



TSS Primary Computing MTP 2022-2023

Year 5 Block 3 – Flat File Databases

Week	Key Targets and Learning Objectives	Key Activities	Key Vocabulary
1	<ul style="list-style-type: none"> • 4MD.01 Understand the differences between physical (paper-based) and digital databases. • 4MD.02 Understand the advantages and disadvantages of using forms when collecting data. • 4MD.03 Identify the differences between data and information. • 4MD.04 Know how to sort data into a required order, including descending or ascending numerical values and alphabetically. • 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 	<ul style="list-style-type: none"> • Creating a paper-based database • In the first lesson, pupils create a paper version of a record card database. • Using a card template, they create a data set, with each pupil creating six cards linked to a theme, eg animals. • They complete records for each of the animals in their database and then physically sort the cards to answer questions about the data. 	<ul style="list-style-type: none"> • Database, data, information, record, field, sort, order, group
2	<ul style="list-style-type: none"> • 4MD.01 Understand the differences between physical (paper-based) and digital databases. • 4MD.02 Understand the advantages and disadvantages of using forms when collecting data. • 4MD.03 Identify the differences between data and information. • 4MD.04 Know how to sort data into a required order, including descending or ascending numerical values and alphabetically. • 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 	<ul style="list-style-type: none"> • Computer databases • In this lesson, pupils use a computer-based database to examine how data can be recorded and viewed. • They learn that a database consists of 'records', and that each record contains 'fields'. • In addition, they will order records in different ways and compare this database to the paper database they created in lesson 1. 	<ul style="list-style-type: none"> • Database, data, field, record, sort, order
3	<ul style="list-style-type: none"> • 4MD.04 Know how to sort data into a required order, including descending or ascending numerical values and alphabetically. • 4MD.06 Know how to use a database to answer a single question. • 5MD.08 Know how to identify data based on a single criterion, including data that matches a key word. • To outline how grouping and then sorting data allows us to answer 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 	<ul style="list-style-type: none"> • Using a database • In this lesson, pupils investigate how records can be grouped, using both the paper record cards created in lesson 1 and a computer based database from J2E. • They use 'grouping' and 'sorting' to answer questions about the data. 	<ul style="list-style-type: none"> • Database, record, field, group, search, sort, order
4	<ul style="list-style-type: none"> • 4MD.06 Know how to use a database to answer a single question. 	<ul style="list-style-type: none"> • Using search tools 	<ul style="list-style-type: none"> • Database, record, field, value, search, criteria



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	<ul style="list-style-type: none"> To explain that tools can be used to select specific data 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 	<ul style="list-style-type: none"> In this lesson, pupils develop their search techniques to answer questions about the data. They use advanced techniques to search for more than one field, and practise doing this through both unplugged methods (without using computers), and using a computer database. 	
5	<ul style="list-style-type: none"> 5MD.02 Identify different ways of representing categorical, discrete, and continuous data, using computing devices. To explain that computer programs can be used to compare data visually 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 	<ul style="list-style-type: none"> Comparing data visually In this lesson, pupils consider what makes a useful chart, and how charts can be used to compare data. They create charts from their data in order to answer questions about it. 	<ul style="list-style-type: none"> Database, record, field, graph, chart, axis, compare, filter
6	<ul style="list-style-type: none"> 6MD.07 Know that data is used to solve problems in a range of industries, including health, manufacture and retail. 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 	<ul style="list-style-type: none"> Databases in real life The final 2 lessons require pupils to use a real-life database to ask questions and find answers in the context of a flight search based on set parameters. They take on the role of a travel agent and present their findings, showing how they arrived at their chosen options. Presentations may be given between groups of pupils, or by each group to the whole class, depending on the time available. 	<ul style="list-style-type: none"> Database, field, record, graph, chart, presentation
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