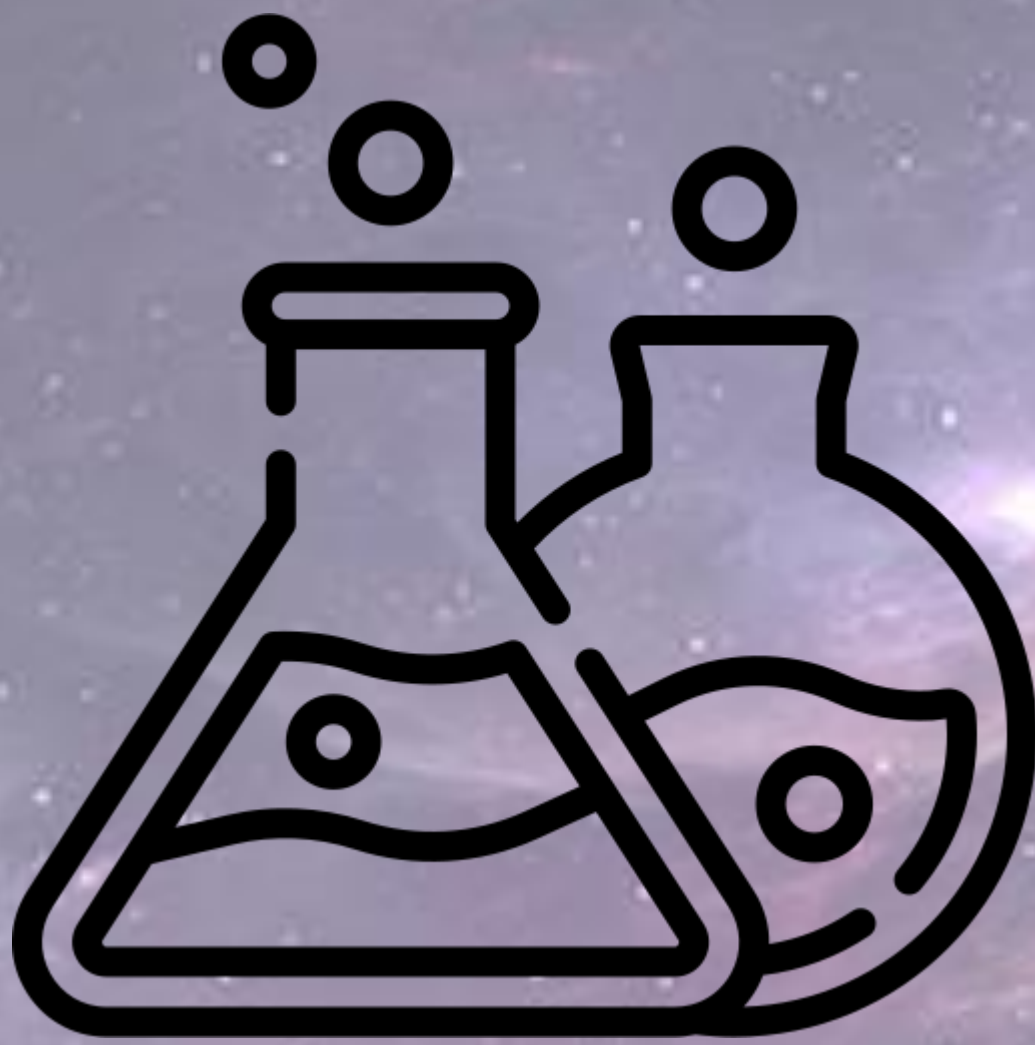


Science



Science Curriculum Map

Science - Our Why?

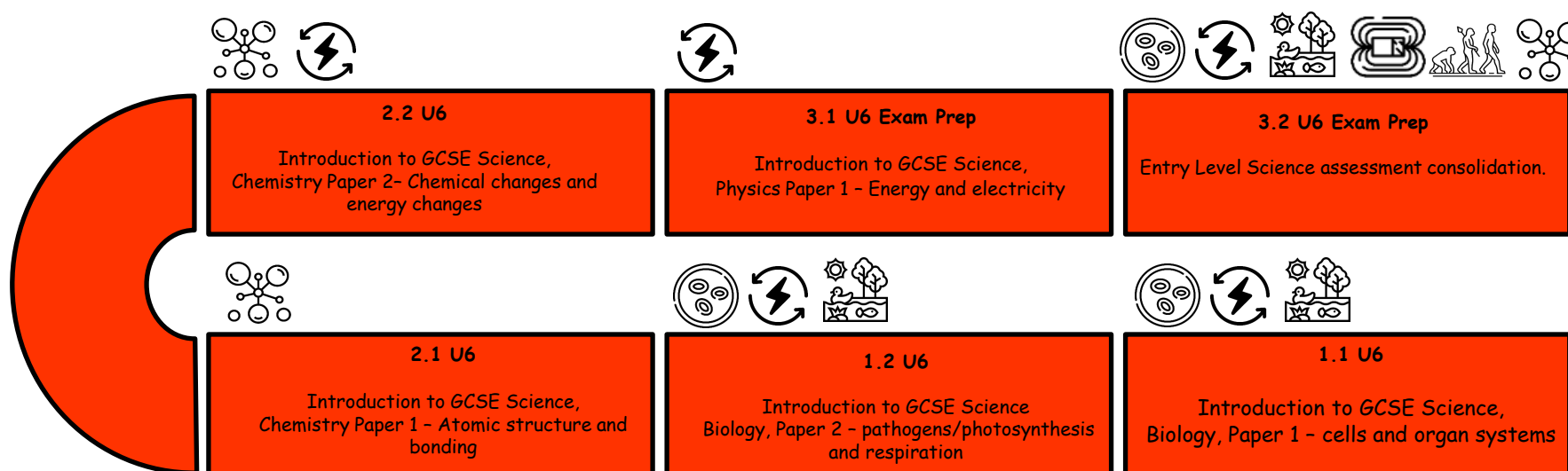
The Aim of Science at Discovery is to inspire curiosity, provoke thinking, understand scientific concepts and investigate questions. Scientific thinking and investigative skills prepare students for adulthood and lifelong learning and critical thinking about wider scientific issues. STEAM allows for students to apply their knowledge to a real life application, through cross curricular links with maths, technology and art. Pupils develop their knowledge and skills through our K&S Statements.

Big Ideas promoted in our Science Curriculum



Substantive Concepts of our Science Curriculum

Cells		All organisms are constituted of one or more cells. Organisms are organised on a cellular basis. All the basic functions of life are the result of what happens inside the cells which makeup an organism. Growth is the result of multiple divisions
Energy		Many processes or events involve change and require energy to make them happen. Energy can be transferred from one body to another in various ways. In these processes some energy is changed to a form that is less easy to use. Energy cannot be created or destroyed . Energy obtained from fossil fuels is no longer available in a convenient form for use.
Earth and Space		The composition of the Earth and its atmosphere and the processes occurring within them to shape the Earth's surface and its climate. Our solar system is a very small part of the one of millions of galaxies in the Universe
Ecosystems		Organisms require a supply of energy and materials for which they are often dependent on or in completion with other organisms. .
Particles		All material in the universe is made of very small particles. Atoms are the building blocks of all materials, living and non-living . The behaviour of atoms explains the properties of different materials. Chemical reactions involve the rearrangement of atoms in substances to form new substances. Each atom has a nucleus containing neutrons and protons surrounded by electrons. The opposite electric charge of protons and electrons attract each other, keeping atoms together and accounting for the formation of some compounds.
Fields and Lightwaves		Objects can affect other objects at a distance, through light and sound, effect of radiation travelling out from the source to the receiver.
Evolution		The diversity of organisms living and extinct is the result of evolution.





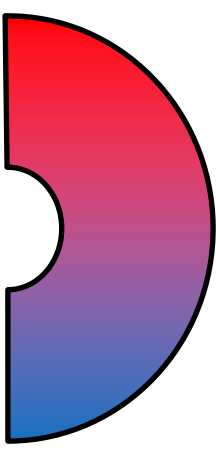
2.1 U3: Off with her Head
Entry Level Science: Biology, Module 2 (B2) Environment, Evolution and Inheritance. Students will study photosynthesis and adaptations.



3.1 U3, 4 & 5: States of Matter
Entry Level Science: Physics, Module 5 (P5) Energy, Forces and the Structure of Matter. Students will study speed and radiation.



3.2 U3, 4 & 5: Environmental Artists
Entry Level Science: Physics, Module 5 (P5) Energy, Forces and the Structure of Matter. Students will study speed and radiation.



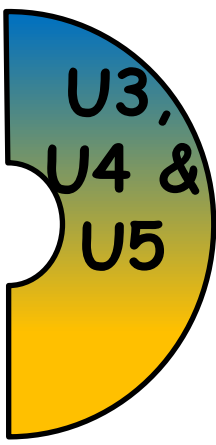
2.1 U3, 4 & 5 :Darwin's Delights
Entry Level Science: Biology, Module 2 (B2) Environment, Evolution and Inheritance. Students will study photosynthesis and adaptations.



1.2 U3, 4 & 5 Revolution
Entry Level Science: Chemistry, Module 4 (C4) Chemistry in Our World. Students will study the Earth's atmosphere, crude oil- its formation and uses and potable water.



1.1 U3, 4 & 5: MI7
Entry Level Science: Chemistry, Module 4 (C4) Chemistry in Our World. Students will study neutralisation reactions, energy changes and rate of reaction.



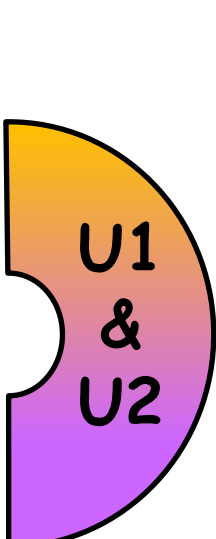
2.2 U1 & U2 Rocks, relics and rumbles
Entry Level Science: Chemistry, Module 3 (C3) Students will study everyday elements, compounds and mixtures and the differences between these along with state of matter



3.1 U1 & U2: Blood Heart
Entry Level Science: Biology, Module 1 (B1) Students will study animal and plant cells and see how cells are the building blocks of tissues, organs and different organ systems.



3.2 U1 & U2: Road Trip USA
Entry Level Science: Biology, Module 1 (B1) Students will study animal and plant cells and see how cells are the building blocks of tissues, organs and different organ systems.



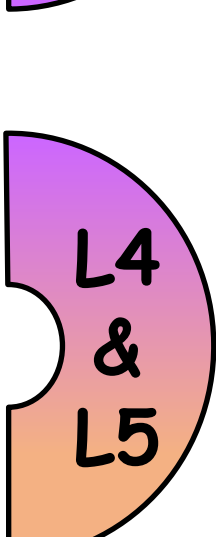
2.1 U1 & U2 : Eat well cook well
Entry Level Science: Chemistry, Module 3 (C3) Students will study everyday elements, compounds and mixtures and the differences between these along with state of matter



1.2 U1 & U2 : Gods and Mortals
Entry Level Science: Physics, Module 6 (P6) Students will study electricity including: different types of current, electrical safety and circuits.



1.1 U1 & U2: Spirit
Entry Level Science: Physics, Module 6 (P6) Students will study electricity including: different types of current, electrical safety and circuits.



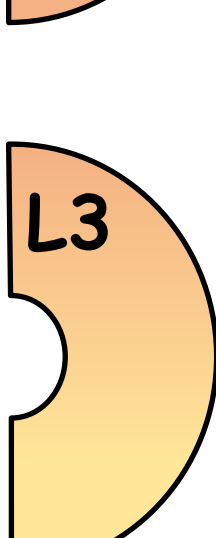
2.2 L4 & L5: Alchemy Island
Chemistry: Students carrying out a range of alchemist themed experiments including: 'Examining Samples', 'Separating Mixtures' and 'Creating Crystals.'



3.1 L4 & L5: Coastline
Physics: Activities to be covered this topic include 'Investigating Materials', 'Floating Boats' and 'Abandon Ship.'



3.2 L4 & L5: Muck, Mess and Mixtures
Physics: Activities to be covered this topic include 'What makes the loudest sound?'



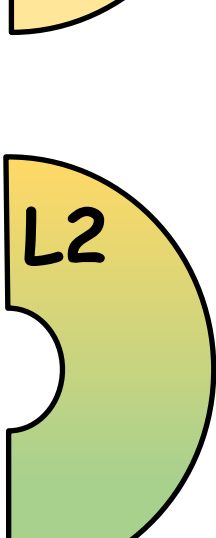
2.1 L4 & L5: Towers Tunnels and Turrets Structures
Physics and Chemistry: Activities to be covered this topic include 'Playground Visit', 'Sorting and Classifying', 'Slip and Slide', 'Magnetic Object Hunt' and 'Investigating Magnets.'



1.2 L4 & L5: Gallery Rebels
Physics: Students will complete a range of investigations over the course of the half term, with the aim of answering the following question: Why do shadows change?.



1.1 L4 & L5: Misty Mountain, winding River
Biology and Chemistry: Students will carry out experiments to study soil and water. They will study the water cycle, look into river formations and compare different plants.



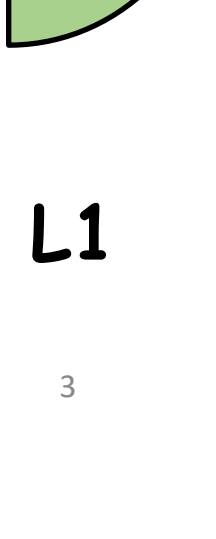
2.2 L3: Paws claws and whiskers
Biology: Activities to be covered this topic include 'fossils', 'Reptile Day', 'How Big?' and 'Dino dentist!'



3.1 L3: Our Wonderful World
Chemistry: Activities to be covered this topic include 'Playing in the wind', 'melting' and 'freezing'.



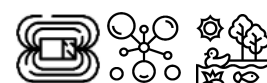
3.2 L3: Rio Da Vida
Physics: Activities to be covered this topic 'time zones', 'day and night' and 'moon phases' .



2.1 L3 Enchanted woodland
Physics: Activities to be covered this topic include 'Exploring Properties', 'Space, planets and astronauts', 'Our Solar System' and 'Rockets'.



1.2 L3: Memory box
Biology: Activities to be covered this topic include 'seasonal clothing' and 'tree changes'



1.1 L3: TEAM
The World: Activities to be covered this topic include 'Shiny Things', 'reflections' and 'mirror images'



2.2 L2: Amazing Animals
Exploring and using media and materials; Being imaginative. Activities to be covered include 'reptile house visit.' And 'who eats who?'



3.1 L2: Peculiar Plants
Exploring and using media and materials; Being imaginative. Activities to be covered this topic include 'Supermarket Visit' and 'Are all carrots orange?.'



3.2 L2: On The Beach
Exploring and using media and materials. Activities to be covered include 'Seabirds' and 'Brightly Coloured Shells.'



2.1 L2: Puppet Show
The world, Technology: Activities to be covered in this topic include 'What noise did I make?' and 'toy mechanisms'



1.2 L2: Winter Wonderland
Exploring and using media and materials; Being imaginative. Activities to be covered include 'woodland visit' and 'land artists'.



1.1 L2: Build It Up
Exploring and using media and materials; Being imaginative : Activities to be covered this topic include 'Loose Parts.'



2.2 L1: Lets Explore
Exploring and using media and materials; Being imaginative. Activities to be covered include 'Boxes' which material is best?' and 'waterproof materials.'



3.1 L1: Sunshine and Sunflowers
The World; Technology. Activities to be covered include 'Signs of summer', 'What's the weather?' and 'leaf spotting'



3.2 L2: Ready, Steady Grow
The World; Technology. Being imaginative. Activities to be covered include 'Farm Visit', 'Same or Different?', 'My Baby' and 'why are farms important?'



2.1 L1: Shadows and reflection
The World; Technology. Activities to be covered include 'Shadows', 'Investigating Light', 'Can you draw a shadow?'



1.2 L1: Chop slice and Mash
The World; Being imaginative Activities to be covered include 'Smell Pots', 'Pips', 'Chocolate' and 'What am I?'



1.2 L1: Stories and Rhymes
Exploring and using media and materials. Activities to be covered include 'Little pig, little pig.'

