

Hope Kindness Forgiveness Aspiration Love Courage Trust Respect Friendship

# Drake Primary School and Little Pirates

# Science Sequencing 2024-2025

Biology = Green
Chanalatan Dad

Chemistry = Red

Physics = Blue

### **Reception and Key Stage 1:**

	Autumn 2024				Spring 2025				Summer 2025				
	Person				Blossom				Planet				
Reception Understanding the world	Humans- my family	Sound, light & Earth and space	Materials machines	Forces- floating & sinking	River habitats & animals	State mat		Plants- planting & growing	Woodland habitats & animals	Plants- trees & leaves	Human growth	Fruit & vegetables	
	Seasonal changes (Autumn)				Seasonal changes (Winter & Spring)			Seasonal Changes (Summer)					
Year 1	Mine				Nimbus				Compass				
	Plants Every			Everyday r	y materials ir			Animals, ncluding humans	Plants			Animals, including humans	
	Seasonal changes (Autumn)				Seasonal changes (Winter & Spring)			Seasonal Changes (Summer)					
Year 2	People				Explore				Connections				
	Materials				Animals including hu			Plants	Living things and their habi		itats		



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# Key Stage 2:

	Autum	n 2024	Sprin	ng 2025	Summer 2025		
Year 3	Orig	ins	Μον	vement	Conflict		
	Rocks	Forces and magnets	Light	Light Animals, including humans		Plants	
Year 4	Fo	lk	Col	mpare	Us		
	Living things and their habitats		of matter	Electricity	Sound	Animals, including humans	
Year 5	Life and	l death	Be	eyond	Legacy		
	Animals, including humans	Living things and their habitats	Forces	Earth and space	Properties and changes of material		
Year 6	Sanct	uary	Adv	versity	Evolution		
	Light	Electricity	Living things and their habitats		Animals, including humans	Evolution and inheritance	

## **Big ideas of science**

#### **Physics**

- The universe follows unbreakable rules that are all about forces, matter and energy.
- Forces are different kinds of pushes and pulls that act on all the matter in the universe. Matter is anything that takes up space and can be weighed.
- Objects can affect other objects at a distance.
- Changing the movement of an object requires a net force acting on it.
- The total amount of energy in the universe is always the same but energy can be transformed when things change or are made to happen.

#### Chemistry

- All matter in the universe is made of very small particles.
- The arrangement, movement and type of the building blocks of matter and the forces that hold them together determine the properties of matter (e.g. hot/cold, soft/hard, light/heavy, etc.).
- Matter can change if the arrangement of these building blocks changes.

#### Biology

- Organisms depends on a supply of energy and materials to survive, grown and reproduce.
- Organisms are organised on a cellular basis.
- Genetic information is passed from one generation of organisms to another.
- Living things all came from the same starting point 4.5 billion years ago.
- The different kinds of life, animals, plants and microorganisms, have evolved over millions of generations into different forms in order to survive in diverse environments, and in competition with other organisms.

#### Earth science

- The solar system is a very small part of one of millions of galaxies in the universe.
- The Earth is one of eight planets that orbit the sun.
- The Earth is spins on its axis, leading to day and night.
- The Earth is tilted on its axis, leading to the seasons and the climate.
- The composition of the Earth and its atmosphere and the processes occurring within them shape the earth's climate.

### **Big ideas about science**

- Science assumes that for every effect there is one or more causes.
- Scientific explanations, theories and models are those that best fit the facts known at a particular time.
- The knowledge produced by science is used in some technologies to create products to serve human ends.
- Applications of science often have ethical, social, economic and political implications.

Harlen, W. ed., 2010. Principles and big ideas of science education. Association for science education.