Progression of Skills – Science

	National Curriculum Aims • develop scientific knowledge and conceptual understanding through the specific disciplines of biology, chemistry and physics • develop understanding of the nature, processes and methods of science through different types of science enquiries that help them to answer scientific questions about the world around them • are equipped with the scientific knowledge required to understand the uses and implications of science, today and for the future **Curriculum Enhancements** Science Days throughout year, British Science Week (March), Sublime Science visit, Forest School sessions			
Skill	**Nursery (30-50)**	**Reception (40-60) bold ELG**	**Year 1**	**Year 2**
Planning and Predicting Creating and thinking critically Having their own ideas- thinking of ideas; finding ways to solve problems; finding new ways to do things Making predictions Planning making decisions about how to solve a problem and reach a goal	Comment and ask questions about aspects of their familiar world e.g. the place where they live, or the natural world.	*Question why things happen* *Have their own ideas*	**Ask simple questions when prompted-** Why are flowers different colours? Why do some animals eat meat and some do not? Suggest ways of answering a question	**Ask simple questions** e.g. Why do some trees lose their leaves in autumn? How long are roots of tall trees? Which material is best at absorbing water? Recognise that questions can be answered in different ways
Conducting Experiments Testing their ideas Children use everyday language as they explore. They explore characteristics of everyday objects. Children safely use and explore a variety of materials, tools and techniques, experimenting with colour, design, texture, form and function.	Observe the effects of physical activity on their bodies	*Use equipment and tools carefully* *Use their range of senses and look closely*	**Make relevant observations** **Conduct simple tests, with support** Set up a fair test, know if the test has been successful, say what has been learned through discussion and apply scientific vocabulary	**Observe closely using simple equipment** such as thermometers, rain gauges, microscopes, bug viewers, pipettes Measure carefully **Perform simple tests**

				Know how to set up a fair test when appropriate
Recording Evidence Developing ideas of grouping, sequencing, cause & effect Children represent their own ideas, thoughts and feelings through design & technology, art, music, dance, role play and stories	Talk about things they have observed e.g. plants, animals, natural & found objects To show care and concern for living things and the environment	**Talk about science situations such as ways to keep healthy and safe, know the importance of physical exercise for good health, how to keep healthy and safe** *Create simple representations of people and objects*	**With prompting, suggest how findings could be recorded**. Use scientific vocabulary and refer to evidence in discussions **Gather and record data**- pictograms, labelled diagrams, summative sentence, a "what went well" sentence	**Gather and record data to help answer questions** using tables, tally charts, drawings **Communicate their findings in a range of ways and begin to use simple scientific language**
Reporting Findings Making links and noticing patterns Speaking- uses talk to organise, sequence and clarify thinking and ideas Make observations about plants & animals and explain why some things occur. Talk about changes	Show interest in and describe the texture of things Talk about why things happen and how things work Develop an understanding of growth, decay and changes over time	*Notice similarities and differences* Look closely at similarities, differences, patterns and change **Know about similarities and differences in relation to places, objects, materials and living things**	**Recognise findings** Use observations to suggest answers to questions Notice similarities and differences **Identify and classify** with support	**Identify and classify** Classify a group of things according to a given criteria e.g. deciduous and coniferous trees Discuss understanding of findings using ***because, if, so, and*** in line with Yr2 English expectations to articulate their findings
Concluding Checking how well their activities are going Change strategy as needed Review how well the approach worked Listen and respond to ideas expressed by others Discuss similarities and differences between living things, objects and materials	Starting to formulate their own ideas about what has happened and why	Have their own ideas about what happened and why Agree or disagree with the ideas expressed by others	Use observations to suggest answers to questions Explain to someone else what has been learned from an investigation they have been involved with and draw simple conclusions Use writing frameworks to write sentences about their findings	**Use their observations and ideas to suggest answers to questions** Draw conclusions from a fair test and explain what has been found out Use writing frameworks to improve quality of written conclusions and correct application of scientific language
Vocabulary				