



Year 3 Science Knowledge Progression

Term / unit	Builds on	Knowledge progression	Working scientifically	Key vocabulary	Where this leads next
Advent 1 Animals: Movement and nutrition	- Builds on Y2 life cycles/health and basic needs. - Recalls body parts and healthy choices.	- Know that humans and many animals have skeletons for support, protection and movement. - Identify major bones and joints. - Understand that muscles work with bones to produce movement. - Recognise that animals need the right types and amounts of nutrition. - Describe a balanced diet using major food groups.	- Use models to explain movement. - Group foods and interpret nutrition information. - Ask questions and gather data about bodies/movement. - Record observations and compare results.	skeleton; bone; joint; muscle; movement; support; protection; nutrition; nutrient; balanced diet	Supports Y4 digestion and Y6 health.
Advent 2 Forces and space: Forces and magnets	- Builds on Reception push/pull exploration. - Uses everyday experience of movement and surfaces.	- Recognise pushes and pulls as forces. - Know that some forces require contact while magnetic force acts at a distance. - Explain how friction can change movement on different surfaces. - Identify magnetic and non-magnetic materials. - Know that magnets have north and south poles and that like poles repel while unlike poles attract.	- Compare movement on different surfaces. - Use force/motion observations to identify patterns. - Test materials for magnetism and classify from evidence. - Make predictions and report findings.	force; push; pull; contact; friction; magnet; magnetic; pole; attract; repel	Direct prior learning for Y5 unbalanced forces.
Lent 1 Materials: Rocks and soil	- Builds on KS1 material properties. - Connects to observations of the natural environment.	- Compare rocks using observable properties. - Recognise broad ways rocks form and that rock properties affect use. - Explain simply how fossils form from remains of living things. - Recognise soil as a mixture containing rock particles and organic matter. - Compare soils using properties such as drainage.	- Observe rocks closely and classify them. - Carry out comparative tests of properties. - Use secondary sources/models to understand fossil formation. - Measure and compare soil drainage.	rock; mineral; sedimentary; igneous; metamorphic; fossil; soil; organic matter; permeable	Supports later materials and Earth science.
Lent 2 Energy: Light and shadows	- Builds on Reception light/dark exploration. - Uses understanding of senses from Y1.	- Know that light is needed to see and darkness is the absence of light. - Identify natural and artificial light sources. - Understand that some surfaces reflect light. - Recognise that intense sunlight can damage eyes and identify safe protection. - Explain that opaque objects block light and form shadows. - Recognise that shadow size/position can	- Classify sources and reflective materials. - Make systematic observations of shadows. - Plan comparative tests and measure shadow changes. - Record and interpret patterns.	light; dark; light source; reflect; reflective; opaque; transparent; translucent; shadow	Direct prior learning for Y6 light and reflection.

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		change.			
Pentecost 1 Plants: Plant reproduction	• Builds on Y1 plant identification and Y2 plant growth. • Recalls conditions needed for healthy growth.	• Identify functions of roots, stem, leaves and flowers. • Explain requirements for plant growth and how these may vary. • Understand how water is transported in plants. • Describe pollination, fertilisation, seed formation and dispersal. • Recognise the flower's role in the life cycle of flowering plants.	• Observe plant structures closely. • Investigate water transport. • Set up fair/comparative tests of growth conditions. • Record change over time and draw conclusions.	root; stem; leaf; flower; transport; pollination; pollen; fertilisation; seed; dispersal; germination	• Direct prior learning for Y5 life cycles and reproduction.
Pentecost 2 Making connections: Does hand span affect grip strength?	• Applies forces/friction and movement knowledge. • Draws on measurement and data skills across Y3.	• Apply knowledge of muscles, forces and friction to a human-body enquiry. • Understand that two measured variables may show a relationship without proving one causes the other. • Use evidence to discuss variation between individuals.	• Pose a comparative question. • Measure hand span and grip strength consistently. • Record repeated data and compare values. • Plot/interpret results, identify patterns and evaluate the method.	hand span; grip strength; force; friction; measure; variable; repeat; data; pattern; conclusion	• Prepares for more formal comparative/fair testing in Y4–Y6.