LEAS PARK JUNIOR SCHOOL – Curriculum Progression Map

Year Group: 5 **Subject: Science**

Unit / Curriculum Strand	**Autumn** Earth and Space (1)	**Spring** Living things and their habitats (2) Animals including humans (3)	Summer Properties and changes of materials (4) Forces (5)
Biology Living things and their habitats (2) Animals including humans (3)	Children can… • (2) explain the life cycle of plants, mammals, amphibians, insects and birds • (2) use their prior learning from Year 3 (Plants) to explain the life cycle of plants • (2) explain the difference between sexual and asexual reproduction and give examples of how plants reproduce in both ways • (2) present their understanding of the life cycle of a range of animals in different ways Children know… • (2) the differences in the life cycles of a variety of living things • (2) how plants and animals reproduce • (3) how humans change as they grow		
Chemistry Properties and changes of materials (4)	Children can… • (4) compare materials according to their properties, including their hardness, solubility, transparency, conductivity (electrical and thermal) and response to magnets. • (4) use knowledge from prior learning in Year 3 (Forces and Magnets) and Year 4 (Electricity) to compare and group materials • (4) investigate materials which will dissolve in liquid • (4) use different processes to separate mixtures from materials • (4) identify and explain irreversible chemical changes Children know… • (4) the properties of different materials • (4) that some materials dissolve to form a solution and how to recover a substance from a solution • (4) the particular uses of everyday materials, including metals, wood and plastic • (4) that dissolving, mixing and changes of state are reversible changes • (4) use knowledge from prior learning in Year 4 (States of matter) to identify evaporation and condensation are reversible changes • (4) that some changes are not reversible including burning and the action of acid on bicarbonate of soda.		
	Children can… • (1) position planets in relation to distance from the sun		

Physics Earth and Space (1) Forces (5)	• (1) explain the movement of the Earth and other planets relative to the Sun in the solar system • (1) use the idea of the Earth's rotation to explain day and night and the apparent movement of the sun across the sky • (1) explain the movement of the moon relative to the Earth • (1) recognise how ideas about the solar system have changed over time • (5) explain the effect of gravity on unsupported objects • (5) explain how different mechanisms work Children know… • (1) the planets in our solar system • (1) the Sun, Earth and Moon are approximately spherical bodies • (1) (5) the effect of air resistance, water resistance and friction • (5) that some mechanisms allow a smaller force to have a greater effect • (5) that unsupported objects fall to earth because of gravity • (5) how the scientists Galileo and Isaac Newton helped to develop the theory of gravitation.
Working Scientifically	• (2,4,5) take measurements, use a range of scientific equipment (1) stopwatches (2) tape measure, with increasing accuracy and precision, take repeat readings when appropriate • (1,2) identify scientific evidence that has been used to support or refute ideas or arguments. • (1,2,4,5) record and collect data and results of increasing complexity using tables (1-5), bar graphs (2) • (4,5) plan different types of scientific enquiries to answer questions, including recognising and controlling variables where necessary ((4) noticing patterns; grouping and classifying; comparative and fair tests (5) comparative and fair tests) • (4) use test results to make predictions to set up further comparative and fair tests, including through the use of bubble and block marking • (1-5) report and present findings from enquiries, including conclusions, causal relationships and explanations of and degree of trust in results, in oral and written forms such as tables.