

HILL VIEW SCHOOL SCIENCE PROGRESSION MAP

BIOLOGY - Year one

Animals including Humans	Plants	All living things and their Habitats	Evolution and Inheritance
<ul style="list-style-type: none"> • Know how to classify a range of animals by amphibian, reptile, mammal, fish and birds • Know and classify animals by what they eat (carnivore, herbivore and omnivore) • Know how to sort by living and non-living things • Know the name of parts of the human body that can be seen 	<ul style="list-style-type: none"> • Know and name a variety of common wild and garden plants • Know and name the petals, stem, leaves and root of a plant • Know and name the roots, trunk, branches and leaves of a tree 		

BIOLOGY - Year Two

Animals including Humans	Plants	All living things and their Habitats	Evolution and Inheritance
<ul style="list-style-type: none"> • Know the basic stages in a life cycle for animals, (including humans) • Know why exercise, a balanced diet and good hygiene are important for humans 	<ul style="list-style-type: none"> • Know and explain how seeds and bulbs grow into plants • Know what plants need in order to grow and stay healthy (water, light & suitable temperature) 	<ul style="list-style-type: none"> • Classify things by living, dead or never lived • Know how a specific habitat provides for the basic needs of things living there (plants and animals) • Match living things to their habitat • Name some different sources of food for animals • Know about and explain a simple food chain 	

Animals including Humans	Plants	All living things and their Habitats	Evolution and Inheritance
<ul style="list-style-type: none"> • Know about the importance of a nutritious, balanced diet • Know how nutrients, water and oxygen are transported within animals and humans • Know about the skeletal and muscular system of a human 	<ul style="list-style-type: none"> • Know the function of different parts of flowering plants and trees • Know how water is transported within plants • Know the plant life cycle, especially the importance of flowers 		

Animals including Humans	Plants	All living things and their Habitats	Evolution and Inheritance
<ul style="list-style-type: none"> • Identify and name the parts of the human digestive system • Know the functions of the organs in the human digestive system • Identify and know the different types of human teeth • Know the functions of different human teeth • Use and construct food chains to identify producers, predators and prey 		<ul style="list-style-type: none"> • Recognise that living things can be grouped in a variety of ways • Use classification keys to group, identify and name living things • Know how changes to an environment could endanger living things 	

HILL VIEW SCHOOL SCIENCE PROGRESSION MAP

BIOLOGY - Year Five

Animals including Humans	Plants	All living things and their Habitats	Evolution and Inheritance
<ul style="list-style-type: none">• Create a timeline to indicate stages of growth in humans		<ul style="list-style-type: none">• Know the life cycle of different living things e.g. mammal, amphibian, insect and bird• Know the differences between different life cycles• Know the process of reproduction in plants• Know the process of reproduction in animals	

Animals including Humans	Plants	All living things and their Habitats	Evolution and Inheritance
<ul style="list-style-type: none"> • Identify and name the main parts of the human circulatory system • Know the function of the heart, blood vessels and blood • Know the impact of diet, exercise, drugs and lifestyle on health • Know the ways in which nutrients and water are transported in animals, including humans 		<ul style="list-style-type: none"> • Classify living things into broad groups according to observable characteristics and based on similarities and differences • Know how living things have been classified • Give reasons for classifying plants and animals in a specific way 	<ul style="list-style-type: none"> • Know how the Earth and living things have changed over time • Know how fossils can be used to find out about the past • Know about reproduction and offspring (recognising that offspring normally vary and are not identical to their parents) • Know how animals and plants are adapted to suit their environment • Link adaptation over time to evolution • Know about evolution and can explain what it is

HILL VIEW SCHOOL SCIENCE PROGRESSION MAP

CHEMISTRY - Year One

Everyday Materials	Rocks	States of Matter	Properties and changes in Materials
<ul style="list-style-type: none">• Know the name of the materials an object is made from• Know about the properties of everyday materials			

Everyday Materials	Rocks	States of Matter	Properties and changes in Materials
<ul style="list-style-type: none">• Know how materials can be changed by squashing, bending, twisting and stretching• Know why a material might or might not be used for a specific job			

HILL VIEW SCHOOL SCIENCE PROGRESSION MAP

CHEMISTRY - Year Three

Everyday Materials	Rocks	States of Matter	Properties and changes in Materials
	<ul style="list-style-type: none">• Compare and group rocks based on their appearance and physical properties, giving reasons• Know how soil is made and how fossils are formed• Know about and explain the difference between sedimentary, metamorphic and igneous rock		

HILL VIEW SCHOOL SCIENCE PROGRESSION MAP

CHEMISTRY - Year Four

Everyday Materials	Rocks	States of Matter	Properties and changes in Materials
		<ul style="list-style-type: none">• Group materials based on their state of matter (solid, liquid, gas)• Know the temperature at which materials change state• Know about and explore how some materials can change state• Know the part played by evaporation and condensation in the water cycle	

Everyday Materials	Rocks	States of Matter	Properties and changes in Materials
			<ul style="list-style-type: none">• Compare and group materials based on their properties (e.g. hardness, solubility, transparency, conductivity, [electrical & thermal], and response to magnets)• Know and explain how a material dissolves to form a solution• Know and show how to recover a substance from a solution• Know and demonstrate how some materials can be separated (e.g. through filtering, sieving and evaporating)• Know and demonstrate that some changes are reversible and some are not

			<ul style="list-style-type: none">• Know how some changes result in the formation of a new material and that this is usually irreversible
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Everyday Materials	Rocks	States of Matter	Properties and changes in Materials

HILL VIEW SCHOOL SCIENCE PROGRESSION MAP

PHYSICS - Year One

Seasonal Change	Forces	Light	Electricity	Sound	Earth and Space
<ul style="list-style-type: none">Name the seasons and know about the type of weather in each season					



Seasonal Change	Forces	Light	Electricity	Sound	Earth and Space

HILL VIEW SCHOOL SCIENCE PROGRESSION MAP

PHYSICS - Year Three

Seasonal Change	Forces	Light	Electricity	Sound	Earth and Space
	<ul style="list-style-type: none"> • Know about and describe how objects move on different surfaces • Know how a simple pulley works and use to on to lift an object • Know how some forces require contact and some do not, giving examples • Know about and explain how magnets attract and repel Predict whether magnets will 	<ul style="list-style-type: none"> • Know that dark is the absence of light • Know that light is needed in order to see and is reflected from a surface • Know and demonstrate how a shadow is formed and explain how a shadow changes shape • Know about the danger of direct sunlight and describe how to keep protected 			

	attract or repel and give a reason				
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HILL VIEW SCHOOL SCIENCE PROGRESSION MAP

PHYSICS - Year Four

Seasonal Change	Forces	Light	Electricity	Sound	Earth and Space
			<ul style="list-style-type: none"> • Identify and name appliances that require electricity to function • Construct a series circuit • Identify and name the components in a series circuit (including cells, wires, bulbs, switches and buzzers) • Predict and test whether a lamp will light within a circuit • Know the function of a switch • Know the 	<ul style="list-style-type: none"> • Know how sound is made, associating some of them with vibrating • Know how sound travels from a source to our ears • Know the correlation between pitch and the object producing a sound • Know the correlation between the volume of a sound and the strength of the vibrations that produced it 	

			difference between a conductor and an insulator; giving examples of each	<ul style="list-style-type: none">• Know what happens to a sound as it travels away from its source	
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Seasonal Change	Forces	Light	Electricity	Sound	Earth and Space
	<ul style="list-style-type: none"> • Know what gravity is and its impact on our lives • Identify and know the effect of air and water resistance • Identify and know the effect of friction • Explain how levers, pulleys and gears allow a smaller force to have a greater effect 				<ul style="list-style-type: none"> • Know about and explain the movement of the Earth and other planets relative to the Sun • Know about and explain the movement of the Moon relative to the Earth • Know and demonstrate how night and day are created • Describe the Sun, Earth and Moon (using the term spherical)



HILL VIEW SCHOOL SCIENCE PROGRESSION MAP

PHYSICS - Year Six

Seasonal Change	Forces	Light	Electricity	Sound	Earth and Space
		<ul style="list-style-type: none"> • Know how light travels • Know and demonstrate how we see objects • Know why shadows have the same shape as the object that casts them • Know how simple optical instruments work e.g. periscope, telescope, binoculars, mirror, magnifying glass etc. 	<ul style="list-style-type: none"> • Compare and give reasons for why components work and do not work in a circuit • Draw circuit diagrams using correct symbols • Know how the number and voltage of cells in a circuit links to the brightness of a lamp or the volume of a buzzer 		

