



Computing 'Children Build Skills' Overview: Handling Data

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| Y1 | <ul style="list-style-type: none"> Explore different ways of sorting objects on screen Compare on screen activities with pencil and paper methods or sorting real objects Create a pictogram to represent the data the class has collected on themselves or linked with a topic and use it to answer questions Use a password to access information and know it needs to be kept safe |
| Y2 | <ul style="list-style-type: none"> Create pictograms, charts, and graphs in a variety of curriculum contexts, adding labels and numbers as appropriate Talk about how technology helps them to organise their information, edit and make rapid changes Use the sorting tool to help recognise patterns within data Use charts and graphs to both create and answer questions Use a password to access systems and talk about why they must not be shared Know that some personal information must not be shared with others and that they need permission to make changes |
| Y3 | <ul style="list-style-type: none"> Create frequency tables, pictograms, and bar charts to illustrate results, annotate observations and answer questions related to the data Collect data to solve a problem by choosing an appropriate graph to display their answers Compare different charts and graphs and understand they are used for different purposes and that they may have different scales Use data logger or measuring apps to collect data. Explain how the device represents and records changes in data. Use data to see patterns, describe events and answer questions Enter data into a pre-defined database use the information to answer a specific question Use the data produced to answer specific lines of enquiry by sorting and creating bar charts or line graphs Talk about how ICT can be used to create, present, organise and amend different types of data and how it automates the process Know where different types of data can be stored e.g. schools, doctors, banks, shops, and that it needs to be kept safe with secure passwords |
| Y4 | <ul style="list-style-type: none"> Determine the data needed to answer a specific question; organise, present, analyse and interpret the data in tables, diagrams, tally charts, pictograms and bar charts using a graphing package or a database where appropriate Use a data logger or measuring app to log discrete and continuous data. Understand the difference between discrete and continuous data Interpret the data collected to see patterns, describe events, and answer questions Understand and use a greater range of scales in their representations of the data Understand the importance of accuracy when collecting and entering data into a database Enter data into a spreadsheet and illustrate choosing the most appropriate chart Enter data into a spreadsheet and make use of the simpler functions such as sum, and simple calculations (+ - x ÷) to create a budget e.g. for a cake recipe Understand that a spreadsheet can perform calculations on the data held within it Know that personal data is stored on systems, discuss the need to keep it safe with passwords and other devices (fingerprint, security cards, iris scans) |
| Y5 | <ul style="list-style-type: none"> Determine the data needed to answer a set of related questions, select and organise relevant information Use frequency tables, pictograms, bar graphs and line graphs representing the frequencies of events and changes over time, use ICT to present and highlight features that lead to further questions Make simple searches using and/or/>/< to search data when looking for relationships and patterns in data Check for the accuracy of data by using different views, search tools and graphs Model a familiar situation using appropriate formulae in a spreadsheet e.g. a birthday party or Christmas present list Use a data logger to compare the efficiency of various materials Know that personal data needs to be kept safe such as passwords and personal information and this is protected by law |

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| Y6 | <ul style="list-style-type: none"> • Choose appropriate applications to solve data handling problems • Independently collect and organise data in an efficient and accurate way by designing fields and records in a database • Interpret data by using a range of searches, sorting, filtering, and graphing and check for accuracy • Become confident in the use of logical operators whilst carrying out database or internet searches, and/or />/<, not, "" • Set up a spreadsheet to model the cost of an event e.g. mini-enterprise or class outing and provide a variety of costed options • Use a data logger to demonstrate how changes in the environment can be illustrated in a variety of ways • Know that personal data may be sensitive or non-sensitive and different rules apply to each |
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