Christ The King Federation - Curriculum Map Overview for Science 2022-2023

Biology – Green **Physics – Purple** **Chemistry – Orange**

	Autumn Term 1	Autumn Term 2	Spring Term 1	Spring Term 2	Summer Term 1	Summer Term 2
EYFS			**Plants**	British Science Week. Enrichment activities		
Year 1 (Twinkl)	Animals including humans	Seasonal Changes - Autumn and Winter	Everyday Materials	British Science Week. Enrichment activities	Seasonal Changes -Spring and Summer	Plants
Scientists and Inventors (Twinkl)	George Mottershead – Zoos without bars		Lego Inventor Ole Kirk Christiansen			Plant scientists

Biology – Green Physics – Purple Chemistry – Orange

	Autumn Term 1	Autumn Term 2	Spring Term 1	Spring Term 2	Summer Term 1	Summer Term 2
Year 2 (Twinkl)	Living things and their habitats	Use of everyday materials	The Environment	British Science Week. Enrichment activities	Plants	Animals including humans
Scientists and Inventors (Twinkl)		Charles Macintosh invention of waterproof fabric	Rachel Carson – discovered dangers of chemical pollution in the ocean		Jane Colden and her work on plants	Louis Pasteur

Science Week – Spring Two

	Autumn Term 1	Autumn Term 2	Spring Term 1	Spring Term 2	Summer Term 1	Summer Term 2
Year 3 (Twinkl)	Forces and Magnets	Animals including humans	Rocks	British Science Week.	Plants	Light

				Enrichment activities		
Scientists and Inventors (Twinkl)	Inge Lehmann – seismologist work on waves and energy		William Smith study of geology		Sir Joseph Banks introduced 80 species of plants	

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	Autumn Term 1	**Autumn Term 2**	**Spring Term 1**	**Spring Term 2**	**Summer Term 1**	**Summer Term 2**
Year 4 (Twinkl)	Sound	States of matter	Living things and their habitats	British Science Week. Enrichment activities	Electricity	Animals including humans
Scientists and Inventors (Twinkl)	Alexander Graham Bell Telephone invention		Gerald Durrell- conservationist		Thomas Edison - Electricity	

Science Week – Spring Two

Biology – Green Physics – Purple Chemistry – Orange

	Autumn Term 1	**Autumn Term 2**	**Spring Term 1**	**Spring Term 2**	**Summer Term 1**	**Summer Term 2**
Year 5 (Twinkl)	Earth and Space	Forces	Living things and their habitats	British Science Week. Enrichment activities	Properties and changes of materials	Animals including humans
Scientists and Inventors (Twinkl)			David Attenborough		Stephanie Kwolek	Eva Crane

Science Week – Spring Two

	Autumn Term 1	**Autumn Term 2**	**Spring Term 1**	**Spring Term 2**	**Summer Term 1**	**Summer Term 2**
Year 6 Twinkl Units	**Animals including humans**	Light	Electricity	British Science Week.	**Living things and their habitats**	**Evolution and Inheritance**

				Enrichment activities		
Scientists and Inventors	**Alexander Fleming**	Stephen Hawking			**Libbie Hyman**	**Mary Leaky**

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Science Week – Spring Two

St. Francis School - Gaps in Science Learning due to the Pandemic Reviewed Autumn 2021		
Year 1 Seasonal Changes N.C Statements	**Possible links National Curriculum Statements**	**When will it be covered?**
Observe changes across the four seasons. Observe and describe weather associated with the seasons and how day length varies.	Recognise that they need light in order to see things and that dark is the absence of light. (Y3 Light) Recognise that light from the sun can be dangerous and that there are ways to protect their eyes. (Y3 Light) Find patterns in the way that the size of shadows change. (Y3 Light)	Y3 Light topic (Year 2022-2023)
Year 3 Rocks	**Possible links**	**When will it be covered?**

N.C Statements	National Curriculum Statements	
Compare and group together different kinds of rocks on the basis of their appearance and simple physical properties. SEP Recognise that soils are made from rocks and organic matter. SEP	Compare and group together everyday materials on the basis of their properties, including their hardness, solubility, transparency, conductivity (electrical and thermal), and response to magnets. SEP(Y5 Materials) Give reasons, based on evidence from comparative and fair tests, for the particular uses of everyday materials, including metals, wood and plastic. SEP (Y5 Materials)	Y5 Materials topic (Year 2022 – 2023)
Describe in simple terms how fossils are formed when things that have lived are trapped within rock. SEP	Recognise that living things have changed over time and that fossils provide information about living things that inhabited the Earth millions of years ago. SEP (Y6 Evolution) Identify how animals and plants are adapted to suit their environment in different ways and that adaptation may lead to evolution. SEP(Y6 Evolution)	Y6 Evolution topic (Year 2023-2024)
Year 3 Forces – Part cov. N.C Statements	**Possible links National Curriculum Statements**	**When will it be covered?**
Compare how things move on different surfaces. SEP Notice that some forces need contact between two objects, but magnetic forces can act at a distance. SEP	Identify the effects of air resistance, water resistance and friction, that act between moving surfaces. SEP(Y5 Forces) Recognise that some mechanisms, including levers, pulleys and gears, allow a smaller force to have a greater effect. (Y5 Forces) SEP	Y5 Forces (Year 2022-2023)

Observe how magnets attract or repel each other and attract some materials and not others. Compare and group together a variety of everyday materials on the basis of whether they are attracted to a magnet, and identify some magnetic materials. Describe magnets as having two poles. Predict whether two magnets will attract or repel each other, depending on which poles are facing.	Compare and group together everyday materials on the basis of their properties, including their hardness, solubility, transparency, conductivity (electrical and thermal), and response to magnets. (Y5 Properties of Materials)	Magnets to revisit in Y5 Properties of Materials (Year 2022- 2023)
Year 3 Light – Part cov. N.C Statements	**Possible links National Curriculum Statements**	**When will it be covered?**
Recognise that they need light in order to see things and that dark is the absence of light. Notice that light is reflected from surfaces.	Compare and group together everyday materials on the basis of their properties, including their hardness, solubility, transparency, conductivity (electrical and thermal), and response to magnets. (Y5 - Properties and changes of materials)	Y5 Properties of Materials (Year 2022 – 2023)

Recognise that light from the sun can be dangerous and that there are ways to protect their eyes. Recognise that shadows are formed when the light from a light source is blocked by an opaque object. Find patterns in the way that the size of shadows change.	Recognise that light appears to travel in straight lines. (Y6 Light) Use the idea that light travels in straight lines to explain that objects are seen because they give out or reflect light into the eye. (Y6 Light) Explain that we see things because light travels from light sources to our eyes or from light sources to objects and then to our eyes. (Y6 Light) Use the idea that light travels in straight lines to explain why shadows have the same shape as the objects that cast them. (Y6 Light)	Y6 Light (Year 2023 – 2024)
Year 4 Animals, including humans (missed 2019-2020) N.C Statements	**Possible links National Curriculum Statements**	**When will it be covered?**
Describe the simple functions of the basic parts of the digestive system in humans. Identify the different types of teeth in humans and their simple functions.	Identify and name the main parts of the human circulatory system, and describe the functions of the heart, blood vessels and blood. (Y6 Animals including humans) Recognise the impact of diet, exercise, drugs and lifestyle on the way their bodies function. (Y6 Animals, including humans) Describe the ways in which nutrients and water are transported within animals, including humans. (Y6 Animals, including humans)	Y6 Animals, including humans Year (2021 – 2022)

Construct and interpret a variety of food chains, identifying producers, predators and prey	Describe how living things are classified into broad groups according to common observable characteristics and based on similarities and differences, including microorganisms, plants and animals. (Y6 Living things and their habitats) Give reasons for classifying plants and animals based on specific characteristics. (Y6 Living things and their habitats)	Y6 Living things and their habitats (Year 2021 – 2022)
Year 5 Forces N.C Statements	**Possible links National Curriculum Statements**	**When will it be covered?**
		Revisited in KS3
Year 5 Living things and their habitats N.C Statements	**Possible links National Curriculum Statements**	**When will it be covered?**
		Revisited in KS3 reproduction

St. Josephs School - Gaps in Science Learning due to the Pandemic Reviewed Autumn 2021		
Year 2 Environment N.C Statements	**Possible links National Curriculum Statements**	**When will it be covered?**
This is mainly a working scientifically unit on ecological challenges. Many of these skills would also have been covered in other Y2 units.	Y2 Plants Y2 Animals, including humans Y2 Living things in their habitats.	On going 'working scientifically' skills
Year 2 Plants (part done) N.C Statements	**Possible links National Curriculum Statements**	**When will it be covered?**

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.	Identify and describe the functions of different parts of flowering plants: roots, stem/trunk, leaves and flowers. (Y3 Plants) Explore the requirements of plants for life and growth (air, light, water, nutrients from soil, and room to grow) and how they vary from plant to plant. (Y3 Plants) Investigate the way in which water is transported within plants. (Y3 Plants)	Year 3 Plants unit (Year 2021 -2022)
Year 3 Rocks N.C Statements	**Possible links National Curriculum Statements**	**When will it be covered?**
Compare and group together different kinds of rocks on the basis of their appearance and simple physical properties. Recognise that soils are made from rocks and organic matter.	Compare and group together everyday materials on the basis of their properties, including their hardness, solubility, transparency, conductivity (electrical and thermal), and response to magnets. (Y5 Materials) Give reasons, based on evidence from comparative and fair tests, for the particular uses of everyday materials, including metals, wood and plastic. (Y5 Materials)	Y5 Materials topic (Year 2022 – 2023)
Describe in simple terms how fossils are formed when things that have lived are trapped within rock.	Recognise that living things have changed over time and that fossils provide information about living things that inhabited the Earth millions of years ago. (Y6 Evolution) Identify how animals and plants are adapted to suit their environment in different ways and that adaptation may lead to evolution. (Y6 Evolution)	Y6 Evolution topic (Year 2023-2024)