



Year 2 LTP

BIOLOGY			CHEMISTRY				PHYSICS					
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	WEEK 11	WEEK 12
Science unit	Animals, including humans			Plants			Living things and their habitats			Everyday materials and their uses		
Scientist(s)	<p><b>Sir David Attenborough</b> One of the most widely respected TV broadcasters and has become known as the face and voice of natural history documentaries. His career in broadcasting has stretched over more than a half a century from 1952.</p>			<p><b>Agnes Arber</b> A British plant anatomist and morphologist, a Biology philosopher, and a Botany historian. In recognition of her contributions to botany, she was elected as a fellow of the Royal Society in 1946. She was the first woman botanist to be elected and only the third woman to be elected into this famous scientific institution.</p>			<p><b>Charles Sutherland Elton</b> An English zoologist and animal ecologist. Charles Elton pioneered the concept of food cycles, food chains, and food size in his classical 1927 book "Animal Ecology"; Elton's 'food cycle' was replaced by 'food web' in a subsequent ecological text.</p>			<p><b>Roy J Plunkett</b> Discovered tetrafluoroethylene resin while researching refrigerants at DuPont. Known by its trade name Teflon, Plunkett's discovery was found to be extremely heat-tolerant and stick-resistant. Since 1949, it has become an important coating for everything from satellite components to cookware.</p>		
Scientific knowledge	<ul style="list-style-type: none"> <li>Y1 OBJECTIVE Identify and name a variety of common animals that are carnivores, herbivores and omnivores.</li> <li>notice that animals, including humans, have offspring which grow into adults AIH 1</li> <li>find out about and describe the basic needs of animals, including humans, for survival (water, food and air) AIH 2</li> <li>describe the importance for humans of exercise, eating the right</li> </ul>			<ul style="list-style-type: none"> <li>observe and describe how seeds and bulbs grow into mature plants P1</li> <li>find out and describe how plants need water, light and a suitable temperature to grow and stay healthy P2</li> </ul>			<ul style="list-style-type: none"> <li>explore and compare the differences between things that are living, dead, and things that have never been alive LTATH 1</li> <li>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 animals and plants, and how they depend on each other LTATH 2 (A,B)</li> </ul>			<ul style="list-style-type: none"> <li>identify and compare the suitability of a variety of everyday materials, including wood, metal, plastic, glass, brick, rock, paper and cardboard for particular uses EM1</li> <li>find out how the shapes of solid objects made from some materials can be changed by squashing, bending, twisting and stretching EM2</li> </ul>		

	<p>amounts of different types of food, and hygiene. AIH 3</p>		<ul style="list-style-type: none"> <li>• identify and name a variety of plants and animals in their habitats, including microhabitats LTATH 2.</li> <li>• 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 LTATH 4</li> </ul>	
<p><b>Working scientifically skills</b></p>	<p><b>During Year 2, pupils should be taught to use the following practical scientific methods, processes and skills through the teaching of our spiral curriculum:</b></p> <ol style="list-style-type: none"> <li>1. asking simple questions and recognising that they can be answered in different ways</li> <li>2. observing closely, using simple equipment</li> <li>3. performing simple tests</li> <li>4. identifying and classifying</li> <li>5. using their observations and ideas to suggest answers to questions</li> <li>6. gathering and recording data to help in answering questions</li> </ol>			
<p><b>Investigation Opportunities: which Working Scientifically skills can they show?</b></p> <p><b>Taken From Hamilton Trust</b></p>	<p><b>Animals Including Humans</b></p> <p>AIH 1) notice that animals, including humans, have offspring which grow into adults. A) Compare photos of when children were in Rec and Y1, how have they changed, compare them to parents photos, how have they changed? Children to self-portrait what children might look like in 20, 40, 60 years' time. WS Skills (1,4,5,6) B) Compare ladybird and ant life cycles, see supporting documents</p> <p>AIH 2) find out about and describe the basic needs of animals, including humans, for survival (water, food and air) A) Create a desert island in the classroom! Imagine being stranded on the island. What would make you happy? What would your needs be? Send letters in bottles across the material sea, asking for essential provisions! WS skills (1,5)</p> <p>AIH 3) describe the importance for humans of exercise, eating the right amounts of different types of food, and hygiene A) <b>Hygiene:</b> Handwashing with gloves and ink coverage WS skills (2,3,5,6) B) <b>Food:</b> Create a healthy lunchbox for your friend. WS Skills (1,2,3,4)</p> <p><b>Plants</b></p> <p>P1) observe and describe how seeds and bulbs grow into mature plants A) Keep a bulb plant AND seed plant diary over a few weeks, compare the two. WS skills (1, 2,3,4, 5,6) P2) find out and describe how plants need water, light and a suitable temperature to grow and stay healthy</p>			

A) As above, vary where the same plants grows (without light, without water, without oxygen etc) WS skills (1, 2,3,4, 5,6)

**Living things and their Habitats**

LTATH1) explore and compare the differences between things that are living, dead, and things that have never been alive.

A) Go into allotment/woodland and find one thing that is alive, one that is dead and one that has never been alive- discuss the differences (WS SKILLS 1,2,4,5)

LTATH 2) 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 animals and plants, and how they depend on each other.

A) Design a habitat/ micro-habitat for their favourite animal. WS skills 1, 6.

B) GO on a minibeast hunt outside and discover microhabitats on the playground (WS SKILLS ALL)

LTATH3) identify and name a variety of plants and animals in their habitats, including microhabitats.

A) Research creatures in larger habitats and ask: why do these living things live there? Create dioramas of different habitats and label with research information as a collage for working wall. WS SKILLS 1,5

LTATH4) 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

A) Challenge, who can make the longest food chain? Children will need to think about beginning with an apex predator and carefully designing to extend their food chain. WS skills 1,4,6

**Everyday Materials**

EM1) Identify and compare the suitability of a variety of everyday materials, including wood, metal, plastic, glass, brick, rock, paper and cardboard for particular uses

A) Teddy’s umbrella (see supporting documents). WS Skills- ALL.

B) Or variation e.g. Pose their own questions e.g. what material would be best to make: A chair? A parachute for an egg? A waterproof jacket? And investigate their choice. WS skills- ALL

EM2) find out how the shapes of solid objects made from some materials can be changed by squashing, bending, twisting and stretching

A) Design a paper bridge that will hold a toy car.

B) Sort objects in the classroom according to these criteria: flexible, rigid, hard, soft, stretchy, stiff.

C) Create a narrative- What would happen in a world where everything was flexible?

D) Add weights to different materials- which will bend/ snap?

WS skills- ALL

<b>Scientific vocabulary</b>	Survival, Water, Air, Food, Adult, Baby, Offspring, Kitten, Calf, Puppy, Exercise,	Seeds, Bulbs, Water, Light, Temperature, Growth	Living, Dead, Habitat, Energy, Food chain, Predator, Prey,	Hard, Soft, Stretchy, Stiff, Shiny, Dull, Rough, Smooth, Bendy,
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	Hygiene		Woodland, Pond, Desert	Waterproof, Absorbent, Opaque, Transparent Brick, Paper, Fabrics, Squashing, Bending, Twisting, Stretching Elastic, Foil
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**\*Cycle of 12 weeks repeated each term**