Castercliff Primary Academy – Year 3 Science Progression.

Curriculum Year 3	Animals Including Humans: Investigating Skeletons	Forces: Strongest Magnet	Plants: Measuring Plants	Light: Making Shadows	Rocks: Rock Reports	Plants: Function of a stem
Key Skill	Asking and Answering Questions	Comparative and Fair Testing 	Pattern Seeking 	Observing Over Time 	Identify and Classifying 	Research Using Secondary Resources 
Applied Skills						
Knowledge	•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 •Identify that humans and some other animals have skeletons and muscles for support, protection and movement.	•Compare how things move on different surfaces. •Notice that some forces need contact between two objects, but magnetic forces can act at a distance. •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	•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. •Investigate the way in which water is transported within plants.	•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. •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.	•Compare and group together different kinds of rocks on the basis of their appearance and simple physical properties. •Describe in simple terms how fossils are formed when things that have lived are trapped within rock •Recognise that soils are made from rocks and organic matter.	•Identify and describe the functions of different parts of flowering plants: roots; stem /trunk; leaves; and flowers •Explore the part that flowers play in the life cycle of flowering plants, including pollination, seed formation and seed dispersal.

		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.		•Find patterns in the way that the size of shadows change.		
Sticky Knowledge 'Evidencing'	•Can name the nutrients found in food •Can state that to be healthy we need to eat the right types of food to give us the correct amount of these nutrients •Can name some bones that make up their skeleton, giving examples that support, help them move or provide protection •Can describe how muscles and joints help them to move •Can classify food into those that are high or low in particular nutrients •Can answer their questions about nutrients in food, based on their gathered evidence	•Can give examples of forces in everyday life •Can give examples of objects moving differently on different surfaces •Can name a range of types of magnets and show how the poles attract and repel •Can draw diagrams using arrows to show the attraction and repulsion between the poles of magnets •Can use their results to describe how objects move on different surfaces •Can use their results to make predictions for further tests e.g. it will spin for longer on this surface than that, but not as long as it spun on that surface •Can use classification evidence to identify that some	•Can explain observations made during investigations •Can explain the function of the parts of a flowering plant •Can draw and label a diagram of their created flowering plant to show its parts.	•Can describe how we see objects in light and can describe dark as the absence of light •Can state that it is dangerous to view the sun directly and state precautions used to view the sun, for example in eclipses •Can define transparent, translucent and opaque •Can describe how shadows are formed •Can describe patterns in visibility of different objects in different lighting conditions and predict which will be more or less visible as conditions change •Can clearly explain, giving examples, that objects are not visible in complete darkness	•Can name some types of rock and give physical features of each •Can explain how a fossil is formed •Can explain that soils are made from rocks and also contain living/dead matter •Can classify rocks in a range of different ways, using appropriate vocabulary •Can devise tests to explore the properties of rocks and use data to rank the rocks •Can link rocks changing over time with their properties e.g.soft rocks get worn away more easily •Can present in different ways their understanding of how fossils are formed e.g.	•Can explain the function of the parts of a flowering plant •Can describe the life cycle of flowering plants, including pollination, seed formation, seed dispersal, and germination •Can give different methods of pollination and seed dispersal, including examples •Can look at the features of seeds to decide on their method of dispersal •Can draw and label a diagram of their created flowering plant to show its parts, their role and the method of pollination and seed dispersal

	•Can talk about the nutrient content of their daily plan •Use their data to look for patterns (or lack of them) when answering their enquiry question •Can give similarities e.g. they all have joints to help the animal move, and differences between skeletons	metals, but not all, are magnetic •Through their exploration, they can show how like poles repel and unlike poles attract, and name unmarked poles •Can use test data to rank magnets		•Can describe and demonstrate how shadows are formed by blocking light •Can describe, demonstrate and make predictions about patterns in how shadows vary	in role play, comic strip, chronological report, stop-go animation etc. •Can identify plant/animal matter and rocks in samples of soil •Can devise a test to explore the water retention of soils	