LONGTON LANE PRIMARY SCHOOL

***‘Believe and Achieve’***

**Science Curriculum Key Questions LKS2**

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|  | **Autumn 1** | **Autumn 2** | **Spring 1** | **Spring 2** | **Summer 1** | **Summer 2** |
| Year 3 | **Revision of KS1**  What do humans need to survive?  Can you explain what a habitat is?  What properties does wood have?  **Forces and Magnets**  What are the two poles on a magnet?  How could you find out if something is magnetic?  Can you explain why it is important to test something fairly?  How does friction change how objects move on different subjects? | **Forces and Magnets**  Can you name three examples of magnetic materials or objects?  Which poles of a magnetic attract and which will repel?  If two N poles on a magnet were facing each other would they attract or repel? Explain.  Does a magnet need to touch a material to attract it? - fair test investigation | **Rocks**  What are the physical properties of 3 types of rocks?  Can you choose two types of rock and compare them by describing their physical properties?  Can you describe how rocks can be useful?  Can you explain one use for a specific rock and why it is suitable for that purpose?  Can you explain how fossils are formed?  What is soil made from? | **Animals including humans**  What types of food should humans eat to be healthy?  (main food groups)  Why is having a balanced diet important?  How do animals, including humans get nutrition?  What is the purpose of a skeletal system in humans and animals?  How do the muscular and skeletal systems work together? | **Light**  Can you describe why light is important to see things?  Can you describe what dark is?  Why is the light from the sun dangerous? Explain how we can protect ourselves.  Can you explain what a shadow is and how it is formed?  How does a shadow change when the light source is moved closer to an object? (find patterns)  How does a surface reflect light?  -Investigation re translucent, opaque and transparent | **Plants**  Can you name and describe the main parts of a flowering plant?  Can you describe the function of the main parts in a plant?  What does a plant need to grow and why?  Can you give examples and explain how requirements for growth are different between two plants?  Can you explain what pollination, seed formation and dispersal are?  Why are flowers important in the life cycle of flowering plants?  Can you describe how water is transported through a plant? |
| Year 4 | **Revision of Year 3**  **Living things and their habitats**  What are the main groups that animals can be sorted into? Explain their features  What is a classification key?  What properties could you use to classify vertebrates / invertebrates?  What questions might you see on a classification key for sorting leaves?  Can you describe how environments change and how this can affect living things? | **Sound**  Can you explain how sound is made (including details about vibrations)?  How does sound travel to the ear?  What is the pitch of a sound and how can it change?  Can you explain how vibrations link to the volume of sound?  What happens to a sound as you get further away from a source?  Can you describe the sort of objects that would make sounds with a higher pitch? | **Electricity**  Can you name five electrical appliances that run on mains electricity or battery?  Can you explain how a simple circuit is constructed?  Can you describe how a switch opens and closes a circuit?  What do you need in a circuit to ensure a lamp will light up?  Can you choose a material that is a good insulator and explain why it is good at insulating electricity?  Why are some metals good conductors? Explain how you know. | **Animals including humans**  What are the main parts and functions of the digestive system?  How is food digested in the stomach?  Can you explain how the digestive system works?  What are the types of and functions of different teeth?  How does tooth decay happen and what can you do to prevent it?  Can you compare carnivore and omnivore teeth? | **Animals including humans**  Using scientific vocabulary can you explain what a food chain is?  What are the roles of a producer, prey and predator in relation to a food chain?  Can you choose an example of and describe a food chain (using specific examples of plants and animals)?  How do living things depend on each other to survive? | **States of Matter**  What is different between a solid, liquid and gas?  What are the three main states of matter?  What happens to different materials when they are heated? How does the temperature of water change when it is cooled? (investigation)  How do measurements of volume change when water is in different states? (investigation) |
| **States of Matter**  Can you describe the main processes of the water cycle? (include condensation and evaporation)  How and why does the rate of evaporation change? |