Working Scientifically – Alverton Skills Progression Lower Key Stage 2

Plan	Do	Review
Identifying, classifying and grouping		
I talk about things that can be grouped and decide when questions can be answered by sorting and classifying. I talk about what criteria I will use to sort and classify things. I decide what equipment to use to identify and classify things.	I carry out simple tests to sort and classify according to properties or behaviour. I use Carroll diagrams, Venn diagrams and more complex tables to sort things. I use simple keys and branching databases to identify things. I make simple branching databases (keys) for things that have clear differences.	I draw simple conclusions and answer questions about the things I have sorted and classified. I communicate the similarities and differences I identified using scientific ideas. I suggest improvements to the way I sort and identify things.
Observing over time		
I talk about things changing and decide when questions can be answered by observing over time. I decide what observations to make, how often and what equipment to use.	I select and use a range of equipment accurately to collect data using standard units. I make records using tables, bar charts or labelled diagrams. I begin to use and interpret graphs produced by e.g. dataloggers	I draw simple conclusions and answer questions using the changes I observed, make predictions for new values, and raise further questions. I communicate the changes using scientific ideas. I suggest improvements to the way I observe.
Pattern seeking		
I talk about where patterns might be found and decide when questions can be investigated by pattern seeking. I decide on which sets of data to collect, what observations to make and what equipment to use.	I select and use a range of equipment accurately to collect data using standard units. I make records using tables, bar charts or simple scatter graphs. I begin to use and interpret data collected through e.g. dataloggers.	I draw simple conclusions and answer questions about simple patterns between two sets of data, and raise further questions. I communicate the patterns using scientific ideas. I suggest improvements to the way I looked for patterns.
Research using secondary sources		
I talk about how things are and the way they work and decide when questions can be answered by research using secondary sources.	I use information sources to find the information I need. I record what I found out in my own words. I present information in different ways.	I draw simple conclusions and answer questions from what I found out, and raise further questions. I communicate what the information and data means using scientific ideas. I suggest ways to improve how I find out things.
Comparative and fair testing		
I talk about links between cause and effect and (with help) pose a relevant fair test question. I plan a fair test and decide what data to collect. I decide what equipment to use to make observations.	I select and use a range of equipment accurately to collect data using standard units. I make records using tables and bar charts. I begin to use and interpret data collected though e.g. dataloggers.	I draw simple conclusions and answer questions from my fair tests, make predictions for new values and raise further questions. I communicate and explain simple causal relationships using scientific ideas. I suggest ways that I can improve my fair tests.