



Working Scientifically at Nansledan

Working scientifically skills:



Explore & Ask

This is sparking the initial interest of the pupil, by looking at the world around them with new scientific eyes. This is the opportunity to combine play and enquiry at all ages. We will spark and facilitate wonderment in the children.

ICE: identify, clarify, extend.



Plan & Set-up

High quality, child-led enquiry questions lead into the types of enquiry (IPROF) the children will conduct. It is important that pupils are thinking about equipment and resources to be used in the enquiry and that we encourage the use and interaction with the school learning environment. Children will recognise that there is a diverse range of scientific equipment that is relevant to the different enquiry types. They will use equipment appropriate to their age and ability.

Five types of enquiry: identifying and classifying, pattern seeking, research, comparative, observation over time and fair testing.



Conduct & Observe

This is the stage of watching science in action; our focus remains on awe and wonderment but over time we will establish a systematic and scientific approach to observation. Children will recognise the crucial nature of working scientifically and its impact on the wider world. They will be encouraged to discuss and debate what they are observing.



Measure & Record

Children will use measurement equipment of increasing complexity. They record the results of their observations in an age appropriate way, making links, where possible, to maths.



Interpret & Report

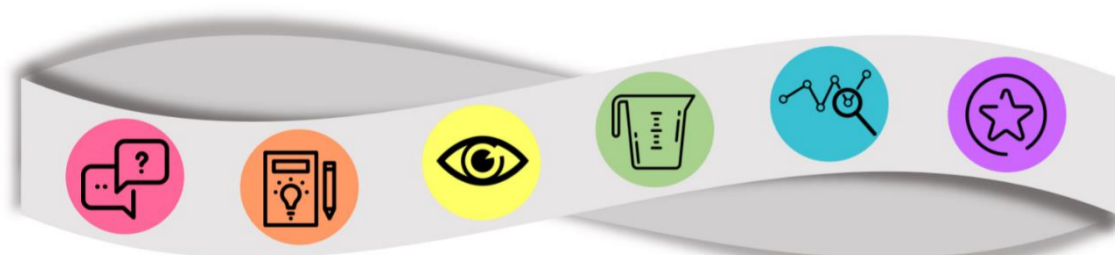
Children will draw conclusions based on the data and discuss the impact this has on their understanding of the world around them. They will share their learning by reporting in the form of oral and written explanations, displays or presentations. Here they will focus on communicating effectively by applying skills from other creative curriculum areas, such as art, dance, music, writing or computing.



Evaluate

Children will discuss what went well, and why, and will begin to ask further questions. They will go on to evaluate scientific evidence that has been used to support or refute ideas or arguments.

The Working Scientifically Loop:



In line with the year group expectations (set out in skill progression below) children will become familiar with the loop representation. Staff will use the infinity symbol design to demonstrate to children that working scientifically is an ongoing learning journey both for children and professionals working in STEAM careers. This model will be displayed in classrooms, along with age appropriate explanations of each of the six working scientifically skills.