



West Hove Infants- 'Aim High and Smile'



Science PROGRESSION 2019~2020

Learning Expectations:

By the end of KS1, children will have learned to:

- develop scientific knowledge and conceptual understanding through the specific disciplines of biology, chemistry and physics
- develop understanding of the nature, processes and methods of science through different types of science enquiries that help them to answer scientific questions about the world around them
- are equipped with the scientific knowledge required to understand the uses and implications of science, today and for the future

		AUTUMN 1	AUTUMN 2	SPRING 1	SPRING 2	SUMMER 1	SUMMER 2
YR	Skills	<ul style="list-style-type: none">• Children know about similarities and differences in relation to places, objects, materials and living things.• Children talk about the features of their own immediate environment and how environments might vary from one to another.• Children make observations of animals and plants and explain why some things occur, and talk about changes.					





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Context	<u>Magical Me!</u> Look at different types of families What is an investigation? Light and dark	<u>Bears</u> Playdough making Changes in autumn/ visit to local park looking at seasonal changes. Go on a bear hunt – exploring textures and features of the environment. Making porridge and experimenting with flavours and senses,	<u>I need a Hero!</u> What is an emergency/differences What do you want to be when you're older? Investigating vehicles down the ramp Investigating mouldy bread An investigation of using senses to guess what essence has been soaked into cotton wool ball.	<u>Great Explorers</u> Planting seeds Observe changes in plants Cooking gingerbread men	<u>Out of the Egg</u> Volcano experiments Habitats Dinosaur hatch Comparing similarities and differences between dinosaurs Fossil hunt/Mary Anning Healthy living	<u>Splish! Splash! Splosh!</u> Uses of water Floating and sinking Water experiments Capacity Oceans and plastic pollution
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Vocabulary	Families, love, parents, carers, mummies, daddies, home, house, flat, garden, stairs, neighbours, family, pets, grandparents, cousins, questions, investigation, same, changes, different, light, dark.	Hot, cold, mixture, sticky, dough, hot, flour, water, change, temperature, sweet or salty. Trees, evergreen, deciduous, grass, mud, forest, snowstorm, cave	Smell, clean, dirt. Mould, air, water, damp, clean, soap. People who help us, firefighters, police offers, teachers, doctors, nurses, caretakers, adults, family, emergency, 999, lifeguards, lifeboats, RNLI, Speed, height, wheels, fats, slow, faster, slower, senses, smell.	Seed, growth, oxygen, breathe, seed, water, sunlight, dark, soil, nutrients, stem, root, leaves, flower, dough, clean, rolling pin, ginger, smell, heat, temperature, cooling, taste.	Fossils, reaction, bubble, explode, similarities, differences, notice, features, carnivore, omnivore, herbivore, teeth, legs, arms, palaeontologist, dusting, brush, sand, healthy, happy, exercise, water, love, food groups,	Float, sink, air, capacity, heavy, light, material, full, half full, empty, more, less, plastic, pollution.
<p>Ongoing throughout the year:</p> <ul style="list-style-type: none">• Wonderful World of Me• Visits/visitors• Role play• Story time• Cross curricular activities						





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See also:

- Environment/Continuous provision planners
- Outdoor environment
- Interactive displays
- Science Day

ELG:

- Understanding the World, ELG 14 The world: Children know about similarities and differences in relation to places, objects, materials and living things. They talk about the features of their own immediate environment and how environments might vary from one to another. They make observations of animals and plants and explain why some things occur, and talk about changes.

Y1	Skills	<ul style="list-style-type: none">• <u>Working Scientifically</u>: During years 1 and 2, pupils should be taught to use the following practical scientific methods, processes and skills through the teaching of the programme of study content: asking simple questions and recognising that they can be answered in different ways ♣ observing closely, using simple equipment ♣ performing simple tests ♣ identifying and classifying ♣ using their observations and ideas to suggest answers to questions ♣ gathering and recording data to help in answering questions.
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Skills	<ul style="list-style-type: none"> identify and name a variety of common animals including fish, amphibians, reptiles, birds and mammals identify and name a variety of common animals that are carnivores, herbivores and omnivores describe and compare the structure of a variety of common animals (fish, amphibians, reptiles, birds and mammals including pets) identify, name, draw and label the basic parts of the human body and say which part of the body is associated with each sense 	<ul style="list-style-type: none"> distinguish between an object and the material from which it is made identify and name a variety of everyday materials, including wood, plastic, glass, metal, water, and rock describe the simple physical properties of a variety of everyday materials compare and group together a variety of everyday materials on the basis of their simple physical properties 	<ul style="list-style-type: none"> identify and name a variety of common wild and garden plants, including deciduous and evergreen trees identify and describe the basic structure of a variety of common flowering plants, including trees
	Context	<p><u>Wonderful and Wild</u></p> <p>Parts of the body Basic needs Hygiene Staying healthy Name and identify common animals</p>	<p><u>Castles and Caves</u></p> <p>Materials: Identifying, naming, classifying and sorting Materials: Sorting and grouping</p>





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	Vocabulary	Fish, amphibians, reptiles, birds, mammals, carnivores, herbivores, omnivores, skeleton, skull, skin, head, neck, arms, elbows, arms, fingers, chest, legs, knees, feet and toes. Sight, touch, taste, smell, and hearing.	hard/soft; stretchy/stiff; shiny/dull; rough/smooth; bendy/not bendy; waterproof/not waterproof; absorbent/not absorbent; opaque/transparent. absorbency, flexibility, insulating ability, magnetism, strength, transparency, water resistance brick, paper, fabrics, elastic, foil.	Wild plants, seeds, garden plants, petals, fruits, seed, bulb, evergreen, deciduous, daisy, dandelion, clover, buttercup, ivy, sunflower, rose, sweet pea. Oxygen Live, sun, breathe, water, grow, flower, leaf, root, stem, petal, sunlight.
	Skills	<u>Working Scientifically:</u> During years 1 and 2, pupils should be taught to use the following practical scientific methods, processes and skills through the teaching of the programme of study content: asking simple questions and recognising that they can be answered in different ways ♣ observing closely, using simple equipment ♣ performing simple tests ♣ identifying and classifying ♣ using their observations and ideas to suggest answers to questions ♣ gathering and recording data to help in answering questions.		





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Y2	Skills		<ul style="list-style-type: none">• Identify and compare the suitability of a variety of everyday materials, including wood, metal, plastic, glass, brick, rock, paper and cardboard for particular uses.• find out how the shapes of solid objects made from some materials can be changed by squashing, bending, twisting and stretching	<ul style="list-style-type: none">• describe how animals obtain their food from plants and other animals, using the idea of a simple food chain, and identify and name different sources of food• explore and compare the differences between things that are living, dead, and things that have never been alive• identify that most living things live in habitats to which they are suited and describe how different habitats provide for the basic needs of different kinds of	<ul style="list-style-type: none">• identify and name a variety of plants and animals in their habitats, including microhabitats• observe and describe how seeds and bulbs grow into mature plants• find out and describe how plants need water, light and a suitable temperature to grow and stay healthy	<ul style="list-style-type: none">• Describe the importance for humans of exercise, eating the right amounts of different types of food, and hygiene.• Observe and describe weather associated with the seasons and how day length varies.• Observe changes across the 4 seasons.	<ul style="list-style-type: none">• notice that animals, including humans, have offspring which grow into adults• find out about and describe the basic needs of animals, including humans, for survival (water, food and air)• describe the importance for humans of exercise, eating the right amounts of different types of food, and hygiene
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Context			animals and plants, and how they depend on each other			
	<u>To Infinity and Beyond</u> Space / the solar system	<u>Superheroes</u> Materials: Suitability & manipulation context of heroes and villains	<u>Rainforest</u> Habitats & food chains Living things: Habitats and basic needs Plants	<u>Rainforest</u> Growing and investigating plants	<u>Beside The Seaside</u> Healthy living • Describe the importance for humans of exercise, eating the right amounts of different types of food, and hygiene.	<u>Beside The Seaside</u> Healthy Living (Link with PSHE and PE) Understand the impact of our actions on the environment. Comparison of seasonal/daily weather patterns The environment. Sea levels and pollution Comparison of seasonal and daily weather patterns between Rio and Hove. Environmental focus looking at rising sea levels and pollution.





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Vocabulary	Solar system	Materials	Predator	Oxygen	Winter	Offspring
	Planets	Wood	Species	Live	Spring	Humans
	Distance	Plastic	Related	Sun	Summer	Needs
	Sun	Glass	Producers	Breathe	Autumn	Water
	Mars	Brick	Consumers	Water	Months	Oxygen
	Venus	Rock	Energy	Grow	Year	Survival
	Earth	Solid	Sun	Flower	Sunrise	Exercise
	Mercury	Objects	Plant	Leaf	Sunset	Food groups
	Jupiter	Bending	Animal	Root	Varies	Carbohydrates
	Uranus	Twisting	Prey	Stem	Day	Protein
		Stretching		Petal	Night	Fat
			Sunlight	Light	Exercise	
				Dark	Hygiene	
				Day length	Weather	

