Lowerhouse Junior School
Computing Overview Sheet

Year 5 – Flat File Databases

National Centre for Computing Education

Rationale: This unit looks at how a flat-file database can be used to organise data in records. Pupils use tools within a database to order and answer questions about data. They create graphs and charts from their data to help solve problems. They use a real-life database to answer a question, and present their work to others.

Progression: This unit progresses pupils' knowledge and understanding of why and how information might be stored in a database, and looks at how tools within a database can help us to answer questions about our data. It moves on to demonstrate how a database can help us display data visually, and how real-life databases can be used to help us solve problems. Finally, the pupils create a presentation showing understanding and application of all the tools used within the unit.

Overview:	**Subject Knowledge**
Lesson 1: To use a form to record information Lesson 2: To compare paper and computer-based databases Lesson 3: To outline how grouping and then sorting data allows us to answer questions Lesson 4: To explain that tools can be used to select specific data Lesson 5: To explain that computer programs can be used to compare data visually Lesson 6: To apply my knowledge of a database to ask and answer real-world questions	**Lesson 1:** 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 eight to ten 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. **Lesson 2:** 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. **Lesson 3:** 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. **Lesson 4:** 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. **Lesson 5:** 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. **Lesson 6:** The final lesson requires 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.

Assessment/Key Skills

Summative assessment
Please see the assessment question and answer documents for this unit.