CLASS DESCRIPTIONS APRIL 2018	
A: class title	**Class description**
Ancient Greek Archaeology: **Digging into the mysteries of the past** Years 5-6	**Learning experiences include:** • What is Archaeology? • Garbage talks: looking at material found on "digs" and how to use this to answer questions • Visit to the Ancient History Museum • Piecing it together: finding broken artefacts and how to put them back together • What lasts in the ground? • How to do a dig: excavation
Astronomy: The Modern Earth Years K-1 **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.**	**Learning experiences include:** • 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
Astronomy: The Solar System Years K-1 **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.**	**Learning experiences include:** • A star dies and a new star forms • Planets grow • The Early Earth • Layers of the Earth • Our atmosphere
Attractive Science Years 3-4	**Learning experiences include:** • 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
Bright Sparks Years 3-4	**Learning experiences include:** • Human circuits • Testing conductors and insulators • Fruit batteries • Circus relay • Building circuits – lights and buzzers • Steady hand game

C: class title	Class description
Call the Doctor! Years 6-7	**Learning experiences include:** • 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
Changes, Mixtures & Pure Substances Years 4-5	**Learning experiences include**: • An alien invasion experiment • Why are fireworks different colours? • Rubbery eggs • Make a lava lamp • Grow your own stalactites • Separating polymers • Magnetic slime

CSI: Crime Scene Investigation
 	
Years 5-6
	Learning experiences include:
	
	• Collect evidence
	  ▪ fingerprinting
	  ▪ dental forensics
	  ▪ footprint analysis
	  ▪ chromatography
	  ▪ handwriting analysis
	• Solve a crime in your group!

Coding with Processing Years 4-6	**Learning experiences include:** Learn to code using Processing (Java language) Processing is a visual programming language designed for creative people incorporating digital multi-media. • 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

D: class title	Class description
Day of the Dinosaur Years K-1 **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 - 5.3pm.**	**Learning experiences include:** • 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?

DNA and Evolution Years 4-6	**Learning experiences include:** • 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
Earth and Solar System Years 2-3	**Learning experience include:** • 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
F: class title	Class description
Falling with Style (Flight) Years 2-3	**Learning experiences include:** • What is flight? Flight and forces • Perfecting the paper plane: dart planes, hang gliders, circular planes • Flight contest: furthest and longest • Making a paper helicopter • The flight of hot air balloons

Flight (3 day course) Years 4-6	**Learning experiences include:** Everyday • Explore concepts related to flight. • Time to play/have fun with things that fly. • Time to make a model of something that flies • Provide opportunities for students to engage with all ideas and time and support to investigate some in more depth • Activities to develop skills of Working Scientifically and Working Technologically Day 1 • "Get to know you" games (but related to things that fly) • General safety, rules and expectations • What does it mean to say something flies? • Adaptations of living things that can fly • Design and make a seed casing • Intro to forces: drag, thrust, lift, gravity (explored mostly in one dimension) • Play with things that fly Day 2 • Drama activity: how flight forces act on a paper plane; flying paper planes safely indoors/outdoors • Intro to paper plane construction: Nakamura lock plane • Air has weight and can apply pressure • Exploring ways to generate lift related to changes in air pressure • Modifying paper plane to change its flight path by changing way air moves over the wings • Play with things that fly Day 3 • More paper planes: which one can fly the furthest? For longest time? In a circle? Upside down? Land on a target? • Exploring ways to generate thrust: propellers, stored energy (elastic bands - paper plane launcher), electrical/chemical energy (batteries) • Powered flight for paper planes • Flight forces in space: how are they the same/different? • Play with things that fly • SHOWCASE: parents will be invited for a Showcase at the end of the 3rd day, where the children will share and present on the fun of the past 3 days.

Funky Physics Years K-1 **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.**	**Learning experiences include:** • We'll explode … safely! • We'll apply force and propel and hit targets • We'll push and pull and drop and explore gravity • At the end of today we will understand Earth a little better!

G: class title	Class description
Good Vibrations Years 3-4	**Learning experiences include:** • Sensing Sound: using your ears • What's that Sound? • Good Vibrations: learning that sounds are vibrations • Making different sounds • Sound Travels: making a string telephone • Water and Sound • The Science of Music • Sound Art

H: class title	Class description
The Human Circulatory System Years 2-3	**Learning experiences include:** • 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?

I: class title	Class description
Incredible Forces Years 2-3	**Learning experiences include:** • Balloon rockets • Egg-citing science • Push and pull dance • Magnetic forces • Make a bridge that can withstand strong push forces

L: class title	Class description
Lets Get Physics Years 3-4	**Learning experiences include:** Will Egg-bert survive the day? Use your newfound knowledge and skills to make sure Egg-bert makes it (or not, that's fun too!). • Do activities and games on energy • Test your reaction time • Know your hand preference • Learn about how you balance

M: class title	Class description
Matter Mayhem Years K-1 **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.**	**Learning experiences include:** • 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?

Magic Tricks Years K-1 **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.**	**Learning experiences include:** Make some magic (it's really just science)! • First, make your wand • Walking on water • Lemon volcano • Magic potion • Heat changing slime • Electric eels • Put on a show!
Microscope Magic Years 4-5	**Learning experiences include:** • 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

R: class title	Class description
Rube Goldberg Machines Years 3-4	**Learning experiences include:** • 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 • Check out Rube Goldberg machines on You Tube for the kinds of things that you could make!

S: class title	Class description
Science is Real Years 1-2 **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.**	**Learning experiences include:** • Purple celery experiment • How much does an insect eat? • Marble physics • Where is my tree? • Film canister rockets • It's all natural
Slick Science Years 1-2 **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.**	**Learning experiences include:** • 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?
Smart Materials Years 5-6	**Learning experience include:** • Exploring the key concepts of chemistry • What are atoms, molecules and elements? • Atoms: Covalent and Ionic Bonds • What are polymers and plastics? • What are smart materials? • Experimenting and playing with polymers • Thermochromic polymers – colour change slime!

Special Effects Science Years 4-5	**Learning experience include:** • 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. 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.**	**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
Weaponry of Ancient Rome: Catapults Years 4-5	**Learning experiences include:** • Science of catapults: Forces, Motion and Energy • Build a Roman Shield • Ancient Roman Weaponry Show at the Ancient History Museum • Flying Balloons • Build a mini catapult • Romans vs Barbarians: The battle has begun! Your only weapons are marshmallows to attack and a cardboard shield to protect you and your team. Use your knowledge of forces, motion, and energy to seize the day!
What's the Matter? Years 3-4	**Learning experiences include:** • 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**
Zippy Balloon Science Years 3-4	**Learning experiences include:** • The exploding bag • Flushed away • Making ice-cream • Making sherbet • Heat conduction activity • Make a hovercraft • Marshmallow puff tube experiment