Viewley Hill Academy

# Science in the Curriculum 2017-2018

## Year 1-2 Cycle 1

| Autumn 1 | | Spring 1 | | Summer 1 | |
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| Enchanted woodland (Science Driver) | Plants (Yr 1obs)<br>Describe the simple physical properties of a variety of plants.<br>P1 -Identify and name a variety of common wild and garden plants, including deciduous and evergreen trees<br>P2-Identify and describe the basic structure of a variety of common flowering plants inc. Trees. WS WS5<br>Plants (Year 2 obs)<br>P1-Observe and describe how seeds and bulbs grow into mature plants<br>P2-Find out and describe how plants need water, light and suitable temp to grow and be healthy.<br>WS,2,4,5,6 | Memory Box (History driver) | Everyday materials **(Yr1 obs)**<br>EM 1-Distinguish between an object and the material from which it is made.<br>EM2-Identify and name everyday materials inc. Wood, plastic, glass, metal, water and rock.<br>EM3-Describe simple physical properties of everyday materials.<br>EM4- Compare and group together a variety of everyday materials on the basis of their simple physical processes.<br><br>Uses of every day materials (**yr 2 obs)**<br><br>EM1-Identify and compare the suitability of a variety of everyday materials inc wood, metal, plastic<br>EM2-Find out how the shapes of solids objects made from some materials can be changed by squashing, bending, twisting and stretching.<br>W/S 1,3,4,5,6 | Land Ahoy (History/Geography Driver) | Animals including Humans (yr2 obs)<br>A1-Know that animal's inc humans have offspring which grow to adults.<br>A2-Basic needs of animal's inc human for survival.<br>A3-Importance of human exercised, eating, food types and hygiene.<br>WS,3,4 |
| **Autumn 2** | | **Spring 2** | | **Summer 2** | |
| Moon Zoom (Science/DT Driver) | Everyday materials **(Yr1 obs)**<br>EM 1-Distinguish between an object and the material from which it is made.<br>EM2-Identify and name everyday materials inc. Wood, plastic, glass, metal, water and rock.<br>EM3-Describe simple physical properties of everyday materials.<br>EM4- Compare and group together a variety of everyday materials on the basis of their simple physical processes.<br><br>Uses of every day materials (**yr 2 obs)** | Bright Lights, big City (Geography Driver) | Animals inc Humans**(year 1 ob)**<br>A1-Identify and name a variety of common animals inc fish, amphibians, reptiles, birds and mammals.<br>A2-Identify a range of animals that are carnivore/herbivore/omnivores<br>A3-Describe and compare the structure of common animals ic fish, amphibians, reptiles, birds and mammals inc pets.<br>A4-Identify name draw and label parts of human body and say which part is associated with each sense.<br>W/S- 3,4,5,6 | Wriggle and Crawl (Science Driver) | Living Things and their habitats (yr 2 obs)<br><br>LT1- explore and compare the differences between things that are living, dead and never been alive.<br><br>LT2-Identify most living things live in habitats +how habitats provide basic needs and dependencies<br><br>LT3-Identify and name a variety of plants and animals in their habitats. |

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| | EM1-Identify and compare the suitability of a variety of everyday materials inc wood, metal, plastic<br>EM2-Find out how the shapes of solids objects made from some materials can be changed by squashing, bending, twisting and stretching.<br>W/S 1,3,4,5,6 | | | | LT4-Describe how animals obtain food |
| 1 week per term to be decided as a team to focus on seasonal changes.<br><br>Seasonal Changes (year 1 ob)<br>SC1- Observe changes across the four seasons.<br>SC2- Observe and describe weather ass with seasons and how day varies.<br>WS2, 3,5,6 | | | | | |

| Year 3 | | | | | |
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| **Autumn 1** | | **Spring 1** | | **Summer 1** | |
| **Potions (Science Driver)** | Plants<br>P1-Identify and describe functions of different flowering plants: roots, stem/trunk leaves and flowers.<br>P2-Explore requirements of plants for life and growth (air, light water, nutrients soil and room)<br>P3-Investigate how water is transported.<br>p4-Explore the part flowers play in life cycle inc pollination, seed formation and seed dispersal. | **Burp Bottoms and Bile (Science Driver)** | Animals inc Humans<br>A1-Identify that animals inc humans need the right amounts of nutrition, they cannot make food: they get nutrition from what they eat.<br>A2-Identify that humans and some other animals have skeletons and muscles for support, protection and movement. | **Blue Abyss (Art Driver)** | A1-Identify that animals inc humans need the right amounts of nutrition, they cannot make food: they get nutrition from what they eat.<br>A2-Identify that humans and some other animals have skeletons and muscles for support, protection and movement.<br>R2-Describe in simple terms how fossils are formed when things that have lived are trapped within rock. |
| **Autumn 2** | | **Spring 2** | | **Summer 2** | |
| **Traiders and Raiders (History Driver)** | Light<br>L1-Recognise they need light in order to see and that dark is the absence of light.<br>L2-Notice that light is reflected from surfaces<br>L3-Recognise that light from the sun can be dangerous and there are ways to protect eyes.<br>L4-Recognise that shadows are formed when the light from a light source is blocked by a solid object.<br>L5- Find patterns in the way that the size of shadows change. | **Playlist (Music Driver)** | Forces and magnets<br>FM1-Compare how things move on different surfaces.<br>FM2- Notice that some forces need contact between two objects, but magnetic forces can act at a distance.<br>FM3-Observe how magnets attract and repel some materials not others.<br>FM4-Compare and group together materials based on whether they are attracted to a magnet.<br>FM5-Describe magnets as having two poles.<br>FM6-Predict whether 2 magnets will attract or repel depending on which poles are facing. | **(Misty Mountain Sierra (Geography Driver)** | Rocks<br>R1-Compare and group together different kinds of rocks on the basis of their appearance and simple physical processes.<br><br>R2-Describe in simple terms how fossils are formed when things that have lived are trapped within rock.<br><br>R3-Recognise that soils are made from rocks and organic matter. |

| Year 4 | | | | | |
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| **Autumn 1** | | **Spring 1** | | **Summer 1** | |
| **Potions**<br>**(Science driver)** | States of Matter<br>SM2-Observe that some materials change state when they are heated and cooled and measure or research the temp at which this happens.<br><br>SM3-Identify the part played by evaporation and condensation in the water cycle and associate the rate of evaporation with temperature.<br>WS-1,2,5 | **Burps, Bottoms and Bile**<br>**(Science Driver)** | Animals, inc. Humans<br><br>A1-Describe the simple functions of the basic parts of the digestive systems in humans.<br>A2-Identify the different types of teeth in humans and their functions.<br>A3-Construct and interpret a variety of food chains, identifying producers, predators and prey.<br>WS-1,2,3,5,8,9 | **Blue Abyss**<br>**(Art Driver)** | Living Things and their Habitats<br><br>H1-Recognise that living things can be grouped in a variety of ways<br>H2-Explore and use classification keys to group, identify and name living things in local and wider environment.<br>H3-Recognise that environment can change and this can pose danger to living things.<br>WS-1,4,5,6,8,9 |
| **Autumn 2** | | **Spring 2** | | **Summer 2** | |
| **Traders and Raiders**<br>**(History Driver)** | Electricity<br><br>E1-Identify common appliances that run on electricity E2-construct a simple series electrical circuit, identifying and naming its basic parts, including cells, wires, bulbs, switches and buzzers<br><br>E3-Identify whether or not a lamp will light in a simple series circuit, based on whether or not the lamp is part of a complete loop with a battery.<br><br>E4-Recognise that a switch opens and closes a circuit and associate this with whether or not a lamp lights in a simple series circuit<br><br>E5-Recognise some common conductors and insulators, and associate metals with being good conductors Ws-1 3,8 | **Play List**<br>(Music Driver) | Sound<br><br>S1-Identify how sounds are made, associating some of them with something vibrating<br><br>S2-Recognise that vibrations from sounds travel through a medium to the ear<br><br>S3-Find patterns between the pitch of a sound and features of the object that produced it<br><br>S4-Find patterns between the volume of a sound and the strength of the vibrations that produced it<br><br>S5-Recognise that sounds get fainter as the distance from the sound source increases. | **Misty Mountain Sierra**<br>**(Geography Driver)** | States of Matter<br><br>SM1-Compare and group materials together according to whether they are solids, ,liquids and gases<br><br>SM2-Observe that some materials change state when they are heated and cooled and measure or research the temp at which this happens.<br><br>WS 1,2,3,6,7 |

| Year 5 | | | | | |
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| **Autumn 1** | | **Spring 1** | | **Summer 1** | |
| **Time Traveller (Art Driver)** | Living things and their habitats<br><br>LT2-Describe the life processes of reproduction in animals.<br><br>Animals inc. humansA1-Describe the changes as humans develop to old age<br><br>WS1 | **Stargazers (Science Driver)** | Earth and Space<br>ES1-Describe the movement of the Earth and other planets relative to the sun in the solar system<br>ES2-Describe the movement of the moon relative to the Earth<br>ES3-Describe the sun, Earth and moon as approximately spherical bodies<br>ES4-Use the idea of the Earth's rotation to explain day and night and the apparent movement of the sun across the sky<br>**Forces**<br>F1-Explain that unsupported objects fall towards the Earth because of the force of gravity acting between the Earth and the falling object<br>WS 1,2,3,5,6 | **Peasants, Prince and pestilence (History driver)** | Living things and their habitats<br><br>LT1-Describe the difference in the life cycles of a mammal, an amphibian, an insect and a bird. |
| **Autumn 2** | | **Spring 2** | | **Summer 2** | |
| **Pharaohs (History Driver)** | **Forces**<br>**F1**-Explain that unsupported objects fall towards the Earth because of the force of gravity acting between the Earth and the falling object<br>**F2**-Identify the effects of air resistance, water resistance and friction, that act between moving surfaces<br>**F3**-Recognise that some mechanisms including levers, pulleys and gears allow a smaller force to have a greater effect | **Allotment (Geography Driver)** | Living things and their habitats<br><br>LT1-Describe the difference in the life cycles of a mammal, an amphibian, an insect and a bird.<br><br>LT2-Describe the life processes of reproduction in some plants.<br><br>WS 1,2,3,4,5 | **Scream Machine (Science Driver)** | **Properties and changing materials**<br>**CM1**-Compare and group together everyday materials on the basis of their properties, including their hardness, solubility, transparency, conductivity (electrical and thermal), and response to magnets<br>**CM2**-Know that some materials will dissolve in liquid to form a solution, and describe how to recover a substance from a solution<br>**CM3-** Use knowledge of solids, liquids and gases to decide how mixtures might be separated, including through filtering, sieving and evaporating<br>**CM4**-Give reasons, based on evidence from comparative and fair tests, for the particular uses of everyday materials, including metals, wood and plastic<br>**CM5**-Demonstrate that dissolving, mixing and changes of state are reversible changes<br>**CM6**-Explain that some changes result in the formation of new materials, and that this kind of change is not usually reversible, including changes associated with burning and the action of acid on bicarbonate of sod |

| Year 6 | | | | | |
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| **Autumn 1** | | **Spring 1** | | **Summer 1** | |
| **A Childs war (History Driver)**<br><br>Discrete unit of electricity | Electricity<br><br>E1-Associate the brightness of a lamp or the volume of a buzzer with the number and voltage of cells used in the circuit<br><br>E2-Compare and give reasons for variations in how components function, including the brightness of bulbs, the loudness of buzzers and the on/off position of switches<br><br>E3-Use recognised symbols when representing a simple circuit in a diagram. | **Darwins Delights (Science Driver)** | **Evolution and inheritance**<br>**EI1**-Recognise that living things have changed over time and that fossils provide information about living things that inhabited the Earth millions of years ago<br>**EI2**-Recognise that living things produce offspring of the same kind, but normally offspring vary and are not identical to their parents<br>**EI3**-Identify how animals and plants are adapted to suit their environment in different ways and that adaptation may lead to evolution | **Blood Heart (Science Driver)** | **Animals inc. Humans**<br>**A1**-Identify and name the main parts of the human circulatory system, and describe the functions of the heart, blood vessels and blood<br>**A2**-Recognise the impact of diet, exercise, drugs and lifestyle on the way their bodies function<br>**A3**-Describe the ways in which nutrients and water are transported within animals, including humans<br>WS3,5,6-Records data and results. Report findings. Support ideas with evidence.<br>. |
| **Autumn 2** | | **Spring 2** | | **Summer 2** | |
| **Frozen Kingdom (Geography driver)** | Living things and their habitats<br><br>LT1-Describe how living things are classified into broad groups according to common observable characteristics and based on similarities and differences, including micro-organisms, plants and animals LT2-Give reasons for classifying plants and animals based on specific characteristics<br><br>WS-Ask questions that can be investigated and decide how to find answers scientificallyGrouping and classifying materials-some materials are better thermal insulators than others. | **Hola Mexico (Music Driver)** | ***Revision for SATs*** | **Blood Heart**<br><br>**(Science Driver)** | **Light**<br>**L1**-Recognise that light appears to travel in straight lines<br>**L2**- Use the idea that light travels in straight lines to explain that objects are seen because they give out or reflect light into the eye<br>**L3-** Explain that we see things because light travels from light sources to our eyes or from light sources to objects and then to our eyes<br>L4- Use the idea that light travels in straight lines to explain why shadows have the same shape as the objects that cast them.<br>WS5 |