Enquiry Skills Progression – Y6

	Observe changes over time	Pattern seeking	Grouping and classifying	Fair and comparative Tests	Secondary Sources/Research
Living things and their habitats	*How did Carl Linneus group plants?*	*Do all flowers have the same number of petals?*	Classification keys: Classifying animals according to Linnaeus system. Create branching database/dichotomous key to classify set of living things.		Research characteristics of vertebrate/ invertebrate/flowering plants Research microorganisms **Scientist Link:** Carl Linneus Classification
Animals inc humans **This topic hasn't been thoroughly planned yet, so will need tweaking.**	Observe pulse rates before, during and after exercise	Children generate questions for investigation: *Do older people have lower pulse rates? Do boys have higher pulse rates? Is there a pattern between what we eat for breakfast and how fast we can run?*	*Which organs of the body make up the circulation system and where are they found?*	Complete different activities/exercises to compare the impact on their own heart rate. *What type of exercise has the greatest effect on my heart rate? Does the length of time we exercise affect our heart rate?*	Research human circulatory system. **Scientist Link:** Leonardo Da Vinci- anatomy Santorio Santorio- Anatomist Dr. Katherine Dibb – Expert in Cardiovascular Sciences Justus von Liebig- Theories of Nutrition and Metabolism Sir Richard Doll- Linking Smoking and Health Problems
Evolution and inheritance **This topic hasn't been thoroughly planned yet, so will need tweaking.**	*What ideas did the American geneticist Barbara McClintock have about genes that won her a Nobel Prize?*	Use tweezers to look for patterns linking the suitability of birds beaks for the available food (rice, raisins, grapes)	Show variation in a species – classify a species of animal e.g. cats, dogs or a species of plant e.g. daffodil, tulips, lilies Compare skeletons of apes, humans and Neanderthals – how are they similar/different?	*What is the most common eye colour in our class?*	E.g. *How is the polar bear suited to its environment?* Research the wolly mammoth and how it is similar/different from modern day elephant. Evolution of the horse. **Famous scientists** Charles Darwin- Evolution

					Alfred Russell Wallace – naturalist Rosalind Franklin – DNA Nettie Stevens – Geneticist Professor Alice Roberts - Evolutionary biologist Hippocrates -The Father of Medicine
Light		*Is there a pattern to the shape and length of shadows and distance from the light source?*		Investigate the shape of shadows and link this to light travelling in straight line *How does the angle that a light ray hits a plane mirror affect the angle at which it reflects off a surface? How does light travel around corners?*	**Famous Scientists:** Thomas Edison -Invented electric light bulb Patricia Bath (BP website)- saving sight Thomas Young (Wave Theory of Light) Ibn al-Haytham -Light and our Eyes Percy Shaw - The Cats Eye
Electricity	*How has our understanding of electricity changed over time?* *How have batteries changed over time?*	*Do the temperature of a lightbulb go up the longer it is on?*	*How would you group electrical components and appliances based on what electricity makes them do?*	Investigate effect of adding more bulbs, cells, buzzers, motors to a circuit. *Which make of battery lasts the longest?* *Which type of fruit makes the best fruity battery?*	**Famous Scientists:** Nikola Telsa -AC electric system Alessandro Volta- Electrical Battery Nicola Tesla- Alternating Currents Edith Clarke -Electrical engineer