Lesson Plan

Date	
Period	
Class	7.
Lesson	Lesson 2 Databases

Context of the lesson Where this fits into the "Big Picture"	This is a unit about data handling for Year 7. It allows you to review pupils' learning from KS2 and to introduce them to some of the ICT Framework objectives. They find out what the term 'database' means and learn to access and use databases in different formats. They learn how to collect data and how to search for data effectively. They also learn how to write their own hypothesis.	
MLO for this lesson. What will pupils know/understand by the end of the lesson	*Know:* How to write a hypothesis *Understand:*. How you can collect data to prove/disprove a hypothesis *Be able to:* Create a basic questionnaire to collect data and then use that data to create a chart.	
Teacher input/Activities. What the pupils should undertake with approximate timings.	Greet and settle students. <u>Starter</u> Whilst students are arriving hand out a copy of 'starter.pdf' either to individual students or to pairs. Students should work quietly through the starter activity whilst you are taking the register. Go through the answers with the class. <u>Teacher led discussion</u> Ask students if any of them have ever heard the term 'hypothesis'. If they have, ask them what they think it means. Show 'hypothesis.ppt' <u>Paired activity</u> Hand out a copy of 'hypothesis.doc' to each student. Students work in pairs to complete the document. You may need to explain how they should fill it in: 1. They read the hypothesis 2. In their pairs, they make a guess about what number they believe to be true for the students in their class. They enter this figure into column 2 (my guess). 3. They leave column 3 and 4 blank for now Go through each question with the class and ask students to put up their hand to confirm whether they knew/didn't know the answer. Students should record the class results on their table. They should then make a comment about how accurate their prediction was. Ask one or two to read out their hypothesis and check with the class. (answers to Q1 = Superman; Q2 = Kryptonite; Q3 = 1936; Q4 = Batman)	7.5 mins 5 mins 7.5 mins

	Teacher led discussion Explain that they came up with a hypothesis and they then collected data by asking students to put up their hands and counting. Ask them to think about another way that data could be collected. Lead them into thinking about questionnaires. Discuss with students what a questionnaire can be used for. Show 'Questionnaire.doc' on the whiteboard. Tell them that the person who created the questionnaire started off with two hypotheses that they wanted to test. Ask students what they think the hypothesis might have been for question 1. e.g. 'I believe that the most popular super hero is Superman' Ask them what they think the hypothesis might have been for question 2 e.g. I believe that 75% of students in this class would rather be a super hero than a super villain. Discuss the design features used in the questionnaire. Ask them if they can think of any other ways that the questionnaire could have been designed. Paired or Individual task Ask students to either use the hypothesis that they wrote for themselves in the previous exercise or to develop a new one. They should then design a questionnaire to enable them to ask other students in the class and test out whether their hypothesis was correct. Explain that if they were doing this for real, they would have one questionnaire per person they were asking. However, to save paper, they are just going to print out one copy and then use tally marks to record all of the students' answers onto one sheet. Teacher led demonstration Explain to students that they are going to use the questionnaires for homework to collect data and that they need to create a chart to display the data they have collected. Remind students that they learned how to create charts in an earlier project. Quickly demonstrate how to use the chart wizard in Excel as a reminder.	7.5 mins 15 mins 2.5 mins
Review/Summary At least 5 minutes before end.	Plenary.ppt The answers are provided in 'plenary_answers.pdf'	5 mins
Extension work	Find out the difference between open and closed questions. Write their questionnaire to include both open and closed questions.	

Homework	Students should use their questionnaires to obtain data to prove or disprove their hypothesis. They should use this data to create a chart to display their results. They should write a comment on the chart to explain whether their hypothesis has been proved or disproved.
Materials required	Starter.pdf Hypothesis presentation Hypothesis.doc Questionnaire.doc Plenary.ppt Plenary_answers.doc