IPC STRAND	NC outcomes Year 3 and Year 4	MILEPOST 2	Bright Sparks: Y3 Aut	How Humans work: Y3 Aut	Brainwave The brain: Y3 Aut	Let's Plant It: Y4 Sum	Feel the force: Y4 Sum	Making waves: Y4 Aut	Shake It!: Y3 Spr	Land sea sky: Y4 Spr
	English National Curriculum co	overage opportunities	3	3	3	4	4	4	3	4
	asking relevant questions and using different types of scientific enquiries to answer them	2.01 Be able to suggest ways of collecting evidence in response to a scientific question		-						
		2.02 2.03 Understand the importance of collecting scientific evidence through observation and testing								
	asking relevant questions and using different types of scientific enquiries to answer them	2.04 Be able to ask scientific questions							•	
		2.05 Be able to connect scientific investigations to real life							•	-
	setting up simple practical enquiries, comparative and fair tests	2.06 Be able to plan an investigation changing only one independent variable								
		2.07 Be able to make informed predictions								-
		2.08 Be able to identify potential risks in a planned investigation								-
c enquiry	making systematic and careful observations and, where appropriate, taking accurate measurements using standard units, using a range of equipment, including thermometers and data loggers	2.09 Be able to make and record observations and take formal measurements								
cientifi	identifying differences, similarities or changes related to simple scientific ideas and processes									
Š	gathering, recording, classifying and presenting data in	2.10 Be able to describe observations and								
	using results to draw simple conclusions, make predictions for new values, suggest improvements and raise further questions	2.11 Be able to compare results to predictions and draw conclusions				•				
	using straightforward scientific evidence to answer questions or to support their findings.									
	recording findings using simple scientific language, drawings, labelled diagrams, keys, bar charts, and tables	2.12 Be able to record and describe the method and results in a variety of ways.								
	reporting on findings from enquiries, including oral and written explanations, displays or presentations of results and conclusions									
		2.13 Be able to compare investigations and results identifying possible anomalies	-				-			
Biology										

	Identify that humans and some other animals have	2.14 Know about the functions of				
nans and nimals	skeletons and muscles for support, protection and	skeletons and muscles in humans and				
	movement.	some other animals				
	Identify the different types of teeth in humans and					
	their simple functions					

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	English National Curriculum co	verage opportunities	3	3	3	4	4	4	3	4
Hun	Describe the simple functions of the basic parts of the digestive system in humans	2.15 Be able to describe the process of digestion								
Plants	Identify and describe the functions of different parts of flowering plants: roots, stem/trunk, leaves and flowers Investigate the way in which water is transported	2.16 Know about the functions of the major parts of a plant								
	within plants Explore the requirements of plants for life and growth	2.17 Know how the parts of a plant may								
	(air, light, water, nutrients from soil, and room to grow) and how they vary from plant to plant	change over time								
	Explore the part that flowers play in the life cycle of flowering plants, including pollination, seed formation and seed dispersal									
	Explore the part that flowers play in the life cycle of	2.18 Know the lifecycle of various plants								
		2.19 Know that a key difference between								
	Recognise that living things can be grouped in a	2.20 Be able to sort animals into								•
	Construct and interpret a variety of food chains,	2.21 Know that the sun is the source of								
S	Construct and interpret a variety of food chains,	2.22 Be able to draw diagrams to								
j.	Recognise that environments can change and that this	2.23 Know how space and place impact								
÷		2.24 Understand the positive and								
Ę	Recognise that living things can be grouped in a	2.25 Understand how animals and plants								-
È		2.26								
		2.27 Know that there are physical								
	Identify that animals, including humans, need the right	2.28 Know the role of the different								
	Construct and interpret a variety of food chains,	2.29 Understand the interdependence								

## Chemistry

Properties	Notice that light is reflected from surfaces.	2.30 Know a range of testable properties				
		2.31 Be able to compare common				
		2.32 Understand that different materials				
		2.33 Know that some materials conduct				
		2.34				
		2.35				
		2.36				
E.		2.37				
att		2.38				
ŝ	Compare and group materials together, according to	2.39 Be able to compare solids, liquids				
		2.40 Know that some changes are				
ges		2.41 Know that some substances dissolve				
		2.42 Be able to separate insoluble solids				
	Observe that some materials change state when they	2.43 Know that heating or cooling can				

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	English National Curriculum co	verage opportunities	3	3	3	4	4	4	3	4
har		2.44								
σ		2.45								
		2.46								
		2.47								
		2.55 Know that heat, light, sound and movement are evidence of energy transfer taking place	•							
Energy		2.56 Know that materials conduct heat differently to each other depending on what they're made of								
		2.57 Be able to give reasons why we should save/conserve electricity								
	Identify common appliances that run on electricity	2.58 Know that electricity is something which is generated								
etism	Construct a simple series electrical circuit, identifying and naming its basic parts, including cells, wires, bulbs, switches and buzzers	2.59 Know the names of the components and the related symbols in a circuit	-							
tromagn	Recognise some common conductors and insulators, and associate metals with being good conductors.	2.60 Be able to use electrical circuits to investigate the conductivity of various materials								
lec		2.61								
p		2.62								
/ ar		2.63								
Cit.		2.64								
Electri	Observe how magnets attract or repel each other and attract some materials and not others Describe magnets as having two poles	2.65 Know about the principles of magnets and how to test materials for magnetic properties								
		2.66								
	Identify how sounds are made, associating some of	2.67 Know how sounds are changed by								
	Recognise that sounds get fainter as the distance	2.68 Understand that light and sound								
S	Recognise that they need light in order to see things and that dark is the absence of light	2.69 Know that we see things because light travels from a source and reflects from an object into our eyes								
Wave	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.	2.70 Be able to predict how the shape of a shadow would change based upon the distance of the light source								

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	English National Curriculum co	overage opportunities	3	3	3	4	4	4	3	4
		2.71 Know the order of colours in the visible spectrum/rainbow								
		2.72								
		2.73 Know how pushes and pulls can temporarily or permanently change the shape of an object								
		2.74 Be able to compare forces, stating which is stronger								
orces	Compare how things move on different surfaces	2.75 Understand why we need friction								
ш.		2.76								
		2.77 Know that forces have a direction								
		2.78								
		2.79								
		2.80 Be able to identify simple machines in their environment.								