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| UKS2 Working Scientifically – Y5 | | |
| Plan | Measure | Record |
| **Planning different types of scientific enquiries to answer questions, including recognising and controlling variables where necessary.**  Raise different kinds of questions (Y5/6)  Refine a scientific question so that it can be investigated.  Ask their own pertinent questions.  Explain which variables need to be controlled and why.  Make most of the planning decisions about] and carry out fair tests.  Recognise when it is appropriate to carry out a fair test and plan how to set it up. | **Taking measurements, using a range of scientific equipment, with increasing accuracy and precision, taking repeat readings when appropriate.**  Recording data and results of increasing complexity (Y5/6).  Follow safety guidelines (Y5/6).  Make their own decisions about what observations to make or measurements to use and how long to make them for [recognising the need for repeat readings on some occasions].  Decide how to record data from a choice of familiar approaches.  Choose the most appropriate equipment to make measurements.  Explain how to use equipment accurately. | **Recording data and results of increasing complexity using scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs.**  Compare and contrast things beyond their locality.  Compare more complex processes, systems, functions (e.g. life cycles of different living things, organ systems of different animals).  Suggest reasons for similarities and differences.  Use their developing scientific knowledge and understanding and relevant scientific language to discuss, communicate and explain their findings.  Explore more abstract systems/functions/changes and record their understanding of these (e.g. circulatory system).  Observe changes over different periods of time.  Record data and results of increasing complexity using tables, bar and line graphs, and models. |
| Test | Report | Evidence |
| **Using test results to make predictions to set up further comparative and fair tests.**  Use their developing scientific knowledge and understanding and relevant scientific language to explain their findings.  Draw conclusions based on their data and observations.  Use test results to make predictions to set up further comparative and fair tests.  Comment on how reliable their data is. | **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.**  Create simple models to describe scientific ideas (e.g. circulatory system).  Use simple models to describe scientific ideas (e.g. of movements of the Sun and Earth, solar system, shadow clocks, magnetic compasses for navigation).  Report findings from enquiries using discussion, drawings [annotated], oral and written explanations of results, 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 patterns that might be found in the natural environment.  Look for patterns and notice relationships between things [and describe these]. |
| Research |
| Research the work of famous scientists (historical and modern day) and use this to find out how scientific ideas have changed over time.  Find things out using a wide range of secondary sources of information. |