

Year 4 Red Kites Computing Summer 1

Data Logging

Why do we collect data?

We collect data to give us information about things.

This register is an example of data collection.

| | | Register | | | | | | | | | |
|------------------|-----|--------------|----|--------------|----|--------------|----|--------------|----|--------------|----|
| Name | Reg | Mon 07/05 | | Tue 08/05 | | Wed 09/05 | | Thu 10/05 | | Fri 11/05 | |
| | | AM | PM | AM | PM | AM | PM | AM | PM | AM | PM |
| Addy, George | Y4D | / | \ | / | \ | / | \ | / | \ | / | \ |
| Ahmed, Zahir | Y4D | / | \ | / | \ | / | \ | / | \ | / | \ |
| Bocci, Sofia | Y4D | / | \ | / | \ | L | \ | / | \ | / | \ |
| Brand, Mabel | Y4D | / | \ | / | \ | / | \ | / | A | / | \ |
| Chang, Freya | Y4D | A | \ | / | \ | / | \ | / | \ | / | \ |
| Droffer, Michael | Y4D | / | \ | / | \ | / | \ | / | \ | / | \ |
| Fuller, Jane | Y4D | / | \ | / | \ | / | \ | / | \ | / | \ |
| George, Freddie | Y4D | / | \ | / | \ | / | \ | O | O | O | O |
| Hussain, Soni | Y4D | / | \ | / | \ | / | \ | / | \ | / | \ |
| Jones, Gemma | Y4D | / | \ | / | \ | / | \ | / | \ | / | \ |

How can we collect data accurately?

Gathering information by counting cannot always be accurate.

Data loggers help us to collect data in an accurate way

| | Number |
|-------------|--------|
| Red cars | 5 |
| Black cars | 12 |
| Blue cars | 3 |
| Silver cars | 14 |
| White cars | 3 |
| Non-cars | 2 |



Why is data collection important?

Data can be used to help us answer a question. After data has been collected, it needs to be analysed.

Can the question be answered?

Does the data tell us anything else?

Once the data is reviewed, information about what has been found out can be shared with other people.

Key Vocabulary

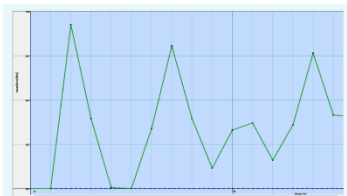
Definition

| | |
|--------------------------|---|
| <i>analysing</i> | Looking at the data collected to see if it can help answer a question. |
| <i>conclusion</i> | Using the collected data to answer a question. |
| <i>data</i> | Information you want to collect. |
| <i>data Loggers</i> | Device to help collect data quickly and accurately. |
| <i>export</i> | Taking the collected data out of the data logger and onto a computer to be able to read the data. |
| <i>input</i> | Collecting data into a data logger. |
| <i>interpreting data</i> | Understanding what the data collected is telling you. |
| <i>recording data</i> | Keeping a log of data collected. |
| <i>review</i> | Seeing if you have enough data to answer the question. |

Recording Data

Using data loggers, data can be collected very quickly, much quicker than by manual recording. On this graph, you can see the moments when data was recorded.

In this example, data was collected every second. This was possible using a data logger.



Analysing Data

When scientists collect data, they usually store it so that it can be analysed at any time. The data can also be shared so that other scientists can use it.

Tables and graphs can be used to present the data in a useful way for reading and understanding it. It is important to be able to see trends clearly.

