**Elworth CE Primary School**

**Data and Information Skills Progression**

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|  | **Y1** | **Y2** | **Y3** | **Y4** | **Y5** | **Y6** |
| **Data & Information** | To label objects   * I can describe objects using labels * I can match objects to groups * I can identify the label for a group of objects | To recognise that we can count and compare objects using tally charts   * I can record data in a tally chart * I can represent a tally count as a total * I can compare totals in a tally chart | To create questions with yes/no answers   * I can investigate questions with yes/no answers * I can make up a yes/no question about a collection of objects * I can create two groups of objects separated by one attribute | To explain that data gathered over time can be used to answer questions   * I can choose a data set to answer a given question * I can suggest questions that can be answered using a given data set * I can identify data that can be gathered over time | To use a form to record information   * I can create multiple questions about the same field * I can explain how information can be recorded * I can order, sort, and group my data cards | To identify questions which can be answered using data   * I can explain the relevance of data headings * I can answer questions from an existing data set * I can ask simple relevant questions which can be answered using data |
| To identify that objects can be counted   * I can count objects * I can group objects * I can count a group of objects | To recognise that objects can be represented as pictures   * I can enter data onto a computer * I can use a computer to view data in a different format * I can use pictograms to answer simple questions about objects | To identify the object attributes needed to collect relevant data   * I can select an attribute to separate objects into groups * I can create a group of objects within an existing group * I can arrange objects into a tree structure | To use a digital device to collect data automatically   * I can explain that sensors are input devices * I can use data from a sensor to answer a given question * I can identify that data from sensors can be recorded | To compare paper and computer-based databases   * I can navigate a flat-file database to compare different views of information * I can explain what a ‘field’ and a ‘record’ is in a database * I can choose which field to sort data by to answer a given question | To explain that objects can be described using data   * I can explain what an item of data is * I can apply an appropriate number format to a cell * I can build a data set in a spreadsheet application |
| To describe objects in different ways   * I can describe an object * I can describe a property of an object * I can find objects with similar properties | To create a pictogram   * I can organise data in a tally chart * I can use a tally chart to create a pictogram * I can explain what the pictogram shows | To create a branching database   * I can select objects to arrange in a branching database * I can group objects using my own yes/no questions * I can prove my branching database works | To explain that a data logger collects ‘data points’ from sensors over time   * I can identify a suitable place to collect data * I can identify the intervals used to collect data * I can talk about the data that I have captured | To apply my knowledge of a database to ask and answer real-world questions   * I can explain how information can be grouped * I can group information to answer questions * I can combine grouping and sorting to answer more specific questions | To explain that formula can be used to produce calculated data   * I can explain the relevance of a cell’s data type * I can construct a formula in a spreadsheet * I can identify that changing inputs changes outputs |
| To count objects with the same properties   * I can group similar objects * I can group objects in more than one way * I can count how many objects share a property | To select objects by attribute and make comparisons   * I can tally objects using a common attribute * I can create a pictogram to arrange objects by an attribute * I can answer ‘more than’/’less than’ and ’most/least’ questions about an attribute | To explain why it is helpful for a database to be well structured   * I can create yes/no questions using given attributes * I can explain that questions need to be ordered carefully to split objects into similarly sized groups * I can compare two branching database structures | To use data collected over a long duration to find information   * I can import a data set * I can use a computer to view data in different ways * I can use a computer program to sort data | To explain that tools can be used to select data to answer questions   * I can choose which field and value are required to answer a given question * I can outline how ‘AND’ and ‘OR’ can be used to refine data selection * I can choose multiple criteria to answer a given question | To apply formulas to data, including duplicating   * I can recognise that data can be calculated using different operations * I can create a formula which includes a range of cells * I can apply a formula to multiple cells by duplicating it |
| To compare groups of objects   * I can choose how to group objects * I can describe groups of objects * I can record how many objects are in a group | To recognise that people can be described by attributes   * I can choose a suitable attribute to compare people * I can collect the data I need * I can create a pictogram and draw conclusions from it | To identify objects using a branching database   * I can select a theme and choose a variety of objects * I can create questions and apply them to a tree structure * I can use my branching database to answer questions | To identify the data needed to answer questions   * I can propose a question that can be answered using logged data * I can plan how to collect data using a data logger * I can use a data logger to collect data | To apply my knowledge of a database to ask and answer real-world questions   * I can select an appropriate chart to visually compare data * I can refine a chart by selecting a particular filter * I can explain the benefits of using a computer to create graphs | To create a spreadsheet to plan an event   * I can use a spreadsheet to answer questions * I can explain why data should be organised * I can apply a formula to calculate the data I need to answer questions |
| To answer questions about groups of objects   * I can decide how to group objects to answer a question * I can compare groups of objects * I can record and share what I have found | To explain that we can present information using a computer   * I can use a computer program to present information in different ways * I can share what I have found out using a computer * I can give simple examples of why information should not be shared | To compare the information shown in a pictogram with a branching database   * I can explain what a pictogram tells me * I can explain what a branching database tells me * I can compare two ways of presenting information | To use collected data to answer questions   * I can interpret data that has been collected using a data logger * I can draw conclusions from the data that I have collected * I can explain the benefits of using a data logger | To apply my knowledge of a database to ask and answer real-world questions   * I can ask questions that will need more than one field to answer * I can refine a search in a real-world context * I can present my findings to a group | To choose suitable ways to present data   * I can produce a graph * I can use a graph to show the answer to questions * I can suggest when to use a table or graph |