THINK CLUB

EXPANDING YOUNG MINDS

Think Club Australia provides experiential workshops for the inquisitive, problem-solving, creative and capable primary school child. Our one day, hands-on workshops are enjoyable, fun and interesting.

TUESDAY 16th & WEDNESDAY 17th APRIL 2019

9am – 3.30pm, Sydney Boys High School, Moore Park, Sydney, NSW
For more information or to register visit www.thinkclubaustralia.com

Tuesday 16th April 2019
DAY 1 Workshops

BRILLIANT BUBBLEOLOGISTS (YEARS 1 & 2)
Mesmerised by bubbles and balloons? Learn to make awesome balloon sculptures and find out what it's like to be INSIDE a bubble. Spend the day with our resident Bubbleologist learning the secrets of the trade! During a day of hands-on exploration, Thinkers will explore surface tension, gravity and pressure and will experiment with different ingredients to discover for themselves the perfect recipe for producing monster bubbles. They'll enjoy the best bits of bubbling and ballooning, from blowing them to bursting them while discovering amazing science along the way!

CREATIVE CODING (YEARS 1 & 2)
Ever day-dreamed about creating your own computer game? Exploring basic programming tools and algorithms, Thinkers will create computer games in the Scratch Programming & Learning Environment. Developed by Massachusetts Institute of Technology, Scratch is an entertaining way to teach children to write computer programs. All equipment supplied.

GROSS HUMAN BODY (YEARS 1 & 2)
Learn about the complexity of the human body using microscopes and realistic models to look at the incredible workings of the major body systems that sustain your life. Discover how the five senses work and explore many of the bodies gunky substances such as blood, snot, vomit and pus in this hands-on biological workshop.
Not for the faint hearted...but so much fun!

RIOTOUS ROBOTICS (YEARS 1 & 2)
Program playful LEGO designs with movement and sound using LEGO WeDo hardware and software. LEGO WeDo is also equipped with sensors that allow designs to act like real robots. Design, build and program your own robots to meet creative and fun challenges. Great day of problem solving and challenging fun! All equipment supplied.

ENCHANTING EGYPTIANS (YEARS 3 & 4)
Take a trip back 5000 years in time to the age of the Pharoahs and gain a fascinating insight into the enchanting world of the Ancient Egyptians. Ever wondered how Historians and Archaeologists' can be so sure about things which happened so long ago? How can we even begin to interpret the fantastic Hieroglyphs of the Egyptian Book of the Dead? Or know anything about how and why the Egyptians worshiped the Sun God Ra? Experience a day of wonder filled with exciting hands-on activities and even create some ancient 'treasures' of your own.

MESMERISING MATHEMATICS (YEARS 3 & 4)
Expand your mind with a mesmerising array of mathematical problems, challenges and activities in this practical workshop. Share your love for all things mathematical with like-minded Thinkers as you delve into the fascinating worlds of patterns, numbers, logic, code-breaking and geometry. Acquire new skills and deepen your appreciation for the field of study famously described by Gauss as the "Queen of the Sciences".

MARVELLOUS MICROPROCESSORS (YEARS 3 & 4)
Intrigued by the buzz of electronics and the wizardry of computer programming? In this workshop you'll have a great time learning to use the mini-computer called the 'BBC Micro:Bit'! – a tiny programmable microprocessor that can control a variety of sensors and devices. You'll be using it to design your own games and programs using block coding, wires, motors and sensors. We'll bring rock, paper, scissors to digital life along with whatever crazy inventions your creative minds can think of! All equipment provided, no prior experience necessary.

AWESOME ANATOMY (YEARS 3 & 4)
Have you ever stopped to think how awesome your body is? You contain over 60,000 miles of blood vessels, your bone are as strong as granite, you'll shed twenty kilograms of skin in your lifetime and the nerve impulses in your brain race around faster than a formula 1 racing car. Spend the day getting to know your body better as you learn about and experiment with your digestive system, circulatory system, skeleton, organs and your truly incredible brain.

ZANY ZOOKEEPERS (YEARS 4 - 6)
Spend a day caring for REAL Australian reptiles, frogs, invertebrates, omnivores, herbivores, carnivores and ectothermic animals. Get your hands dirty alongside our trained zoo keepers and explore a variety of animal husbandry techniques including feeding and nutrition, capture and handling and housing needs. You will interact with a range of live animals in a safe and controlled environment, learning how to handle and care for them as well as discovering fascinating information about their lives.

MASTERFUL MOVIE-MAKING (YEARS 5 & 6)
Loved the Lego Movie? Want to be the next big 'YouTube' sensation? Ever dreamed of one day making it as a Hollywood director? Spend a fun-filled day learning the skills of digital animation and producing a take-home DVD of your very own Lego mini-figure movie. Devise the storyline, shoot the action using the latest computer software and digital cameras, then create your own soundtrack to accompany the action.

GENIUSES CODE IN JAVA (YEARS 5 & 6)
Are you both creative and interested in computing? In this workshop Thinkers will design and code four online digital art projects using a simplified version of the most popular text-based programming language, Java. They will work in Openprocessing.org, an online educational environment developed by MIT for creative and artistic coders. This workshop is ideal for Thinkers who want to learn the basics of Java and see their artistic creations brought to life on the screen. Previous coding experience is not required, but would be very welcome.

EXHILARATING ELECTRICS (YEARS 5 & 6)
Electricity and magnetism up close! Explore static and current electricity, magnetic repulsion and attraction, electromagnetism, simple circuits and renewable energies. See 100,000 volts discharged in a flash, conduct electricity through the palm of your hand and much much more!

CHEMICAL CONCOCTIONS (YEARS 5 & 6)
Fascinated by what makes something froth or bubble, while other substances dissolve, rust or ignite? Enjoy a day of experimentation as you concoct potions, analyse chemical reactions and build models of different molecules. Learn about the incredible properties of different everyday compounds and explore the strange behaviours of the amazing elements that make up the periodic table. A hands-on day of experimental chemistry.

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Wednesday 17th April 2019 - DAY 2 Workshops

MAD MUSIC (YEARS 1 & 2)

Join a band with a difference! Thinkers will learn to read, write and play rhythmic notation. They will make their own instrument from everyday recycled items and learn to play it as part of a percussion ensemble, culminating in a parental performance at the end of the day. This workshop is the perfect way to embark upon a lifelong love of all things musical, it's mad!

SLIMY SCIENCE (YEARS 1 & 2)

Experiment with gooey slime, giant bubbles and other gunky substances to explore the wonderful world of science. Do you have what it takes to be a mad scientist? In this exciting day of hands-on experiments you will learn to ask probing questions, test your crazy theories…and get messy along the way!

EARLY ENGINEERS (YEARS 1 & 2)

What are the best designs for building strong bridges, constructing tall towers, firing projectiles and producing the fastest racing cars? Why do some things float and others sink, some things fly and others crash to earth? Discover the answer to these questions and much more in a great day of engineering feats!

STUNNING SEALIFE (YEARS 1 & 2)

Are you fascinated by the ocean and the incredible creatures that live beneath the waves? Join Diver Dave for a day of sensory experiences as you get up close to a variety of live marine creatures and learn about the incredible biological adaptations that enable them to flourish in the underwater environment. Thinkers will be taught about sustainability and marine conservation as well as discovering some amazing marine biology as we bring the wonders of the ocean directly to them.

CHESS CHAMPS (YEARS 1 - 3)

Under the guidance of an experienced coach, Thinkers will explore the fundamentals of chess and the skills to confidently play 'The game of kings'! They will receive instruction in the rules and proceed to develop tactics and checkmating patterns. There will be plenty of time for friendly games to practice the techniques learned and explore variations of this enduring game of strategy.

CLEVER CODERS (YEARS 3 & 4)

Interested in coding? Want to create the next great computer game? Explore coding tools and algorithms in the Scratch language developed by computer engineers at MIT. As its founders say, programming enables kids "to think creatively, reason systematically, and work collaboratively". All equipment supplied, just bring cleverness!

MIND-BLOWING MAGIC (YEARS 3 & 4)

Interactive fun! Participants get to learn some amazing magic, juggling tricks and puzzles with household items while at the same time developing and improving: fine and gross motor skills, speaking in front of a group, hand eye coordination and comprehension skills. Book now before spaces 'disappear'

MAGNIFICENT MACHINES (YEARS 3 & 4)

Using LEGO EV3 Mindstorms robotics, children will learn to build and program machines that can perform a variety of entertaining and increasingly more challenging tasks. Activities include Self Driving Car Challenge, Rescue Missions and Sumo battles . Suitable for beginners and intermediate levels of robotics experience.

CLAYMATION CREATIONS (YEARS 3 & 4)

Love 'Wallace and Gromit' or 'Shaun the Sheep'? Try your hand at making your own Claymation film. Using the Stopmotion/Claymation process, you will story board, animate, edit and finally burn your movie onto a DVD. Have fun unleashing your creativity, honing your writing skills and exploring the technology behind Claymation Creations! All materials are provided.

FASCINATING FORENSICS (YEARS 3 & 4)

Ever wondered how a scientist can become a super sleuth? Immerse yourself in the intriguing world of forensic science including a CSI workshop, DNA extractions, fingerprinting, and other amazing crime solving techniques.

LEGENDARY LINGUISTS (YEARS 5 & 6)

The Egyptian, Greek and Roman cultures have each played a significant role in shaping Western Civilisation. Their alphabets & use of language were foundational for the development of our modern languages, their ideas have shaped our modes of government, form the basis of our philosophical canon and infuse a multitude of other aspects of our modern lifestyles. Immerse yourself for a day in the fascinating ideas of the ancient world, learning to decipher hieroglyphics and beginning to appreciate the majesty of the Latin language which is the root of much of our English vocabulary.

PROGRAMMING DRONES (YEARS 5 & 6)

What could be better than a day packed with computers AND drones? Thinkers will learn to program DJI Tello drones using the Python programming language. They will develop their coding skills as they attempt to make the drones perform a variety of challenging tasks such as rescuing drowning people, perform shark patrols and even build bridges. This workshop is primarily aimed at Thinkers who want to learn the basics of coding in the text based language Python with the added excitement of seeing their programmes take flight with these versatile little drones. Previous coding experience is not required, but would be preferable.

MATHEMATICAL MAESTROS (YEARS 5 & 6)

Indulge your passion for all things mathematical. Lose yourself in logic. Immerse yourself in the secretive world of the code-breaker. Explore the intricacies of the five Platonic Solids and be tantalised by the art of tessellation. So much to see, so little time, on this 'tour de force' of mathematical mysteries.

DESIGN AND PRINT (YEARS 5 & 6)

Fancy trying your hand at industrial design and manufacture without ever setting foot near a factory? This workshop combines a basic introduction to computer aided design (CAD) with the exciting technology of 3-D printing, to enable Thinkers to both design and produce their very own creation. Participants will use Tinkercad, an online design application with a simple and intuitive interface, to create their masterpiece and will then marvel as their design take shape in front of their eyes as the FDM (fused deposition modelling) printer whirrs into life. Experience the technologies that will shape your future.

CRAZY CONSTRUCTION (YEARS 5 & 6)

If you like cutting, drilling and making things move then come join us for a day of crazy construction! You'll be learning how to use simple circuits to make zombie survival torches, random drawing robots and more. Everything you make you take home too! We'll be using hot glue guns, tools, wood and probably lots of sticky tape to help hold our contraptions together. If you enjoy making things, and sometimes breaking things too, then this workshop is for you!

BOOKING INFORMATION

To register for our amazing workshops please visit our website: www.thinkclubaustralia.com

- 1 Workshop - $110
- 2 Workshops - $210
- 3 Workshops - $300
- each additional workshop $90

Total registration fees are based on the number of workshops booked using the online form.

Please ensure you select both a first and second workshop preference as the first choice cannot be guaranteed.
Places are allocated on a 'first in' basis as workshops will fill quickly.
For more information contact us at info@thinkclubaustralia.com