Enquiry Skills Progression – Y5

	Observe changes over time	Pattern seeking	Grouping and classifying	Fair and comparative Tests	Secondary Sources/Research
Living things and their habitats	Grow from cuttings and observe whether they grow roots/stem /leaf/flower – to be done in class. Grow from and harvest bulbs through the year - school garden. Observe strawberry/spider plants through the year- school garden.	Children generate questions: E.g. Do larger mammals have longer gestation periods? Do larger animals live longer? Do smaller animals lay more eggs?	Classify animals according to their life cycle.		Generate questions to research life cycle of chosen animal, mammal, amphibian, insect or bird Research how gardeners asexually reproduce plants. **Famous Scientists:** Sir David Attenborough- Animal Behaviourist
Animals inc humans **This topic hasn't been thoroughly planned yet, so will need tweaking.**	*How and why has life expectancy in the UK changed since the Middle Ages?*	*Are the older children the tallest in our school?*	*Can you identify all the stages in the human life cycle?*		Develop questions to ask an expert e.g. health visitor, doctor, nurse *Why do people get grey/white hair when they get older?* **Famous Scientists:** Alexander Fleming- Penicillin Louis Pasteur- Vaccination
Properties and changes of materials		*Does all sugar dissolve at the same rate?*	Based on children's own criteria. E.g. Classify the materials themselves. Can you group these materials based on whether they are transparent or not.	Ideas include: Which material would keep things warm/cold? Test solids for solubility and compare rates. *Which type of sugar dissolves the fastest?* *How does the temperature of water*	*What are microplastics and why are they harming the planet?* **Famous Scientists:** Sir Humphrey Davy- Separating gases Jamie Garcia (BP website)- Invention of a new plastic

				affect how long it takes for the sugar cube to dissolve? Children have the opportunity to choose their own tests.	Becky Schroeder - fluorescence material Spencer Silver, Arthur Fry and Alan Amron - Post-It Notes Ruth Benerito - Wrinkle-Free Cotton
Earth and Space	Measure shadows throughout the day *How have our ideas about the solar system changed over time?*	*Is there a pattern between the size of a planet and the time it takes to travel around the Sun?* *Is there a pattern in the way that shadows change throughout the day/year?*	*How can you organise all the objects in the solar system into groups?*	*How does the length and shape of shadows change throughout the day?*	Generate questions to research about Earth and Space E.g *What unusual objects did Jovcelyn Bell Burnell discover?* **Famous Scientists:** Mae Jemison – Astronaut Claudius Ptolemy and Nicolaus Copernicus - Heliocentric vs Geocentric Universe Neil Armstrong- First man on the Moon Helen Sharman- GB astronaut Valentina Tereshkova- Cosmonaut
Forces	*How have our ideas about gravity changed over time?*	*Do all objects fall through air in the same way?*		Ideas include: Compare water resistance, air resistance, levers, pulleys and gears Can you label and name all the forces acting on the objects in each of these situations? *Which shape parachute takes the longest to fall? How does the surface affect the time it takes to fall to the ground?*	*How do submarines sink if they are full of air?* **Famous Scientists:** Isaac Newton- Gravity Galileo Galilei - Gravity and Acceleration Archimedes of Syracuse- Levers