THE KEYBOARD, KEYBOARDING, THE MOUSE, AND ERGONOMICS OF COMPUTING

COMPILED BY HOWIE BAUM
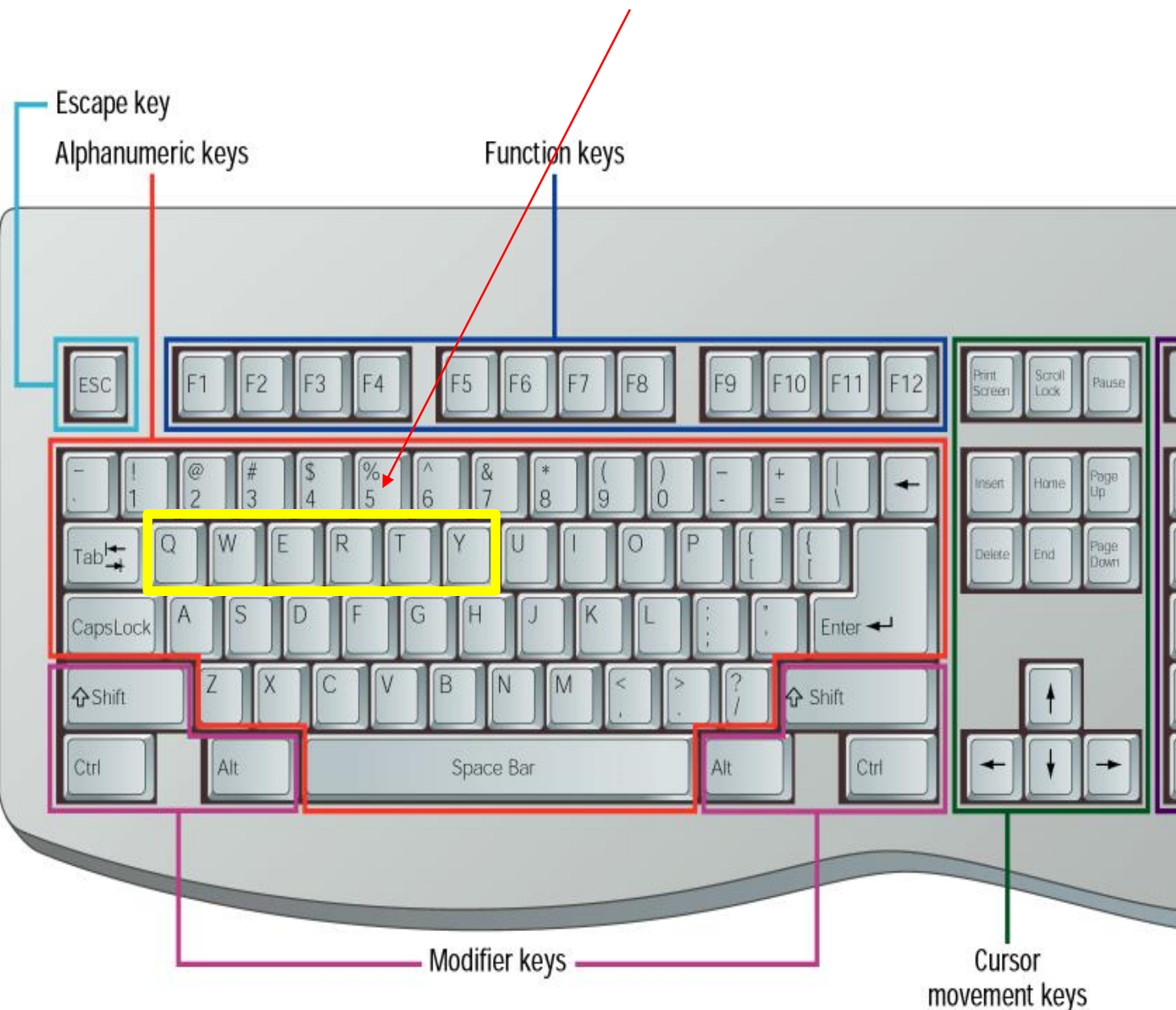
Input Devices

- Keyboard

- Mouse.

The most commonly used input device is the keyboard on which data is entered by manually keying in or typing certain keys. A keyboard typically has 101 or 105 keys.

THE QWERTY KEBOARD !

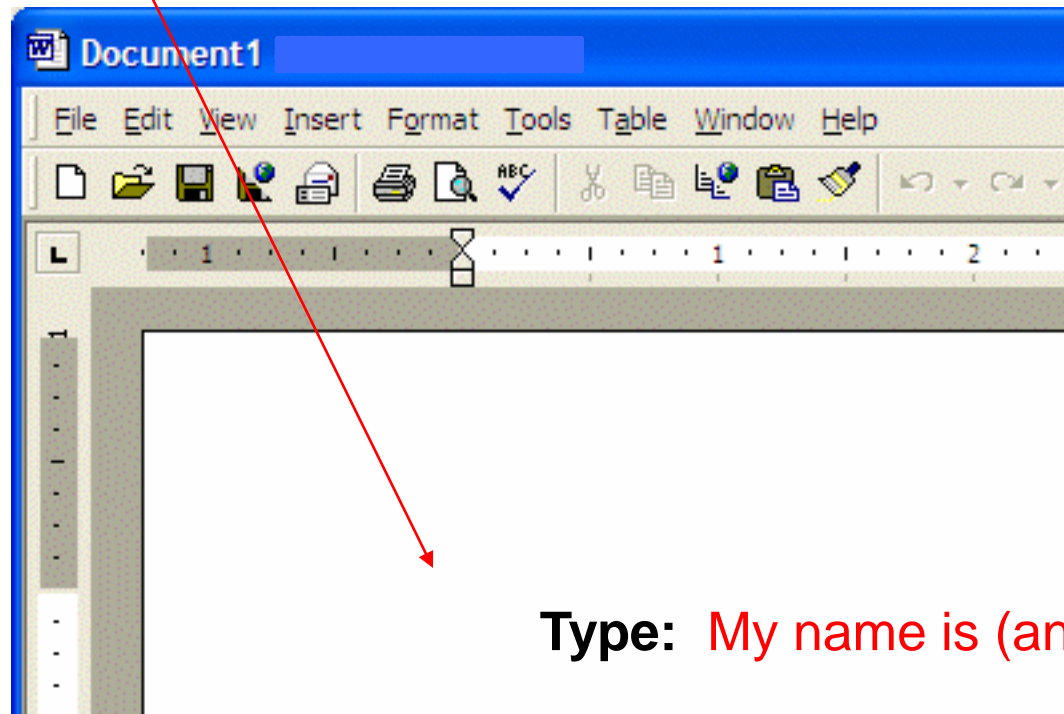**MOST KEYBOARDS HAVE KEYS ARRANGED IN 5 GROUPS:**

1. **Alphanumeric**

2. **Number line or keypad**

3. **Function keys**

4. **Modifier keys**

5. **Cursor-movement keys**

USING THE INSERTION POINT TO ADD TEXT - The **insertion point** is the **blinking vertical line** in your document. It indicates where you can enter **text** on the page. You can use the insertion point in a variety of ways.
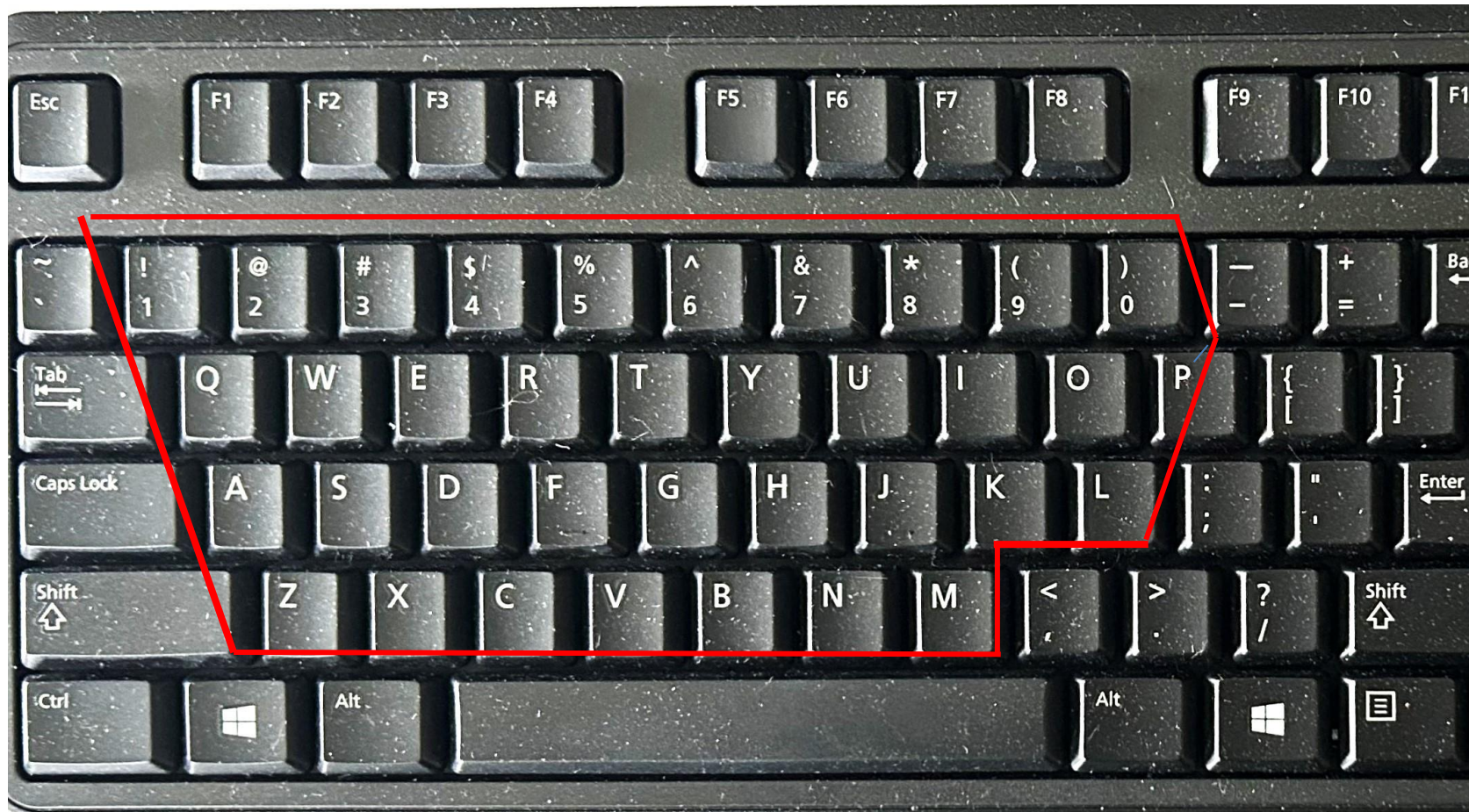
Blank document: When a new blank document opens, the insertion point will appear in the top-left corner of the page. If you want, you can begin typing from that location.

As you type, "Wordwrap" lets the text go automatically to the next line.

Type: My name is (and your name)

USING THE KEYBOARD

Number and Letter keys

The Backspace key will move the cursor **to the left** and erase any letters in that direction.

Backspace Key

The Delete key will erase any letters **to it's right** and it can delete folders, pictures, and other items as well.

Delete Key

The directional, or arrow keys, let you move the cursor anywhere in your document and it doesn't remove any letters, as it moves.

Directional Keys

WHEN YOU PRESS THE CAPS LOCK KEY, IT CHANGES ALL OF THE LETTERS INTO THEIR CAPITALIZED FORM, LIKE THESE.

Press it again, and the letters go back to lower case.

Holding down either of the 2 Shift keys will produce a capital letter or more of them, if it's held down.

The Windows Key will bring up the start menu whenever it is pressed.

You will also see it at the bottom, left side of the Windows 10 screen

Windows Key

The **Enter key** lets you move down a line in a document.

When you are on the Internet and put in a subject or e-mail address to be found, it becomes a "GO" button.

Enter Key

Modifier keys: The SHIFT, ALT(alternate) and CTRL(control) keys are called modifier keys as they modify the input of other keys.

In other words, if a modifier key is held down while pressing another key, then the operation or action of the second key is changed in some way.

For example, if the key "c" is pressed it will simply type a letter "c"(small c).

But if the key "c" is pressed with the modifier key "CTRL" it will copy something that is highlighted. Again, if the key "c" is pressed with the modifier key "SHIFT", then it will type a letter "C" (Capital C).
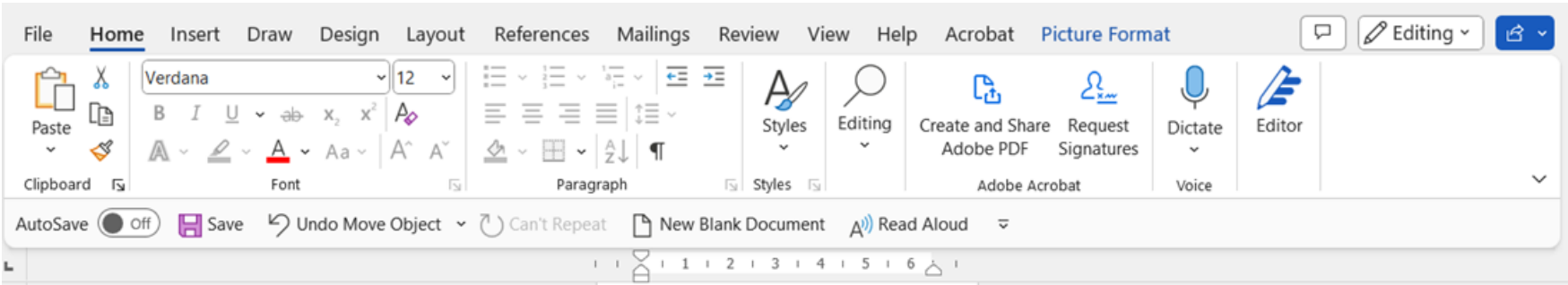
Alternate Key

- Also called the ALT key and is on both sides of the space bar

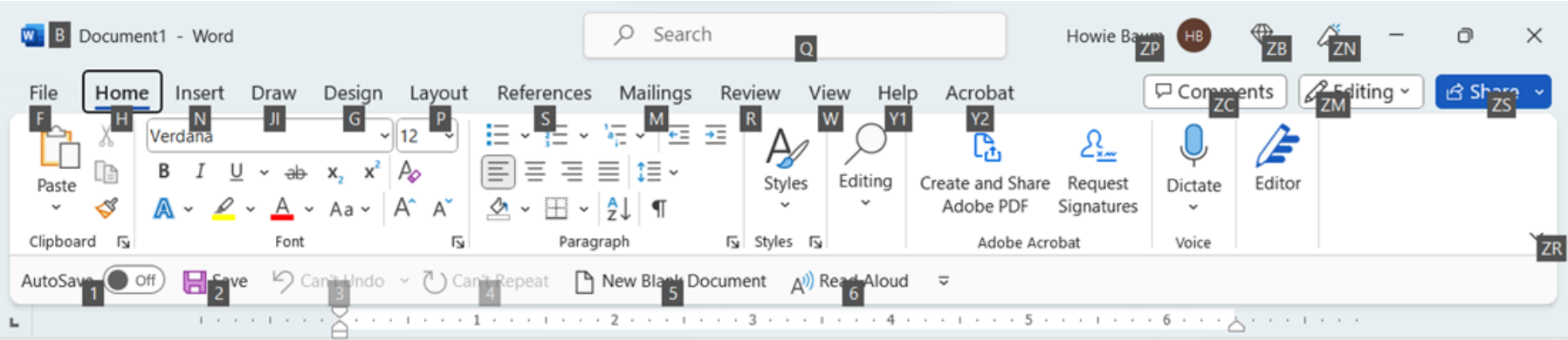- Executes commands with other key(s)

The Alternate (**Alt**) key can also be used to assist persons with a disability, who can use a keyboard but have trouble using and controlling a computer mouse, when working in a computer program.

The upper view below, is the standard Ribbon at the top of the Microsoft Word program page.

The lower image shows what that Ribbon looks like, once the **Alt** key is pressed. A person can press a letter or number on the keyboard, and it will bring up the menu of what was requested and put letters and/or numbers on that and each page, so the person can select tools they want.

TAB KEY

- Each time you touch the Tab key, it moves the cursor/insertion point to the right 5 spaces, in case you want to indent the first line of each paragraph in a text document.

- If you want to go back 5 spaces, hold down the Shift key and then the Tab key. You can also use the Backspace key to do this.

The **Tab key** is also very handy when you are filling out an application or other type of form that is asking you to fill in your name and other information into a lot of small rectangular windows, called a Text Box.

Once you have filled out information in one of the windows, press the Tab key and the cursor will jump to the next window so you don't have to pick up your mouse and point to each of the windows.

An example is when you might apply for a library card at the Public Library of Cincinnati and Hamilton County:

https://www.cincinnatilibrary. org/account/application.aspx

Apply for a Library Card

APPLICANT INFORMATION

Fields marked with * are required.

┌─ **Borrower's Information** ─────────────────────────┐

First * [   ] M.I. [ ] Last * [   ]

Date of Birth * Month [1 ▼] Day [1 ▼] Year [2018 ▼]

└───┘

┌─ **Mailing Address and Contact Information** ────────┐

Street or P.O. Box * [   ] Apt [   ]

City * [   ] State* [Ohio ▼]

County * [Hamilton   ▼]

Zip Code * [   ]-[   ]

Email * [   ]

Phone * ([   ]) [   ]-[   ]

└───┘

┌─ **Street Address (if different from Mailing Address)** ─┐

Street or P.O. Box [   ] Apt [   ]

City [   ] State [Ohio ▼]

Zip Code [   ]-[   ]

└───┘

21

The Home key will go to the start of a sentence.

The Control (Ctrl) key and the Home key will go to the top of the document.

The End key works the same way but to the end of each one.

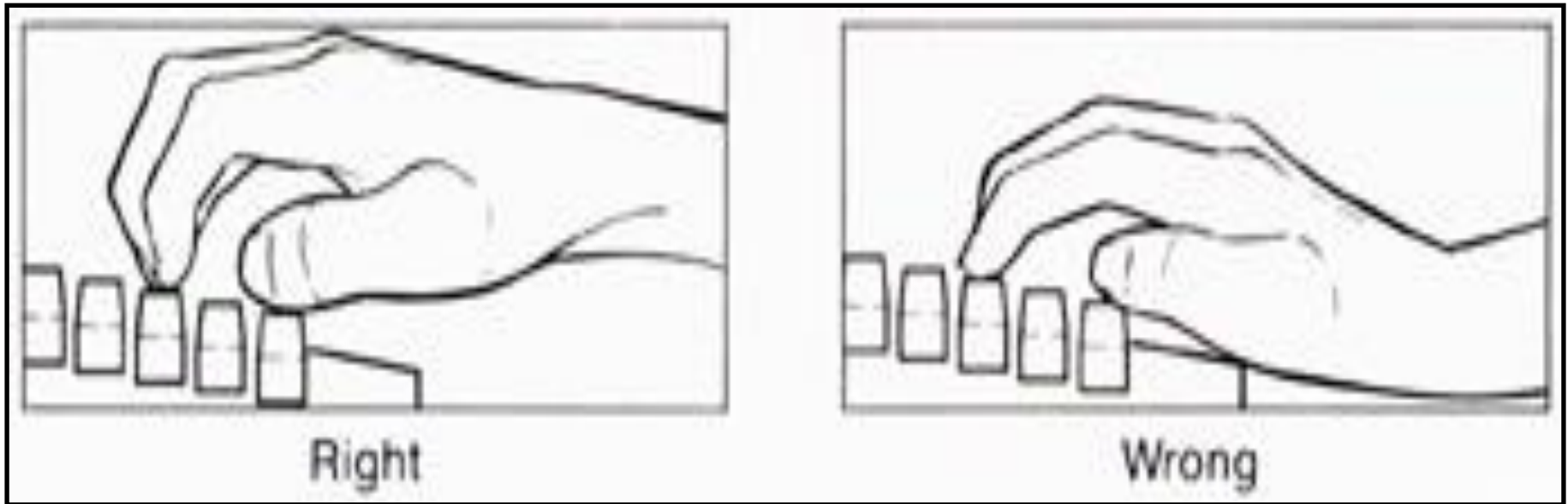**You can also move up or down with Page Up and Page Down.**

Home Row Keys Review

WHEN YOU ARE READY TO LEARN HOW TO TYPE EFFICIENTLY, START BY PUTTING YOUR FINGERS ON THE HOME ROW OF KEYS.

NOTE THAT THE "F" AND "J" KEYS ON THE HOME ROW HAVE SMALL BUMPS OR LINES ON THEM, SO YOU CAN BE SURE WHERE TO PUT YOUR INDEX FINGERS.

Posture & Position at the Keyboard

Right

Wrong

Wrists off the keyboard

If you really want to learn how to type faster, without looking at the keys, it takes some learning, patience, and practice. If so, outside of class, check out this good video :   https://edu.gcfglobal.org/en/typing/typing/1/

THE MOUSE

First, we'll learn how to use the mouse.

The mouse allows you to interact with the information on the screen, by moving the cursor arrow to different places on the screen.

Note that most people who use the mouse are right-handed.

About 10% of people are left-handed.

Changes can easily be made in the computer operating program, to make the mouse into a left-handed mouse so it can be placed on the left side of the keyboard.

If you are left-handed, ask your instructor to help you with this.

MOUSE TECHNIQUES
Using the mouse involves 5 techniques:

1. **Pointing**; Move the mouse to move the on-screen pointer.

2. **Clicking**; Press and release the left mouse button once.

3. **Double-clicking**; Press and release the left mouse button twice, with the 2 clicks made very fast

 2 easy ways to remember whether to click once or twice.

"Click it once; if nothing happens, click it twice"

For ICONS - double click.   For LINKS - single click

4. **Dragging**; Hold down the left mouse button as you move the pointer.

5. **Right-clickin**g; Press and release the right mouse button.

Scroll Wheel

Left Button

Right Button

Single-click to select an item or position the cursor.

Double-click to open or activate an item.

Click and hold, then drag to move an item (this is known as click-and-drag or drag-and-drop).

Single-click to display a context menu. The context menu will display options which are appropriate for you in the given context.
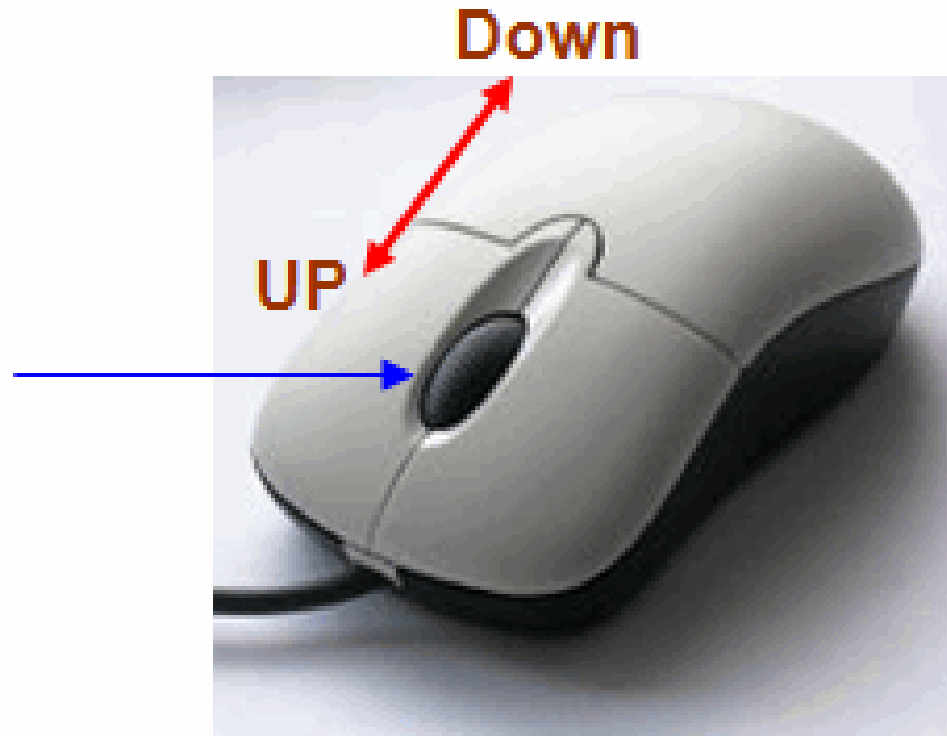
LEFT MOUSE BUTTON

For most things that you will do with the mouse or trackpad, you will use the left mouse button, to select and/or open an item, after you have pointed at it.

RIGHT MOUSE BUTTON

Sometimes, you will find it handy to **right-click** on a screen**.**
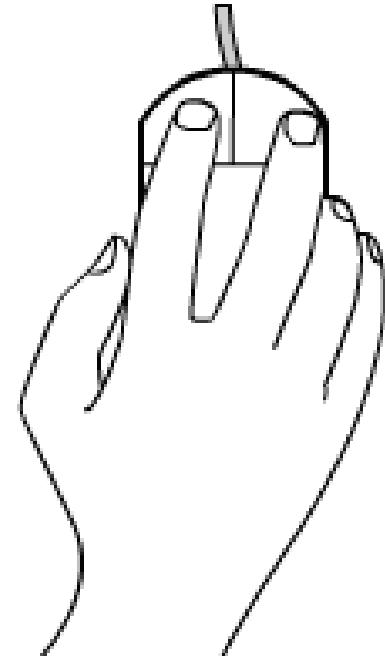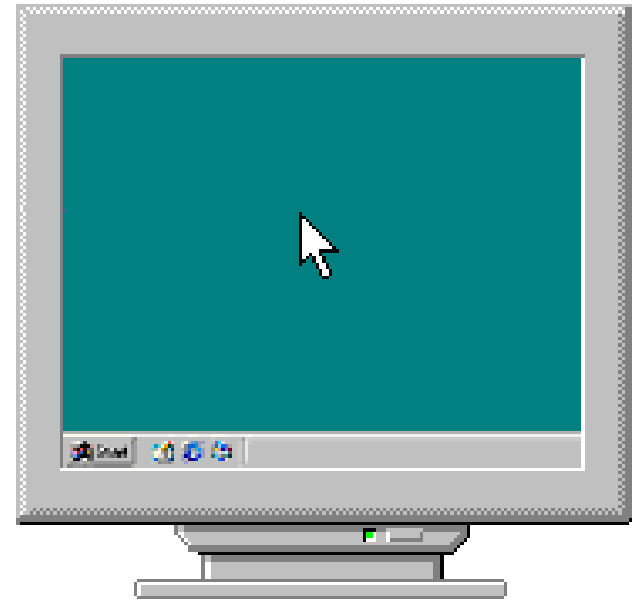
The mouse will usually have a "Scroll Wheel" in the top area. Rotate it with your index finger to move the page up or down for viewing (this is very useful when surfing in Chrome or other browsers).

Note that turning the mouse wheel down, will move the page up.

As a neat and fun tip, you can zoom the type or image on your screen by holding down the Control (Ctrl) key and then move the mouse wheel !!

• Take some time to become accustomed to moving your mouse around on the table or desk surface.

• Hold your mouse lightly on the sides and do not press down or click any of the controls.

• To move the mouse, gently *slide* it across the table surface.

Clicking and Dragging (also called Drag and Drop)

"Clicking and dragging" is a way to move certain objects on the screen and to highlight text or images.

Drag Me

To move an object, place the cursor over it, press and hold down the left mouse button, then move the mouse while still holding down the left mouse button. When you have "dragged" the object to the location you want, let go of the mouse button.

We can click and drag the red square on this page.

Which of these 2 Mousercise programs is the safest to use?

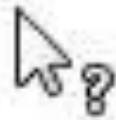MOUSERCISE
http://www.pbclibrary.org/mousing/mousercise.htm

https://www.seniornetli.org/content/mousing/mousercise.htm

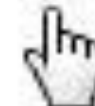|			
Normal Select		Text Select	
Help Select		Handwriting	
Working In Backgr.		Unavailable	
Busy		Vertical Resize	
Precision Select		Horizontal Resize	
Diagonal Resize 1		Alternate Select	
Diagonal Resize 2		Link Select	
Move			

www.Google.com

POINTING TO AN ACTIVE INTERNET LINK

INTERESTING KEYBOARD DESIGNS

OLDER MICROSOFT ERGONOMIC KEYBOARD AND MOUSE, WITH CORDS

NEWER MICROSOFT WIRELESS, ERGONOMIC KEYBOARD, MOUSE, AND SEPARATE NUMBER KEYPAD
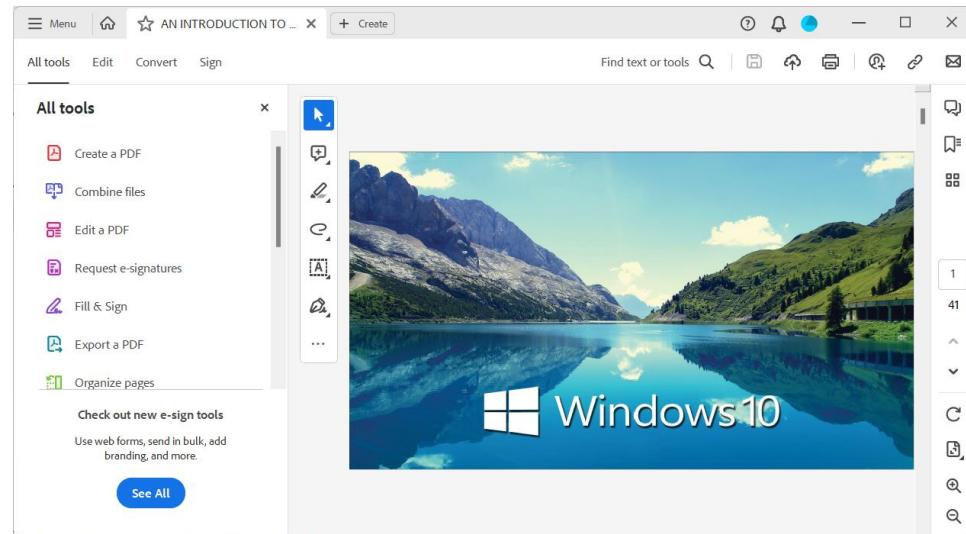
ADOBE PORTABLE DOCUMENT FORMAT (PDF)

PDF is an abbreviation that stands for Portable Document Format.

It's a versatile file format created by the Adobe company, that gives people an easy, reliable way to present and exchange text documents - regardless of the software, hardware, or operating systems being used by anyone who views the document.

It can easily be viewed using the free Adobe Acrobat Reader software.

If you don't have it in your computer, you can get the free Adobe PDF reader by typing in this link:

https://get.adobe.com/reader/

41

Good Working Postures

•**Hands, wrists, and forearms** are straight, in-line and roughly parallel to the floor.

•**Head** is level, or bent slightly forward, forward facing, and balanced. Generally, it is in-line with the torso.

•**Shoulders** are relaxed and upper arms hang normally at the side of the body.

•**Elbows** stay in close to the body and are bent between 90 and 120 degrees.

•**Feet** are fully supported by floor or footrest.

•**Back** is fully supported with appropriate lumbar support when sitting vertical or leaning back slightly.

•**Thighs and hips** are supported by a well-padded seat and generally parallel to the floor.

•**Knees** are about the same height as the hips with the feet

JOB WELL DONE !!!!

AND FINALLY, SOME COMPUTER HUMOR

49