Little Learning Labs Workshops

WOLLONGONG JULY 2019

UNIVERSITY OF WOLLONGONG AUSTRALIA

Outreach & Pathways

2 DAY LITTLE LEARNING LABS (YEARS 1 & 2): JULY 8TH & 9TH

Block Coding

Presenters: Kerry Pyle

Drag, drop and snap together little blocks to complete fun challenges. Gain an understanding of design logic and computational thinking using visual programming.

You'll have fun designing your own programs and creating simple animations and games that you and your friends can watch and play.

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!

Genie-In-Us

Presenter: Dr. Patty Rose

Is your genie from Genie-in-us ready to play? The great news is that everybody can think and everybody can solve problems. So you are already qualified for this fun workshop!

If you have a bright imagination and like to create things then come and release your very own genie-in-us by using the magic of creative and critical thinking to solve mysteries and grant one wish.

Using some fun techniques we will be learning some creative brainstorming strategies, ways to think on the spot and work together to design and make fantastical creatures to feature in your own imaginative World (like Pok-e-mon meets Minecraft) where anything is possible and winning is by helping others.

Introducing Physics

Presenter: Maddie Carr

Why is the sky blue? What makes colour? Why does the moon change shape? What's the difference between hot and cold?

These are all questions that physics can answer. Physics is the science that explores forces, energy, how objects move, electricity, magnetism, sound, light, heat, and how solids, liquids and gases behave.

In this workshop we will explore all the questions above, and lots more - with hands-on activities, role-play, demonstrations, model-making and interactive computer applications. As part of the workshop, you will be invited to send in your own physics question for us to explore.

Painting, Printmaking and Collage

Presenter: Supriya Eliezer

In this session students will enjoy learning a wide range of artmaking skills including, drawing, painting, collage, printmaking. Children will have fun and experiment with different mediums including, pencil, oil pastels, acrylics.

This class is a fun mix of basic theory with practical painting and /or sculpture with reference to some famous artist and artworks and techniques. Participants will be able to take their creative work home at the end of workshop.

Can I Steal C.S. Lewis and Call it Inklings?

Presenter: Nicole Winter

We all enjoy reading a great piece of writing. But what makes it good writing? In this workshop students will develop a language to explore good writing and apply these attributes to their own works.

We will spend time investigating inspiration and ideas, organising and planning our work, finding our voice and choosing just the right words. There will also be creative opportunities to explore characters and settings, complications and resolutions.

Dancing with Code

Presenter: Alanna Vial

NOTE: This workshop was called 'Computer Science Unplugged' and follows the same format.

Do you think programming a computer is magic? Are you curious about how computers work? Do you love dancing? In this workshop, you will learn the secrets of coding without a computer, in a fun and interactive environment. Gain problem solving skills by solving logic puzzles, working collaboratively in teams and learning about essential concepts in computer science at the same time.

Learn how to count and write your name in binary, understand parity and error correction and use dancing to make pseudo-code. We will teach you how to do magic tricks using these computer concepts, which you can use to impress your classmates at school.

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 the Spanish words from a variety of topics, but 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.

This workshop designed for children who are new to the Spanish language, so everybody is welcome. Our workshop will open the door to new ways to express yourself and learn more about the beautiful world in which you live.

Masters of Minecraft

Presenter: 'Devika'

The Minecraft workshop is set out to develop the students understanding and fluency in maker skills through the creative and building aspects of Minecraft which enable players to build constructions out of textured cubes in a 3D procedurally generated world.

Students will learn about enquiry, exploring and connecting mathematical concepts, choosing and applying problem-solving skills, mathematical techniques, communication and reasoning. This course is for students taking their first steps with game design and development for primary kids.

Mighty Music Makers

Presenter: Ben Jones

Design, decorate and prototype your very own percussion, string or wind instrument; and in the process investigate the different ways to make music.

Learn how to read musical maps that help to develop an understanding the process written music undertakes to be transformed into sound. At the end of the workshop there will be a mini concert where you get to perform using your own instrument in a group ensemble!

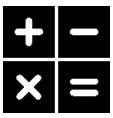
No musical knowledge is necessary, just an interest in listening, being creative and having fun.

Survivor: The Australian Bush

Presenter: Michelle Graham

Are you a survivor? Could you navigate yourself out of the bush if you became lost? Would you be able to create a shelter to protect you and withstand different weather? Would you be able to collect clean water to drink? Challenge yourself and determine if you would be able to survive in the Australian bush.

In this workshop you will be challenged, your courage tested, creativity tried and nothing left to chance. Through a range of science experiments and mathematical strategies learn different skills to help you become a survivor. At the end of the workshop students will use skills learnt and general knowledge to discover where the hidden treasure is located within the university.



STEM Challenges

Presenter: Jessica Musumeci

Do you enjoy solving problems and finding ways to improve designs? Students who are prepared to create models based on a set of challenges are invited to this fun workshop. We will be working on how we can improve models when we have tested them for the challenges.

You do not have to be "good at" STEM (Science, Technology, Engineering and Maths) to come to this workshop. This workshop will be quite different to standard Maths and Science lessons at school. We will be learning how to apply STEM to the real-world. Come along for a fun learning experience and arm yourself with the skills to think creatively, solve problems logically and collaborate with your team members!

What Happens When

Presenter: Stephanie Lorenz

For every action, there is an equal and opposite reaction. Have you ever wondered why certain things happen? In this hands on workshop we'll use trial (and of course error) to solve problems.

Science experiments are fun learning activities that will actively engage all children. In this workshop we'll do the science experiments you wouldn't get to do in the classroom. Our methods may be unconventional, but our goal is to turn ordinary science experiments into unforgettable learning experiences. Things will fizz, pop, smoke and explode in our quest to find what happens when....

1 DAY MINI-LABS - JULY 10TH

Clay Cafe

Presenter: Deniz Ahishali

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Good Vibrations- Exploring Sound & Music

Presenter: Angelos Theoharis

What causes sound?

How fast does it travel, and does it always travel at the same speed? Why do things sound different - loud or quiet; high or low-pitched? What does your voice look like? How can physics help us design musical instruments?

We will be answering all these questions and more in this hands-on workshop which will interest anyone who's a budding scientist, or musician - or both!

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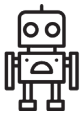
Why is it So?

Presenter: Nicole Winter

Science fun where we will spend the day exploring the physical properties of gasses, liquids and solids. This workshop is hands on fun – investigating and using scientific methodology to frame our thinking.

We will work together to look at a range of common materials and how they have the potential to respond in different ways. This will be a busy, active day where we seek to ask and answer, "Why is it so?"



Code-a-Bot

Presenter: Kerry Pyle

Come on a hands-on coding adventure with Cody, Mouse and Dash as we use interactive games to explore sequences, logic, loops, bugs and more.

Put on your thinking caps, rev up your engines, grab your giggles and get ready to have loads of fun as you and your partner program your robots through a series of silly puzzles and lead your robot mouse to the cheese.

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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!