CENTURY

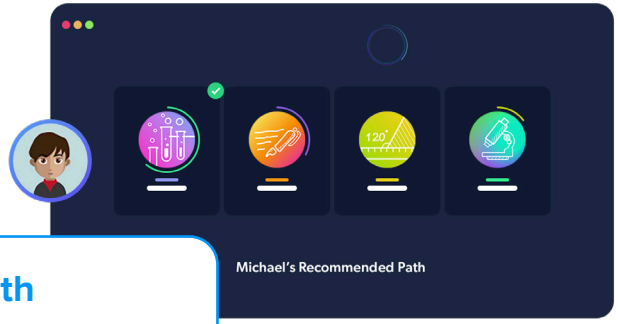
PRIMARY SCIENCE COURSE MAPPING

Supercharge learning through personalisation

www.century.tech

February 2022

HOW CENTURY WORKS



Diagnostics

Learners begin by completing diagnostics that quickly identify knowledge gaps and misconceptions, and help CENTURY recommend the best learning materials for each individual learner.

Recommended Path

This constantly adapting personalised pathway contains micro-lessons designed to address gaps in knowledge, provide stretch and challenge and promote long-term memory retention.

Leadership Dashboard

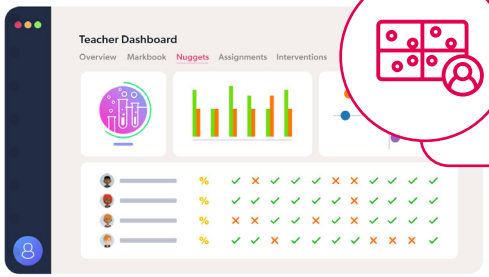
Senior and middle leaders get an overview of performance and engagement on a subject, class and learner level.

Achievements

Learners get rewarded with badges and streaks for completing micro-lessons or using CENTURY over a certain period of time to increase their motivation and engagement.

Automated Marking

Teachers can view data in real time, to help you quickly identify which learners require additional support or further stretch.

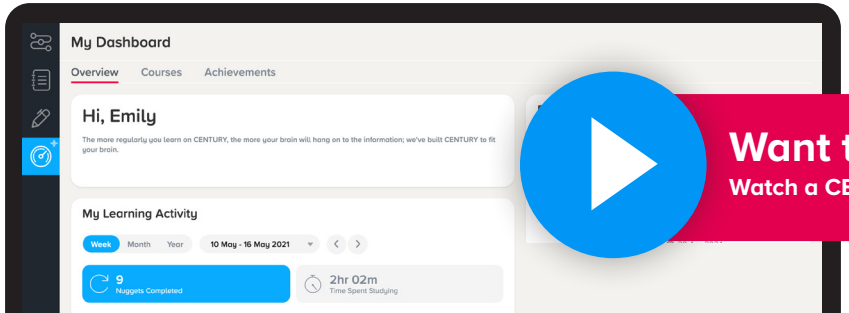


Teacher Dashboard

Use the markbook to monitor individual learners and whole-class trends with a range of dashboards.

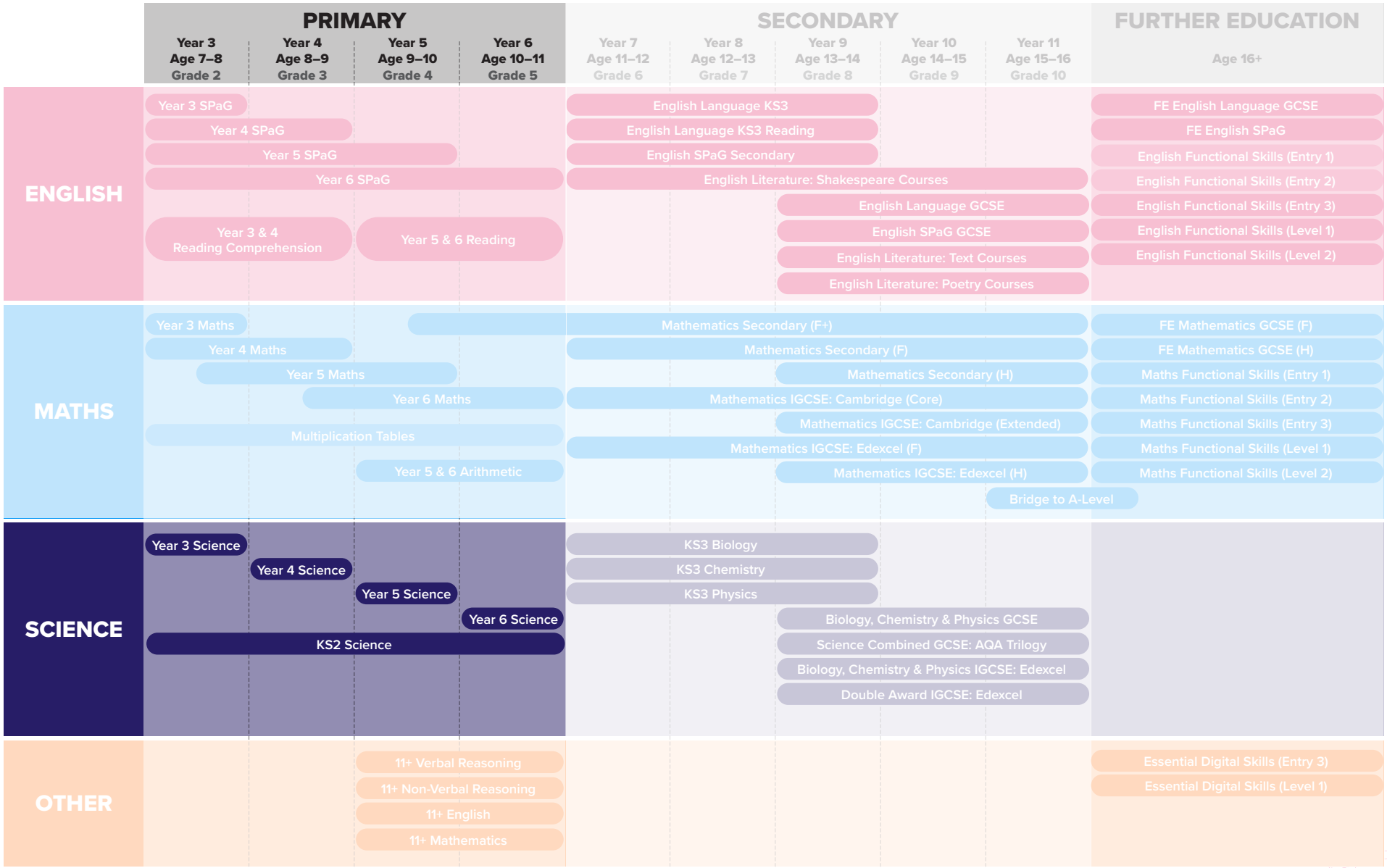
Learner Dashboard & Guardian Portal

Learners can identify their strengths and areas for improvement. Parents and guardians can monitor their learner's progress, completed work, and see work set.



Want to see this in action?
Watch a CENTURY platform walkthrough

CURRICULUM OVERVIEW



Primary Science

Our courses are aligned to the English national curriculum for each specific year group. There are + versions of the year 5 and KS2 courses that contain nuggets on reproduction and human life cycles.

Year 3 Science
50 Nuggets

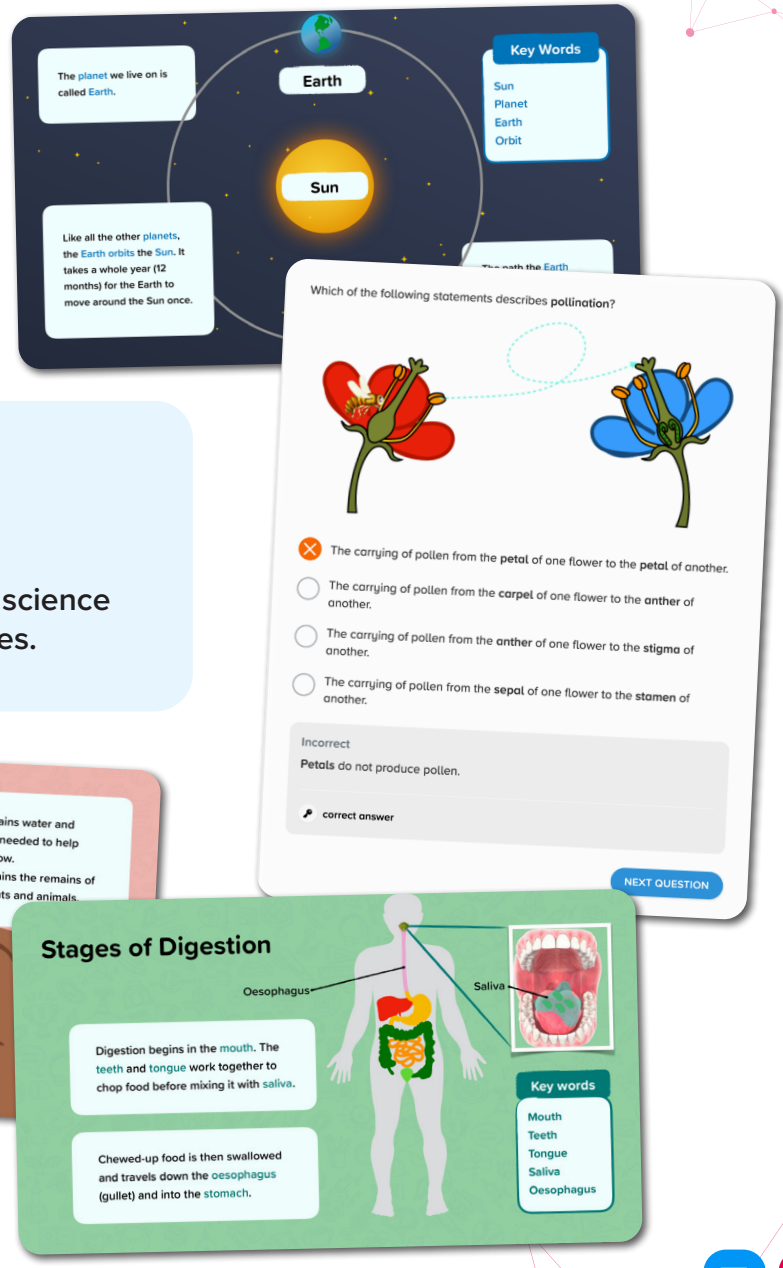
Year 4 Science
50 Nuggets

Year 5 Science
65 Nuggets

Year 6 Science
70 Nuggets

KS2 Science
125 Nuggets

A course that includes all of the science content from our year 3-6 courses.



CENTURY

Primary – Year 3 Science

This document shows how CENTURY nuggets align to the English National Curriculum for Science.

Topic / Strand	National Curriculum Statement Pupils should be taught to:	Nugget Name
Plants	identify and describe the functions of different parts of flowering plants: roots, stem/trunk, leaves and flowers	Parts of a Plant [PS1.01]
	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	Plant Growth [PS1.02]
	investigate the way in which water is transported within plants	Water Transport in Plants [PS1.03]
	explore the part that flowers play in the life cycle of flowering plants, including pollination, seed formation and seed dispersal	Flowers of Plants [PS1.04]
		Pollination and Fertilisation [PS1.05]
		Seeds and Seed Dispersal [PS1.06]
Animals Including Humans	identify that animals, including humans, need the right types and amount of nutrition, and that they cannot make their own food; they get nutrition from what they eat	How the Body Works [PS2.01]
		Healthy Diet [PS2.02]
	identify that humans and some other animals have skeletons and muscles for support, protection and movement	The Skeleton [PS2.03]
		Muscles and Joints [PS2.04]
Rocks	compare and group together different kinds of rocks on the basis of their appearance and simple physical properties	Types of Rocks [PS5.01]
	describe in simple terms how fossils are formed when things that have lived are trapped within rock	Fossils [PS5.02]
	recognise that soils are made from rocks and organic	Soil [PS5.03]
		Soil Experiment WS [PS5.04]

Light	recognise that they need light in order to see things and that dark is the absence of Light	Sources of Light [PS8.01]
	notice that light is reflected from surfaces	Using Light to See [PS8.02]
	recognise that light from the sun can be dangerous and that there are ways to protect their eyes	Protecting Your Eyes [PS8.03]
	recognise that shadows are formed when the light from a light source is blocked by an opaque object	Shadows [PS8.04]
	find patterns in the way that the size of shadows change	Shadow Experiments WS [PS8.05]
Forces and Magnets	compare how things move on different surfaces	Introduction to Forces [PS9.01]
		Common Forces [PS9.02]
	notice that some forces need contact between two objects, but magnetic forces can act at a distance	Measuring Forces WS [PS9.03]
		Friction [PS9.04]
		Friction Experiment WS [PS9.05]
	observe how magnets attract or repel each other and attract some materials and not others	Magnetic or Not? [PS9.10]
	compare and group together a variety of everyday materials on the basis of whether they are attracted to a magnets and identify some magnetic materials	
	describe magnets as having two poles	Opposites Attract [PS9.11] Making a Compass [PS9.12]
	predict whether two magnets will attract or repel each other, depending on which poles are facing	
Working Scientifically	asking relevant questions and using different types of scientific enquiries to answer them	What is Science? [PS13.01] Asking Scientific Questions [PS13.02] Developing Scientific Theories [PS13.03] Hypothesis and Prediction [PS13.04] Drawing a Results Table [PS13.05] Drawing a Bar Chart [PS13.06] Conclusions [PS13.07]
	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	

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Primary – Year 4 Science

This document shows how CENTURY nuggets align to the English National Curriculum for Science.

Topic / Strand	National Curriculum Statement Pupils should be taught to:	Nugget Name
Living Things andTheir Habitats	recognise that living things can be grouped in a variety of ways	Grouping Living Things [PS3.01]
		Sorting Vertebrates and Invertebrates [PS3.02]
	explore and use classification keys to help group, identify and name a variety of living things in their local and wider environment	Using Keys [PS3.03]
	recognise that environments can change and that this can sometimes pose dangers to living things	Environments and Habitats [PS4.05]
Animals, Including Humans	describe the simple functions of the basic parts of the digestive system in humans	The Digestive System [PS2.05]
	identify the different types of teeth in humans and their simple functions	Teeth [PS2.06]
	construct and interpret a variety of food chains, identifying producers, predators and prey	Feeding Relationships [PS4.06]
States of Matter	compare and group materials together, according to whether they are solids, liquids or gases	Solids, Liquids and Gases [PS6.01]
	observe that some materials change state when they are heated or cooled, and measure or research the temperature at which this happens in degrees Celsius (°C)	Changing State [PS6.02]
	identify the part played by evaporation and condensation in the water cycle and associate the rate of evaporation with temperature	The Water Cycle [PS6.04]
		Evaporation Experiment WS [PS6.03]

Sound	identify how sounds are made, associating some of them with something vibrating	Vibrations [PS10.01]
	recognise that vibrations from sounds travel through a medium to the ear	How We Hear [PS10.02]
	find patterns between the pitch of a sound and features of the object that produced it	Pitch [PS10.03]
	find patterns between the volume of a sound and the strength of the vibrations that produced it	Volume [PS10.04]
	recognise that sounds get fainter as the distance from the sound source increases	How We Hear [PS10.02]
Electricity	identify common appliances that run on electricity	It's Electric [PS11.01]
	construct a simple series electrical circuit, identifying and naming its basic parts, including cells, wires, bulbs, switches and buzzers	Building Circuits [PS11.02]
	identify whether or not a lamp will light in a simple series circuit, based on whether or not the lamp is part of a complete loop with a battery	Complete Circuits [PS11.03]
	recognise that a switch opens and closes a circuit and associate this with whether or not a lamp lights in a simple series circuit	
	recognise some common conductors and insulators, and associate metals with being good conductor	Conductors and Insulators [PS11.04]
		Conductors Experiment WS [PS11.05]
Working Scientifically	asking relevant questions and using different types of scientific enquiries to answer them	What is Science? [PS13.01] Asking Scientific Questions [PS13.02] Developing Scientific Theories [PS13.03] Hypothesis and Prediction [PS13.04] Drawing a Results Table [PS13.05] Drawing a Bar Chart [PS13.06] Conclusions [PS13.07]
	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	

CENTURY

Primary – Year 5 Science

This document shows how CENTURY nuggets align to the English National Curriculum for Science. The asterisk (*) denotes nuggets that appear in the Primary – Year 5 Science+ course.

Topic / Strand	National Curriculum Statement Pupils should be taught to:	Nugget Name
Living Things and Their Habitats	describe the differences in the life cycles of a mammal, an amphibian, an insect and a bird	Different Life Cycles [PS3.07]
	describe the life process of reproduction in some plants and animals	*Asexual Reproduction [PS3.06]
		*Sexual Reproduction [PS3.05]
Animals, Including Humans	describe the changes as humans develop to old age	*Life Cycles: Humans [PS2.07]
Properties and Changes of Materials	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	Material Properties [PS7.01]
	know that some materials will dissolve in liquid to form a solution, and describe how to recover a substance from a solution	Dissolving [PS7.03]
	use knowledge of solids, liquids and gases to decide how mixtures might be separated, including through filtering, sieving and evaporating	Separating Mixtures: Evaporation WS [PS7.04]
		Separating Mixtures [PS7.05]
	give reasons, based on evidence from comparative and fair tests, for the particular uses of everyday materials, including metals, wood and plastic	Uses of Materials [PS7.02]
	demonstrate that dissolving, mixing and changes of state are reversible changes	Reversible or Not? [PS7.06]

* 5+ only

	explain that some changes result in the formation of new materials, and that this kind of change is not usually reversible, including changes associated with burning and the action of acid on bicarbonate of soda	Irreversible Processes [PS7.07]
Earth and Space	describe the movement of the Earth, and other planets, relative to the Sun in the Solar System	The Solar System [PS12.01]
	describe the movement of the Moon relative to the Earth	The Moon [PS12.02]
	describe the Sun, Earth and Moon as approximately spherical bodies	
	use the idea of the Earth's rotation to explain day and night and the apparent movement of the Sun across the sky	Day and Night [PS12.03]
Forces	explain that unsupported objects fall towards the Earth because of the force of gravity acting between the Earth and the falling object	Gravity [PS9.07]
		Measuring Gravity WS [PS9.08]
	identify the effects of air resistance, water resistance and friction, that act between moving surfaces	Resistance [PS9.06]
	recognise that some mechanisms, including levers, pulleys and gears, allow a smaller force to have a greater effect	Lightening the Load [PS9.09]
Working Scientifically	planning different types of scientific enquiries to answer questions, including recognising and controlling variables where necessary	What is Science? [PS13.01] Asking Scientific Questions [PS13.02] Developing Scientific Theories [PS13.03] Hypothesis and Prediction [PS13.04] Designing an Experiment [PS14.01] Hazards and Risks [PS14.02] Hazards and Risks in Science [PS14.03] Safety Precautions [PS14.04] Drawing a Results Table [PS13.05] Drawing a Bar Chart [PS13.06] Drawing a Graph [PS14.05] Conclusions [PS13.07] Evaluating Experiments [PS14.06]
	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	

CENTURY

Primary – Year 6 Science

This document shows how CENTURY nuggets align to the English National Curriculum for Science.

Topic / Strand	National Curriculum Statement Pupils should be taught to:	Nugget Name
Living Things and Their Habitats	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	Further Grouping Living Things [PS3.04]
	give reasons for classifying plants and animals based on specific characteristics	
Animals Including Humans	identify and name the main parts of the human circulatory system, and describe the functions of the heart, blood vessels and blood	Heart and Blood [PS2.08]
	recognise the impact of diet, exercise, drugs and lifestyle on the way their bodies function	Health: Diet and Exercise [PS2.09]
	describe the ways in which nutrients and water are transported within animals, including humans.	Heart and Blood [PS2.08]
Evolution and Inheritance	recognise that living things have changed over time and that fossils provide information about living things that inhabited the Earth millions of years ago	Fossil Evidence [PS4.04]
	recognise that living things produce offspring of the same kind, but normally offspring vary and are not identical to their parents	Variation [PS4.01]
		Adaptations [PS4.02]
	identify how animals and plants are adapted to suit their environment in different ways and that adaptation may lead to evolution.	Adaptations: Evolution [PS4.03]

Light	recognise that light appears to travel in straight lines and 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	Light and Reflections [PS8.06]
	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	How Do We See? [PS8.08]
	use the idea that light travels in straight lines to explain why shadows have the same shape as the objects that cast them.	Light and Shadows [PS8.07]
Electricity	associate the brightness of a lamp or the volume of a buzzer with the number and voltage of cells used in the circuit	Voltage and Batteries [PS11.06]
	compare and give reasons for variations in how components function, including the brightness of bulbs, the loudness of buzzers and the on/off position of switches	Advanced Circuits [PS11.07]
	use recognised symbols when representing a simple circuit in a diagram.	Circuits and Symbols [PS11.08]
Working Scientifically	planning different types of scientific enquiries to answer questions, including recognising and controlling variables where necessary	What is Science? [PS13.01] Asking Scientific Questions [PS13.02] Developing Scientific Theories [PS13.03] Hypothesis and Prediction [PS13.04] Designing an Experiment [PS14.01] Hazards and Risks [PS14.02] Hazards and Risks in Science [PS14.03] Safety Precautions [PS14.04] Drawing a Results Table [PS13.05] Drawing a Bar Chart [PS13.06] Drawing a Graph [PS14.05] Conclusions [PS13.07] Evaluating Experiments [PS14.06]
	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.	

CENTURY

Primary – KS2 Science

This document shows the structure of our Primary – KS2 Science course.
Nuggets marked with * are the additional nuggets found in the KS2+ course.

Plants	Parts of a Plant [PS1.01]
	Plant Growth [PS1.02]
	Water Transport in Plants [PS1.03]
	Flowers of Plants [PS1.04]
	Pollination and Fertilisation [PS1.05]
	Seeds and Seed Dispersal [PS1.06]
Animals Including Humans	How the Body Works [PS2.01]
	Healthy Diet [PS2.02]
	The Skeleton [PS2.03]
	Muscles and Joints [PS2.04]
	The Digestive System [PS2.05]
	Teeth [PS2.06]
	*Life Cycles: Humans [PS.07]
	Heart and Blood [PS2.08]
	Health: Diet and Exercise [PS2.09]
	Health: Lifestyle Factors [PS2.10]
Living Things and Their Habitats	Grouping Living Things [PS3.01]
	Sorting Vertebrates and Invertebrates [PS3.02]
	Using Keys [PS3.03]
	Further Grouping Living Things [PS3.04]
	*Sexual Reproduction [PS3.05]
	*Asexual Reproduction [PS3.06]
	Different Life Cycles [PS3.07]
Evolution and Inheritance	Variation [PS4.01]
	Adaptations [PS4.02]
	Adaptations: Evolution [PS4.03]
	Fossil Evidence [PS4.04]
	Environments and Habitats [PS4.05]
	Feeding Relationships [PS4.06]
Rocks	Types of Rocks [PS5.01]
	Fossils [PS5.02]

	Soil [PS5.03]
	Soil Experiment WS [PS5.04]
States of Matter	Solids, Liquids and Gases [PS6.01]
	Changing State [PS6.02]
	Evaporation Experiment WS [PS6.03]
	The Water Cycle [PS6.04]
Properties and Changes of Materials	Material Properties [PS7.01]
	Uses of Materials [PS7.02]
	Dissolving [PS7.03]
	Separating Mixtures: Evaporation WS [PS7.04]
	Separating Mixtures [PS7.05]
	Reversible or Not? [PS7.06]
	Irreversible Processes [PS7.07]
Light	Sources of Light [PS8.01]
	Using Light to See [PS8.02]
	Protecting Your Eyes [PS8.03]
	Shadows [PS8.04]
	Shadow Experiments WS [PS8.05]
	Light and Reflections [PS8.06]
	Light and Shadows [PS8.07]
	How Do We See? [PS8.08]
Forces and Magnets	Introduction to Forces [PS9.01]
	Common Forces [PS9.02]
	Measuring Forces WS [PS9.03]
	Friction [PS9.04]
	Friction Experiment WS [PS9.05]
	Resistance [PS9.06]
	Gravity [PS9.07]
	Measuring Gravity WS [PS9.08]
	Lightening the Load [PS9.09]
	Magnetic or Not? [PS9.10]
	Opposites Attract [PS9.11]
	Making a Compass [PS9.12]
Sound	Vibrations [PS10.01]
	How We Hear [PS10.02]
	Pitch [PS10.03]
	Volume [PS10.04]
Electricity	It's Electric [PS11.01]
	Building Circuits [PS11.02]
	Complete Circuits [PS11.03]

	Conductors and Insulators [PS11.04]
	Conductors Experiment WS [PS11.05]
	Voltage and Batteries [PS11.06]
	Advanced Circuits [PS11.07]
	Circuits and Symbols [PS11.08]
Space	The Solar System [PS12.01]
	The Moon [PS12.02]
	Day and Night [PS12.03]
Working Scientifically (Lower)	What is Science? [PS13.01]
	Asking Scientific Questions [PS13.02]
	Developing Scientific Theories [PS13.03]
	Hypothesis and Prediction [PS13.04]
	Drawing a Results Table [PS13.05]
	Drawing a Bar Chart [PS13.06]
	Conclusions [PS13.07]
Working Scientifically (Upper)	Designing an Experiment [PS14.01]
	Hazards and Risks [PS14.02]
	Hazards and Risks in Science [PS14.03]
	Safety Precautions [PS14.04]
	Drawing a Graph [PS14.05]
	Evaluating Experiments [PS14.06]
Maths Skills for Scientists	Units of Measure [PM5.01]
	Length [PM5.02]
	Measuring Length [PM5.10]
	Mass and Weight [PM5.04]
	Measuring Mass [PM5.15]
	Volume and Capacity [PM5.06]
	Measuring Volume [PM5.17]
	Units of Time [PM7.01]
	Tables 1 [PM9.02]
	Tables 2 [PM9.05]
	Pictograms [PM9.01]
	Bar Charts 1 [PM9.03]
	Line Graphs 1 [PM9.04]
	Line Graphs 2 [PM9.08]
	Line Graphs 3 [PM9.09]
	Finding the Mean [PM9.12]