

This page is for



Digital Technologies @ Home
Unplugged activities for students



Teachers



Parents and carers

This activity is for: Years 3-6

Tech Collect

A fun find-a-word activity to improve students awareness of digital systems and their function

This activity teaches...

Students in years 3 to 6 can improve their vocabulary and spelling as well as identifying digital systems.

This exercise improves students ability to scan for information, for example scanning a search engine or a piece of code.

Getting started (read this with your child):

Can you name simple digital technologies e.g. computer, laptop etc that you see around you? Digital systems are made up of parts - how many parts can you name (mouse, monitor, keyboard, etc). Read the list in the find-a-word - are there any words that you do not know? (This applies to parents too). Not all the items on the list are physical objects! Can you sort them into hardware (devices you can see) and software (computer programs?)

Step by step

Ask your child to find the words in the list, if they get stuck they can move onto the next one and come back to it. They are written downwards, across, diagonally and some words are backwards.

Keep the conversation going

- Do you have these technologies in your house?
- Can you point them out? Can you already name these devices on sight?
- Do you know what each of them does? What purpose do they serve?
- How do these technologies make our lives easier?

Linking it back to the Australian Curriculum: Digital Technologies



Digital Systems

- Recognise and explore digital systems (hardware and software components) for a purpose (ACTDIK001 - see cmp.ac/systems)
- Identify and explore a range of digital systems with peripheral devices for different purposes, and transmit different types of data (ACTDIK007 - see cmp.ac/systems)

Refer to aca.edu.au/curriculum for more curriculum information.)



Keep learning: Classify animals using a decision tree algorithm

This lesson teaches students to use physical characteristics of different animals to develop an algorithm that allows you to easily group and identify each animal based on a series of simple questions.

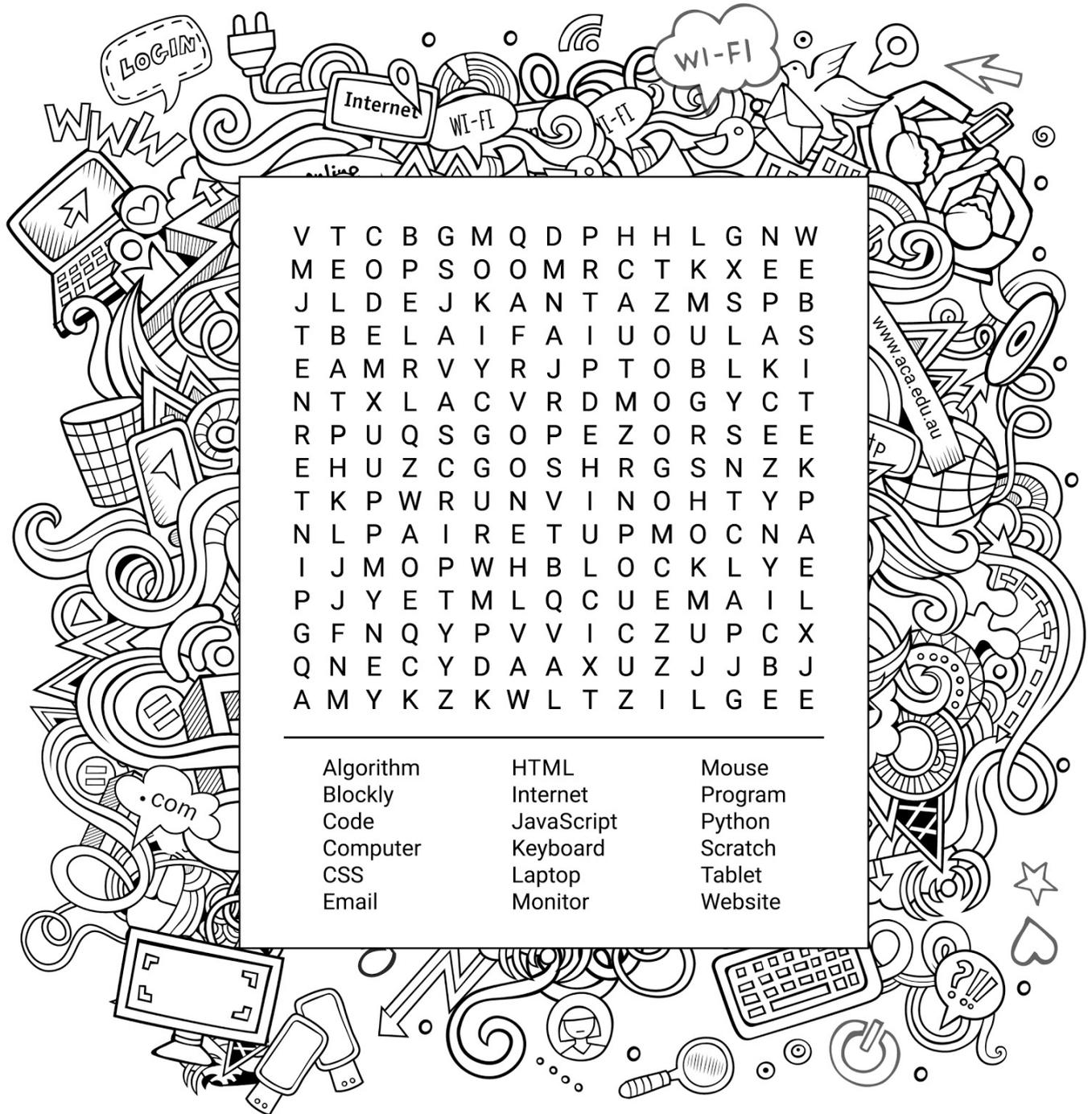
For more information head to cmp.ac/classifying

This page is for



Tech talk

Can you find the 18 technology words hidden below?
Some are written backwards! Circle them and colour in the background when done.



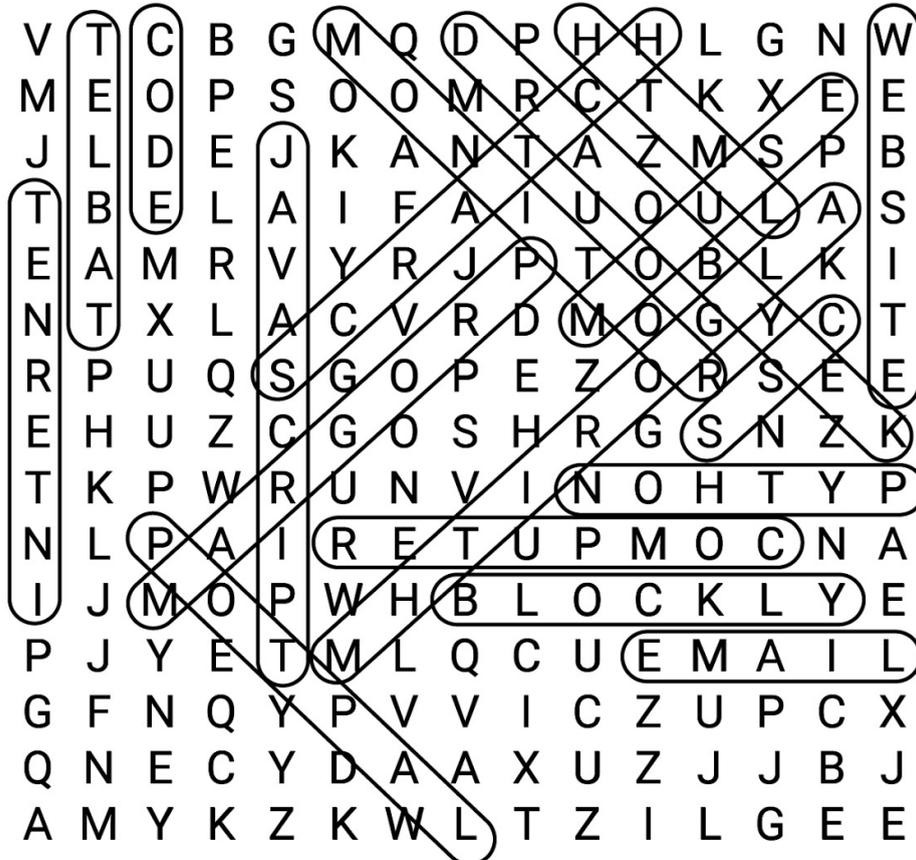
V	T	C	B	G	M	Q	D	P	H	H	L	G	N	W
M	E	O	P	S	O	M	R	C	T	K	X	E	E	
J	L	D	E	J	K	A	N	T	A	Z	M	S	P	B
T	B	E	L	A	I	F	A	I	U	O	U	L	A	S
E	A	M	R	V	Y	R	J	P	T	O	B	L	K	I
N	T	X	L	A	C	V	R	D	M	O	G	Y	C	T
R	P	U	Q	S	G	O	P	E	Z	O	R	S	E	E
E	H	U	Z	C	G	O	S	H	R	G	S	N	Z	K
T	K	P	W	R	U	N	V	I	N	O	H	T	Y	P
N	L	P	A	I	R	E	T	U	P	M	O	C	N	A
I	J	M	O	P	W	H	B	L	O	C	K	L	Y	E
P	J	Y	E	T	M	L	Q	C	U	E	M	A	I	L
G	F	N	Q	Y	P	V	V	I	C	Z	U	P	C	X
Q	N	E	C	Y	D	A	A	X	U	Z	J	J	B	J
A	M	Y	K	Z	K	W	L	T	Z	I	L	G	E	E

Algorithm	HTML	Mouse
Blockly	Internet	Program
Code	JavaScript	Python
Computer	Keyboard	Scratch
CSS	Laptop	Tablet
Email	Monitor	Website

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Answer key

Do not show this to you child.
Use this only to give your child a hint if they get stuck.



- | | | |
|-----------|------------|---------|
| Algorithm | HTML | Mouse |
| Blockly | Internet | Program |
| Code | JavaScript | Python |
| Computer | Keyboard | Scratch |
| CSS | Laptop | Tablet |
| Email | Monitor | Website |

Glossary

Something unfamiliar? Find it below for some more information.

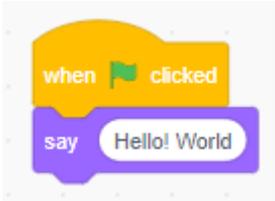


Teachers



Parents and carers

Word	Simple Category*	Definition
Algorithm		An algorithm is a sequence of steps that you follow to solve a problem. When you cook using a recipe, do long division in maths, or put on your uniform in the morning you are following an algorithm!
Blockly	Programming Language	Blockly is a visual programming language. That means it is a 'drag and drop' style of programming with minimal typing. Here are some example blocks: <div style="border: 1px solid purple; padding: 5px; margin: 10px 0;"> <p>print " Hello, World! "</p> </div> You can program in Blockly in some of the ACA Digital Technologies Challenges. Have a look here: https://aca.edu.au/resources/#blockly
Code	Software	Code is what is used to give computers instructions. Computers can't understand English or any other human language! When you write code for computers, you write it in a programming language.
Computer		A computer is a machine that works with data. It can take data in as input, work with it and send back changed data as output. For example, a calculator is a computer. You give it a maths question as input data, it calculates it and it gives you the answer as output.
CSS	Programming Language	CSS is a text based programming language. CSS stands for "Cascading Style Sheet", it is a language specifically for programming how websites look. Without it, websites would look a lot more flat and boring.
Email	Software	Email is software that runs on a computer. It helps you to send a message by saving your message, transmitting it across the internet to a mail server (like a digital mailbox) of the person it is for.
HTML	Programming Language	HTML is a text based programming language. It is one of many languages used to program websites. If a website was a house, HTML would be the basic walls, doors and windows that make it work. Languages like CSS and Javascript add the furniture, paint and pictures that make it comfortable and nice to live in.
Internet		The internet is a connected network of computers. It is made up of millions and millions of them that can all talk to each other. It's a way of sharing information because you don't have to keep everything on your computer, you can ask others to show you information they are saving.

JavaScript	Programming Language	Javascript is a text based programming language. It is used to program interactivity on websites.	
Keyboard	Hardware	A keyboard is a piece of hardware that helps you to interact with a computer. It has keys for all the letters of the alphabet as well as different punctuation marks and maths symbols.	
Monitor	Hardware	A monitor is a piece of hardware that helps you interact with a computer. It is a screen that displays images. The computer has to run software to translate the data from 1's and 0's to images on the monitor that are easy for people to understand.	
Mouse	Hardware	A mouse is a piece of hardware that helps you interact with a computer. It moves a mouse icon across a monitor screen so that you can interact with the computer without having to type.	
Program	Software	A program is a collection of code that are instructions for a computer. When a program is run, the instructions are carried out by the computer. Programs can do all sorts of things!	
Python	Programming Language	Python is a text based programming language. You can use it to program computers. Unlike HTML, it is not just for one thing, it can be used for mathematics, websites, video editing, data processing, games... So much more! You can program in Scratch in some of the ACA Digital Technologies Challenges. Have a look here: https://aca.edu.au/resources/#python	
Scratch	Programming Language	Scratch is a visual programming language. That means it is a 'drag and drop' style of programming with minimal typing. Here are some example blocks: You can program in Scratch in some of the ACA Digital Technologies Challenges. Have a look here: https://aca.edu.au/resources/#scratch	
Tablet	Hardware	A tablet is a type of computer that has a touch screen as the primary way to interact with it. It can sometimes have a keyboard and mouse attached too.	
Website		A website is a collection of files that are saved on a computer connected to the internet. When you visit a website with your device, it runs a program that can read those files and show you what is saved on that computer.	
	*categories	Some of the words above don't fit easily into one category like 'Hardware' or 'Software'. Is it because they are both? What do you think they could be? Talk with your teacher or carer about what you think could be added as a category.	