LS-591

Computational Skills and Problem Solving

Two Truths and a Lie

Icebreaker Activity

Takes turns sharing three statements about yourself: two truths and one lie.

Everyone else: guess which statement is the lie.

Web Search + Typing

Wikipedia Races!

Get practice thinking fast about how concepts on the web connect!

1. Find the [Wikipedia Races link](#) on the Canvas Homepage
2. Join the class lobby using the lobby code!
3. See how quickly you can click links to get from the first Wikipedia Page to the destination page!

How do Wiki Race strategies relate to computational thinking?

Algorithmic Wiki Racer

wiki.spaceface.dev

Who can find the two most distant terms with this tool?

Wiki Game Solver

Find the shortest path from any Wikipedia page to any other by simply clicking on the links in each article.

Manx cat

Anarcho-syndicalism

Search!

1. <u>Manx cat</u>
2. <u>Canada</u>
3. <u>Far-left</u> (redirects to <u>Far-left politics</u>)
4. <u>Anarcho-syndicalism</u>

How to use Google effectively

Video: how professional fact checkers use Google

Google your code errors!

Often, Googling an error your code throws will lead you to a site called StackOverflow. [Here is an example.](#)

- Is there any clue as to which reply is most helpful?
- Can other replies still be useful?
- [Here is a forum](#) with some passionate opinions on ChatGPT vs. Stack Overflow for code help

Google your potential solutions!

Use errors and suggested solutions as a way learn! Solving the error is only step 1.

- re-evaluate what led to the error
- update your mental map
- practice as needed!

Useful Google Search Commands

➔ `"Put your phrase in quotes"` to search for an exact match

➔ Add an `OR` between search terms, to search or multiple options at once

➔ Add `site:<URL>` to search within a specific domain

➔ Add `site:*.edu` or `site:*.gov` to limit your results to academic or government websites

➔ Precede a term with a minus `-` to remove it from your results

SOURCE: Common Sense Media

Googling Code Concepts

➜ Use terms that identify and limit the problem

➜ Are you using `python` and/or `trinket?`

➜ Are you using `mac or windows?`

➜ Is the problem with `variable assignment` or `operators` or something else?

Find the Code Blocks activity in Canvas!

https://trinket.io/
https://trinket.io/glowscript-blocks/cbf2f8904f

Typing

Why does this matter?

Typing fluidly helps you

- Keep train of thought
- Take notes while looking up
- Look professional in interviews

QWERTY

The standard American keyboard is called a QWERTY keyboard after the order of the letters on the keyboard

- Q is in the upper left
- W is right next to Q
- other countries have other arrangements
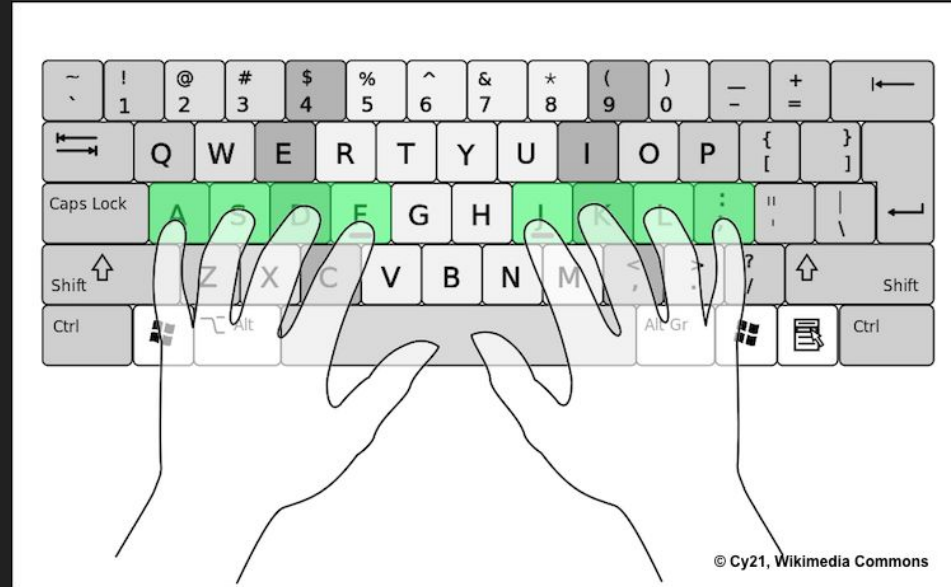- France, for example, has AZERTY keyboards!

Impressive Control

With technique and practice, extreme control and proficiency is possible!
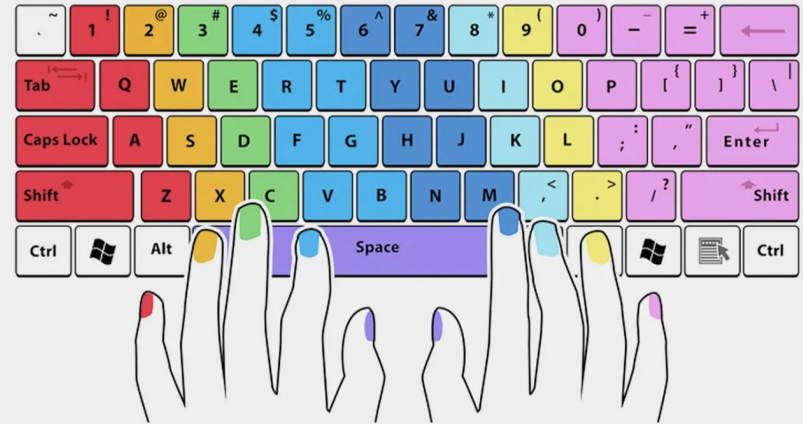
Technique

Home Row is the reference position for the hands

© Cy21, Wikimedia Commons

Technique

Use each finger on specific keys!

Keyboard Chart

Practice makes perfect

Mastery of typing helps expression flow!

Try copying the words:

https://monkeytype.com/

- look ahead and stay paced

Practice makes perfect

Mastery of typing helps expression flow!

Copy the code here:

https://typing.io

- code syntax can become part of your muscle memory!

Practice makes perfect

Mastery of typing helps expression flow!

Have fun while you practice by using sound

- https://typatone.com/
- https://www.onlinepianist.com/virtual-piano#google_vignette

- find the coolest sounding word
- try typing in unison!