

CLASS DESCRIPTIONS (LISTED ALPHABETICALLY)

JANUARY 2018

A: class title	Class description
<p>Astronomy: The Modern Earth</p> <p>Years K-1</p> <p>**Learning activities will go until 4.00pm only. Care is available until 5.30pm and children will play inside and outside from 4.00pm - 5.30pm. You can collect your child anytime from 4.00pm - 5.30pm.**</p>	<p>Learning experiences include:</p> <ul style="list-style-type: none"> • The Solar System forms • The crust of the Earth • A story of tectonic plates • The wonder of rocks and becoming a palaeontologist • The most important formula on Earth: photosynthesis
<p>Astronomy: The Solar System</p> <p>Years K-1</p> <p>**Learning activities will go until 4.00pm only. Care is available until 5.30pm and children will play inside and outside from 4.00pm - 5.30pm. You can collect your child anytime from 4.00pm - 5.30pm.**</p>	<p>Learning experiences include:</p> <ul style="list-style-type: none"> • A star dies and a new star forms • Planets grow • The Early Earth • Layers of the Earth • Our atmosphere
<p>Attractive Science</p> <p>Years 3-4</p>	<p>Learning experiences include:</p> <ul style="list-style-type: none"> • Electrostatics: all charged up • Electrostatics: may the force be with you • Electrostatics: levitating rings • Magnetic forces: what things are magnetic? • Magnetic forces: making a compass
B: class title	Class description
<p>Bright Sparks</p> <p>Years 3-4</p>	<p>Learning experiences include:</p> <ul style="list-style-type: none"> • Human circuits • Testing conductors and insulators • Fruit batteries • Circus relay • Building circuits – lights and buzzers • Steady hand game

C: class title	Class description
CSI: Crime Scene Investigation Years 5-6	Learning experiences include: <ul style="list-style-type: none"> • Collect evidence: fingerprinting, dental forensics, footprint analysis, chromatography, handwriting analysis Solve a crime in your group!
Call the Doctor! Years 6-7	Learning experiences include: <ul style="list-style-type: none"> • Principles and practice of electrophoresis • Whose DNA was left behind? • (Fake) Blood-based cancer diagnostics • Detecting sickle-cell anaemia • Which orange juice has the most vitamin C? • Community immunity • Genetic engineering and disease
Chemistry: Change, Mixtures, Pure Substances Years 4-5	Learning experiences include: <ul style="list-style-type: none"> • An alien invasion experiment • Why are fireworks different colours? • Rubbery eggs • Make a lava lamp • Grow your own stalactites • Separating polymers • Magnetic slime
Coding with Processing (Java) Processing is a visual programming language designed for creative people incorporating digital multi-media. Years 4-6	Learn to code using Processing (Java language) <ul style="list-style-type: none"> • Processing is based on Java so you learn Java coding • Learn to draw shapes in different colours and move them around the screen • Create your own avatar • Interact with your creations Check out processing.org for more information
Crush Me, Fold Me, Test Me: Paper Science Years 3-4	Paper is one of humanity's great inventions and we are still learning more about its uses. Learning experiences include: <ul style="list-style-type: none"> • Examine paper under a microscope • Test paper's strength • Engineer a paper plane • Make your own paper • Learn the Miura-ori fold and discover how it is revolutionizing design

D: class title	Class description
<p>Day of the Dinosaur</p> <p>Years K-1</p> <p>**Learning activities will go until 4.00pm only. Care is available until 5.30pm and children will play inside and outside from 4.00pm - 5.30pm. You can collect your child anytime from 4.00pm - 5.30pm.**</p>	<p>Learning experiences include:</p> <ul style="list-style-type: none"> • Fizzing dinosaur eggs • Make fossil imprints • T-rex tag • Bird feather bonanza • Touch and feel bird experience • Pasta skeleton • How big is a dinosaur's foot?
<p>DNA and Evolution</p> <p>Years 4-6</p>	<p>Learning experiences include:</p> <ul style="list-style-type: none"> • Alike but different • Tree of genetic traits • DNA model • Dog DNA: interpreting the code • Extracting strawberry DNA • Preying on beans: evolution and natural selection • Bird beak adaptations
E: class title	Class description
<p>Earth and Solar System</p> <p>Years 2-3</p> <p>(with solar telescope)</p>	<p>Learning experience include:</p> <ul style="list-style-type: none"> • Making Earth's defence - our magnetic field • The charged particle game • How do moon craters form? • Oreo moon cycle • Make a model of the Earth, Sun and Moon • Check out a solar telescope
<p>Earth and Solar System</p> <p>Years 3-4</p> <p>(with planetarium)</p>	<p>Learning experiences include:</p> <ul style="list-style-type: none"> • Model the scale of the solar system • Make a meteorite • Visit to digital epsilon planetarium • Model a black hole

F: class title	Class description
<p>Funky Physics</p> <p>Years K-1</p> <p>**Learning activities will go until 4.00pm only. Care is available until 5.30pm and children will play inside and outside from 4.00pm - 5.30pm. You can collect your child anytime from 4.00pm - 5.30pm.**</p>	<p>Learning experiences include:</p> <ul style="list-style-type: none"> • We'll explode ... safely! • We'll apply force and propel and hit targets • We'll push and pull and drop and explore gravity <p>At the end of today we will understand Earth a little better!</p>
<p>Flight (3 day course)</p> <p>Years 4-6</p>	<p>Day 1: Air has weight - shattering ruler activity Air has molecules that are always moving and frequently collide. Heat makes them move faster. Air pressure and Bernoulli's principle - ping pong pressure: Newton's laws of motion Build model - part 1 Forces of flight - lift/ upward activity Forces of flight - drag/ backward activity Paper aeroplane design and play.</p> <p>Day 2: Revision of Forces of Flight - lift and drag Forces of flight - wright/ downward activity Forces of flight - thrust/ forward activity Build model - part 2 Controlling the flight of a plane Paper aeroplane design and play.</p> <p>Day 3: Safety with flying a plane indoors (e.g. how to avoid flying in to others, don't fly in to lights). Safety with flying a plane outdoors (e.g. man-made hazards, not on high fire danger days). Tips and tricks from experts. Build model - part 3: Let's fly our models. Paper plane competition</p>

G: class title	Class description
<p>Geology Rocks!</p> <p>Years 3-4</p>	<p>Learning experiences include:</p> <ul style="list-style-type: none"> • The rock cycle • What rock is that? • Rock abrasion • Minerals under the microscope and looking at mineral density • Build an earthquake resistant building

- Meet a real, live geologist! What do they do anyway?

H: class title	Class description
The Human Circulatory System Years 2-3	Learning experiences include: <ul style="list-style-type: none"> • Make a heart, a lung, and blood • Model the circulation of blood around the body • Sheep heart and lung dissection • What can you see in the chest x-ray of a child? • Experiment: what gets our heart pumping the most?
Human Movement Years 4-5	Learning experiences include: <ul style="list-style-type: none"> • Strike a pose • The human skeleton • Our bones • The human hand • Our lungs • Depth perception and reaction time
I: class title	Class description
Incredible Forces Years 2-3	Learning experiences include: <ul style="list-style-type: none"> • Balloon rockets • Egg-citing science • Push and pull dance • Magnetic forces • Make a bridge that can withstand strong push forces

M: class title	Class description
<p>Matter Mayhem</p> <p>Years K-1</p> <p>**Learning activities will go until 4.00pm only. Care is available until 5.30pm and children will play inside and outside from 4.00pm - 5.30pm. You can collect your child anytime from 4.00pm - 5.30pm.**</p>	<p>Learning experiences include:</p> <ul style="list-style-type: none"> • It's all about adding and subtracting and making something new • Do elephant's use toothpaste? • Is slime really slippery? • Do cupcakes really need all those ingredients?
<p>Magic Tricks</p> <p>Years K-1</p> <p>**Learning activities will go until 4.00pm only. Care is available until 5.30pm and children will play inside and outside from 4.00pm - 5.30pm. You can collect your child anytime from 4.00pm - 5.30pm.**</p>	<p>Make some magic (it's really just science)!</p> <ul style="list-style-type: none"> • first, make your wand • walking on water • lemon volcano • magic potion • heat changing slime • electric eels • put on a show!
<p>Microscope Magic</p> <p>Years 4-5</p>	<p>Learning experiences include:</p> <ul style="list-style-type: none"> • How to set up and use a microscope • How to make slides • What's in your cheek? • Life in a pond • Lifecycle under the microscope • Cleaning microscopes

O: class title	Class description
<p>Observing, Sensing, Moving Year K</p> <p>**Learning activities will go until 4.00pm only. Care is available until 5.30pm and children will play inside and outside from 4.00pm - 5.30pm.</p>	<p>Learning experiences include:</p> <ul style="list-style-type: none"> • Sensing sound • Catch the balloon • Cloud in a jar • Biggest, strongest, fastest • Our heart

<p>You can collect your child anytime from 4.00pm - 5.30pm.**</p>	<ul style="list-style-type: none"> • Why do I get dizzy?
<p>R: class title</p>	<p>Class description</p>
<p>Rube Goldberg Machines</p> <p>Years 3-4</p>	<p>Learn about and make: Levers, inclined planes, wheel and axels, pulleys, wedges, screws and gears Create a simple Rube Goldberg machine and exhibit it to the class</p> <p>Check out Rube Goldberg machines on You Tube for the kinds of things that you could make!</p>
<p>S: class title</p>	<p>Class description</p>
<p>Science is Real</p> <p>Years 1-2</p> <p>**Learning activities will go until 4.00pm only. Care is available until 5.30pm and children will play inside and outside from 4.00pm - 5.30pm. You can collect your child anytime from 4.00pm - 5.30pm.**</p>	<p>Learning experiences include:</p> <ul style="list-style-type: none"> • Purple celery experiment • How much does an insect eat? • Marble physics • Where is my tree? • Film canister rockets • It's all natural
<p>Show Me Electricity</p> <p>Years 5-6</p>	<p>Learning experiences include:</p> <ul style="list-style-type: none"> • Investigate conductors and insulators • Solve real-life problems using your knowledge of circuits (hint: there are several right ways!) <p>Solve: the bank teller alarm, the tipping crane, overflow alarm, brake fluid dilemma, upstairs/ downstairs circuit challenge.</p>
<p>Slick Science</p> <p>Years 1-2</p> <p>**Learning activities will go until 4.00pm only. Care is available until 5.30pm and children will play inside and outside from 4.00pm - 5.30pm. You can collect your child anytime from 4.00pm - 5.30pm.**</p>	<p>Learning experiences include:</p> <ul style="list-style-type: none"> • Experiment: clean up an oil spill • Make oil art (marbling) • Move a cardboard boat through water without touching it • Water density: what floats and what sinks • What dissolves in water? What doesn't? • Experiment: which fabrics absorb more water than others?
<p>Special Effects Science</p> <p>Years 4-5</p>	<p>Learning experience include:</p> <ul style="list-style-type: none"> • Making Spooky potions that change colour • Making and using a variety of invisible inks • A brain dissection

- Spreading the Zombie virus
- Making fake blood
- Creating fake wounds

Super Science

Years 1-2

**Learning activities will go until 4.00pm only.
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Learning experiences include:

- Proprioception – your place in space
- Animal athletes – can you jump as high as a flea?
- Sock walk – what do our feet find in the bush?
- Whose scat is that? Make animal scat (playdough)
- Looking at our ears and how we hear – make an amplifier

W: class title	Class description
<p>Weaponry of Ancient Rome: Catapults</p> <p>Years 4-5</p> <p>Note: there will be an equal gender split in this class</p>	<p>It's Romans vs Barbarians and your only weapons are marshmallows to attack and a cardboard shield to protect you and your team.</p> <p>Use your knowledge of forces, motion, and energy to seize the day!</p>
<p>What's the Matter?</p> <p>Years 3-4</p>	<p>Learning experiences include:</p> <ul style="list-style-type: none"> • Making a thermometer • Chemistry magic show • Molecule tag • Dancing ooblek • See an invisible gas • Classic candle experiment • Test items: are they acids or bases?
Z: class title	Class description
<p>Zippy Balloon Science</p> <p>Years 3-4</p>	<p>Learning experiences include:</p> <ul style="list-style-type: none"> • The exploding bag • Flushed away • Making ice-cream • Making sherbet • Heat conduction activity • Make a hovercraft • Marshmallow puff tube experiment