



Curriculum Map

Science - Our Why?

The Aim of Science at Abbey 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

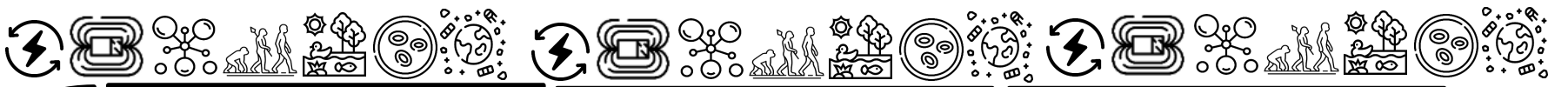


Substantive Concepts of our Science Curriculum

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 make up 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. 1
Evolution		The diversity of organisms living and extinct is the result of evolution.



Curriculum Horizon Hub and Upper School



2.1 H3 & H4
Consolidation of ELC & GCSE Science
Exam Preparation

3.1 H3 & H4
Consolidation of ELC & GCSE Science
Exam Preparation

3.2 H3 & H4
Consolidation of ELC & GCSE Science
Exam Preparation

2.1 H3 & H4
ELC & GCSE Science
Key areas - Physics

1.2 H3 & H4
ELC & GCSE Science
Key areas - Chemistry

1.1 H3 & H4
ELC & GCSE Science
Key areas - Biology

**H3/
4**

2.2 H2: States of Matter
Chemistry (C3): Students will study;
States of Matter and Metals and Non-
Metals

3.1 H2: Blood Heart
Biology (B1): Students will study; Cells,
Organs and Organ Systems (Circulatory and
Digestive)

3.2 H2 Tomorrows world.
Biology (B1): Students will study; Health and
Lifestyle and Diseases

2.1 H2: Off With Her Head
Chemistry (C3): Students will study; Elements
and Separating Mixtures

1.2 H2: Our changing world
Physics (P6): Students will study; Magnets and
Waves

1.1 H2: Road Trip USA
Physics (P6): Students will study; Electricity
and Circuits

H2

2.2 H1 Urban Pioneers
Biology: Activities to be covered include
'Community Walk' and 'What do Plants Need
to Grow?'

3.1 H1 Emperors and Empires
Biology: Activities to be covered include
'Animal Senses' and 'Superhero Senses'

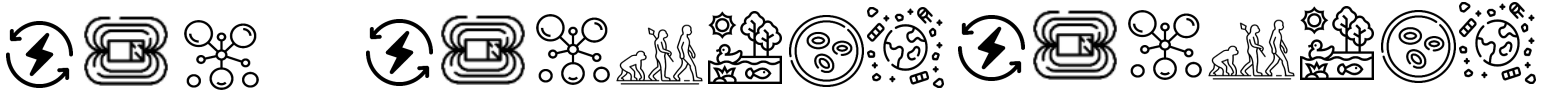
3.2 H1 Enchanted Woodland
Biology Activities to be covered include
'Natures Table' and 'Choice Chambers'

2.1 H1: Remarkable Recipes
Biology: Activities to be covered include
'Exploring Foods,' 'Eatwell' and 'Energy in
Foods'

1.2 H1 Rocks, Relics and Rumbles
Biology: Activities to be covered include
'Fossils' and 'The Rock Cycle'

1.1 H1 Magnificent Monarchs:
Physics: Activities to be covered include
'Bridge Investigation' and 'Material Insulation'

H1



2.2 U7
GCSE Science
Key areas - Physics

3.1 U7
Consolidation of GCSE Science
Exam Preparation

3.2 U7
Consolidation of GCSE Science
Exam Preparation

2.1 U7
GCSE Science
Key areas - Chemistry

1.2 U7
GCSE Science
Key areas - Chemistry

1.1 U7
GCSE Science
Key areas - Biology

U7

2.2 U6
GCSE Science Chemistry Paper 1
Students will study; Chemical Changes and
Energy Changes

3.1 U6
GCSE Science Physics Paper 1.
Students will study; Energy and Electricity

3.2 U6
GCSE Science Physics Paper 1.
Students will study; Particle Model and
Atomic Structure

2.1 U6
GCSE Science Chemistry Paper 1
Students will study; Atomic Structure,
Bonding and Quantitative Chemistry

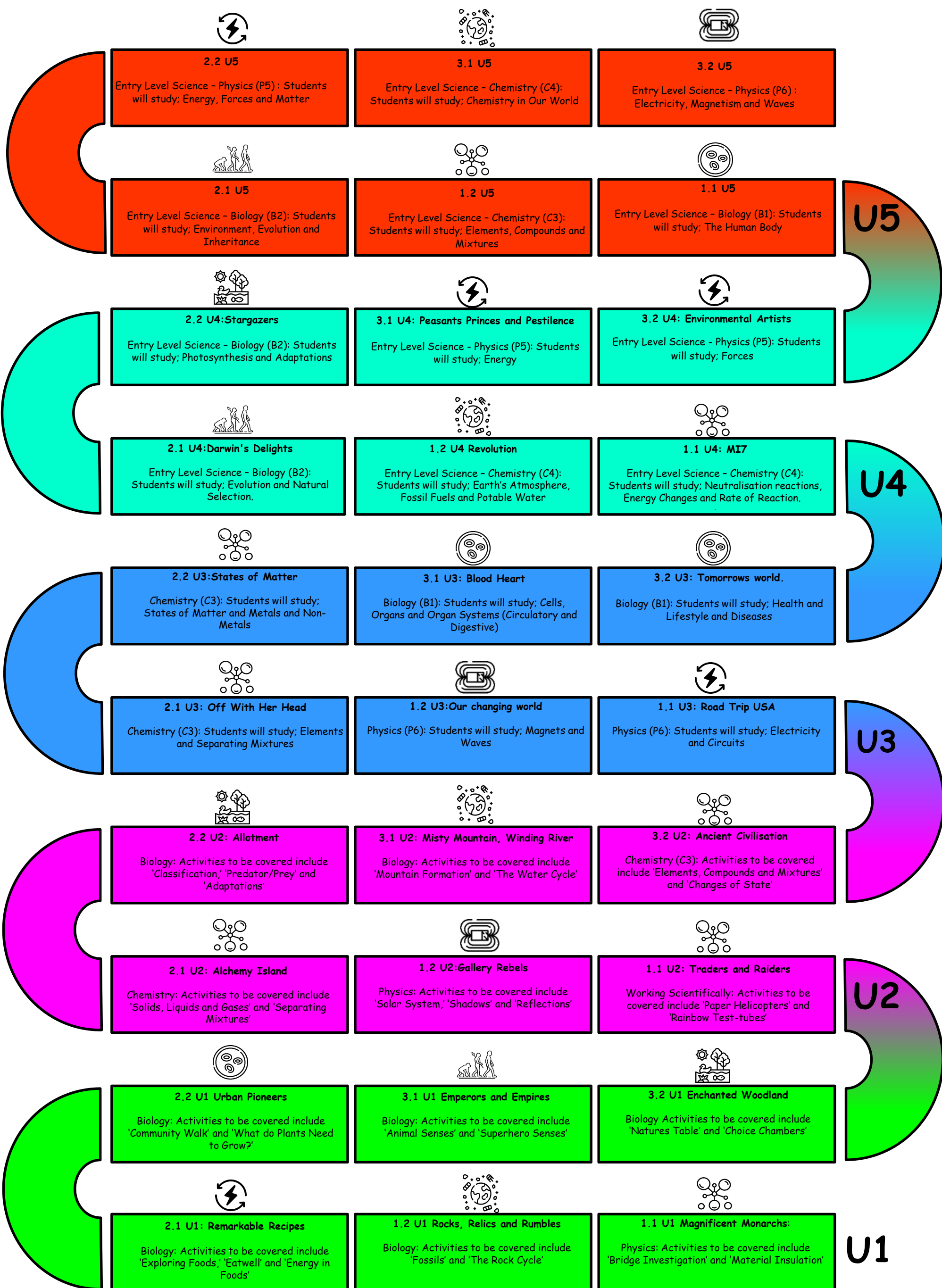
1.2 U6
GCSE Science Biology Paper 1
Students will study; Infection/Response and
Bioenergetics

1.1 U6
GCSE Science Biology Paper 1
Students will study; Cell Biology and
Organisation

U6



Curriculum Map Upper School and Horizon Hub





Curriculum Map Lower School



2.2 Rocks, Relics and Rumbles
Biology and Chemistry: Activities to be covered include 'Types of Rocks' and 'Soil Testing'

3.1 Predator
Biology: Activities to be covered include 'Plant Functions' and 'Transport of Water in Plants'

3.2 Urban Pioneer
Biology: Activities to be covered include 'Woodland Habitats' and 'Food Chains'



2.1 L6: Eat Well, Cook Well
Physics: Activities to be covered include 'Building Circuits' and 'Insulators and Conductors'

1.2 L6: Gods and Mortals
Physics: Activities to be covered include 'Transparent, Translucent, Opaque?' and 'Rainbow Prisms'

1.1 L6: Spirit
Physical Education and Biology: Activities to be covered include 'Skeleton,' 'Muscles' and 'Healthy Lifestyle'

L6



2.2 L5: Wriggle and Crawl
Biology: Activities to be covered include 'Bacterial Growth', 'Herbal Remedies', 'Life Cycles' and 'Pet Rats'.

3.1 L5: Coastlines
Physics: Activities to be covered include 'Investigating Materials', 'Floating Boats' and 'Abandon Ship.'

3.2 L5: Muck, Mess and Mixtures
Biology and Chemistry: Activities to be covered include 'All about Iron', 'Growing Grain Crops' and 'Plant Life Cycle'

L5



2.1 L5: Towers, Tunnels and Turrets Structures
Physics: Activities to be covered include 'Playground Visit', 'Slip and Slide' and 'Magnetic Materials'

1.2 L5 Beat, Band, Boogie
Physics: Activities to be covered include 'Pitch', 'Volume' and 'Shakers'

1.1 L5 Bounce
Biology: Activities to be covered include 'Balanced Diet' and 'Digestive System Journey'



2.2 L4: Paws, Claws and Whiskers
Biology: Activities to be covered include 'fossils', 'Reptile Visit' and 'Dino Teeth'

3.1 L4: Our Wonderful World
Chemistry: Activities to be covered include 'Windmills', 'Melting' and 'Freezing'.

3.2 L4: Rio De Vida
Physics: Activities to be covered include 'Time Zones', 'Day and Night' and 'Moon Phases'.

L4



2.1 L4 Enchanted Woodland
Physics: Activities to be covered include 'Material Planets', 'Solar System' and 'Rockets'

1.2 L4: Memory Box
Biology: Activities to be covered include 'Seasonal Clothing' and 'Tree Changes'

1.1 L4: TEAM
The World: Activities to be covered include 'Reflections' and 'Symmetry Drawings'



2.2 L3: Animal Parts
Exploring and using media and materials; Being imaginative. Activities to be covered include 'Reptile Visit' and 'Who Eats Who?'

3.1 L3: Plant Parts
Exploring and using media and materials; Being imaginative. Activities to be covered include 'Which Foods are From Which Animal?' and 'Are All Carrots Orange?.'

3.2 L3: Build It Up
Exploring and using media and materials; Being imaginative : Activities to be covered include 'Loose Parts.'

L3



2.1 L3: Puppets and Pops
The world, Technology: Activities to be covered include 'What Noise Did I Make?' and 'Toy Mechanisms'

1.2 L3: Winter Wonderland
Exploring and using media and materials; Being imaginative. Activities to be covered include 'Woodland Art' and 'Tree Identification'.

1.1 L3: Marvelous Machines
Exploring and using media and materials; Being imaginative. Activities to be covered include; 'Grouping Materials' and 'Junk Modelling'



2.2 L2: Let's Explore
Exploring and using media and materials. Activities to be covered include 'Grouping Materials' and 'Which Material is Best?'

3.1 L2: Sunshine and Sunflowers
Exploring and using media and materials. Activities to be covered include 'Signs of Summer', 'Why is Water Important?' and 'Leaf Spotting'

3.2 L2: Ready, Steady Grow
Exploring and using media and materials. Being imaginative. Activities to be covered include 'Farm Visit', 'Same or Different?' and 'My Baby'

L2



2.1 L2: Shadows and Reflections
The World; Technology. Activities to be covered include 'Light Sources' and 'Shadow Puppets'

1.2 L2: Chop, Slice and Mash
Exploring and using media and materials. Activities to be covered include 'Smell Pots', 'Pips', 'Chocolate' and 'What am I?'

1.1 L2: Sparkle and Shine
The World; Activities to be covered include 'Treasures', 'Catching the Sunlight', 'What's in the Case?' and 'Coin Clean.'



2.2 L1: Animal Safari
Exploring and using media and materials. Activities to be covered include 'I Want to be a Lion' and 'African Landscapes.'

3.1 L1: Creep, Crawl and Wriggle
Exploring and using media and materials. Activities to be covered include 'Minibeast Hotels', 'Fancy That' and 'Snail Art.'

3.2 L1: On The Beach
Exploring and using media and materials. Activities to be covered include 'Sandcastles' and 'Brightly Coloured Shells.'

L1



2.1 L1: Big Wide World
Exploring and using media and materials. Activities to be covered include 'Building Bridges' and 'Sweet Treats.'

1.2 L1: Stories and Rhymes
Exploring and using media and materials. Activities to be covered include 'Little Pig' and 'Rapunzel.'

1.1 L1: Me and My Community
Exploring and using media and materials. Activities to be covered include 'Friendship Colours', 'The Gathering Drum' and 'Hearts.'