What does Science education look like in the EYFS?

Science is taught in Reception class as an integral part of the topic work covered during the year. Key scientific aspects are related to the pupils' learning in accordance with the objectives set out in the Early Learning Goals (ELGs) of Understanding the World and Communication and Language which underpin the curriculum planning for pupils aged three to five.

Working Scientifically (Questioning, Predicting, Concluding, Observing, Identifying & Classifying, Measuring, Testing, Recording)	Children should be able to:- - make comments about what they have heard and ask questions to clarify their understanding. - participate in small group, class and one-to-one discussions, offering their own ideas, using recently introduced vocabulary. - offer explanations for why things might happen, making use of recently introduced vocabulary. - express their ideas and feelings about their experiences using full sentences. - use talk to help work out problems and organise thinking and activities, and to explain how things work and why they might happen.
Biology: Plants	Children should know some similarities and differences between the natural world around them and contrasting environments, drawing on their experiences and what has been taught in class.
Biology: Animals, including Humans	Children should explore the natural world around them, making observations and drawing pictures of animals and plants. They should know and talk about the different factors that support their overall health and wellbeing: - regular physical activity - healthy eating - toothbrushing - sensible amounts of 'screen time' - having a good sleep routine - being a safe pedestrian.
Biology: Evolution and Inheritance	Children should develop a basic understanding of the concept that living things change over time, observing how different animals and plants are adapted to their environments, and recognising that most offspring often look like their parents, explain similarities and differences.
Chemistry: Materials (including rock, states of matter and changes)	Children should be able to name common materials like wood, glass, plastic, fabric, and paper, and recognise objects made from these materials. They should learn vocabulary to describe material properties such as rough, smooth, soft, hard. Children should also be able to sort and group objects based on the material they are made from as well as investigate how different materials react when manipulated, like bending, stretching, tearing, or floating/sinking.
Physics: Seasonal Changes	Children should understand some important processes and changes in the natural world around them, including the seasons and changing states of matter. They should develop an understanding of how each season brings different weather conditions, changes in plant life, animal behaviors, and clothing needs.
Physics: Light	Children should learn that light is a type of energy that allows us to see things, primarily coming from the sun as a natural source, and can also be produced by man-made objects like lamps and torches; they should understand that when light is blocked, it creates a shadow.
Physics: Forces and Magnets	Children should develop a basic understanding of forces as pushes and pulls, and learn that magnets attract certain materials, particularly focusing on exploring different objects to see if they are magnetic or not.

Physics: Electricity	Children should primarily learn about electricity as a basic form of energy that powers objects around them, understanding that it flows through wires to operate devices like lights and toys, while emphasising safety concepts like not putting things into electrical sockets and respecting potential dangers associated with electricity.
Physics: Sound	Children are taught that sound is created by vibrations which travel through the air as waves, allowing us to hear things around us; they learn to identify different sounds, understand concepts like loud/soft, high/low pitch, and explore how to make sounds with various objects.
Physics: Earth and Space	Children should develop a basic understanding of Earth as a planet within space, including concepts like day and night, the sun, moon, stars, and the idea that Earth is a part of a larger solar system.

ELG: Communication and Language Listening, Attention and Understanding

• Make comments about what they have heard and ask questions to clarify their understanding.

• Participate in small group, class and one-to-one discussions, offering their own ideas, using recently introduced vocabulary.

• Offer explanations for why things might happen, making use of recently introduced vocabulary from stories, non-fiction, rhymes and poems when appropriate.

• Express their ideas and feelings about their experiences using full sentences, including use of past, present and future tenses and making use of conjunctions, with modelling and support from their teacher.

ELG: Personal, Social and Emotional Development Managing Self

• Manage their own basic hygiene and personal needs, including dressing, going to the toilet and understanding the importance of healthy food choices.

ELG: The Natural World

• Explore the natural world around them, making observations and drawing pictures of animals and plants.

• Know some similarities and differences between the natural world around them and contrasting environments, drawing on their experiences and what has been read in class.

• Understand some important processes and changes in the natural world around them, including the seasons and changing states of matter.