

Week\_1

08/08/20

Coding 4 Kids Monday 11:00  
(Upper Quad - Library)

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# Welcome to Coding 4 Kids

**Today we will begin our Grand Adventure.**

Our hope is that you will do the following:

Be eager to learn

Practice at home

Share with others the skills you have mastered.





Today we will have introductions, followed by Instructional Teaching, Demo, and an exercise.

**The more you put into this class, the more you will get out of it.**

If you are reading this from the \*.pdf; the format may stretch multiple pages(Forced from the software).

**Who can tell me, What is a computer keyboard?**

## **Computer Keyboard**

A computer keyboard is a typewriter-style device which uses an arrangement of buttons or keys to act as mechanical levers or electronic switches.

Keyboard keys (buttons) typically have characters engraved or printed on them, and each press of a key typically corresponds to a single written symbol. However, producing some symbols may require pressing and holding several keys simultaneously or in

holding several keys simultaneously or in sequence. While most keyboard keys produce letters, numbers or signs (characters), other keys or simultaneous key presses can produce actions or execute computer commands.

In normal usage, the keyboard is used as a **text entry interface** for typing text and numbers into a word processor, text editor or any other program. In a modern computer, the interpretation of key presses is generally left to the software. A computer keyboard distinguishes each physical key from every other key and reports all key presses to the controlling software. Keyboards are also used for computer gaming — either regular keyboards or keyboards with special gaming features, which can expedite frequently used keystroke combinations.

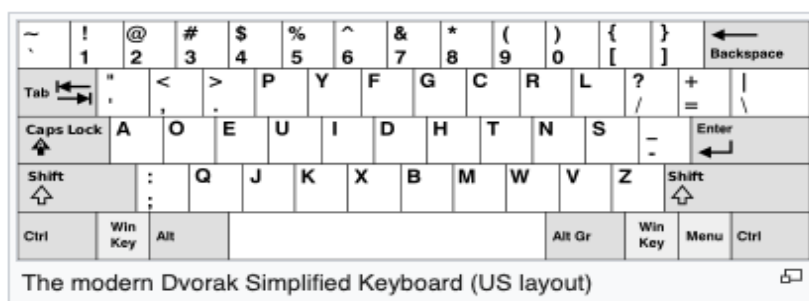
Why is the keyboard design with the keys in the positions:  
QWERTY?

There are several keyboard layouts. The 2 main are QWERTY and Dvorak Simplified Keyboard(DSK); with QWERTY being most popular.

The Standard Keyboard is QWERTY, which is a standard from the IBM Type Writers.



The Dvorak Simplified Keyboard layout arranges keys so that frequently used keys are easiest to press, which reduces muscle fatigue when typing common English.



Our class will focus on the QWERTY keyboard style.

Who knows what it means to touch type?

Touch typing (also called touch type or touch keyboarding) is a style of typing without looking at the keys as you type.

Although the phrase refers to typing without using the sense of sight to find the keys.

A touch typist will know the location of the keys on the keyboard through muscle memory.

Many would say, touch typing is one of the most important skills a student can learn. Those students who learn touch typing early, can far out perform students who are still using the "hunt & Peck" method of typing.

Touch typing can open many new doors for students. Lets put this another way. When a baby is learning to walk, that is there whole focus. They strengthen their muscles, and gain skills like balance and learning to fall. Learning to walk by 9 - 15 months is a HUGE task... When that same child is a little older walking becomes easy. Walking turns to jogging, and jogging to running. Soon the child just thinks where to go, and check for a clear path, and goes. The details of putting one foot in front of the other, and balance are handled in the "muscle memory" portion of the brain.

So with touch typing, not having to look at the keyboard and typing with all your fingers, will help you in more ways than you can realize.

OK, we are excited to learn how to touch type.

Exercise 1:

Put your left index(2nd) finger on the "J" key, and your right index finger on the "F" key.

Feel the bump or notch on the bottom of the key.

This is to indicate the "Home Row Keys"...

Now, pull your hands off the keys and put them back on the same keys "F" & "J". No other keys have those bump's, so you can practice and find them.

Next, do this with your eyes closed. Try to do this again without looking at the keyboard.

Now pull your hands off the keyboard, look to the left. Close your eyes, Clap your hands and find the "F" & "J" <HOME> Keys.

And do the same thing to the right: close your eyes, clap your hands, then find the "Home" Keys...

Who can tell me what is the "Home Row", and what fingers go where?

## Which Fingers Go Where







- Each finger rests on a particular key in the home row of the keyboard when not typing, in order to keep "grounded" and oriented at all times. The home keys (ASDF JKL; ) are outlined in yellow on the above diagram. The thumbs remain in the air, or very gently in contact with the keys below.
- Each finger is responsible for a vertical column of keys, which you can think of as a "home column". The column is not straight up and down, but rather slopes up to the left.
- Both index fingers are responsible for an additional column, the one next to their home columns towards the middle of the keyboard.
- The thumbs are used for the space bar, and depending on the shape of your keyboard can also be used for the "command" (Apple computers) or "Windows" (PCs) key.
- The left-hand pinky is also responsible for all the keys to the left of its home column, including the left shift key, caps lock, tab, tilde, escape and others.
- The right-hand pinky is a real workhorse, covering everything to the right of its home column. Take a look - there's a lot of stuff there!

## A Word of Safety & Caution

Your fingers should be curved as they lightly rest on the "Home Keys"; (left fingers starting with the pinky)[A][S][D][F]. And the right hand starting from the index finger [J][K][L][;]. The proper wrist position is floating above the base of your keyboard. Your fingers press a key and then return to the "Home Key" position, ready for the next command your brain will send.

It's also known as work-related upper limb disorder, or non-specific upper limb pain.

### Repetitive strain injury

**Other names** Cumulative trauma disorders, repetitive stress injuries, repetitive motion injuries or disorders,

occupational or sports overuse syndromes



Poor ergonomic techniques by computer users is one of many causes of repetitive strain injury

<b>Specialty</b>	Sports medicine, Performing Arts Medicine, orthopedics
<b>Symptoms</b>	Sore wrists, aching, pulsing pain, tingling, extremity weakness
<b>Complications</b>	Torn ligaments
<b>Causes</b>	Repetitive actions, poor technique
<b>Risk factors</b>	Sedentary lifestyle, smoking, alcohol consumption
<b>Prevention</b>	Proper technique, regular rests, regular exercise

In class we will teach you to stretch your wrists and hands. This is important after you type or use a mouse for a long period of time.

Exercise 2:

With your hands on the home keys  
Left little finger on the [A] key, and  
Right little finger on the [;] key.

Practice typing these 2 keys without looking at the

Practice typing these 2 keys, without looking at the keyboard.

We will use file explorer (PC) or Finder(MAC) and create a new directory:

<this PC>

C:\

Right click

<New>

<New Folder>

TRINITY

Right click

<new>

<text document> this is notepad , or Finder(Mac)

With your **right hand little finger** push the [A] key, and with your thumb (left or right) push the space bar to generate a space.

aaaaaa aaaaa aaaa aaa aa a  
aaaaaa aaaaa aaaa aaa aa a  
aaaaaa aaaaa aaaa aaa aa a  
aaaaaa aaaaa aaaa aaa aa a  
aaaaaa aaaaa aaaa aaa aa a

Good Job!

With your **left hand little finger** push the [;] (semi colon) key, and with your thumb (left or right) push the space bar to generate a space. I know your thinking this is not a letter, what is important here is the location of the key, and to begin with the little finger on the left hand...

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..... :  
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a;a a;a a;a a;a a;a a;a a;a a;a  
a;a a;a a;a a;a a;a a;a a;a a;a  
a;a a;a a;a a;a a;a a;a a;a a;a

;a; ;a; ;a; ;a; ;a; ;a; ;a; ;a; ;a;  
;a; ;a; ;a; ;a; ;a; ;a; ;a; ;a; ;a;  
;a; ;a; ;a; ;a; ;a; ;a; ;a; ;a; ;a;  
;a; ;a; ;a; ;a; ;a; ;a; ;a; ;a; ;a;

;aa; ;aa; ;aa; ;aa; ;aa; ;aa; ;aa;  
a;;a a;;a a;;a a;;a a;;a a;;a a;;a  
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;aa; ;aa; ;aa; ;aa; ;aa; ;aa; ;aa;  
a;;a a;;a a;;a a;;a a;;a a;;a a;;a

Note: the reason we begin with the little fingers is because these are the weakest and least coordinated, so beginning with these is a good place to start. If you can do these, the rest will be easy...

### Exercise 3:

With your hands on the home keys

Left index finger on the [F] key, and  
Right index finger on the [J] key.

Practice typing these 2 keys, without looking at the  
keyboard.

(as above, or you can use the same document)  
We will use file explorer (PC) or Finder(MAC) and  
create a new directory:

<this PC>

C:\

Right click

<New>

<New Folder>

TRINITY

Jjj jjj jjj jjj

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