Science Implementation.

Every child has the right to access a world-class education. We exist to empower, enable and inspire children to achieve their every potential through exceptional teaching, innovative approaches to learning, and a community-oriented approach to meeting learners' needs.

SAFE	HERE	INSPIRED	NEIGHBOURLY	EXCELLENT
Progression	**Assessment**	**Enquiry-Led**	**Differentiation**	**Planning**
How EYFS prepares children for the National Curriculum. EYFS provide each child with the opportunity to explore the world around them. Through a range of topics, each child can expand their vocabulary, explore a range of experiments and discuss what they have learnt. **Moving from Reception into KS1** All children shall know that science is based on a range of experiments. Each child shall understand that we use signs to help us know which type of experiment we are conducting and through performing experiments, we can learn new knowledge. Pre-teach vocabulary shall be provided to the EYFS team to prepare the children with some scientific words.	**How we assess key elements.** Skills are taught through a sequence of lessons, showing the children how to solve and provide evidence of working scientifically. From this, opportunities shall be given throughout the year to practise and assess the children's understanding of using scientific skills. Knowledge is taught through providing the children with experiments and opportunities for exploration. Careful questioning will allow the children to explore the world around them and specific vocabulary shall be provided to provide contexts to the experiments. Assessment is done through online 'quiz' style assessments of sticky knowledge (knowledge that children are expected to retain through the unit) and shown through AFL within	**How opportunities planned are for.** **Science** topics have planned for opportunities that allow children to practice and develop their questioning skills through an enquiry-led approach. Each enquiry approach shall be dedicated to a stand of the curriculum, meaning that the children shall lead a range of experiments that teach the children about the six enquiry types. Each half term the children shall focus on one skill-based approach and one enquiry-based approach. Children should have the opportunity to learn through both teaching and exploration of experiments leading to discovery. **Enquiry in Science promotes questions about** each of the six enquiry types (Questioning, Fair Tests, Identification and grouping, Pattern seeking, Observations over time and	**More Able learners** Greater depth children shall be exposed to a deeper thought of questioning, explanations, and vocabulary. During class experiments, children shall explore why each process of the experiment happens and verbalise this to the class. Children to think and explain about how their experiments link to the wider world around them. **SEND** We ensure that children with SEND are provided with equal access to a broad and balanced Science curriculum, that is appropriate to an individual's special educational needs. Learning materials, teaching methods and learning experiences are differentiated according to need. Class Teachers ensure that those activities are stimulating and challenging	**Long Term Plans** Long term planning is used to ensure that Science fits into a broader topic and promotes links between various strands of learning. **Science** planning ensures that the learning is layered through the year, guaranteeing that prior knowledge and skills facilitate positive starting points and enhance current learning at a quicker rate. Science leader mapping ensures Science progression through the year groups and key stage. Building on knowledge from reception, the spiral curriculum of science throughout KS1, LKS2 and UKS2 develop the children's skills, build on knowledge and provide a range of wider world topics to discover. **Medium Term Plans** For each unit taught, the Medium Term plan will identify prior learning,

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Explicit Examples of Progression Knowledge Children to meet specific objectives that expose the children to key vocabulary and life experiences that will enhance their school experience. An example of this: Living Things and their Habitat (KS1) Explore and compare the differences between things that are living, dead, and things that have never been alive Living Things and their Habitat (LKS2) Recognise that living things can be grouped in a variety of ways. Living Things and their Habitat (UKS2) Describe how living things are classified into broad groups according to common observable characteristics and based on similarities and differences, including micro-organisms, plants and animals. All knowledge progression to be found in the Knowledge matrices. **The importance of prior learning to support current learning**	each experiment and through verbal discussions with the children. **What Formative assessment takes place in Science.** Ongoing observations shall take place every lesson. Prior to any experiment commencing, children shall discuss the terminology that they need to know, and definitions shall be given. Children to be observed throughout the experiment and AFL to take place. Assessment about prior knowledge is to be collected at the beginning of each lesson, using a range of coloured pens to show progression in the sequence of lessons. **What Summative assessment takes place in Science.** Summative assessment takes place at the end of each unit of work and is done through Kahoot. Sticky knowledge and the taught skill are assessed and this information is triangulated with the formative	Secondary Research). These will be the foundations to our knowledge based experimentation and promote a range of vocabulary which shall relate to their lives.	and promote the best attainment for each learner.	establish the vocabulary to be taught, key knowledge and key skills. It will identify the progression of the skills and knowledge through the topic, enabling children to make links to prior learning and understand how future learning will develop. **Weekly** Weekly planning is used to ensure the necessary detail and coverage for all groups of learners is prepared for and delivered.

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Knowledge is built on throughout each Key Stage. This shall provide the children with a wide range of knowledge that shall be embedded as each child progresses on their school journey, this shall be vital for the progression of knowledge throughout the school. **Skills** are recalled, developed, and re-assessed each year, providing the children with the opportunity to discuss their prior learning with their teacher.	assessment and teacher knowledge of the child.			