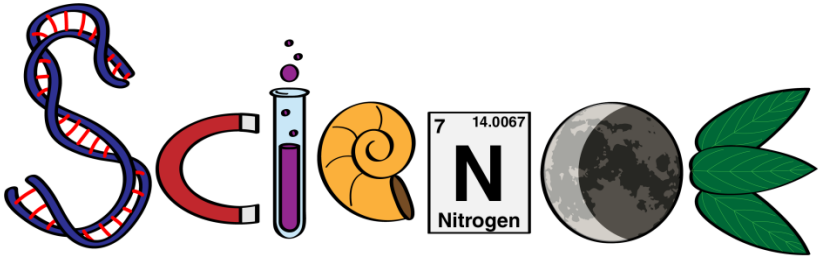

BECOMING A SCIENTIST

Essential Characteristics:

- The ability to think independently and raise questions about working scientifically and the knowledge and skills that it brings.

- Confidence and competence in the full range of practical skills, taking the initiative in, for example, planning and carrying out scientific investigations.

- Excellent scientific knowledge and understanding which is demonstrated in written and verbal explanations, solving challenging problems and reporting scientific findings.

- High levels of originality, imagination or innovation in the application of skills.

- The ability to undertake practical work in a variety of contexts, including fieldwork.

- A passion for science and its application in past, present and future technologies.

Subject Leaders Skills and Concepts Layering Plan for History 2019

Key stage One	National Curriculum Coverage	Keys Milestones	Key activities
Year A Topics			
Food Glorious Food	Healthy eating, exercise, body parts, hygiene, senses. Working Scientifically	Y1 identify, name, draw and label the basic parts of the human body and say which part of the body is associated with each sense. Y2 -describe the importance for humans of exercise, eating the right amounts of different types of food, and hygiene. asking simple questions and recognising that they can be answered in different ways	• Workshop at Pizza Express • Athletes visit • Tesco/ Lidl visit • Food taste testing
Towers, tunnels and turrets	Everyday materials	Y1 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	• Trip to Hemsley castle to identify materials and properties of materials that make up a castle and its surroundings. • Science investigation- Which material would be best to build a castle? Test which material

		properties of a variety of everyday materials Y2 -identify and compare the suitability of a variety of everyday materials, including wood, metal, plastic, glass, brick, rock, paper and cardboard for particular uses	would best survive a tornado using a hair dryer. Science investigation- investigate strength of different materials that could be used to make a castle. (Forest schools)
Living eggs	Life cycles Working Scientifically Observing over time	Y2 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) 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.	• Complete chick observation file daily. • Invite zoo keeper/ vet into school to talk about how animals survive at different times in the year.
Wriggle and crawl	Living things and their habitats	Y2 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	-Mini beast hunt -Create a wormery

		basic needs of different kinds of animals and plants, and how they depend on each other identify and name a variety of plants and animals in their habitats, including microhabitats 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.	
Street detective	Investigation skills Experiments Observations Working Scientifically	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	-Crime scene investigations (police visit)
Going for Gold (Olympics)	Healthy living	Y2 -describe the importance for humans of exercise, eating the right amounts of different types of food, and hygiene.	• Mini Olympics • Athlete visit • Green screen promoting the benefits of exercise on the body videos. • Exercise journals
Year B Topics			
Go Wild	Animals including humans	Y1 -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,	• Children identify a range of common animals at the Wildlife Park and participate in omnivore, herbivore and carnivore workshop. • Animal fact files

	Working Scientifically	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. Y2 -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) identifying and classifying	
Moon Zoom	Seasons Light and dark Working Scientifically	observe changes across the four seasons observe and describe weather associated with the seasons and how day length varies. -observing closely, using simple equipment -using their observations and ideas to suggest answers to questions	• Shadows experiment • Record weather chart/ daylight times
Superheroes	Everyday materials	Y1 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	• Outdoor material hunt • Scientific investigation. What is the best material to make Slime? • Scientific investigation- what is the best material to make a suit for Traction Man?

	Working Scientifically	materials on the basis of their simple physical properties. Y2 -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. 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.	
Going Green	Plants	Y1 - 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. Y2	• Growing carrots, cress and sunflowers. • Creating 3D plants and labelling the plant parts. • Record plant growth over time in observation plant file.

		- 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. Y1 (seasons) observe changes across the four seasons observe and describe weather associated with the seasons and how day length varies.	
Key Stage 2			