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| **Planning and Communication and Sources** | draw simple picturestalk about what they see and doto learn the meaning of question words- What, Where, How, Whyto ask simple questions using question words | draw simple picturestalk about what they see and douse simple charts to communicate findingsidentify key features ask questions | describe their observations using some scientific vocabularyuse a range of simple texts to find informationsuggest how to find things outidentify key features ask questions | use pictures, writing, diagrams and tables as directed by their teacheruse simple texts, directed by the teacher, to find informationrecord their observations in written, pictorial and diagrammatic formsselect the appropriate format to record their observations | record observations, comparisons and measurements using tables and bar chartsbegin to plot points to form a simple graphuse graphs to point out and interpret patterns in their dataselect information from a range of sources provided for them | record observations systematicallyuse appropriate scientific language and conventions to communicate quantitative and qualitative dataselect a range of appropriate sources of information including books, internet and CD Rom | choose scales for graphs which show data and features effectivelyidentify measurements and observations which do not fit into the main patternbegin to explain anomalous datause appropriate ways to communicate quantitative data using scientific language |
| **Enquiring and Testing and Obtaining and Presenting Evidence** | test ideas suggested to themsay what they think will happenbegin to make simple comparisons | test ideas suggested to themsay what they think will happenuse first hand experiences to answer questionsbegin to compare some living things | use simple equipment provided to aid observationcompare objects, living things or eventsmake observations relevant to their taskbegin to recognise when a test or comparison is unfairuse first hand experiences to answer questions | put forward own ideas about how to find the answers to questionsrecognise the need to collect data to answer questionscarry out a fair test with supportrecognise and explain why it is a fair testwith help, pupils begin to realise that scientific ideas are based on evidence | with help, pupils begin to realise that scientific ideas are based on evidenceshow in the way they perform their tasks how to vary one factor while keeping others the samedecide on an appropriate approach in their own investigations to answer questionsdescribe 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 explanationsrecognise the key factors to be considered in carrying out a fair test | describe evidence for a scientific ideause scientific knowledge to identify an approach for an investigationexplain how the interpretation leads to new ideas |
| **Observing and Recording** | make simple observations using appropriate sensesrecord observations using pictures/ photos/ videocommunicate observations orally. | make observations using appropriate sensesrecord observations communicateobservations orally, indrawing, labelling, simple writing and using ICT | respond to questions asked by the teacherask questionscollect and record data (supported by the teacher)suggest how they could collect data to answer questionsbegin to select equipment from a limited range | make relevant observationsmeasure using given equipmentselect equipment from a limited range | carry out measurement accuratelymake a series of observations, comparisons and measurementsselect and use suitable equipmentmake a series of observations and measurements adequate for the task | make a series of observations, comparisons and measurements with increasing precisionselect apparatus for a range of tasksplan to use apparatus effectivelybegin to make repeat observations and measurements systematically | measure quantities with precision using fine – scale divisionsselect and use information effectivelymake enough measurements or observations for the required task |

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| **Considering** **Evidence and Evaluating** | make simple comparisonssay what has happened begin to recognize whether what hashappened was whatthey expected | make simple comparisons and groupingssay what has happened say whether what hashappened was whatthey expected | say what has happened say what theirobservations show and whether it was what they expectedbegin to draw simple conclusions and explain what they didbegin to suggest improvements in their work | begin to offer explanations for what they see and communicate in a scientific way what they have found outbegin to identify patterns in recorded measurementssuggest improvements in their workevaluate their findings | predict outcomes using previous experience and knowledge and compare with actual resultsbegin to relate their conclusions to scientific knowledge and understandingsuggest improvements in their work, giving reasons | make predictions based on their scientific knowledge and understandingdraw conclusions that are consistent with the evidencerelate evidence to scientific knowledge and understandingoffer simple explanations for any differences in their resultsmake practical suggestions about how their working methods could be improved | make reasoned suggestions on how to improve working methodsshow how interpretation of evidence leads to new ideasexplain 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: