<table>
<thead>
<tr>
<th>Course</th>
<th>Grades</th>
<th>Learning Experiences include:</th>
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</thead>
</table>
| Book It Up           | 2-3      | Combine literature and science using some of the world’s favourite stories  
|                      |          | Make Goldilocks a bed using your powers of problem solving and everyday materials  
|                      |          | Create a wind-resistant tent for when Bailey Goes Camping  
|                      |          | Design a parachute so Humpty Dumpty can have a safe fall  
|                      |          | Code a Bee Bot to tell your own fable!  
| Brushstrokes         | 4-6      | Learn watercolour and acrylic painting techniques  
|                      |          | Practice the skills and techniques of using specialised brushes  
|                      |          | Understanding artforms: an introduction to abstract art and colour theory  
|                      |          | Discover the artists toolkit: Learn about different tools and materials used in painting  
|                      |          | Start your creative process with Adobe Fresco  
|                      |          | Design your own artwork: select your medium and bring your project to life in the real world  
| Bubbleology          | K-1      | The science of bubbles  
|                      |          | What makes the best bubble?  
|                      |          | Make your own touchable bubbles  
|                      |          | Create spooky dry ice bubbles  
|                      |          | Learn how rainbows form by making giant bubbles!  
| Building Old Town    | 3-4      | An exciting STEM project, developing your engineering skills as you construct your own mini city  
| Road                 |          | Learn about shapes and 3D objects, what they are and how to create them  
|                      |          | Construct your own buildings for the city using Make Do tool kits and LOTS of cardboard  
|                      |          | Use your new skills and tools to create a huge geodesic dome  
|                      |          | Put your town planner hat on as you complete the finishing touches to your city  
|                      |          | Take home the favourite building you made for the town  
| CSI                  | 5-6      | Learn how to look for evidence and solve crimes as a Forensic Scientist  
|                      |          | Analysing fingerprints  
|                      |          | Dental forensics - Find out who the “murderer” is in your class by analysing their bite  
|                      |          | Footprint analysis  
|                      |          | Using chromatography to solve crime  
|                      |          | Become a handwriting expert to find the criminal  
|                      |          | Under the microscope - Get close up on hair and fibre evidence  
|                      |          | Put all your knowledge to the test and solve a crime with your group  
| Day of the Dinosaur  | K-1      | Hatch a Dino - Fizzling dinosaur eggs!  
|                      |          | Make your own fossil imprints  
|                      |          | T-rex tag  
|                      |          | Are birds dinosaurs?  
|                      |          | Feathers, bones and much more - Touch-and-feel talk and tour of the Biology Museum  
|                      |          | How big is a dinosaur’s foot?  
|                      |          | Pasta Skeleton  
| Earth Explorers      | K-1      | Deep inside the Earth - Make your own model of the Earth’s layers  
|                      |          | Water magic - How water fundamentally changed our planet’s geology  
|                      |          | Volcanic eruptions!  
|                      |          | The wonders of rocks on Earth  
|                      |          | Make your own Martian sand to take home!  
|                      |          | Touch and observe ancient fossils - What can they tell us about the past?  

| **Eco Warriors**  
| Grades 1-2  
| Learning experience include:  
| • Learn about our oceans and how they keep our planet healthy  
| • Classifying Plastic - How long does it take to break down?  
| • Mini Worm Farm - Learn how composters work and create a mini-composter to take home  
| • Learn about some exciting solutions to plastic pollution  
| • Make your own Zero Waste products that you can keep! Continue your plastic-free journey at home  
| • Create your own mermaid-friendly art from items that typically end up in our oceans  

| **Funky Physics**  
| Grades K-1  
| Learning activities finish  
| 4pm. Children can be picked up between 4pm-5.30pm.  
| Learning experiences include:  
| • Energy and movement - Exploring the pendulum  
| • Making catapults - Who can launch a marshmallow the furthest?  
| • Galileo’s gravity experiment  
| • Balancing act - Design your own balance toy  
| • Newton’s first Law of Physics - Using eggs!  
| • Explosions - What is the force behind them?  
| • Exploring fair tests with paper helicopters  

| **Good Vibrations**  
| Grades K-1  
| Learning activities finish  
| 4pm. Children can be picked up between 4pm-5.30pm.  
| Learning experiences include:  
| • Sensing Sound - How does hearing work? What's that sound?  
| • Good Vibrations - Exploring the vibrations of sound  
| • Make some noise! - Investigating different sounds and how to make them  
| • How sound travels - Making a string telephone  
| • Seeing sound - Dancing salt experiment  
| • The science behind the sound - Understanding how musical instruments make different sounds  

| **Human Anatomy**  
| Grades 3-5  
| Learning experiences include:  
| • Learn the language of anatomy and discover what makes up the human body  
| • What's under our skin? Learn about the skeleton and why it's important for more than just it's strength  
| • Wave hello to discovering how muscles, ligaments and tendons work together to make a hand move!  
| • Take a deep breath and examine how our amazing lungs function with a working lung model  
| • Think quick! Test your reaction time to learn about our nervous system  
| • Take a bite out of this lesson and replicate movement of food through the digestive system  
| • Think with your head to learn about the human heart and all its components  

| **I’m A Survivor**  
| Grades 4-6  
| Learning experiences include:  
| • Learn the essential skills for survival in this practical class on the science of survival  
| • Survival means we need water, food, shelter & fire - Take part in a dramatic scenario to survive your day!  
| • Discover how to find and purify water  
| • Find out about edible bush tucker and how to keep yourself nourished in a survival situation  
| • Make a trap you could use to catch food  
| • Learn how to create a shelter and fire  

| **Incredible Forces**  
| Grades 2-3  
| Learning experiences include:  
| • Balloon rockets - Learn about forces when creating your own balloon rocket  
| • Egg-citing science - Whose egg survives? Experimenting with the force of gravity using parachutes  
| • Froggy friction - Learn about friction force as you help your frog climb the string  
| • Magnetic forces - Understanding how magnets work  
| • Balancing forces - Become an engineer and design the strongest bridge  

| **Let It Grow**  
| Grades K-1  
| Learning activities finish  
| 4pm. Children can be picked up between 4pm-5.30pm.  
| Learning experiences include:  
| • The science of gardening - Do you know what it takes to grow?  
| • Rainbow flowers - Experiment on how plants use water  
| • Learn about edible gardens  
| • Why do leaves change colour?  
| • Garden Scavenger Hunt  
| • Make your own grass head to take home!
### Let's Get Physics
**Grades 3-4**

**Learning experiences include:**
- Bouncing balls - Learn that energy can neither be created nor destroyed, playing with kinetic energy
- How fast are you? - Test your reaction time
- Are you a lefty or a righty? - Discover your dominant side and learn about handedness
- Balance tricks - Test your balance and find your centre of gravity, designing a balancing sculpture
- Build a bike helmet

### Lifeblood
**Grades 4-6**

An exciting collaboration with Macquarie University Medical Science students and Lifeblood, focussed on the science of blood.

**Learning experiences include:**
- Explore and investigate what blood is and why blood types matter
- Do we really need blood? Discover why some people need it more than others
- Ready, set, sort! Use blood sorting tools to identify and separate the key components of blood
- Go on a virtual tour of a brand new blood donation and processing facility
- Learn about blood diseases and the lifesaving work that comes from blood donations

### Life on Mars
**Grades 5-6**

**Learning experiences include:**
- What makes Mars so different to Earth? Create alien life that you think could survive on Mars
- Examine “martian” soil and use chemical reactions to try to define what “alive” means
- Did evidence for Martian life come to us in a meteorite?
- Become a NASA Flight Director and create a spacecraft that can land safely on Mars
- Constructing a Martian home - Build a geodesic dome to help protect from the harsh Mars environment
- Surviving frostbite on Mars - Using dry ice experiments to explore the damaging effects of frostbite

### Magic Tricks
**Grades K-1**

Learning activities finish 4pm. Children can be picked up between 4pm-5.30pm.

**Learning experiences include:**
- Make some magic (it’s really just science) - First, make your wand!
- Walking Water - How does the water travel in this experiment?
- Make a lemon volcano
- Bubble bubble boil and trouble - Design your own magic potion
- Magic heat changing slime - See what hot and cold does to your slime creations
- Magic art - Wax paper painting, how does it work?
- Electric eels - Magically bring your gummy worms to life

### Matter Mayhem
**Grades K-1**

Learning activities finish 4pm. Children can be picked up between 4pm-5.30pm.

**Learning experiences include:**
- Cooking science - Making honeycomb to discover science in cooking
- Birdseed ornaments - Discover what ingredients bind others together
- Iodine clock - Witness a chemical reaction right before your eyes
- Elephant toothpaste - Do elephants really use toothpaste?
- Making slime - Explore chemical reactions and a non-Newtonian fluid
- Blow it up! - Experimenting with gas

### Mechanics
**Grades 3-4**

**ELIGIBLE FOR CREATIVE KIDS VOUCHER**

**Learning experiences include:**
- Develop your design skills creating simple machines in this introductory class on mechanics
- Make a cam, gear, inclined plane, a pawl and rachet, and an inclined pulley
- Use your newfound knowledge to complete The Hammer Challenge!
- Meet an engineer from Cochlear Australia
- See a demonstration of equipment used in the Cochlear Engineering Labs

### Microscope Magic
**Grades 4-5**

**Learning experiences include:**
- Become a master at using a microscope
- Collect and examine your own DNA
- Discover the secret life of little critters living in our pond water
- Compare the cells collected from humans, plants and bacteria
- Explore the life cycle of a Sea Monkey
**Minibeasts**  
Grades K-1  
Learning activities finish 4pm. Children can be picked up between 4pm-5.30pm.

Learning experiences include:  
- What is a minibeast?  
- Life as a worm  
- Ooey gooey worms - Make your own using a chemical reaction  
- Beautiful bees - Learn how important bees are to our ecosystems & why we need to take care of them  
- Minibeast safari  
- Minibeast hotel  
- Make your own minibeast!

**Once Upon A Slime**  
Grades K-1  
Learning activities finish 4pm. Children can be picked up between 4pm-5.30pm.

Learning experiences include:  
- Discover the science behind slime!  
- Learn what a base and an activator are and how they can change the properties of slime  
- Experiment with different activators as you test your slimey hypothesis  
- Create monster slime art, to take home your slimey creations in style  
- Practice the recipe for edible slime that you can make and eat at home

**Popping Party**  
Grades K-1  
Learning activities finish 4pm. Children can be picked up between 4pm-5.30pm.

Learning experiences include:  
- Delve into the science within parties!  
- Discover how party poppers work and make your own with household materials  
- Make a bouncy ball from scratch  
- Learn about the science of cakes and candles  
- Experience the magic of colour changing drinks

**Science is Real**  
Grades 1-2

Learning experiences include:  
- Coloured celery experiment - How do plants absorb water?  
- An apple a day - Experiment to understand oxidisation in fruit  
- Marble boat float - Play with physics to save your boat from sinking  
- Where is my tree? - Test your other senses using a blindfold to explore  
- Coke chemistry - Chemical reactions and explosions!  
- Up up and away - How many balloons does it take to lift a bag?

**Scratch Junior**  
Grades K-1  
Learning activities finish 4pm. Children can be picked up between 4pm-5.30pm.

**Scratch Junior**  
Grades K-1  
Learning activities finish 4pm. Children can be picked up between 4pm-5.30pm.

ELIGIBLE FOR CREATIVE KIDS VOUCHER

Learning experiences include:  
- With Scratch Jr, young children (ages 5-7) can program their own interactive stories  
- Create and program your own games  
- Snap together graphical programming blocks to make characters move, dance, and sing  
- Modify characters in the paint editor, add your own voices and sounds  
- Insert a favourite photo of your own!  
- Use the programming blocks to make characters come to life

**Sketch Fundamentals**  
Grades 3-4

ELIGIBLE FOR CREATIVE KIDS VOUCHER  

Learning experiences include:  
- Learn the basics of sketching and drawing  
- Progress to understanding of shapes, form and colour  
- Learn various shading techniques allowing for 3D shapes  
- Discover complexities of perspectice drawings, optical illusion art and thaumatropes  
- Visit from a real artist from Sparks Fly I Draw illustration studio  
- Take home your own sketch pad full of your own art

**Solar Energy**  
Grades 2-3

Learning experiences include:  
- What is the sun and why do we need it?  
- Making a sundial  
- Learn all about the important and harmful side of UV rays  
- Cooking with a solar oven  
- Heating water tanks  
- Learn all about Solar panels  
- What exactly is the Greenhouse Effect?  
- Design your own solar powered house

NEW!
<table>
<thead>
<tr>
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| Space Cadets        | K-1    |  • Explore the birth and death of stars  
  • Invent your own nebula (and take it home!)  
  • Create your own UV bracelet that tells you when you need sun protection  
  • Model the creation of a planet  
  • Design and build a space station and rocket! |
| Special Effects     | 4-6    |  • Make spooky potions that change colour  
  • Make and use invisible inks  
  • Learn about the brain in a sheep's brain dissection  
  • Spread the Zombie virus  
  • Make fake blood and create fake wounds |
| Take To The Skies   | 4-5    |  • Discover things that fly  
  • Make the best paper plane - Fly Phantom, Nakamura and Cardinal designs, then make your own  
  • How are birds able to fly?  
  • Learn about seeds that fly then create your own  
  • Make your own flying toy!  
  • How heavy is air? - Explore air resistance and pressure to break objects |
| Valiant Vikings     | 4-6    |  • Delve into the stories of the Norse Gods  
  • Design a storyboard or graphic novel exploring Norse mythology  
  • Map making - make it look like an old treasure map!  
  • Make your own Viking name and longboat  
  • Make a catapult and challenge your team-mates! |
| We Build This City  | 1-2    |  • Engineer a house for a mouse  
  • Learn about buoyancy by building and testing your own floating boat  
  • Design a bridge for your mouse to cross  
  • Build a maze game for your mouse  
  • Take home your awesome constructions |
| WeDo Beginners      | 1-2    | ELIGIBLE FOR CREATIVE KIDS VOUCHER  
  • This is the first class in our WeDo Robotics Series  
  • This is a beginner level class. Children should complete this class before doing other WeDo classes  
  • Solve real-life problems using robotics!  
  • Use Lego Education WeDo 2.0 sets to build and code your own robots  
  • Construct a cooling fan and program the motor to turn at different speeds  
  • Build a spy robot  
  • Design and create a slithery snake  
  • Challenge yourself by building a satellite that can turn and change direction |
| WeDo Maker Robots   | 3-4    | ELIGIBLE FOR CREATIVE KIDS VOUCHER  
  • This is the 1st class in the WeDo Maker Robots Series.  
  • Students would benefit from having first completed WeDo Beginners  
  • Engage your creativity as you learn about the Design Process and how to work through problem solving  
  • Design and create your own projects, including: Dancing Robots, Life Hacks and Sound Machines |
<table>
<thead>
<tr>
<th><strong>WeDo Mission to Mars</strong></th>
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<tbody>
<tr>
<td><strong>Grades 1-2</strong></td>
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**Learning experiences include:**
- Before taking this class children would benefit from first completing WeDo Beginners
- Working Together - The importance of teamwork in a space expedition
- Create your own Space Rover to explore Mars
- Use your robot to detect motion on a new planet
- Collaborate with other teams to complete a mission
- Explore Newton’s Law of Motion to help you create the strongest robot in space!
- Pick your own mission

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<tr>
<th><strong>What’s the Matter</strong></th>
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<tbody>
<tr>
<td><strong>Grades 3-4</strong></td>
</tr>
<tr>
<td>Includes an excursion to a Macquarie University Science Lab for a Chemistry Magic Show!</td>
</tr>
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</table>

**Learning experiences include:**
- Make your own thermometer
- Learn about the 3 states of matter in a game of ‘Molecule Tag’
- Create some dancing ooblek slime
- Create chemical reactions to see invisible gas
- Classic candle experiment - Learn about the effect of heat on air particles
- Acid or base? Experiment on different substances to learn about pH
- Visit the Science Labs for a Chemistry Magic Show!

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<th><strong>Zippy Balloon Science</strong></th>
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**Learning experiences include:**
- Balloon explosions - See the effects of conduction as you test how long the balloons can last
- Make a hovercraft and race your classmates to fly the furthest
- 3, 2, 1 ... Blast off - Create rockets with chemical reactions
- Flushed away - What can be flushed down the toilet? Are flushable wipes really flushable?
- Investigate the impact of salt on ice by making ice-cream (non-dairy options available)
- Marshmallow puff tube experiment - How far can you fire a marshmallow?
- Create a chemical reaction in your mouth! - Making sherbet