

Data and Information

Spreadsheets are really good to help organise **data**.

Spreadsheets can make it easier to **store** data, to **present** data, do **calculations** on it (**process** it) and to make sense of it.

Data and Information

Data is raw facts and figures:

John: 28

Claire: 49

Jade: 40

Ahmed: 45

Chloe: 38

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Data is raw facts and figures:

John: 28

Claire: 49

Jade: 40

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We can turn data into **information** if we know what it means:

- these are test results
- the pass mark was 40
- John and Chloe need to resit the test

Data and Information

So:

- data is facts and figures
- information is data that has some meaning

Data and Information

In a new Word document:

1. put a heading of **Data and Information**
2. write down a definition of the word **data**
(using the slides - don't Google it!)
3. write down a definition of the word
information
4. write down **3 examples** of pieces of data

Data and Information

How did you get to school today?

Walk			
Car			
Bus			
Bike			
Train			
Other			

What's the problem with this question? (hint: how did you get to the bus stop?)

Data and Information

What was the main way you got to school today?

I predict the first 3 will be the most common and about equal...

Walk			
Car			
Bus			
Bike			
Train			
Other			

Data and Information

What was the main way you got to school today?

Fill in the survey...

Walk			
Car			
Bus			
Bike			
Train			
Other			

Data and Information

1. Fill out the survey in class
2. Use a spreadsheet to enter the data, add up totals and calculate a percentage

	A	B	C
1	Method	Total	Percentage
2	Walk	7	26%
3	Car	6	22%
4	Bus	9	33%
5	Bike	4	15%
6	Train	0	0%
7	Other	1	4%
8		27	
9			

The percentage is the number divided by the total and multiplied by 100

In Excel:

/ is divide

* is multiply

formulas start with =

Data and Information

My **survey** is an example of a **primary source** of data

Primary data is data that someone collects themselves

Data and Information

newsround

▶ Watch

Inflation: Why are things getting more expensive?

You might have heard about a rise in inflation in the news or adults talking about it.

This means that things like food, transport and clothes may be more expensive to buy this year than last year.

Right now, prices are rising so quickly - their fastest for 40 years - as **higher energy bills hit millions of households**.

In the 12 months to April, prices rose by 9% on average.

But why does inflation happen, and what is its impact?

These articles are using data produced by someone else.

This makes them a secondary source - so the data is **secondary data**

Female scientists less likely to be given authorship credits, analysis finds

Lane and her colleagues analysed administrative data on research projects conducted at 52 US colleges and universities between 2013 and 2016. They matched information about 128,859 scientists to 39,426 journal articles and 7,675 patents, looking at which people who worked on individual projects received credit and which did not.

This gap was seen in female-dominated fields such as health, as well as in male-dominated fields, such as engineering, and was particularly evident during the earliest stages of women's careers. For example, only 15 out of 100 female postgraduates were ever named as an author on a publication, compared with 21 out of 100 of their male peers.

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Primary data is data that someone collects themselves

Secondary data is data that is collected by someone else and then used in another place

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An article in a local newspaper says:

“Poll results: we asked what readers thought about smartphones in school.”

Is this data primary or secondary?

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A weather station publishes a report comparing rainfall this year and last year, based on data they recorded.

Is this data primary or secondary?

Data and Information

An article in a local newspaper reports three facts from the weather station report.

Is this data primary or secondary?

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In a new Word document:

1. write down a definition of **primary data** and give at least one example (using the slides - don't Google it!)
2. write down a definition of the **secondary data** with at least one example

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Now it's your turn to collect some primary data.

Think carefully about how you can write good questions that everyone can answer

Hint: "don't know" is sometimes a useful thing to include in a set of answers

Data and Information

Task:

- Work in a pair
- Produce a survey with 4 to 5 questions for 11-12 year olds to complete
- Make it easy to collect answers by giving choices to tally against

Examples:

Holidays, hobbies, places you've been to, primary school, computer games, TV and media, phones...