



Computing

Year 5

Information Technology

SpreadSheets

Concepts

Identity, Equality,
Legacy, Climate,
Sustainability

Aspirational People

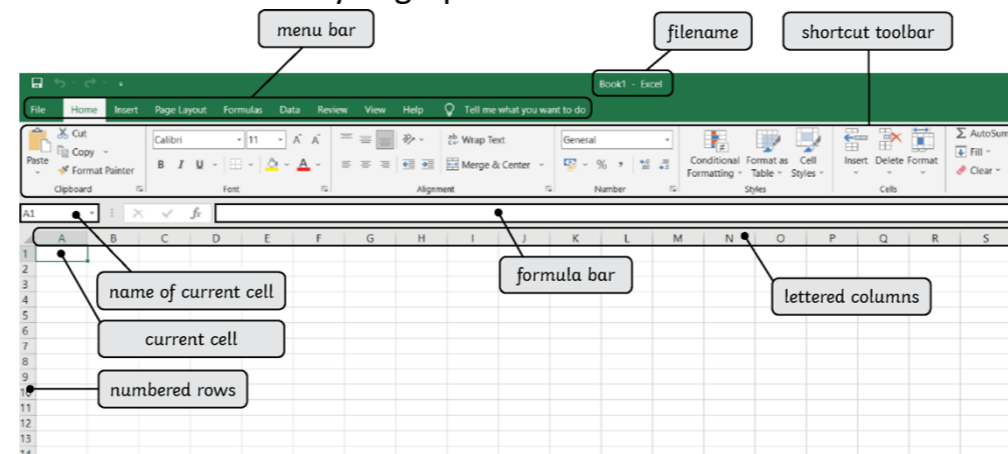
Dan Bricklin changed the world forever when he codeveloped VisiCalc, the first electronic spreadsheet and grandfather of programs you probably use every day like Microsoft Excel and Google Sheets.



A spreadsheet is a way to display, organise and manipulate data.

A spreadsheet can be used to:

- Store and sort data in different ways;
- Filter or search data;
- Carry our calculations;
- Show data visually in graphs and charts.



Creating a Chart

Click and drag across the **cells** to choose the **range** of data to be shown as a **chart**. Click on **Insert** on the **menu bar**, and choose the **chart** type. Click on the arrow at the end of each **chart** type to see the different styles.

Calculations use
+ - * /

Functions

Sum = adds a range of cells

Average = finds the average of a set of cells

Cell
A box on a spreadsheet where you can enter information in the form of text, numbers or formulas.

Row
A range of horizontal cells identified by a number.

Column
A range of vertical cells identified by a letter.

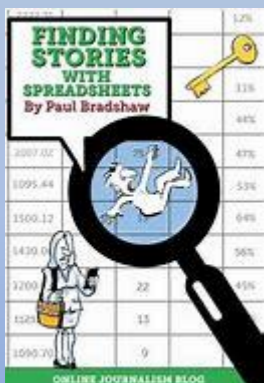
Formula
A calculation using the data from two or more cells.

Range
A number of cells across a column, row or both.

Function
A formula that has been built into a spreadsheet program and is used to simplify and shorten calculations.

Chart
A graph or diagram that shows data and makes it easier to understand.

Exciting Books



Sticky Knowledge

Subject Specific Vocabulary



Computing Year 5

How Technology Works Systems and Search Communication

Concepts

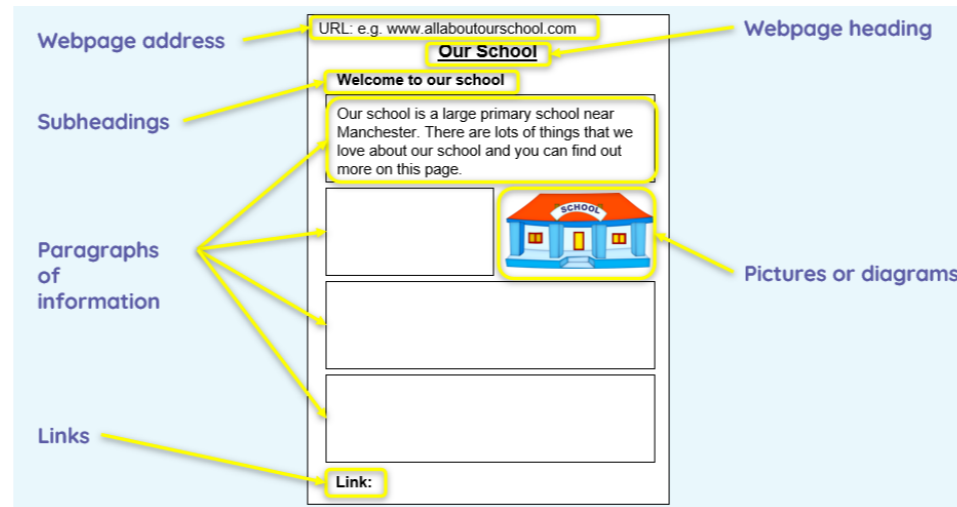
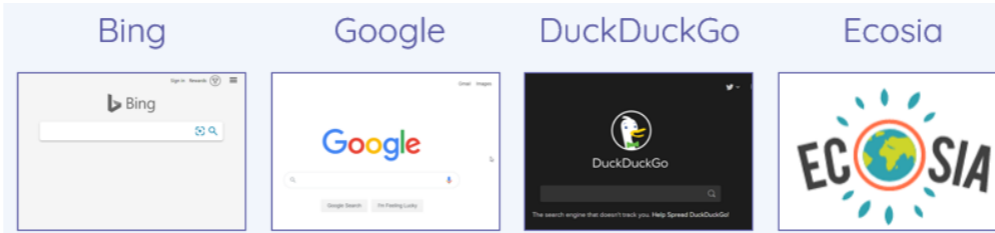
Identity, Equality, Legacy,
Climate, Sustainability,

Aspirational People

Alan Mathison Turing 23rd June 1912 - 7th June 1954 was an English mathematician best known for creating machines that helped crack the Enigma code, and laying the foundations for modern computers and artificial intelligence!



Search Engines



Parts of a packet

To: 192.168.1.10	From: 192.168.1.4	Packet no. 1	of	Total no. of packets. 2	H	i	,	h	o	w		
To: 192.168.1.10	From: 192.168.1.4	Packet no. 2	of	Total no. of packets. 2	a	r	e		y	o	u	?

There are two main parts to a packet: the header and the data payload.

Website

A group of web pages that are related to a homepage.

Hyperlink

An icon, graphic, photo, or text, that links to another page or file.

Search Engine

A program or software that is used to find information on a database, or the world wide web.

Ranking

Ordering websites based on a score of different criteria.

Data Packet

A unit of data made into a single package that travels along a given network path.

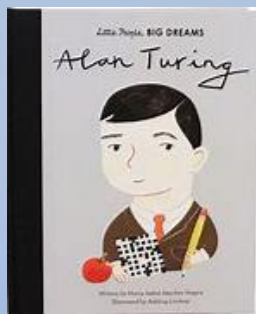
Internet Protocol (IP) Address

A unique string of characters that identifies each computer to communicate over a network

Domain Name Server (DNS)

A naming database in which internet domain names are located and translated into Internet Protocol (IP) addresses.

Exciting Books



Sticky Knowledge

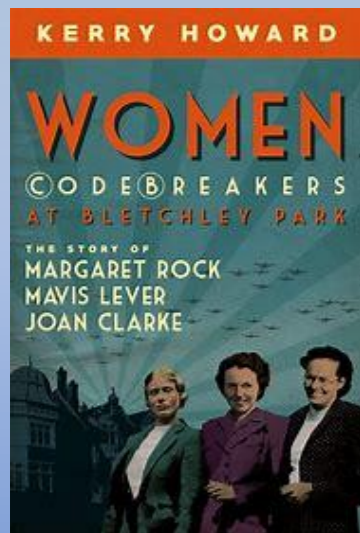
Subject Specific Vocabulary



Computing Year 5 Coding

Speed, Direction, Co-ordinates, Random
Numbers and Simulations

Exciting Books



Concepts

**Identity, Equality, Legacy,
Climate, Sustainability,**

Aspirational People

Joan Elisabeth Lowther Murray, MBE (née Clarke; 24 June 1917 – 4 September 1996) was an **English a code-breaker at Bletchley Park during the Second World War**. Her role in the Enigma project that decrypted the German's secret communications earned her a Member of the Order of the British Empire (MBE), in 1946.



Object Property

Something about an object that can be represented by a number.

X/Y Co-ordinate

The horizontal/vertical position of an object on screen.

Heading

The direction in which an object moves.

Angle

The direction in which an object is facing.

Random

Something that happens by chance.

Range

A set of numbers to choose from when assigning a random value.

Simulation

A computer program which represents something in the real world.

Your blocks

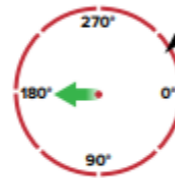
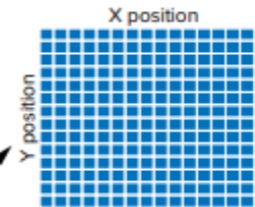
You'll be using the **set** and **change** command blocks to control an object's properties.



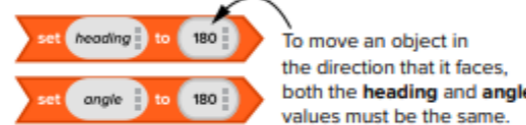
Speed can be set between -6 and 6. Changing speed by a negative number will slow objects down.



The numbers used to set up X and Y positions refer to the co-ordinate plane of the stage.



The numbers used to set heading and angle refer to degrees of turn on the stage.



To move an object in the direction that it faces, both the **heading** and **angle** values must be the same.

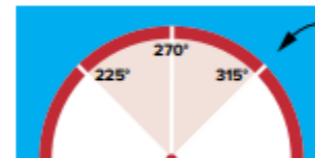
Your blocks

You can use random numbers to control properties like the speed or direction (heading) of an object.



The heading is the direction that the object travels in.

The code must include a **range** from which a random number can be generated.



To set a range for the heading of an object, you use degrees of turn on the stage.



You can also place an object in a random position on screen. The position uses the x and y coordinates of the stage.

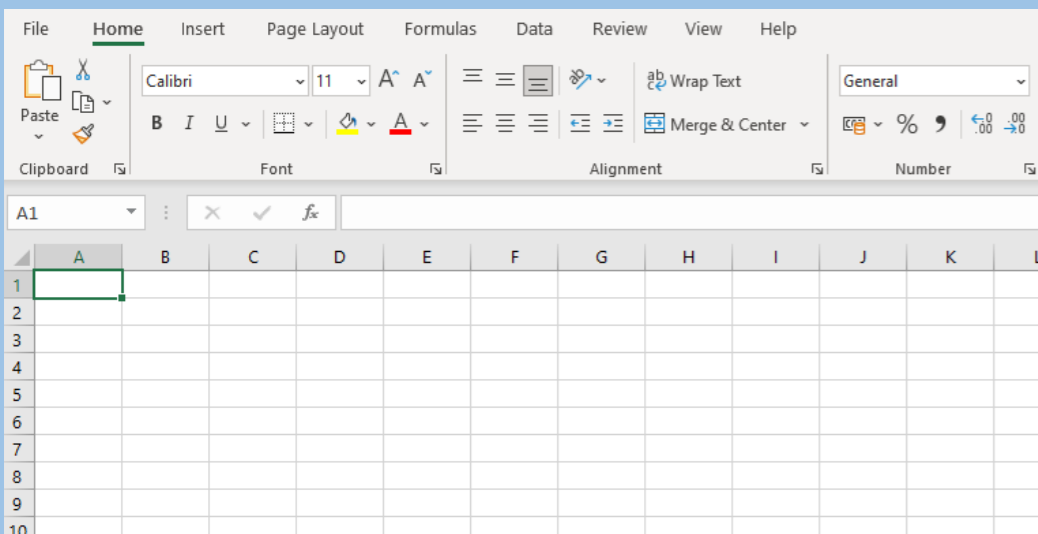
Sticky Knowledge

Subject Specific Vocabulary



Year 5

ICT- Spreadsheets



Aspirational People

Daniel Bricklin, is an American businessman and engineer who is the co-creator, with Bob Frankston, of the VisiCalc spreadsheet program.



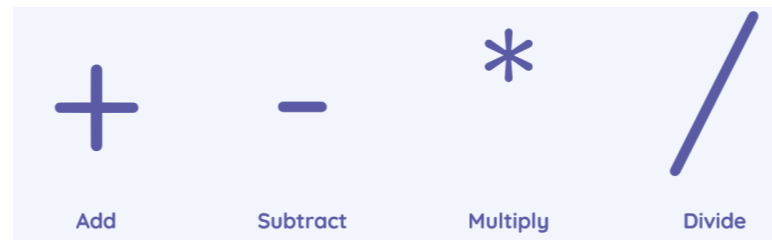
In 1978, Harvard Business School student, Daniel Bricklin, came up with the idea for an interactive visible calculator.

-Information/ Data that is collected can be inputted into each **cell** including information using different formats (such as currency, plain text, time etc)

-Cell reference is the name of the individual cell that needs identifying.

-Cells can have the same formula by duplicating a cell .

- You can perform common mathematical operations in a spreadsheet using the symbols below



Spreadsheet- An electronic document which data is arranged in rows and columns.

Cell – A cell is a rectangular area formed by the intersection of a column and a row.

Cell reference- Each cell is identified by its reference using column (letter) Row (Number).

Format- Data represented is changeable. Eg: plain text, currency, time etc.

Sticky
Knowledge

Subject Specific
Vocabulary