



UNIVERSITY
OF WOLLONGONG
AUSTRALIA

—
Outreach & Pathways

Early Learning Labs & Mini-Labs Workshops (Years 3 & 4)

JULY 2019

2 DAY LEARNING LABS WORKSHOPS (YEARS 3 & 4) - 16 & 17 JULY



An Introduction to Problem-Solving: Playing Chess

Presenter: John Finlayson

Have you ever wanted to be the best at games, learning how to get ahead using strategy and tactics? In this class, students will be challenged to learn quickly how they may improve their game, while appreciating the ancient game of chess.

For this workshop it is expected that you have a prior knowledge of the game, understand what each piece is and how they move on the board.

The concepts covered will include; sportsmanship, appreciation of the game, defence, offence, problem solving, and learning techniques. Competition will be a focus of the day, however there won't only be one winner.



Coding With Scratch

Presenters: 'Devika'

With Scratch, you can program your own interactive stories, games, and animations – and share your creations with others in the online community.

Scratch helps young people learn to think creatively, reason systematically, and work collaboratively – essential skills for life in the 21st century. It sets out to give the young students experience in beginning to code, working in teams, making creative solutions to problems, and understand fluency in mathematics through the creative and building aspects of drag and drop development.

Devika is a collaboration of technology start-ups with global and social ambitions- <https://devika.com.au>.



Hola! Let's Speak Spanish

Presenter: Sara Del Rio Garcia

¡Hola amigos! Did you know that many children around the world speak more than one language? Wouldn't you like to be one of those lucky children?

In 'Let's speak Spanish' you will learn much more than just new words - you will discover a whole new world. We will use songs, games, dance, art and drama to introduce you to Spanish culture and also begin you on the journey of learning the beautiful Spanish language.

Amongst our experiences in this workshop, you will have the chance to re-create the hilarious antics of Don Quixote; and experience the colour and energy of the music and dance known as flamenco! This workshop is designed for children who are new to the Spanish language, so everybody is welcome.



Clay Cafe

Presenter: Deniz Ahishali

Welcome to the coolest cafe in the world! Here we have the most delicious food you could imagine. Food that not only looks appealing, but is also incredibly fun to make. That's right folks, we are talking about food made completely out of air-dry clay!

Come join us in Clay Cafe where you get to develop your clay sculpting skills whilst creating any food your tastebuds desire. Warning: You may leave this workshop with an increased appetite!



Composer Kids

Presenter: Ben Jones

Ever wondered how songs are written? How do they record and make CD's or MP3's? Head into the studio to find out...

This workshop is aimed at young musicians or music lovers with the aim of composing, recording, editing and producing an original musical composition. Working collaboratively you will investigate different ways to create sounds including "sampling", voices, instruments and even digital media! At the end of the workshop you will be able to save your work to a USB to take home with you. This workshop will also give you the technical skills needed to understand and use "Garage Band". Everyone is welcome to bring their own instrument, or just turn up with a willingness to experiment with music.



InsPIring Mathematics

Presenter: Daniela Ratkovic

Discover the beauty of mathematics. You will be amazed to explore some bizarre ideas and marvel in the mathematics that is all around us.

In this exciting hands-on workshop, you will discover extraordinary mathematics and put your problem-solving skills to the test. It will promote your deeper understanding of mathematics, test your abstract thinking and reasoning skills, make you question the world around you, and give you a new appreciation for this universal language.

Be prepared to challenge your brain and be blown away by what you learn.



It All Ads Up

Presenter: David Wassink

Like them or loathe them, advertisements fill up a large part of our TV viewing every week. Companies spend many millions of dollars to broadcast their message to the wider community.

This workshop studies various techniques used on TV by advertisers to persuade their audiences. Students will use these techniques themselves, as they work in groups to create their own 30-second advertisements for a randomly-assigned object.

For this workshop you will need to bring along your own camera/iPad/device for taking photos/videos (and its USB connector for uploading to university computer).



Painting with Code

Presenter: Alanna Vial

Do you enjoy Art and Mathematics or coding? In this workshop, you will design a beautiful artwork using code in just two days.

Let's get creative, and learn to code at the same time, so that at the end of the workshop you can say "I programmed this masterpiece!".

Learn about functional coding, loops, conditional statements, data types and many more coding concepts. Give yourself the skills to succeed in the 21st century while creating something amazing at the same time.



Solve the Mystery of the Missing Mars Bars

Presenter: Deborah Austin

You will need to be an effective and efficient detective who possesses excellent numeracy, literacy and investigative skills, and excellent powers of observation to search through evidence and suspect profiles.

It will require you to pose questions, follow a scientific investigation by conducting experiments on some pieces of evidence and predict the findings. Completing the experiments and analysing all the background information and research will help you identify who committed the crime.

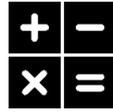


The Ultimate Challenge

Presenter: Dr. Patty Rose

This fun and engaging workshop will teach you creative thinking strategies to solve big and little problems.

You will work in teams and let your silly, whacky and unique thoughts free to win rounds and progress towards the ultimate challenge. In the ultimate challenge you will use these skills and your imagination to act and play out solutions to a very big problem.



Mathematics for the Absurd

Presenter: David Jacques

Mathematics is amazing! It helps us describe the world around us. It is logical. It makes sense. It is Universal. No matter what language you speak, $1 + 1 = 2$.

In this workshop we will work with the other side of Maths! The secret Maths! The Maths that is illogical, that has no real world connections. The Maths that is so abstract and bizarre that it confuses you yet you can not help but marvel in its beauty.

Be prepared to work with the impossible and hopefully keep your sanity in the process.

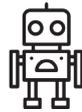


Painting, Printmaking & Collage

Presenter: Supriya Eliezer

In this workshop, participants will enjoy learning a wide range of artmaking skills, including drawing, painting, collage, printmaking/or sculpture.

Participants will have fun and experiment with different mediums including charcoal, pencil, oil pastels, acrylics and more. This class is a fun mix of basic theory with practical painting and /or sculpture with reference to some famous artists and artworks and techniques. You will be able to take their creative work home at the end of session.



Sphero Bolt Rockin' Rollin' Robots

Presenter: Joshua Amiel

Curious about coding? Ever wanted to learn to program your own robot? Have experience coding and want to put your skills to the test? This two-day workshop is a rockin', rollin' adventure for people with all levels of coding experience.

You will learn to write code and program a Sphero Bolt robot to overcome a series of individual challenges. Then, design programs and watch your robot compete in a variety of group competitions. Finally, show off your skills at our parent expo. Roll with us and enjoy developing your scientific knowledge as you explore coding, robotics, and the engineering design process!

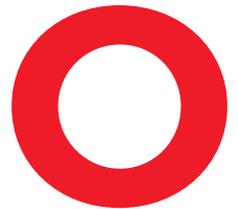


Welcome to Hogwarts

Presenter: Helen Dudeny

Professor Dumbledore and the other professors at Hogwarts invite you to spend two days with us taking part in a wide variety of Special Lessons. You are welcome to come dressed as your favourite student.

We will visit Diagon Alley to collect our wizarding materials and get sorted by the sorting hat into your house (not necessarily the house you expect – the sorting hat knows best!). There will be classes in Transfiguration, Potions & Charms and herbology. The trivia challenge will give you a chance to impress us with your knowledge of Harry Potter (1st Book /Movie). All you need is your imagination, your creativity, your great ideas and to be prepared for fun and excitement.



1 DAY MINI-LABS (YEARS 3 & 4) - 18TH JULY



A Day with Harry P.

Presenter: Lyndal Reid

Professor Dumbledore and the other professors at Hogwarts invite you to spend a day with us taking part in a wide variety of activities.

You are welcome to come dressed as your favourite student. We will spend time exploring your favourite characters, have a game of muggles quidditch and use your imagination, HP knowledge and creativity in our Tri wizard challenge. There will be opportunities to share your knowledge through art, drama, writing or creating.



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Stop Motion Animation

Presenter: Kerry Pyle

Why watch movies when you can make your own?

Brainstorm ideas, create a storyboard, design your set and shoot your very own stop motion animation. We'll look at lighting, sound creation and green screens to make your animation come to life.

Draw your characters, make them or build them – the choice is yours. Bring a USB so you can take your creation home.



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Forensics for Fun

Presenter: Stephanie Lorenz

A variety of crimes are committed that need to be solved.

In this hands on workshop we will use skills that real forensic scientists use to solve these crimes. We will document, investigate, test and hypothesis in our quest to solve these mysteries.

This course will give an insight into this highly specialised field of science giving students a unique opportunity to learn science skills not covered in the curriculum.



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Surviving the Zombie Apocalypse

Presenter: Kelly Mathein

The zombie apocalypse is here.... Join the Secret Scientist on her quest to outwit, outrun and outsmart the "UNDEAD"!

This course is a fast paced, fun filled prepper's workshop where you will learn vital survival skills including the structure and function of the human brain, suturing a "wound", making a solar oven, sourcing suitable food and clean water, reading a sun dial and decoding the language of the undead.

Aspects of Science, Creative Arts, Engineering and Mathematics will be interwoven through the day. No guts, gore or scary themes..... just lots of brain busting FUN. The survival of the human race is in your hands!