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| **Planning and Communication and Sources** | draw simple pictures  talk about what they see and do  to learn the meaning of question words- What, Where, How, Why  to ask simple questions using question words | draw simple pictures  talk about what they see and do  use simple charts to communicate findings  identify key features  ask questions | | | describe their observations using some scientific vocabulary  use a range of simple texts to find information  suggest how to find things out  identify key features  ask questions | use pictures, writing, diagrams and tables as directed by their teacher  use simple texts, directed by the teacher, to find information  record their observations in written, pictorial and diagrammatic forms  select the appropriate format to record their observations | | | record observations, comparisons and measurements using tables and bar charts  begin to plot points to form a simple graph  use graphs to point out and interpret patterns in their data  select information from a range of sources provided for them | | record observations systematically  use appropriate scientific language and conventions to communicate quantitative and qualitative data  select a range of appropriate sources of information including books, internet and CD Rom | | choose scales for graphs which show data and features effectively  identify measurements and observations which do not fit into the main pattern  begin to explain anomalous data  use appropriate ways to communicate quantitative data using scientific language |
| **Enquiring and Testing and Obtaining and Presenting Evidence** | test ideas suggested to them  say what they think will happen  begin to make simple comparisons | test ideas suggested to them  say what they think will happen  use first hand experiences to answer questions  begin to compare some living things | | | use simple equipment provided to aid observation  compare objects, living things or events  make observations relevant to their task  begin to recognise when a test or comparison is unfair  use first hand experiences to answer questions | put forward own ideas about how to find the answers to questions  recognise the need to collect data to answer questions  carry out a fair test with support  recognise and explain why it is a fair test  with help, pupils begin to realise that scientific ideas are based on evidence | | | with help, pupils begin to realise that scientific ideas are based on evidence  show in the way they perform their tasks how to vary one factor while keeping others the same  decide on an appropriate approach in their own investigations to answer questions  describe which factors they are varying and which will remain the same and say why | | use previous knowledge and experience combined with experimental evidence to provide scientific explanations  recognise the key factors to be considered in carrying out a fair test | | describe evidence for a scientific idea  use scientific knowledge to identify an approach for an investigation  explain how the interpretation leads to new ideas |
| **Observing and Recording** | make simple observations using appropriate senses  record observations using pictures/ photos/ video  communicate observations orally. | | make observations using appropriate senses  record observations communicate  observations orally, in  drawing, labelling, simple writing and using ICT | respond to questions asked by the teacher  ask questions  collect and record data (supported by the teacher)  suggest how they could collect data to answer questions  begin to select equipment from a limited range | | | make relevant observations  measure using given equipment  select equipment from a limited range | carry out measurement accurately  make a series of observations, comparisons and measurements  select and use suitable equipment  make a series of observations and measurements adequate for the task | | make a series of observations, comparisons and measurements with increasing precision  select apparatus for a range of tasks  plan to use apparatus effectively  begin to make repeat observations and measurements systematically | | measure quantities with precision using fine – scale divisions  select and use information effectively  make enough measurements or observations for the required task | |

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| **Considering**  **Evidence and Evaluating** | make simple comparisons  say what has happened    begin to recognize whether what has  happened was what  they expected | make simple comparisons and groupings  say what has happened  say whether what has  happened was what  they expected | say what has happened say what their  observations show and whether it was what they expected  begin to draw simple conclusions and explain what they did  begin to suggest improvements in their work | begin to offer explanations for what they see and communicate in a scientific way what they have found out  begin to identify patterns in recorded measurements  suggest improvements in their work  evaluate their findings | predict outcomes using previous experience and knowledge and compare with actual results  begin to relate their conclusions to scientific knowledge and understanding  suggest improvements in their work, giving reasons | make predictions based on their scientific knowledge and understanding  draw conclusions that are consistent with the evidence  relate evidence to scientific knowledge and understanding  offer simple explanations for any differences in their results  make practical suggestions about how their working methods could be improved | make reasoned suggestions on how to improve working methods  show how interpretation of evidence leads to new ideas  explain conclusions, showing understanding of scientific ideas |

**Assessment-** The majority of children will be working at age related expectations. However, some children will be identified as working below and above these.

Number in the cohort:

|  |  |
| --- | --- |
| Working below age related expectations | Working above age related expectations |
| Number working below: | Number working above: |

Comments for the subject leader: