

## Working Scientifically Progression at West Kirby Primary School



There are seven science skills which we want our pupils to develop:

- Questioning, enquiring, and planning
- Observing, measuring and pattern seeking
- Investigating
- Researching
- Concluding
- Using scientific vocabulary
- Understanding (STEM)

In **EYFS** we want our children choose the resources they need for their chosen activities and say when they do or don't need help. We want them to know about similarities and differences in relation to places, objects, materials and living things. For them to make observations of animals and plants and explore a variety of materials, tools and techniques, experimenting with colour, design, texture, form and function We want to enable them to select and use technology for particular purposes. We want our children to represent their own ideas, thoughts and feelings through design and technology, art, music, dance, role play and stories. We want them to talk about the features of their own immediate environment and how environments might vary from one another, and for them to explain why some things occur and talk about changes

In **KS1 (Years 1 & 2)** we want our children to ask simple questions and recognising that they can be answered in different ways. For them to observe closely, using simple equipment, perform simple tests and identify and classify. We want to enable them to gather and record data to help in answering questions and use their observations and ideas to suggest answers to questions.

In **LKS2 (Years 3 & 4)** we want our children to ask relevant questions and using different types of scientific enquiries to answer them. For them to set up simple practical enquiries, comparative and fair tests and then make systematic and careful observations and, where appropriate, take accurate measurements using standard units, use a range of equipment, including thermometers and data loggers. We want them to gather, record, classify and present data in a variety of ways to help in answering questions, record their findings using simple scientific language, drawings, labelled diagrams, keys, bar charts, and tables and then report on findings from their enquiries, including oral and written explanations, displays or

presentations of results and conclusions. We want them to use results to draw simple conclusions, make predictions for new values, suggest improvements and raise further questions . To enable them to identify differences, similarities or changes related to simple scientific ideas and processes and to use straightforward scientific evidence to answer questions or to support their findings

In **UKS2 (Years 5 & 6)** we want our children to plan different types of scientific enquiries to answer questions, including recognising and controlling variables where necessary. For them to take measurements, using a range of scientific equipment, with increasing accuracy and precision, taking repeat readings when appropriate. We want them to record data and results of increasing complexity using scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs and for them to use test results to make predictions to set up further comparative and fair tests. To enable them to report and present findings from enquiries, including conclusions, causal relationships and explanations of and degree of trust in results, in oral and written forms such as displays and other presentations and to identify scientific evidence that has been used to support or refute ideas or arguments.