

Progression in Handling Data

Key Stage 2



POS statements Sept 2014	Year 3	Year 4	Year 5	Year 6
	<ul style="list-style-type: none"> Select, use and combine a variety of software (including Internet services) on a range of digital devices to accomplish given goals, including collecting, analysing, evaluating and presenting data and information. 			
Children understand concepts 	<ul style="list-style-type: none"> I can talk about the different ways data can be organised. I can search a ready-made database to answer questions. I can collect data help me answer a question. I can add to a database. I can make a branching database. I can use a data logger to monitor changes and can talk about the information it collects. 	<ul style="list-style-type: none"> I can organise data in different ways. I can collect data and identify where it could be inaccurate. I can plan, create and search a database to answer questions. I can choose the best way to present data to my friends. I can use a data logger to record and share my readings with my friends. 	<ul style="list-style-type: none"> I can use a spreadsheet and database to collect and record data. I can choose an appropriate tool to help me collect data.. I can present data in an appropriate way. I can search a database using different operators to refine my search. I can talk about mistakes in data and suggest how it could be checked. 	<ul style="list-style-type: none"> I can plan the process needed to investigate the world around me. I can select the most effective tool to collect data for my investigation. I can check the data I collect for accuracy and plausibility. I can interpret the data I collect. I can present the data I collect in an appropriate way. I use the skills I have developed to interrogate a database.
Teachers enable progress 	<ul style="list-style-type: none"> Guide children to collect data to record electronically including through the use of data loggers. Talk about how data can be represented in different ways e.g. number, choices and text Model and provide opportunities for children to collate data and present their findings, checking for accuracy. Model the use of skimming and scanning skills to identify implausible data. Set challenge to construct and use a branching database to identify an object using yes/no questions Provide a variety of opportunities to use a branching database in topics and projects to organise information. 		<ul style="list-style-type: none"> Model then set problems for children to carry out complex searches of databases (e.g. using and/or) e.g. exploring census data. Identify or prepare data with anomalies and direct children to find mistakes, ensuring they realise the need to check plausibility. Expect children to be confident users of data tools, collecting and using live data in a science or geography activity including through the use of data loggers. Provide purposes for children to use a .spreadsheet or database to collect data. Encourage children to set their own challenges which require using the whole data process. 	
Children build skills 	<ul style="list-style-type: none"> Find out information from a pre-prepared database, asking straightforward questions. Contribute towards a database. Construct and use a branching database. 	<ul style="list-style-type: none"> Plan and create a database to answer questions. Identify different types of data. Ask questions carrying out simple searches on a database. Identify inaccurate data. Present data in appropriate format for an audience. 	<ul style="list-style-type: none"> Collect and record information using spreadsheets and databases Carry out complex searches (e.g. using and/or; \leq / \geq) Solve problems and 	<ul style="list-style-type: none"> Use the whole data process – generate, process, interpret, store, and present information – realising the need for accuracy and checking plausibility. Select appropriate data tool. Identify and present results. Interrogate a database, refining

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	<ul style="list-style-type: none"> Record data in a variety of ways. Present data for others. Use a data logger to monitor changes and talk about the outcomes seen 	<ul style="list-style-type: none"> Use a data logger to record and compare individual readings 	<p>present answers using data tools.</p> <ul style="list-style-type: none"> Analyse information and question data. Identify poor quality data. Select appropriate use of a data logger for an investigation and interpret the findings 	<p>searches to provide answers to questions.</p> <ul style="list-style-type: none"> Plan investigations using the outcomes from a data logger to show findings
<p>Suggested activities for children to develop process</p> 	<p>Create a branching database to organise information e.g. using Textease Branch or Flexitree</p>	<p>Create flat file database with different types of fields and add records. Sort and classify the data and present the findings</p>	<p>Use complex searches to locate relevant information to investigate questions and test hypotheses. Search a database using and or and \leq / \geq.</p>	
	<p>Discuss which type of graph works best for different types of data, e.g. bar charts, pie charts and line graphs. Create and analyse different types of graphs.</p>	<p>Discuss how databases are used to store data in a range of situations. Explore how databases can be structured by initial questions, and create a database that can be searched by a classmate.</p>		
	<p>Use a data logger to monitor the sound levels in a classroom, agreeing appropriate levels of sound for different activities. Use a data logger for an investigation such as which is the most effective pair of sunglasses. TTS data logger Data Harvest Easysense Q data logger Other activities in Data Harvest Primary Curriculum activities.</p>	<p>Use the remote logging facility in a data logger to investigate traffic noise or conditions for growth of plants. Investigate noise levels around the school at different times of day.</p> <p>Other activities in Data Harvest Primary Curriculum activities.</p>		
	<p>Collect data from a variety of sources to investigate a given enquiry e.g. which area of the school is loudest? How do most people travel to school? Choose from e.g. dataloggers, digital thermometers, apps to record data and present collected data using appropriate tool such as Textease Spreadsheet, EasyChart HD app</p>	<p>Collect data from a variety of sources to investigate questions and predictions, using a range of tools e.g. dataloggers, sound recorders, and databases. Present data in appropriate way e.g. using spreadsheet software such as Textease Spreadsheet, Excel, Google Docs, Zoho spreadsheets, EasyChart HD app.</p>		
	<p>Check data that has been collected and identify any anomalies.</p>	<p>Check data for accuracy against predictions or expected outcomes, considering plausibility.</p>		
	<p>Use online activities to answer questions about a set of data e.g. Naace Whodunnit resource.</p>	<p>Use an online database activity to interrogate more complex data e.g. Naace Greenfield Road resource.</p>		
	<p>Use a range of online resources to look at how data is represented and can be searched in different ways e.g. Glossopedia, Arkive, Google Earth.</p>			