Enquiry Skills Progression – Y3

	Observe changes over time	Pattern seeking	Grouping and classifying	Fair and comparative Tests	Secondary Sources/Research
Plants	Observe celery (with roots and leaves) or white carnations in coloured water.	Investigate what happens when conditions for plants are changed e.g. more/less light/water, change in temperature, different soils, etc.	Grouping flowering and non- flowering plants, plants that produce fruit and those that don't, etc.	Which conditions help seeds germinate faster?	Research functions of parts of flowering plants, different methods of seed dispersal or pollination **Famous scientists:** Joseph Banks- Botanist Ahmed Mumin Warfa – Botanist
Animals inc humans		Children to generate own questions for investigation: **Objective 1:** Do 'healthy' drinks have less sugar? Does brown bread have more fibre? **Objective 2:** Do people with long arms throw further? Can people with short legs jump higher? Longer legs run faster? Bigger hands catch a ball more easily?	Based on own criteria: classify food items (leading to sorting by nutrients) *How can we group the foods that we eat?* Classifying animals (leading to sorting by whether or not they have skeletons) *How do the skeletons of different animals compare?*		Look at food packaging to identify the amount of nutrients in different food items. *Why do different types of vitamins keep us healthy and which foods can we find them in?* Generate questions to research about the human skeleton. **Famous scientists:** Marie Curie- Radiation Wilhelm Rontgen - X rays Adelle Davis –Nutritionist Marie Maynard Daly - biochemist
Rocks	Observe how soil separates into different layers in water	*Is there a pattern in where we find volcanoes on planet Earth?*	Based on the children's own criteria, classify rocks (beginning of topic more likely to focus on appearance leading to	Test the hardness of different rocks. Test what happens when rocks are put in water.	Research how fossils are formed. *Who was Mary Anning and what did she discover?*

			physical properties at end of unit). Look at different soils and discuss how similar/different. *Can you use an identification key to find out the name of the rocks in your collection?*		**Famous scientists:** Mary Anning- Fossil hunter Dr Anjana Khatwa Geologist William Smith Fossils strata Inge Lehrmasn -Earth's Mantle Katia Krafft - Geologist and Volcanologist
Light			Based on children's own criteria Classifying light sources (leading to natural/man-made) Classifying materials (leading to reflective/non-reflective, transparent/translucent or opaque *How would you organise these light sources into natural and artificial sources?*	Test materials for reflectiveness, transparency. Investigate shadows (size and shape only) *Which pair of sunglasses will be the best for protecting our eyes?* *How does the number of layers of transparent plastic affect how much light passes through it?* *How does the distance between the shadow puppet and the screen affect the size of the shadow?*	**Famous scientists:** Justus Von Liebig Mirrors James Clerk Maxwell (Visible and Invisible Waves of Light)
Forces and magnets	*How have our ideas about magnets changed over time?*	*Does the size and shape of the magnet affect how strong it is?*	Sort materials (leading towards metal/non-metal, magnetic/non-magnetic) *Which materials are magnetic?*	Test the strength of different magnets *Which magnet is the strongest?* *Which surface is the best to stop you from slipping?* *How does the mass of an object affect how much force is needed to make it move?*	Find out how magnets are used in everyday life. **Famous scientists:** Andre Marie Ampere- Electro-magnetism The Wright Brothers Airplanes