslexic learners.

She hopes her students will persevere and be inspired by Thomas Edison: "Our greatest weakness lies in giving up. The most certain way to succeed is always to try just one more time."

## Math Olympiad P3+

## Dash to



Run 1: 1 Dec - 3 Dec (2-4pm daily)
Run 2: 8 Dec -10 Dec (2-4pm daily)
Pricing: \$240/6 hours

Has your child already participated in some Math competitions or have some prior experience with Olympiad style Mathematics?

Help them prepare for the next stage with more advanced techniques! We will peg at the standard of the major local Math competitions, equipping students with the tools to tackle these seemingly impossible questions. We will also pepper the session with puzzles and discussions of famous Math questions to enhance their logical skills.

Fuel their passion for Math with wonderful insights and prepare them for peak performance at the upcoming Olympiads!

## Sample Question:

Seven discs numbered 1 thru 7 are placed in a bag. Two of the discs are removed at random. What is the likelihood that the numbers on the two discs add up to 9?


## Are you ready?

If you possess the following, then you are ready for this course.

1) Passion and interest to excel in primary school Math Olympiads
2) Working knowledge of fractions, decimals and percentage.
3) P4 competency level for school maths

## Do you need this?

If you had previously won awards at Math Olympiads and are comfortable with the below problems, then this class may only be a refresher for you.

1) Given that $600000=A \times B$, such that $A$ is an even number and $B$ is an odd number and neither of which has a digit equal to 0 . What is the largest possible value of $A$ ?
2) The six faces of a large cube are painted black. The cube is then cut into $n^{3}$ small cubes. How many of the cubes have two black faces? Give your answer in terms of $n$.
3) Gary flips a coin 16 times. Given that exactly 12 of the flips land heads, what is the probability that Garry never flips five heads in a row? Express your answer as a fraction.

## What's next?

This course is a concise introduction to some of the basic concepts often tested in primary school Math Olympiads.

Students who are intrigued and passionate about learning more are encouraged to join the regular classes where they will be extensively prepared to perform well in key competitions such as NMOS, RIPMWC, SMOPS and AMC8.

## Math Olympiad P5+

Gone Crazy

Run 1: 29 \& 30 Nov (12 noon - 2pm daily)
Run 2: 6 \& 7 Dec (12 noon - 2pm daily)
Pricing: \$160/4 hours


This December holidays, we are introducing a whole new series of non-standard problems of varying levels of difficulty. Solving these questions will require wit, thinking outside the box and a whole lot of ingenuity.

The workshop will be chock-full of deceptively simple looking questions that will drive you nuts when you try to solve them. Through a hint-driven process, along with ideas generated by your classmates, you will be guided into developing elegant solutions that will give you a euphoria and satisfaction that not many can think of.

Students will also be introduced to the idea of writing solutions in the form of proofs, coming up with generic functions/formulas.

## Sample Question:

The product of five numbers is not equal to zero.
Each of the numbers are decreased by one, but their product do not change.
Give an example of these numbers.

## Are you ready?

Unusually, this workshop does not require mastery of Math Olympiad concepts. Some familiarity and prior training or competition training will help, but even if you are completely new to the world of Math Olympiad, you are in luck. You are going to be thrown into a wild journey of mathematical inspiration that will leave you grasping for more.

For the experienced kids, these questions will prepare you for the special rounds of top competitions for primary and also secondary level.

## Do you need this?

We strongly believe that understanding these questions, or even just tackling these questions is a great way to develop mathematical insight. These are not NMOS/RIPMWC/SMOPS type questions; they are way more intriguing. (3)

## What's next?

We hope that this is a good break from the usual monotony of competition-style material and turn up or ignite your passion for math. If you have not already joined our exciting weekly adventures into Math, this will be a preview!

## About the Coach

The founder of Avocado Lab, Garry has extensive experience in helping children stretch their potential in Math Olympiads. A dad of 2 GEP Kids, he has a strong track record of producing winners, with $>90 \%$ of all P3 students passing the GEP screening test and $>50 \%$ being selected eventually.

He delivers his lessons in a uniquely whimsical style, whilst dissecting the core concepts and strategies with surgical precision. This level of profound understanding is the key to genuine appreciation of mathematics, and gives his students the power to approach any problem with myriad solutions, in the blink of an eye. Garry does not prescribe monotonous drilling and spoon feeding, as these kill the curiosity and the creativity your children innately possess.

## Y ACQ c!

This will surely be the coolest thing for the kids this holiday.
We are offering a Guided Assembly Session only on Wed 24 November from 12 noon - 4pm.
(More dates will be available once we can secure more kits)

As assembly and calibration of the hand is challenging, it will be a single 4-hour session.

Only 4 slots available at $\$ 130$
(Price includes the hand worth S\$100 and out-of-stock everywhere)



Every year, there are complaints that there are some overly-difficult PSLE questions.
The reality is that they are at most non-routine or Math Olympiad-type questions of average difficulty.
Come join this class and learn to tackle all these questions efficiently!

The Issue: After attempting the past year PSLE questions, most parents will agree that the material in the textbooks is perfect for learning the correct answering technique and introducing the basics of whole numbers, fractions, ratio and percentage. However, they do not teach how to identify and classify types of PSLE word problems, and are insufficient to prepare your child for PSLE word problems.

Unfortunately, these key techniques are inconsistently covered in the schools, due to many factors such as lack of time to pursue depth and breadth of topics.

## Do you need this?

Is your child struggling with math word problems?
Does your child know some basic methods but fail to apply them correctly to the question? Is your child confused by which method to use in the first place?

Is your child missing out on AL1 because of two difficult questions in the math paper?

This PSLE Problem Solving Bootcamp covers essential techniques required to solve Paper 2 word problems. Ms Ng has specially curated an ultimate toolbox of strategies and techniques to tackle even the trickiest questions in a systematic manner, and capture every single precious method mark. A short mnemonic allows students to summon their techniques menu quickly and effortlessly during the exam. Additionally, students learn how to spot keywords and unique characteristics of questions, so that they can confidently classify the problem and apply the appropriate technique almost reflexively.

An exquisite selection of villainous questions from past year top schools' preliminary papers are then presented for students to consolidate their learning, and flex their mighty toolkit muscles.

Going beyond exam prep, Ms Ng teaches from first principles. Understanding how each technique works allows students to adapt the technique as required, and apply it to infinite variations of the same type of word problem.

## Days 1-3: Problem Solving

Day 4: Area

## Day 5: Patterns

## Pre-requisite

The desire to perfect your word problem solving kung-fu and willingness to look at problems from different points of view is all that is needed.

## About the coach

Ms Ng graduated with a Masters in Applied Mathematics from Harvard University. Despite being vastly overqualified, she chose to follow her passion for teaching. Her genius can be best appreciated in how efficiently she breaks down complicated topics into simple conceptual building blocks that are rapidly understood and assimilated by students. She has been teaching for almost a decade. Past students have not only improved significantly within a few months, but have even declared that Math has become their favourite subject!

# PSLE English 

## Crash Course

8 Dec \& 9 Dec (11.15am - 1.45pm daily)
Pricing: $\$ 200 / 5$ hours

A unique 2-day workshop for kids taking the PSLE in 2022 where they will learn strategies and techniques for performing at the highest level for the PSLE English exam.

## About the coach

Teacher Faith graduated with a Bachelor Degree in Arts and a Diploma in Education and also holds a professional cert from the London Guildhall School of Drama.

She has been teaching Primary and Secondary school students for more than two decades and uses her own PAC approach in her fun-filled classes which focus on 3 major elements: Participation, Active Learning and Critical Thinking.

She also pursued her studies in the Orton-Gillingham Approach, a multisensory, direct and structured approach to help dyslexic learners.

She hopes her students will persevere and be inspired by Thomas Edison: "Our greatest weakness lies in giving up. The most certain way to succeed is always to try just one more time."

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## Objectives

## Review PSLE English Examination requirements

Focus on Spelling and Editing and Comprehension Question Types

## Cloze Answering Strategies <br> Brief review on Grammar MCQ

## Review Synthesis and Transformation Answering Techniques 1 <br> Focus on Vocabulary MCQ

Review the components in the ORAL paper Part 1

Using the FAT and TREES strategy

SBC and Composition IDEA generation

1. Understand the main components and mark allocation in Paper 2
2. Complete Part 1 Editing exercises
3. Overview of the type of questions tested in the Editing Section
4. Review strategies for answering Cloze passages
5. Understand how to look for clues in GRAMMAR MCQ section
6. Learn how to answer SYNTHESIS questions - Active and Passive Voice

- Direct and Reported Speech
- Noun types

2. Learn the techniques to ace the vocabulary MCQ section
3. Tips for READING ALOUD section
4. Using the TREES strategy to ace Stimulus Based Conversation
5. Learn how to prepare for both SBC and COMPOSITION at the same time.
** No actual composition writing will be done but the students will need to prepare to discuss ideas

## Power Up for P4/5 Math

Get your engines started and gain a head start when school re-opens in 2022!

| Run | $\underline{\text { P4 2022 }}$ | $\underline{\text { P5 2022 }}$ |
| :---: | :---: | :---: |
| 1 | $8 \mathrm{Dec}-10 \mathrm{Dec}$ <br> $(9 \mathrm{am}-12 \mathrm{noon})$ | $8 \mathrm{Dec}-10 \mathrm{Dec}(1 \mathrm{pm}$ <br> $-3 \mathrm{pm})$ |
| 2 | $15 \mathrm{Dec}-17 \mathrm{Dec}$ <br> $(9 \mathrm{am}-12$ noon $)$ | $15 \mathrm{Dec}-17 \mathrm{Dec}$ <br> $(1 \mathrm{pm}-3 \mathrm{pm})$ |

Pricing: $\$ 300 / 9$ hours

## Do you need this?

The P4 and P5 workshops will cover both width and depth of the topics taught in the first semester.

Students will get to practise solving a variety of basic and advanced math problems to reinforce and put into practice their conceptual understandings with both speed and accuracy. This would include exposure to exam style questions.

The workshops will conclude with an exam style simulation of a mini weighted assessment to foster familiarity with the exam format and different methods of solutions for problem solving.

## About the coach

Ms Yeo graduated from NUS with a Bachelor of Social Sciences in Psychology (Honours) and was a Teaching Award holder. She considers herself a late bloomer in Math and thus, has a special place in her heart for struggling Math learners. You'll often find her nose buried in a book and her love for the language has enabled her to build up a repertoire of mnemonics and catch phrases, even using poetry (!) to help students commit Mathematical concepts to memory. She loves physical activity and spends lots of time in nature as she believes in the value of exercise and fresh air for a clear mind to teach and learn together with the students under her charge.

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Real-World Economics with Zombie Outbreak!


In partnership with
Run 1: 22 Nov 1-4pm
Run 2: 6 Dec 1-4pm

Run3: 23 Dec 9am-12noon


Capital Gains Studio

Pricing: \$150/3 hours (Includes boardgame)

In this 3-hour workshop, students will get to learn about real world economics through playing the brand new boardgame ZomlieLife Insurance (First exclusive workshop in the world!)

Students would learn the basics of economics and simple money management concepts through the game play:

- How basic economics works in the real world
- Managing their income and personal expenses through fun gameplay
- Understanding the concepts of budgeting and wealth creation


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In partnership with
Run 1: 23 Nov 1-4pm

Run 2: 23 Dec 1-4pm
Pricing: \$150/3 hours (Includes boardgame)


Capital Gains Studio

In this 3-hour workshop, students will learn the 5-step process of design thinking and attempt at designing a tabletop game prototype!

- Learn the process of creating a board game (idea to product) using Design Thinking principles based on Dirty Money
- Understand common board game mechanics for tabletop games
- Create a draft idea of your Math-themed game and make your first game prototype!


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Do you want to play a Squid Game with Debtzilla ?


Run 1: 29 Nov 1-4pm
Run 2: 14 Dec 1-4pm
Pricing: \$150/3 hours (Includes boardgame)

In partnership with
Capital Gains Studio

In this 3-hour workshop, students will master personal finance and teamwork through playing the award-winning cooperative boardgame Debtzilla.

Students would learn to develop healthy financial habits through learning how to:

- Manage their income and expenses
- Understand the importance of building their savings
- Avoid taking bad loans
- Relate compounding interest with wealth creation


## Design your own game with ComboCone Paradise




In partnership with

## Design your own game! - ComboCone Paradise

Run 1: 2 Dec 1-4pm


Capital Gains Studio

Run2: 6 Dec 9 am-12 noon
Run 3: 14 Dec 9am - 12 noon
Pricing: \$120/3 hours (Includes boardgame)

In this 3-hour workshop, students would learn the process of tabletop game design and build up their creativity through understanding:

- The history and evolution of tabletop games
- Understand common board game mechanics for popular games
- Create a draft idea of your boardgame through a re-design of Combo Cone Paradise


## Please Whatsapp 87648720 (preferred)

(So that we can get to know you and your child better and ensure a correct fit!)

You can also email guthrie@avocadolab.sg

## Terms \& Conditions

## Important Information

1) Fees paid are non-refundable except in the case of a valid MC or COVID-related issue.
2) Please do not come for onsite lessons if you are sick.
3) If the coach is on MC , we will first try to go online or substitute with an equally qualified teacher, failing which fees will be refunded if the class is cancelled.
4) All workshops are onsite unless stated. We do have the capability to do hybrid or online for all classes but we strongly believe that onsite offers the best learning experience.
5) Please note that some workshops are not optimal for online due to hands-on or teamwork components, in which case it will be postponed/cancelled/online subject to consensus.
6) Some classes have a minimum student count before they can start.
7) All classes are limited to a maximum of 6 to 8 students. (Compliance with Safe Management Measures)
