

3

TOUCH TYPEWRITING

3.1 INTRODUCTION

In order to enhance operational skills in the use of computers, knowledge of efficient and effective keyboarding skills and typing ergonomics has become inevitable today. With consistent, sincere efforts and controlled environment, we can master keyboarding skills and acquire high speed. Keying data into the computer quickly and accurately, thus, becomes easy.

In the previous lesson, you have studied about various methods of typewriting. Now, we know that with Touch Method of Typewriting, there is no need to search the key while typing and one has to move only the finger which is needed to strike a key. In this lesson, we will study about various types of keys, typing ergonomics and positioning of fingers on the keyboard according to Touch Method of Typewriting and use of typing software for learning keyboarding skills.

3.2 OBJECTIVES

After going through this lesson, you will be able to:–

- know the different types of keys available on computer keyboard
- understand typing ergonomics
- identify positioning of fingers on the keyboard
- carry out speed development exercises to acquire high speed
- practice on typewriting tutor software

3.3 LEARNING COMPETENCIES

After going through this lesson, you will be able to attain the following competencies:–

- familiarize yourself with different types of keys on computer keyboard
-

- operate the computer keyboard speedily and accurately
- key data on numeric keypad efficiently
- develop ability to use typing tutor software

3.4 TYPES OF KEYS

Though there are several input devices viz. mouse, touch screen, character/voice recognition etc. used for giving input to the computer, yet the use of keyboard is the most common method adopted for input of data into a computer.

Commonly, a computer has a keyboard that looks like a typewriter keyboard. However, a computer keyboard contains additionally certain keys which are also used to give commands to the operating system of a computer.

A computer keyboard contains the following types of keys:

- **Alphanumeric Keys**

These keys contain letters and numbers on the keyboard. These keys are:

A-Z for alphabets, and 0-9 for numbers.

- **Punctuation keys**

The keys used for inserting various punctuation marks are period (full stop), comma, semicolon, brackets, apostrophe, parenthesis etc. Also, it includes all of the mathematical operators such as the plus sign, minus sign, and equal sign.

- **Special keys** Understanding the keyboard also means learning the special functions of certain keys. Commonly used special keys are explained as under:

Ctrl Key: The full form of Ctrl is Control. This key is used in combination with other keys. For example, Ctrl+S to save a document.

Alt Keys: The full form of Alt is Alternate. It is used like a control key. You depress Ctrl+Alt+Del simultaneously when you want to get out of computer as the application on which you are working is held up or muddled up.

Arrow Keys: There are normally four arrow keys to move the cursor - up, down, right or left. The Arrow Keys can also be used in conjunction with the Shift or Alt keys.

Function Keys: Normally located as first row from the top, these keys are marked as F1 to F12.

Enter Key: Also called Return Key. It is used to move the cursor to the beginning of the next line and give line spaces.

Backspace Key: This key deletes the character just left to the cursor position and hence moves the cursor to that position.

Delete (Del) Key: This key deletes the character to the right at the current cursor position or the selected objects.

Shift Keys: There are two shift keys provided on both sides of the keyboard for typing capital letters and upper case signs. (Lower case characters are small letters and characters shown on the lower left side of a key while upper case characters are capital letters and characters shown on the upper left side of a key).

While following Touch Method of Typewriting, if any upper case character letter of the left hand side is to be typed, then right side shift key is to be depressed with the little finger of the right hand and if right hand upper case characters are to be typed, then the left hand shift key is to be depressed with the left hand little finger.

Caps Lock: It is a toggle key that helps in typing many uppercase characters.

Esc Key: It means Escape which is used to exit (or escape) from programs and tasks and send special codes to different devices.

- **Numeric Keypad**

Numeric keypad is used when enormous numeric data is to be entered. This keypad, just like a simple calculator, is normally located on the right hand side of computer keyboard. It contains numbers 0 to 9, addition (+), subtraction (-), multiplication (*) and division (/) symbols, a decimal point(.) and Num Lock and Enter keys. Numeric keypad may also work on dual mode. On one mode, it represents numbers and on the other mode, it contains various keys like arrow keys, page up, page down, etc. Num



Fig. 3.1 : Numeric Keypad

Lock is provided to switch between the two modes. Usually, the keyboard of Laptop do not have numeric keypad.

- **Home Keys**

As already explained in the previous lesson, home keys and guide keys are used in Touch Method of Typewriting. On a QWERTY keyboard, the eight fingers of both the hands rest on Home Keys during the course of keyboard learning. Alphabets ASDF are home keys for the left hand and; (semi-colon) LKJ for the right hand. The fingers are trained to make the correct movement to other keys and each finger returning immediately to its respective home key after it has depressed the corresponding key in any other row.

- **Guide Keys**

On a computer keyboard, keys ‘F’ and ‘J’ are called guide keys for left and right hand respectively. Both contain a small raised tangible mark with the help of which the touch typist can place the fingers correctly on the home keys.

On a typewriter, the two keys ‘a’ and ‘(semi-colon) ;’ are called guide keys which are depressed with left and right hand little finger respectively. Initially we place the little finger on these keys thus guiding the placement of rest of the fingers on home keys.

A diagram showing the position of fingers of both hands on the Home Row is given below:

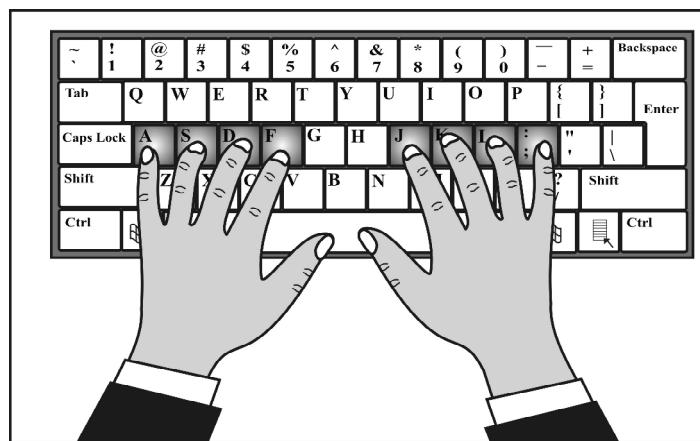


Fig. 3.2 : Position on Home Row

DO YOU KNOW?

Graphic tablets is an easy to use combination of cordless, pressure-sensitive pen, a tablet and software that helps one to write and draw freehand graphic and text as we work on paper.

3.5 TYPING ERGONOMICS

Typing Ergonomics are the factors which provide logistic support and comfort to do a typewriting job efficiently and effectively. They are important as the position adopted when operating a computer keyboard has an important bearing on the degree of accuracy and speed one is able to attain and maintain. Some of these factors included are given as under:

3.5.1 Sitting Posture: While operating computer keyboard, you should sit straight, slightly bending your neck forward. Be comfortable and there should be no tension in the body. The lower portion of your back should touch the lower portion of the back rest of the chair. Both of your feet should touch the floor. When typing, you should not cross your legs. There should be a distance of approx. 15 cms between two knees. Knees should be bent at 90 degree angle.

3.5.2 Position of Hands: Your forearms should be at level with the keyboard and palms down. Keep your wrists straight. The shoulders and elbows should hang naturally. The elbows should neither touch the body nor be too far away from the body. Elbows should also be bent at 90 degree angle.

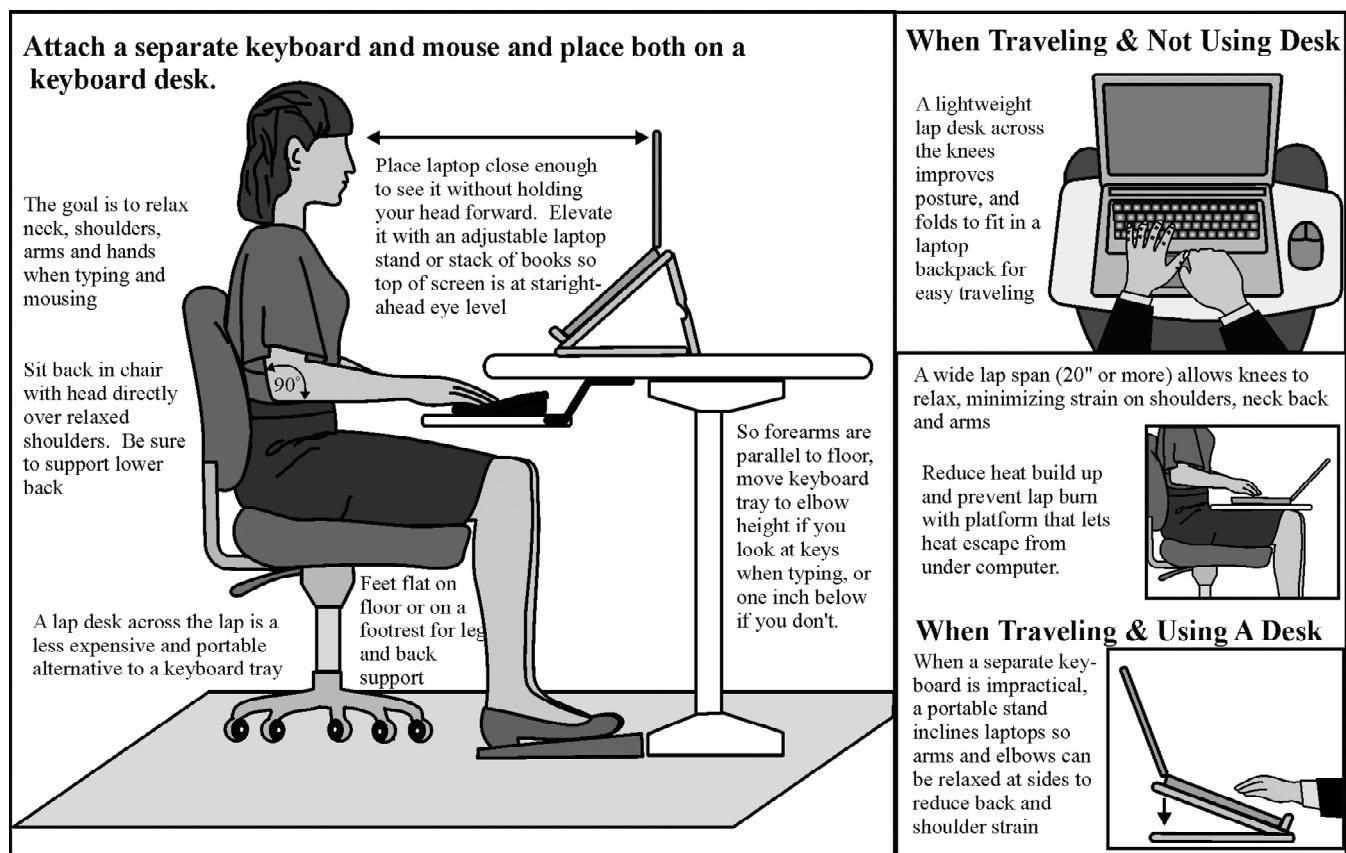


Fig. 3.3 : Typing Ergonomics

3.5.3 Monitor Placement: The close proximity of your monitor may lead to headaches, tense neck muscles, eyestrain etc. You should not bend your neck while working on the monitor and the upper border of screen should be at eye level. The distance of screen from the user depends on the size of screen. Approximate distance is 60 cms for 17 inches screen.

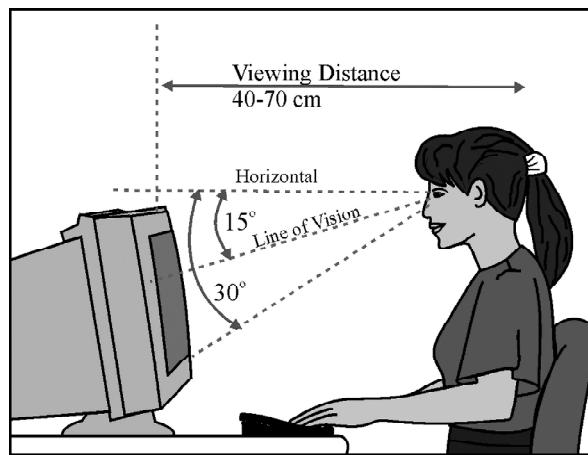


Fig. 3.4 : View distance from monitor

3.5.4 Mouse and Keyboard Placement: Keep your keyboard and mouse close together. The user should have an approximate distance of 20 cms from the keyboard, which will help in smooth and effortless operation of keyboard. Same height of keyboard, mouse and elbows helps the users to work comfortably.

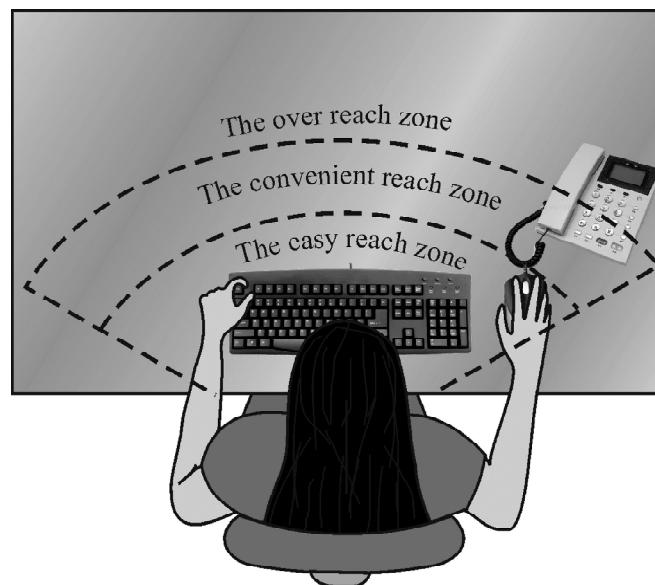


Fig. 3.5 : Placement of mouse & keyboard

3.5.5 Chair and Table: Both computer user's chair and table should be adjusted to an optimal height. Chair of computer user must be supportive of his lower back. Upholstery of chair should have a non-slip material. Keyboard and vibrating devices like printers should be on separate tables. Computer table should also have sufficient space for your legs.

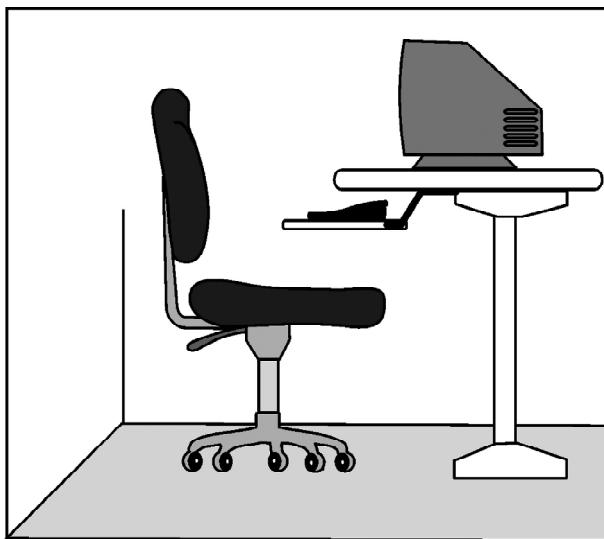


Fig. 3.6 : User's chair and table

Once an ergonomically correct workstation is ensured, typewriting effectively and efficiently becomes a natural phenomenon without causing unnecessary fatigue.

3.5.6 Placement of Matter to be Typed: In case you need to copy matter while typing, it may be either placed left or right to the keyboard preferably on a Copy Holder which has a sloping surface.

BALANCE BETWEEN MOVEMENT AND STABILITY

To avoid occupational hazards, it is important that you maintain balance between movement and stability of eyes, fingers, body, hands, back and shoulders.

3.6 POSITIONING OF FINGERS ON THE KEYBOARD

As typing is equivalent to pen or pencil now-a-days, mastery of computer keyboard has become obvious. Mastery typewriting skills means to attain necessary knowledge and skill of keyboard operation by correct positioning of fingers.

Here, we will discuss the Touch Method of Typewriting on QWERTY Keyboard Layout.

Specimen of QWERTY Layout is given as under:



Fig. 3.7 : Qwerty keyboard

In the Home Row Approach, also called Horizontal Approach, all the eight fingers of both the hands rest on Home Keys during the course of the keyboard operation. The fingers are trained to make the correct movement to the other keys in such a way that each finger return immediately to its home key after it has depressed the corresponding key in any other row.

The thumb of right hand is used to operate Space Bar.

The keyboard learning process starts from the second row (Home Row) followed by the Third Row (Upper Row), First Row (Bottom Row) and the Fourth Row (Number Row). The fingers of both the hands have to operate the keys allotted to them on each row. It must be remembered that each finger has to operate only the key allotted to it. The process of allocation of different keys to different fingers on different rows is discussed below:

3.6.1 Allocation of keys to fingers on the Second Row (Home Row)

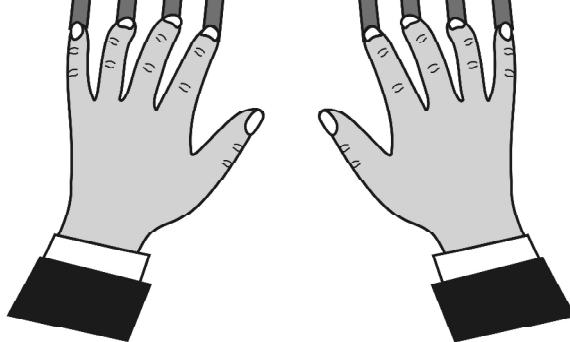
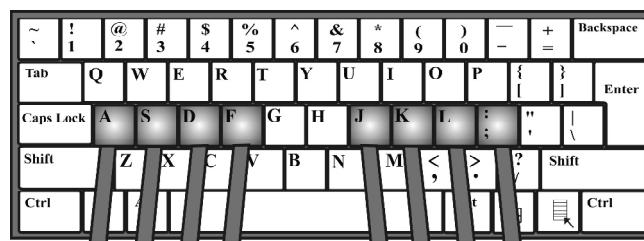


Fig. 3.8 : Positioning of fingers on Home row

Place four fingers of each hand on Home Keys as shown above. The remaining two keys 'g' and 'h' on the second row are operated by the forefingers (Index Finger) of left and right hand respectively. In other words, finger allocation is given as under:

| Home Row - Left Hand | | | | |
|-----------------------------|-----------|-----------|-----------|-----------|
| LF | RF | MF | IF | IF |
| A | S | D | F | G |

| Home Row - Right Hand | | | | |
|------------------------------|-----------|-----------|-----------|-----------|
| IF | IF | MF | RF | LF |
| H | J | K | L | ; |

IF = index finger (forefinger)

MF = middle finger (second finger)

RF = ring finger (third finger)

LF = little finger (small or pinky finger)

Now, depress the following:

asdfg ;lkjh

Exercise No. 1

Instructions:

1. Type the following in double line spacing to get perfection over the Home Row.
2. Do not look at the keyboard.
3. Each letter should come beneath the other.
4. Concentrate your mind on the text.
5. Typing should be done quite accurately with constant rhythm.
6. Repeat this process until mastery over this exercise.

asdfg;lkjh asdfg;lkjh asdfg;lkjh asdfg;lkjh asdfg;lkjh asdfg;lkjh
 fads lall dask sad slak flask fads lall dask sad slak flask
 fads lall dask sad slak flask fads lall dask sad slak flask
 fads lall dask sad slak flask fads lall dask sad slak flask
 fads lall dask sad slak flask fads lall dask sad slak flask

Undertake repeated practice of typewriting the characters on the Home Row without looking at the keyboard.

3.6.2 Allocation of keys to fingers on the Third Row (Upper Row)

The next step is learning the key-reaches from the Home Row to the row above it. The learning begins with the reaches from ‘a’ to ‘q’ by left hand little finger and from ‘;’ to ‘p’ by right hand little finger. This is followed by the placement of the third fingers (Ring fingers) to the adjoining keys ‘w’ and ‘o’ and so on. In the third row, the allotment of fingers is explained below:

| Third Row - Left Hand | | | | | Third Row - Right Hand | | | | |
|-----------------------|----|----|----|----|------------------------|----|----|----|----|
| LF | RF | MF | IF | IF | IF | IF | MF | RF | LF |
| Q | W | E | R | T | Y | U | I | O | P |

While typing on the upper row, keep fingers on home row. Lift fingers of left hand and strike upper row key one by one and type:

q w e r t (r and t are typed by the same finger)

Now, lift again the fingers of right hand and strike upper row keys one after another and type

p o i u y (u and y are typed by the same finger)

You should ensure that one finger should move at a time, while other fingers should remain on home row.

3.6.3 Allocation of Keys to Fingers on the First Row (Bottom Row)

After learning how to operate keys on Home Row and Third Row, the next step is to learn how to operate keys on First Row. Keys Z, X, C, V, B, N, M, Comma, Full Stop and ‘/’ sign are located on this row.

Exercise No. 2

Instructions:

1. Type the following words and sentences in double line spacing to practice the Upper Row of the keyboard:
2. Leave two line spacing.

*qwerty poiuy qwerty poiuy qwerty poiuy qwerty poiuy qwerty
poiuy qwerty poiuy post quite type quay pole ripe hope wait role
what show flow goal wool post quite type quay pole ripe hope
wait role what show flow goal wool self help is the order of the day.
self help is the order of the day the writer was happy, the writer was
happy.*

In the earlier two rows, all the eight fingers of both the hands were used to operate the keys.

But while typewriting on the First Row, little finger of left hand is not used i.e. no key is assigned to it. So, from the Home Row, turn downward the Ring Finger of left hand and strike key 'z'. Similarly, type keys 'x' and 'c' with middle and forefinger respectively. Type full stop, comma, m, n with little, Ring, Middle and forefinger of right hand respectively, which will appear as given below:

z x c . , m n

Alphabets 'v' and 'b' are to be typed with forefinger of left and right hand respectively.

Allocation of keys on bottom row is depicted below:

| Bottom Row - Left Hand | | | | |
|------------------------|----|----|----|----|
| LF | RF | MF | IF | IF |
| - | Z | X | C | V |

| Bottom Row - Right Hand | | | | |
|-------------------------|----|----|----------|--------------|
| IF | IF | MF | RF | LF |
| B | N | M | ,(Comma) | .(Full stop) |

Exercise No. 3

Instructions:

1. Type the following words in double line spacing to practice the Bottom Row of the keyboard:
2. Leave two line spacing.

game roxy time taxi mind camp jump lazy, size; zeal, haze, zone; zinc.

game roxy time taxi mind camp jump lazy, size; zeal, haze, zone; zinc.

on, no, man, can, child, chalk, number, member, remember, general
on, no, man, can, child, chalk, number, member, remember, general

3.6.4 Allocation of keys to fingers on the Fourth Row (Number Row)

In this row, type 1, 2, 3 with little, Ring and Middle Fingers of Left Hand respectively and 4 and 5 with Index Finger (Forefingr). Similarly type 0, 9, 8 with little, Ring + Middle Fingers of Right Hand respectively & 7 and 6 with Index Finger (Forefingers).



| Number Row - Left Hand | | | | | Number Row - Right Hand | | | | |
|------------------------|----|----|----|----|-------------------------|----|----|----|----|
| LF | RF | MF | IF | IF | IF | IF | MF | RF | LF |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 |

3.7 USING NUMERIC KEYPAD

Efficient and effective use of numeric keypad is quite important when a lot of numeric data is to be inserted.



| Number Row (Right Hand) | | | |
|-------------------------|----|----|-------|
| RF | RF | MF | IF |
| / | * | - | |
| 7 | 8 | 9 | + |
| 4 | 5 | 6 | |
| 1 | 2 | 3 | Enter |
| 0 | | . | |

Here, we will learn numeric keypad which has four columns and five rows. The row which has 4, 5, 6 and + is called Home Row. This is the row which is initially practiced by a touch typist. The allocation of keys on this row is as given in the following table:



Fig. 3.9 : Positioning of fingers on Number row

On a numeric keypad also we have guide key which is number 5. It has a small raised tangible mark which serves as guide for the touch typist in the placement of fingers on other keys.



Fig. 3.10 : Guide key on Numeric keypad

The allocation of rest of the keys on numeric keypad is:

The 0 is to be depressed by the right hand thumb.

One can also make use of calculator keyboard for numeric keypad practice.

3.8 SUCCESSFUL KEYBOARDING TIPS

Following are certain points to remember for successful keyboarding techniques:

- a) Press the keys with feather touch and do not put undue pressure.
- b) While typing, rest your fingers on home row.
- c) Let your fingers naturally fall on the keys so that each rests on top of the next key along the same horizontal row.
- d) While typing, release the key immediately as soon as you depress it. If a particular key is not released immediately and held down for long, the key will repeatedly type the same character.
- e) While learning the keyboard, do not look at the keyboard.
- f) Try to maintain rhythm while typing. It means pressing the keys with equal intervals of time.
- g) Press the keys only with the fingers allotted for them.

- h) While depressing a key, speak the requisite alphabet or number whatever may the case in your mind quietly.
- i) Relax. Avoid any type of mental stress while typing.
- j) Secure typing ergonomics.
- k) At initial stages, mistakes are bound to happen. So, maintain patience.
- l) Be consistent with your practice.
- m) Speed and accuracy, both are equally important. You should not sacrifice accuracy for speed.

To gain mastery of computer keyboard, undertake repeated practice of typewriting words, sentences, passages and figures without looking at the keyboard.

3.9 USE OF TYPING SOFTWARE

There are many such software available which are free of cost and are customized to learn typing efficiently and effectively.

REMEMBER, THREE GOLDEN RULES OF GAINING
MASTERY OF KEYBOARD

PRACTICE, PRACTICE AND PRACTICE

Besides lessons on touch typing techniques step by step on on-screen keyboard, typing software also provide typing games, multi-user support, method of spotting errors and their rectification etc. There is a facility of goal setting at an individual level depending on one's performance besides maintaining personal performance statistics. On the basis of progress, the learning pace can be adjusted which is quite a personal approach.

Above all, there appears to be a wizard available all the times to guide the learner through the lessons. Practice of keyboarding skills can be done as per learner's convenience thus saving a lot of time and energy. Use of typing software are designed in such a way that the learner does not require any additional technical knowledge of computer, which makes it easy for learners to use the same confidently.

Typing Trivia

- “*Stewardesses*” is the longest word typed with only the left hand and “*lollipop*” with your right.
- The sentence: “*The quick brown fox jumps over the little lazy dog*” uses every letter of the alphabet.
- *TYPEWRITER* is the longest word that can be made using the letters only on one row of the keyboard.
- The only 15-letter word that can be spelled without repeating a letter is “*uncopyrightable*.”
- No word in the English language rhymes with *month*, *orange*, *silver*, or *purple*.
- There are two words in the English language that have all five vowels in order: “*abstemious*” and “*facetious*.”

To keep a check on your speed and accuracy, set your targets for every day and for every week.

Measure your performance regularly in the form of a chart till you achieve your set goal. (The method of measurement of Gross Speed and Net Speed is discussed in the next lesson).

3.10 LET'S SUM UP

Keyboard is the most common method adopted for input of data into a computer. Knowledge of keyboarding skills and typing ergonomics has become inevitable today. Computer keyboard contains the various types of keys viz. Alphanumeric Keys, Punctuation Keys, Special Keys, Numeric Keypad, Home Keys, Guide Keys etc. Typing Ergonomics help a typist in securing a comfortable position besides enhancing efficiency. Attaining necessary knowledge and skill of keyboard operation is obtained by correct positioning of fingers on the keyboard. Successful keyboarding techniques helps the learner to work speedily to attain targets. Now-a-days, use of typing software is common to learn keyboarding skills and develop typing speed.

3.11 TERMINAL QUESTIONS

1. Discuss the various types of keys available on a computer keyboard.
2. Differentiate between Home Keys and Guide Keys.
3. What do you understand by Guide Keys? Name the Guide Keys of :
 - (a) Computer keyboard
 - (b) Typewriter
4. Explain the role of typing ergonomics.
5. Why the use of various typing software is common now-a-days?
6. Mention the finger allocation of keys of Bottom Row of computer keyboard.

3.12 EXTENDED LEARNING

1. Make Flash cards of common words consisting of two, three and four letters and use them while typing practice. It helps to type common words quickly at one go.
2. Develop your own articles on various topics like sports, education, fashion, movies etc. and use them as practice passages for developing typing speed.

TRY IT OUT

Suppose you are Office Manager in an organization and take a decision regarding purchase of ergonomic chairs and ergonomic keyboards for your department. Make a market survey and log on to the websites in this regard. Make a comparative analysis of features of any four models of keyboards and chairs taking into account their various good and bad features. Suggest which one you would buy in each case?

3.13 CHECK YOUR TYPING ERGONOMICS

1) Do you sit in the correct Posture while working on Computers?

Yes No

2) Is your desk and chair ergonomic, and if not, have you adjusted them?

Yes No

3) Are your Computer Table, Mouse, Keyboard placed in correct position?

Yes No

4) Is your computer/Laptop correctly placed on your desk ?

Yes No

5) Have you arranged your tools on your desk to prevent twisting and reaching?

Yes No

3.14 REFERENCES AND WEBSITES

- Principles of Typewriting by D.P. Bhatia & S S Sangal by Pitman S S Publications.
- How to Learn Typewriting by Dr R C Bhatia, G Lal & Co.
- Learning to Touch-Type by Shlomo Perets, MicroType
- Touch Typing Made Simple by Lillian S. Mark
- List of Free Touch Typing Software and Online Resources

Title

10 Finger BreakOut

Analytical Eye Typing Tutor

a Type Trainer4Mac

Bruce's Unusual Typing Wizard

Gabe's TypOmeter

kbTrainer

KeybLaze Typing Tutor
Kiran's Typing Tutor
Klavaro Toiuch Typing Tutor
KTouch
Max Type LITE Typing Tutor
Rapid Typing Tutor
Speed Typing
Stamina Typing Tutor