Yew Tree Primary School

SCIENCE CURRICULUM OVERVIEW

RESPONSIBILITY:
We are responsible for what we do – if it's to be, it's up to me! We are prepared, organised and recognise consequences of our actions on ourselves and others.

RESPECT:
We are respectful by treating others how we wish to be treated – using manners, being thoughtful, kind and celebrating diversity

COURAGE:
We are brave and we take chances. We develop resilience to keep going even when things are tough. We face our fears and we are not afraid to make mistakes.

AMBITION:
We believe we can achieve in anything that we put our mind to. We aim high, love learning, have a positive 'can do' attitude and aim to be the best!

PRIDE:
We are proud of who we are and where we are from. We believe in our abilities and celebrate our success. We are a family at Yew Tree!

Intent	**Curriculum Aim**	To offer a broad, balanced & inclusive curriculum which acts as a starting point to stimulate awe, wonder & curiosity and which encompasses 'Learning Without Limits' so that children are empowered and able to achieve their full potential.	**What does this mean for Science** **What does this subject area offer our curriculum?** A high-quality science education provides the foundations for understanding the world through the specific disciplines of biology, chemistry and physics. Science has changed our lives and is vital to the world's future prosperity, and all pupils should be taught essential aspects of the knowledge, methods, processes and uses of science. **What are the key features of this subject area?** Through building up a body of key foundational knowledge and concepts, pupils should be encouraged to recognise the power of rational explanation and develop a sense of excitement and curiosity about natural phenomena. **What should this subject look like in our curriculum?** Children should be encouraged to understand how science can be used to explain what is occurring, predict how things will behave, and analyse causes.
	Curriculum Objectives	• To develop the child as a responsible and confident citizen who is prepared to live in an ever-changing and diverse world. • To develop the child as an individual who embraces challenge and makes the most of every opportunity to learn. • To develop the child as a life-long learner who has a range of skills, which ensure a high level of achievement.	

Yew Tree Primary School
Science Key Skills Progression

Idea	Aspect	Nursery	Reception	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
SC1 Skills	**Plan**	Uses a variety of questions (e.g. *what, where, who*). Talk about what they see using a wide ranging vocabulary Begins to show curiosity about objects, event and people. Understand 'why' questions. Ask or answer a simple question	Questions why things happen and give explanations. Asks e.g. *who, what, when, how* Articulate their thoughts in well-formed sentences Use talk to organise thinking and activities Learns and uses new vocabulary Answer how and why questions about their experiences.	Identifying questions that can be answered by trying it out myself. Identifying questions that can't be answered this way. With support plan simple tests	Identify different types of enquiry that answer scientific questions: research; pattern seeking, and observation, fair testing. Plan simple tests making simple predictions.	Suggest relevant questions and ideas. Think about how to collect sufficient evidence e.g. research, pattern seeking, observation, fair testing, classifying. Identify the variables that must stay the same for it to be a fair test Make predictions based on everyday experience and knowledge	Suggest questions that can be the basis of different types of scientific enquiry: research, pattern seeking, observation, fair testing, classifying. Plan the main steps of an enquiry. Identify the key variable to change in a fair test. With help, decide what to measure and choose apparatus.	Consider questions and make suggestions as to how to make an appropriate enquiry: research, pattern seeking, observation, fair testing, classifying. Identify the key variable to measure as a result of the change they make in a fair test. Make predictions based on scientific knowledge.	Ask my own questions and with a clear purpose, offer my own ideas for scientific enquiry. Understand, select and plan the most appropriate enquiry research, pattern seeking, and observation fair testing. Decide what data to collect and become more aware of how much evidence should be collected.

	Do	Explore how things work. Use all their senses in hands on exploration. Observe planned activities	Explain how things work and why they might happen. Use new vocabulary Describe what they can see, hear and feel. Make simple comparisons	Use my senses to make observations Make some standard and non- standard measures of length. Make simple comparisons and group things (two sets) with reasons.	Use non-standard and standard measures for length such as metre sticks, kg masses, L jugs and second timers. Make simple comparisons of similarities and differences. Make careful observations	Make observations and comparisons. Take measurements using standard units (length, time, volume, mass, force) and a range of equipment including thermometers, data loggers.	Make systematic and careful observations and comparisons. Make increasingly accurate measurements of time, temperature, length, volume, mass and force. Begin to think why measures should be repeated	In a variety of contexts, make relevant observations and comparisons. Make repeated measurements of time, temperature, length, volume, mass and force and say why they are important.	Compare five or more things. Make my own decisions about what measurements to use, When to check them and explain why repeated measurements are important.
	Record		Represent observations by mark making, drawing, creating simple charts and tables.	Record some observations in drawings, a table or block graph with guidance.	Record findings in tables, drawings and block graphs.	Record results in tables, drawings, and bar charts and use simple scientific language in my writing	Create my own labeled diagrams, tables, keys and bar charts using results from my own or the classes' enquiries.	Record results clearly in scientific diagrams and labels, bar charts, tables and line graphs as appropriate.	Select an appropriate method to record evidence in the most effective way including scatter graphs, classification keys, bar and line graphs

	Review	Talk about what they see Begin to offer explanations for why things happen. Use a wider range of vocabulary	Make comments about what they have heard. Describe events in detail. Use new vocabulary Answer how and why questions about their experiences.	Communicate my findings orally, using drawings or writing Use appropriate vocabulary to say what I have found out.	Make simple interpretations, beginning to use their knowledge to explain. Link predictions to outcomes. Begin to use scientific language.	Report on findings from enquiries using oral and written explanations, displays or presentations of results and conclusions. Explain a simple pattern of results using my own and scientific ideas. Use results to draw simple conclusions. Recognize some of the problems in their enquiry work, suggest improvements and with support raise further questions.	Link results to predictions made. Identify trends and patterns in results. Use straightforward scientific evidence to answer questions or to support my findings.	Decide if results support predictions and make further predictions from results. Decide if evidence is sufficient to support conclusions. Identify limitations in my enquiry.	Identify trends and patterns in results and discuss those that don't fit. Use results to draw conclusions and offer coherent explanations. Identify scientific evidence that has been used to support or refute ideas or arguments. Explain the degree of trust in my results.