

Years 3 to 6 mixed-age objective planner

Key

- *Italic text signifies objectives which do not appear in the single-age version of this unit but have been added to create a coherent mixed-age unit*
- Smaller font indicates objectives which do appear in the single-age version of this unit, but which are addressed elsewhere within the mixed-age units
- **Bold font indicates ‘End-of-year’ objectives.**

Block C: Handling data and measures
Unit 1 – 10 days

| Year 3 | Year 4 | Year 5 | Year 6 |
|---|--|--|--|
| Follow a line of enquiry by deciding what information is important; make and use lists, tables and graphs to organise and interpret the information | Suggest a line of enquiry and the strategy needed to follow it; collect, organise and interpret selected information to find answers | Plan and pursue an enquiry; present evidence by collecting, organising and interpreting information; suggest extensions to the enquiry | Suggest, plan and develop lines of enquiry; collect, organise and represent information, interpret results and review methods; identify and answer related questions |
| | Report solutions to puzzles and problems, giving explanations and reasoning orally and in writing, using diagrams and symbols | Explain reasoning using diagrams, graphs and text; refine ways of recording using images and symbols | |
| Know the relationships between kilometres and metres, metres and centimetres, kilograms and grams, litres and millilitres; choose and use appropriate units to estimate, measure and record | Choose and use standard metric units and their abbreviations when estimating, measuring and recording length, weight and capacity; know the meaning | Read, choose, use and record standard metric units to estimate and measure length, weight and capacity to a suitable degree of accuracy (e.g. the nearest centimetre); convert larger to | Select and use standard metric units of measure and convert between units using decimals to two places (e.g. change 2.75 litres to 2750ml, or vice versa) |

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| <p>measurements</p> <p>Read, to the nearest division and half-division, scales that are numbered or partially numbered; use the information to measure and draw to a suitable degree of accuracy</p> | <p>of 'kilo', 'centi' and 'milli' and, where appropriate, use decimal notation to record measurements (e.g. 1.3m or 0.6kg)</p> <p>Interpret intervals and divisions on partially numbered scales and record readings accurately, where appropriate to the nearest tenth of a unit</p> | <p>smaller units using decimals to one place (e.g. change 2.6kg to 2600g)</p> <p>Interpret a reading that lies between two unnumbered divisions on a scale</p> | <p>Read and interpret scales on a range of measuring instruments, recognising that the measurement made is approximate and recording results to a required degree of accuracy; compare readings on different scales, for example when using different instruments</p> |
| <p>Answer a question by collecting, organising and interpreting data; use tally charts, frequency tables, pictograms and bar charts to represent results and illustrate observations; use ICT to create a simple bar chart</p> <p>Use Venn diagrams or Carroll diagrams to sort data and objects using more than one criterion</p> | <p>Answer a question by identifying what data to collect; organise, present, analyse and interpret the data in tables, diagrams, tally charts, pictograms and bar charts, using ICT where appropriate</p> | <p>Answer a set of related questions by collecting, selecting and organising relevant data; draw conclusions, using ICT to present features, and identify further questions to ask</p> <p>Construct frequency tables, pictograms and bar and line graphs to represent the frequencies of events and changes over time</p> <p>Find and interpret the mode of a set of data</p> | <p>Solve problems by collecting, selecting, processing, presenting and interpreting data, using ICT where appropriate; draw conclusions and identify further questions to ask</p> <p>Construct and interpret frequency tables, bar charts with grouped discrete data, and line graphs; interpret pie charts</p> <p>Describe and interpret results and solutions to problems using the mode, range, median and mean</p> |

Block C: Handling data and measures
Unit 2 – 10 days

| Year 3 | Year 4 | Year 5 | Year 6 |
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| <p>Follow a line of enquiry by deciding what information is important; make and use lists, tables and graphs to organise and interpret the information</p> | <p>Report solutions to puzzles and problems, giving explanations and reasoning orally and in writing, using diagrams and symbols</p> <p>Suggest a line of enquiry and the strategy needed to follow it; collect, organise and interpret selected information to find answers</p> | <p>Explain reasoning using diagrams, graphs and text; refine ways of recording using images and symbols</p> <p>Plan and pursue an enquiry; present evidence by collecting, organising and interpreting information; suggest extensions to the enquiry</p> | <p><i>Suggest, plan and develop lines of enquiry; collect, organise and represent information, interpret results and review methods; identify and answer related questions</i></p> |
| <p>Know the relationships between kilometres and metres, metres and centimetres, kilograms and grams, litres and millilitres; choose and use appropriate units to estimate, measure and record measurements</p> <p>Read, to the nearest division and half-division, scales that</p> | <p>Choose and use standard metric units and their abbreviations when estimating, measuring and recording length, weight and capacity; know the meaning of 'kilo', 'centi' and 'milli' and, where appropriate, use decimal notation to record measurements (e.g. 1.3m or</p> | <p>Read, choose, use and record standard metric units to estimate and measure length, weight and capacity to a suitable degree of accuracy (e.g. the nearest centimetre); convert larger to smaller units using decimals to one place (e.g. change 2.6kg to 2600g)</p> | <p>Use a calculator to solve problems involving multi-step calculations</p> <p>Select and use standard metric units of measure and convert between units using decimals to two places (e.g. change 2.75 litres to 2750ml, or vice versa)</p> <p>Read and interpret scales on a range of measuring instruments, recognising that</p> |

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| <p>are numbered or partially numbered; use the information to measure and draw to a suitable degree of accuracy</p> | <p>0.6kg) Interpret intervals and divisions on partially numbered scales and record readings accurately, where appropriate to the nearest tenth of a unit</p> | <p>Interpret a reading that lies between two unnumbered divisions on a scale</p> | <p>the measurement made is approximate and recording results to a required degree of accuracy; compare readings on different scales, for example when using different instruments</p> |
| <p>Answer a question by collecting, organising and interpreting data; use tally charts, frequency tables, pictograms and bar charts to represent results and illustrate observations; use ICT to create a simple bar chart</p> | <p>Answer a question by identifying what data to collect; organise, present, analyse and interpret the data in tables, diagrams, tally charts, pictograms and bar charts, using ICT where appropriate</p> | <p>Answer a set of related questions by collecting, selecting and organising relevant data; draw conclusions, using ICT to present features, and identify further questions to ask</p> | <p>Solve problems by collecting, selecting, processing, presenting and interpreting data, using ICT where appropriate; draw conclusions and identify further questions to ask</p> |
| <p>Use Venn diagrams or Carroll diagrams to sort data and objects using more than one criterion</p> | <p>Compare the impact of representations where scales have intervals of differing step size</p> | <p>Construct frequency tables, pictograms and bar and line graphs to represent the frequencies of events and changes over time</p> | <p>Construct and interpret frequency tables, bar charts with grouped discrete data, and line graphs; interpret pie charts</p> |
| | | <p>Describe the occurrence of familiar events using the language of chance or likelihood</p> | <p>Describe and interpret results and solutions to problems using the mode, range, median and mean</p> |
| | | | <p>Describe and predict outcomes from data using the language of chance or likelihood</p> |

Block C: Handling data and measures
Unit 3 – 10 days

| Year 3 | Year 4 | Year 5 | Year 6 |
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| Follow a line of enquiry by deciding what information is important; make and use lists, tables and graphs to organise and interpret the information | Suggest a line of enquiry and the strategy needed to follow it; collect, organise and interpret selected information to find answers | Plan and pursue an enquiry; present evidence by collecting, organising and interpreting information; suggest extensions to the enquiry | <i>Suggest, plan and develop lines of enquiry; collect, organise and represent information, interpret results and review methods; identify and answer related questions</i> |
| Describe and explain methods, choices and solutions to puzzles and problems, orally and in writing, using pictures and diagrams | Report solutions to puzzles and problems, giving explanations and reasoning orally and in writing, using diagrams and symbols | Explain reasoning using diagrams, graphs and text; refine ways of recording using images and symbols | <i>Explain reasoning and conclusions, using words, symbols or diagrams as appropriate</i> Use a calculator to solve problems involving multi-step calculations |
| Know the relationships between kilometres and metres, metres and centimetres, kilograms and grams, litres and millilitres; choose and use appropriate units to estimate, measure and record measurements | Choose and use standard metric units and their abbreviations when estimating, measuring and recording length, weight and capacity; know the meaning of 'kilo', 'centi' and 'milli' and, where appropriate, use decimal notation to record measurements (e.g. 1.3m or | Read, choose, use and record standard metric units to estimate and measure length, weight and capacity to a suitable degree of accuracy (e.g. the nearest centimetre); convert larger to smaller units using decimals to one place (e.g. change 2.6kg to 2600g) | Select and use standard metric units of measure and convert between units using decimals to two places (e.g. change 2.75 litres to 2750ml, or vice versa) Read and interpret scales on a range of measuring instruments, recognising that |

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| <p>are numbered or partially numbered; use the information to measure and draw to a suitable degree of accuracy</p> | <p>0.6kg) Interpret intervals and divisions on partially numbered scales and record readings accurately, where appropriate to the nearest tenth of a unit</p> | <p>Interpret a reading that lies between two unnumbered divisions on a scale</p> | <p>the measurement made is approximate and recording results to a required degree of accuracy; compare readings on different scales, for example when using different instruments</p> |
| <p>Answer a question by collecting, organising and interpreting data; use tally charts, frequency tables, pictograms and bar charts to represent results and illustrate observations; use ICT to create a simple bar chart</p> | <p>Answer a question by identifying what data to collect; organise, present, analyse and interpret the data in tables, diagrams, tally charts, pictograms and bar charts, using ICT where appropriate</p> | <p>Answer a set of related questions by collecting, selecting and organising relevant data; draw conclusions, using ICT to present features, and identify further questions to ask</p> | <p>Solve problems by collecting, selecting, processing, presenting and interpreting data, using ICT where appropriate; draw conclusions and identify further questions to ask</p> |
| <p>Use Venn diagrams or Carroll diagrams to sort data and objects using more than one criterion</p> | <p>Compare the impact of representations where scales have intervals of differing step size</p> | <p>Construct frequency tables, pictograms and bar and line graphs to represent the frequencies of events and changes over time</p> | <p>Construct and interpret frequency tables, bar charts with grouped discrete data, and line graphs; interpret pie charts</p> |
| | | <p>Find and interpret the mode of a set of data</p> | <p>Describe and interpret results and solutions to problems using the mode, range, median and mean</p> |
| | | <p>Describe the occurrence of familiar events using the language of chance or likelihood</p> | <p>Describe and predict outcomes from data using the language of chance or likelihood</p> |