William Patten Primary School

Science Recovery Plan

EYFS Framework
C&L **ELG: Speaking** Offer explanations for why things might happen, making use of recently introduced vocabulary from stories, non-fiction, rhymes and poems when appropriate. **PSED** **ELG: Managing Self** Manage their own basic hygiene and personal needs, including dressing, going to the toilet and understanding the importance of healthy food choices. **Understanding the World** **ELG: People, Culture and Communities** Describe the immediate environment using knowledge from observation, discussion, stories, non-fiction texts and maps. **ELG: The Natural World** Explore the natural world around them, making observations and drawing pictures of animals and plants. Know some similarities and differences between the natural world around them and contrasting environments, drawing on their experiences and what has been read in class. Understand some important processes and changes in the natural world around them, including the seasons and changing states of matter

KS1 National Curriculum Strands					
KS1 Working Scientifically	**Year 1**				
	Biology			**Chemistry**	**Physics**
• 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.	Animals, including Humans		Plants	Everyday materials	Seasonal Change
	Year 2				
	Biology			**Chemistry**	
	Animals, including Humans	All living things and their habitats	Plants	Everyday materials	

Lower KS2 National Curriculum Strands					
Lower KS2 Working Scientifically	**Year 3**				
	Biology		**Chemistry**	**Physics**	
• asking relevant questions and using different types of scientific enquiries to answer them • Setting up simple practical enquiries, comparative and fair tests • Making systematic and careful observations and, where appropriate, taking accurate measurements using standard units, using a range of equipment, including thermometers and data loggers • Gathering, recording, classifying and presenting data in a variety of ways to help in answering questions • Recording findings using simple scientific language, drawings, labelled diagrams, keys, bar charts, and tables • Reporting on findings from enquiries, including oral and written explanations, displays or presentations of results and conclusions • Using results to draw simple conclusions, make predictions for new values, suggest improvements and raise further questions • Identifying differences, similarities or changes related to simple scientific ideas and processes • Using straightforward scientific evidence to answer questions or to support their findings.	Animals, including Humans	Plants	Rocks	Forces	Light
	Year 4				
	Biology		**Chemistry**	**Physics**	
	Animals, including Humans	All Living things and their habitats	States of Matter	Electricity	Sound

Upper KS2 National Curriculum Strands					
Upper KS2 Working Scientifically	**Year 5**				
	Biology		**Chemistry**	**Physics**	
• planning different types of scientific enquiries to answer questions, including recognising and controlling variables where necessary • taking measurements, using a range of scientific equipment, with increasing accuracy and precision, taking repeat readings when appropriate • recording data and results of increasing complexity using scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs • using test results to make predictions to set up further comparative and fair tests • reporting and presenting findings from enquiries, including conclusions, causal relationships and explanations of and degree of trust in results, in oral and written forms such as displays and other presentations • identifying scientific evidence that has been used to support or refute ideas or arguments.	Animals, including Humans	All Living things and their habitats	Properties and Changes in Materials	Forces	Earth in Space
	Year 6				
	Biology			**Physics**	
	Animals, including Humans: Circulatory System	All Living things and their habitats	Evolution and Inheritance	Electricity (Circuits)	Light

Approach to knowledge and skills progression mapping developed by William Patten Primary School (http://www.williampatten.hackney.sch.uk/).

Reception 2020-21 (Compromised Content)

EYFS End Points (informed by Early Learning Goals)

C&L

ELG: Speaking

- Offer explanations for why things might happen, making use of recently introduced vocabulary from stories, non-fiction, rhymes and poems when appropriate.

PSED

ELG: Managing Self

- Manage their own basic hygiene and personal needs, including dressing, going to the toilet and understanding the importance of healthy food choices.

Understanding the World

ELG: People, Culture and Communities

- Describe the immediate environment using knowledge from observation, discussion, stories, non-fiction texts and maps.

ELG: The Natural World

- Explore the natural world around them, making observations and drawing pictures of animals and plants.
- Know some similarities and differences between the natural world around them and contrasting environments, drawing on their experiences and what has been read in class.
- Understand some important processes and changes in the natural world around them, including the seasons and changing states of matter.

Year 1 2021-22						
KS1 End Points (NC) • **Has experienced and observed phenomena, having looked more closely at the natural and humanly-constructed world around them.** • **Shows curiosity, asking questions about what they have noticed.** • **Has developed understanding of scientific ideas through the use of different types of scientific enquiry to answer own questions, including observing changes over time, noticing patterns, grouping and classifying things, carrying out simple comparative tests and finding things out using secondary sources of information.** • **Is beginning to use simple scientific language to talk about what they have found out and communicate their ideas to a range of audiences in a variety of ways.**	**Term**	**Autumn**		**Spring**		**Summer 1**
	½ Term Coverage	**Autumn 1 (Week 4 and 5)**	**Autumn 2 (Week 6 and 7)**	**Spring 1 (Week 3 & 4)**	**Autumn 1 (Week 4 and 5)**	**Autumn 2 (Week 6 and 7)**
	Topic	Seasons (Part one)	Materials	Animals, including humans	Plants	Seasons (continued)
	Key Knowledge	Recovery Content: • Ensure that the children realise and understand that the weather changes according to the time of year and that they have an awareness of the concept of seasons. • Knows when each of the four seasons occurs • Knows what the features of autumn are and what happens to trees in this season • Knows that days are longer in summer (sunshine hours) than in winter • Observe changes across the four seasons	• Distinguish between an object and the material from which it is made • Can 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 • knows why and how the properties of materials make them particularly useful for specific purposes (for example, stone is a hard, heavy and durable material so is useful for construction of buildings). • Know how the properties of a material can make it useful for a range of different purposes (for example, plastic is waterproof so it can be used to coat fabric for clothing but can also be used for outdoor play equipment) • knows that different materials can share the same properties (for example glass and plastic can both be transparent)	Recovery Content: • Use this unit to consider the differences of the animals in the natural environment around the school and that of creatures that do not live in the wild in the UK. • Knows and can identify and name a variety of common animals including fish, amphibians, reptiles, birds and mammals e.g. cat, robin, adder, frog, salmon. • Knows and can identify and name a variety of common animals that are carnivores, herbivores and omnivores. • Can identify, name, draw and label the basic parts of the human body and say which part of the body is associated with each sense	• Knows and can identify and name a variety of common wild and garden plants, including deciduous and evergreen trees • Knows and can identify and describe the basic structure of a variety of common flowering plants, including trees.	• Knows about and can describe weather in different seasons over a year. • Knows and can describe the features of different seasons and how they change through the year
	Cross Curricular Links	Maths: Creation of a pictogram Art: Create seasonal artwork	• D&T: Children attempt to create a waterproof roof for a lego model	• P.E. investigate the effects of exercise on the human body. • Art - Animal sculptures • Maths - non-standard measurements of parts of the body.	• Literacy: Writing instructions for how to plant a seed. • Art: Create a plant collage and label with key vocabulary.	• Maths: Handling (weather) Data • Art: Seasonal Artwork
KS1 Skills End Points (Working scientifically): • Asks simple questions and recognises that they can be answered in different ways. • Observes closely, using simple equipment. • Performs simple tests. • Can identify and classify. • Uses their observations and ideas to suggest answers to questions. • Gathers and records data to help in answering questions.	**Key Skills**	• Gather and record data about weather conditions in autumn, drawing on observation and using simple equipment (such as a container to measure rainfall). ** • Use data to create a pictogram and use this to describe changes in day length over the seasons. • Use their evidence to describe some other features of the weather, surroundings, themselves, animals, and plants found in autumn. • Demonstrate their knowledge in different ways e.g. creating seasonal artwork, creating a pictogram (and use this to ask and answer related questions)	Recovery Content: • Support children in being able to offer simple explanations as to why things might happen. In this instance with a focus on materials and their use and what would happen if the wrong material was used for a specific purpose. • Compare and group together a variety of everyday materials on the basis of their simple physical properties. • Classify objects made of one material in different ways e.g. a group of objects made of metal. • Classify one type of object made from a range of materials e.g. a collection of spoons made of different materials. • Chosen an appropriate method for testing an object for a particular property. • Use their test evidence to answer the questions about properties e.g. Which cloth is the most absorbent? • Test the properties of objects e.g. absorbency of cloths, strength of party hats made of different papers, stiffness of paper plates, waterproofness of shelters.	Recovery Content: • Children will need to draw pictures of the animals they observe in this unit. • Make first hand close observations of animals from each of the groups (city farm) • Compare the structure of two animals from the same or different group e.g. wings, feathers, vertebrates/ invertebrates. • Classify animals using a range of features e.g. lay eggs/give birth to live young. herbivore, omnivore (these terms do not have to be explicitly taught). • Identify animals by matching statements to named images. • Take measurements of parts of the body and present results in a table to interpret. • Conduct simple sense experiments. Which part of my body is good for feeling, which is not? Which food/flavours can I identify by taste? Which smells can I match?	Recovery Content: • Children will need to be able to describe their immediate environment and should can use their observations of plants in the edible playground and in their rooftop raised bed as a stimulus for this. Children will need to draw pictures of the plants they look at in this unit. • Can sort and group parts of plants using similarities and differences e.g. the shape of leaves, the colour of the flower/blossom. • Can use simple charts and Venn diagrams etc. to identify and classify plants. • Use photographs and their own observations to talk about how plants change over time (e.g. seed to sapling to tree) and over the year (deciduous and fruit bearing trees). * • Plant seeds and observe how they grow and change by making simple observations. * • Make close observations of plants, including trees - leaves, seeds, flowers etc. • Point to and name the parts of a plant, recognising that they are not always the same e.g. leaves and stems may not be green, the leaves are different shapes.	Recovery Content: • Support children in being able to offer simple explanations as to why things might happen. For example, snow and hail is caused when the water that would fall as rain freezes. Plants grow more in the spring and summer when it's light and warm and trees lose leaves in the autumn to prepare for the winter when it is… etc). • Collect information about the weather regularly throughout the year** • Present this information in tables and charts to compare the weather across the seasons • Collect information, regularly throughout the year, of features that change with the seasons e.g. plants, animals, humans • Present this information in different ways to compare the seasons** • Gather data about day length regularly throughout the year and present this to compare the seasons • Use gathered evidence to describe the general types of weather and changes in day length over the seasons.** • Use evidence to describe some other features of their surroundings, themselves, animals, plants that change over the seasons** • Demonstrate knowledge in different ways e.g. creating seasonal artwork
	School Context					
		• Children will learn about seasonal change in the school grounds (including roof garden and edible playground) and local area.	• Identify the materials key local buildings are made from and discuss why those materials have been used.	• Senses discussed and explored within school. What do we see, hear, touch, smell and taste every day? • Local area - animals at Spitalfields city farm.	• Planting seeds using the outdoor classroom resources. • Tour and discussion of the edible garden at school.	• Children visit the same areas in the school grounds and locality from Autumn term to draw comparison.