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| UKS2 Working Scientifically – Y6 | | |
| Plan | Measure | Record |
| **Planning different types of scientific enquiries to answer questions, including recognising and controlling variables where necessary.**  Recognise scientific questions that do not yet have definitive answers.  Use observations/data gathered to construct a further (testable or research) question.  Raise different kinds of questions (Y5/6).  Plan enquiries, including recognising and controlling variables where necessary.  Select and plan the most appropriate type of science enquiry to use to answer scientific questions. | **Taking measurements, using a range of scientific equipment, with increasing accuracy and precision, taking repeat readings when appropriate.**  Make their own decisions about what measurements to take [and identify the ranges and intervals used].  Take measurements, using a range of equipment, with increasing accuracy and precision.  Choose and use the most appropriate equipment to support observation, make measurements, collect data. | **Recording data and results of increasing complexity using scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs.**  Explore more abstract systems/functions /changes/behaviours and record their understanding of these (e.g. the relationship between diet, exercise, drugs, lifestyle and health; evolutionary changes; burning, rusting; reflection and refraction of light; friction, air resistance, gravity).  Record data and results of increasing complexity (Y5/6)  Record data and results of increasing complexity using scientific diagrams and labels, recognised symbols, classification keys, tables, bar and line graphs, and models. |
| Test | Report | Evidence |
| **Using test results to make predictions to set up further comparative and fair tests.**  Encounter more abstract ideas and begin to recognise how these ideas help them to understand and predict how the world operates.  Look for different causal (cause and effect) relationships in their data (something effecting something else) and (describe the pattern succinctly).  Identify patterns that might be found in the natural environment over long periods of time and describe how these have been used to develop scientific theories (e.g. evolution).  Use their results to identify when further comparative tests and observations might be needed.  Be able to explain differences in repeated measurements/readings or unexpected results.  Recognise the limitations of some data. | **Reporting and presenting findings from enquiries, including conclusions, casual relationships and explanations of and degree of trust in results, in oral and written forms such as displays and other presentations.**  Use correct scientific knowledge and understanding and relevant scientific language to explain their findings and justify their scientific ideas.  Recognise that data might be unreliable and describe how to make it more reliable.  Make decisions on the most appropriate format to present scientific data.  Report findings from enquiries using discussion, drawings [annotated], oral and written explanations of results, explanations involving causal relationships, and conclusions.  Present findings in written form, displays and other presentations (Y5/6). | **Identifying scientific evidence that has been used to support or refute ideas or arguments.**  Identify evidence that refutes or supports their ideas (Y5/6).  Use their evidence to justify their ideas.  Use correct scientific knowledge and understanding and relevant scientific language to explain their findings. |
| Research |
| [Research the work of famous scientists (historical & modern day) and use this to] explain how scientific ideas have developed over time and had an impact on our lives.  Interview [people to find out information and collect data].  Recognise which secondary sources will be most useful to research their ideas and begin to separate opinion from fact. |