

# Easy Steps



## **Unit 101 (v6)**

**Develop and use keyboarding skills  
to enter text**

*with*

**Microsoft Word 2013**

- ☒ Easy to follow
- ☒ Step-by-step instructions
- ☒ Covers Unit Standard Criteria

*A Cheryl Price Publication*

## **Unit Standard 101 (Version 6)**

### **Develop and use keyboarding skills to enter text - Word 2013**

This book covers the course outline for the following New Zealand Qualifications Authority Unit Standard:

Unit Standard 101 - BUSINESS INFORMATION PROCESSING (Level 1, Credit 3)  
Develop and use keyboarding skills to enter text (Version 6)

Bold, underlining and centring are not topics actually specified in Unit Standard 101 but have been added at the end of this Unit Standard 101 workbook.



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It is recommended that defaults are changed according to instructions on page ix.

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All topics in this Unit Standard are included in this book.

This book has been written using Microsoft Word 2013 with Windows 8.

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# Introduction

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Welcome to Unit Standard 101 v6 Develop and use keyboarding skills to enter text with Microsoft Word 2013.

This book has been written using Microsoft Word 2013 with Windows 8. (The Windows 7 operating system can be used. However screen shots will differ slightly from those shown in this book.)

## Default Settings

Before commencing this course you will need to check (and amend if necessary) the default settings for Word 2013 as described on pages ix to xi. This will ensure that all exercises and instructions in this book will work exactly as they should.

## What you will learn

In this course you will learn how to -

- use the correct fingers on the keyboard to key in alpha and numeric text
- sit properly at your workstation
- apply good ergonomic procedures
- care and maintain your workstation.

## How you will learn

This book is divided into sections. Each section page lists the learning outcomes for that section. You will work through each section and do all exercises (or those instructed by your tutor).

Revision theory is included at the end of the section followed by a Practice Assessment. Our books include accumulation and consolidation of learning which carries across each section.

After you have completed the book your tutor will give you the actual Unit Standard Assessment.

## Word meaning boxes

Sometimes you will see a box at the left side of the page of a line that has dotted underlining. This box will contain information to help you understand the meaning of the underlined word (or how that word is formed). An example is shown below.

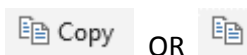
<p><b>forecast</b> = to calculate a future result</p>
---

Data can therefore be altered to re-calculate budgets and to forecast results using different sales figures. Worksheets can be saved, opened and printed as required.

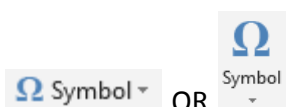
## Different Word buttons

Depending on the size of your Word screen buttons on the ribbon may vary to those shown in this book. The icon with the word of that feature may show, or the icon only.

For example, the Copy button in the Clipboard group on the Home tab may be displayed in either of the following ways.





The Symbol button can show as either -



## Shortcut keys

Shortcut keys are indicated in the left margin, usually the first time they are used. An example follows.

Ctrl S

- 1 Click on the Save button  on the Quick Access Toolbar .
- 2 Type a file name for your document then click on Save.

## Glossary

Generally when a word(s) is first used that is a technical term or a word that you may not know that relates to an exercise, or a particular Word 2013 feature, a description is given. You will also see that such words are in **bold**.

These terms are listed on each section page, an example is shown below. Explanations are also included in the Glossary at the end of the book.



*In this section you will come across the following words highlighted in bold. This indicates that the word is included in the Glossary at the end of the book together with a description of that word.*

**AutoCorrect**  
**Clipboard**  
**Correction Signs**  
**Cut**  
**Drag and Drop**  
**Find**

**Format**  
**Microsoft Office Help**  
**Move Text**  
**Navigation Pane**  
**Proof-reading**  
**Redo**

**Replace**  
**Selecting Text**  
**Synonyms and Thesaurus**  
**Typing Replaces Selection**  
**Undo**

## Icons used in this book

---

This book contains icons to help guide you in your learning.

The following list shows the icon and its meaning.



### **Learning Outcomes**

Learning Outcomes are displayed on the section page and describe what you will learn in that section.



### **EXERCISE 1**

These are the exercises that you are required to do. Often there will be an introduction sentence to tell you what you will be doing in that exercise.



These are notes for your information.



### **Revision**

---

This appears at the end of each section and contains theory revision questions relating to features learnt in that section.



### **Practice Assessment**

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Each practice assessment covers consolidation of topics learnt in that section and provides practice for students prior to sitting the actual Unit Standard Assessment.


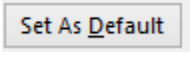


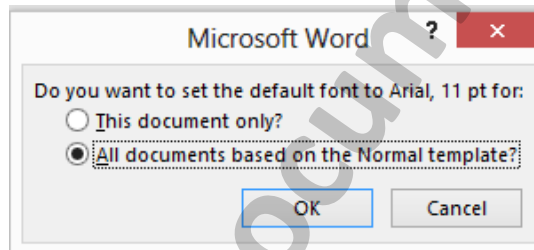
## Changing Defaults

Default settings may have already been changed in your Word 2013 program. If not, you can use the following instructions to change these.

### Font and Font Size

You can check if the font and font size have been changed by looking at the Font box on the **HOME** tab. If it shows **Calibri (Body)** **10** then it has not been altered. Change the default font to Arial 11 pt as follows:

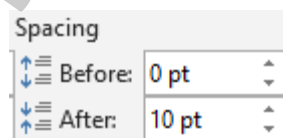
- 1 Click on the Font Dialog Box Launcher  which will display the Font dialog box.
- 2 Change the Font: to Arial and the Size: to 11 pt.
- 3 Click on .
- 4 Ensure the following option is selected for the font to be applied to *All documents based on the Normal template*.




- 5 Click on OK.

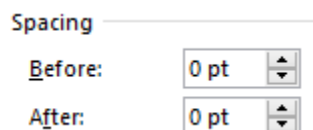
### Spacing

- Click on the **PAGE LAYOUT** tab and if 10 pt Spacing After is displayed as shown below then this has not been altered. (Use the instructions below also if 8 pt After is displayed.)




Remove 10 pt spacing as follows.

- 1 Click on the Paragraph Dialog Box Launcher  which will display the Paragraph dialog box.
- 2 Change the Spacing After: to 0 pt as shown below.




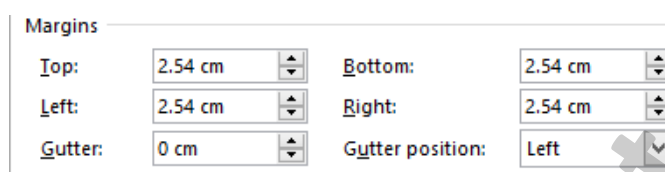
- 3 Click on .
- 4 Ensure *All documents based on the Normal template* is selected then click on OK.

## Margins

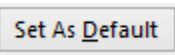
- On the **PAGE LAYOUT** tab click on the Page Setup Dialog Box Launcher  which will display the Page Setup dialog box.

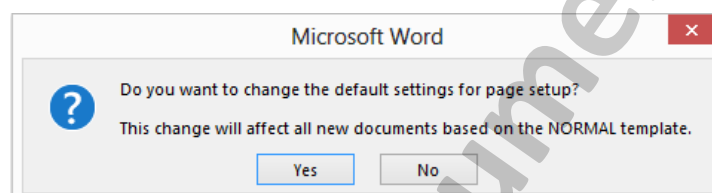
If margins are displayed as 3.17 cm change them as follows. (If they have been changed to those shown below click on Cancel.)

- 1 The Top: margin will be selected, ie **Top:** . Type: **2.54** then press the Tab key. Repeat this until the margins are displayed as shown below.



Margins	
Top:	2.54 cm
Bottom:	2.54 cm
Left:	2.54 cm
Right:	2.54 cm
Gutter:	0 cm
Gutter position:	Left

- 2 Click on .

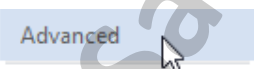


- 3 Click on Yes.

## Bullets and Numbering

When bullets and/or numbering are inserted in Word 2013 a style is applied to these features. This can prevent spacing before and after, or spacing options to be used with the Line and Paragraph Spacing button.

You will therefore change bullets and numbering to be applied using the Normal style as follows:

- 1 Click on the **FILE** tab and select **Options**.
- 2 Click on  at the left.
- 3 Ensure a tick is displayed in the following ☒ Use **N**ormal style for bulleted or numbered lists.
- 4 Click on OK.

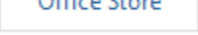
## Dictionary

Microsoft Office 2013 does not have an inbuilt dictionary. We recommend that you download the Bing Dictionary as instructed below.

(If another dictionary has already been added captures in our Word 2013 books will be very similar but may not be exactly the same.)

You will need to be connected to the Internet to be able to download the dictionary and to use it.

- 1 Click on the **INSERT** tab then click on .

- 2 In the Apps for Office dialog box click on  which will take you to the Microsoft Apps Store.

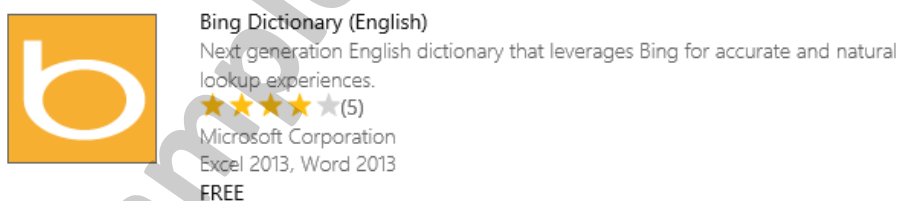
(If other apps have been installed you need to click on  Find more apps at the Office Store .)

- 3 In the Search box at the top of the window type **dictionary** as shown below.




- 4 Click on the Search button .

- 5 Click on the following dictionary which we have selected because it is FREE and has the highest star rating. It can also be used in Excel 2013.



- 6 Click on  then on .



The Bing Dictionary will now show on the  button and will be used for spelling and grammar checking, synonyms and thesaurus.

## Save Options

When a document is saved you will be requested to select the location, ie Computer then click on the Browse button and select the folder required. You can eliminate this procedure by selecting the location and saving directly to the Save dialog box and therefore bypass Backstage view.

For the purposes of this book we have used My Documents folder as the default folder. This means that files you open and save will be on your hard drive.



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If you wish to open and save files to SkyDrive (ie the cloud) use instructions on the next page.

---

Use the following instructions to specify My Documents as the default file location:

- 1 Click on the **FILE** tab then click on **Options**.
- 2 Click on **Save** at the left.
- 3 Ensure that the Documents folder is displayed as the Default local file location as shown below.
- 4 Also ensure that *Don't show the Backstage when opening or saving files* option displays a tick.
- 5 Remove the tick from the next option *Show additional places for saving, even if sign-in may be required*.

- ☒ Don't show the Backstage when opening or saving files
- ☐ Show additional places for saving, even if sign-in may be required.
- ☐ Save to Computer by default

Default local file location:

C:\Users\Cheryl\Documents\

Browse...

- 6 Click on OK.

## SkyDrive

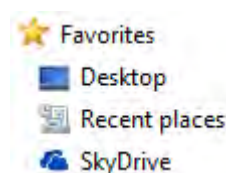
SkyDrive is a cloud storage application from Microsoft. It is one of the major online file storage options competing with Dropbox and Google Drive.



Because files are stored “in the cloud” it means that you can access those files from anywhere in the world because you will always have access to the SkyDrive application and your files. You do however need an Internet connection to be able to update those files.



### Saving to SkyDrive


SkyDrive is automatically set up when Microsoft Office 2013 (ie Office 365) is installed on your computer. A SkyDrive folder will be displayed on the Navigation Pane in Windows Explorer as shown at the right.



Files can be saved manually by clicking on the Save button  on the Quick Address Toolbar, specifying a name for your file then clicking on the  SkyDrive icon (you may wish to double click on Documents and save to that folder).

### SkyDrive as the Default File Location

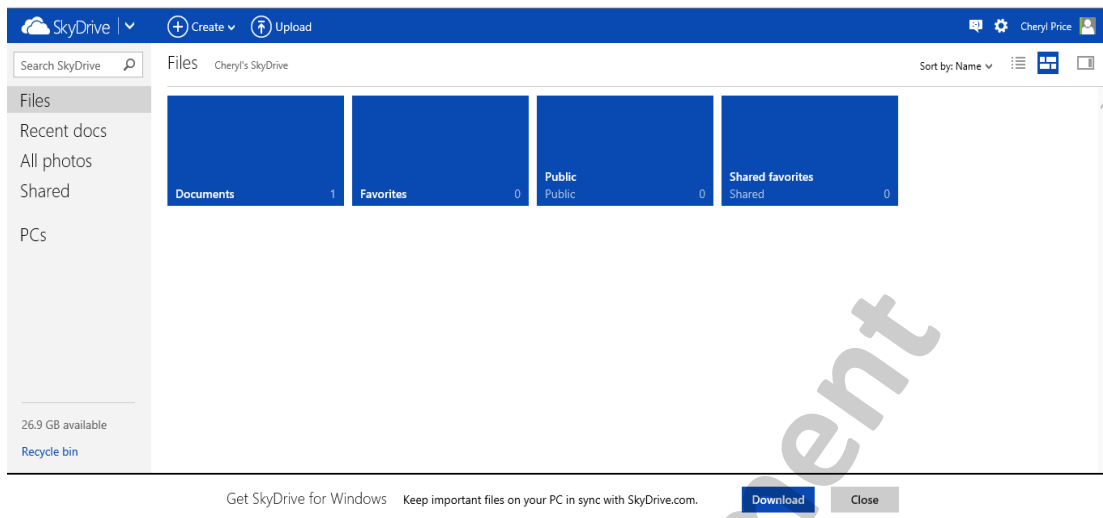
Use the following instructions if you wish to specify SkyDrive as your default file location.

- 1 Click on the **FILE** tab then click on **Options**.
- 2 Click on **Save** at the left.
- 3 Ensure that the Documents folder is displayed as the Default local file location as shown below.
- 4 Also ensure that *Don't show the Backstage when opening or saving files* option displays a tick.
- 5 Remove the tick from the next option *Show additional places for saving, even if sign-in may be required*.
- 6 Click on **Browse...** at the right of *Default local file location:* and select  SkyDrive .  
☒ Don't show the Backstage when opening or saving files  
☐ Show additional places for saving, even if sign-in may be required.  
☐ Save to Computer by default  
Default local file location:  **Browse...**
- 7 Click on OK.

## SkyDrive Website

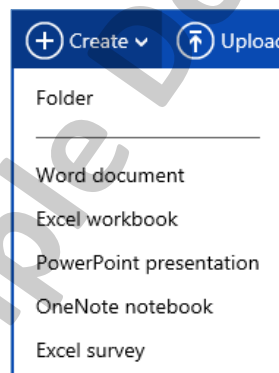
You can log in to the SkyDrive website using your web browser with your login name and password.

The website is [www.skydrive.live.com](http://www.skydrive.live.com).



You can upload photos and use files and share files.

New files can be created through SkyDrive by clicking on the **Create** button and selecting the program you wish to use, eg Word (web applications in SkyDrive are slightly cut-down versions of Office 2013 programs).



## Sharing Files

From within Word 2013 you can save files to SkyDrive (usually to the Documents folder). You can then click on the **FILE** tab, on **Share** and invite people to share files in SkyDrive. (For further information click on the Help button **?** in the Share screen.)

Alternatively, you can right click on a file in the SkyDrive website (see above) and select Sharing.

Use Google in your web browser to search for additional information on SkyDrive.

# NZQA Outcomes and Evidence Requirements

## Unit Standard 101 Version 6

<b>Title</b>	<b>Develop and use keyboarding skills to enter text</b>		
<b>Level</b>	<b>1</b>	<b>Credits</b>	<b>3</b>

<b>Purpose</b>	<p>This unit standard is for people who wish to develop basic keyboarding skills for employment or education.</p> <p>People credited with this unit standard are able to: develop keyboarding techniques to key in alpha and numeric text, and symbols or special characters, using a standard alphanumeric keyboard; and demonstrate keyboarding techniques to avoid overuse injuries and explain concepts of ergonomic practices and workstation care and maintenance.</p>
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<b>Classification</b>	Business Administration > Business Information Processing
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<b>Available grade</b>	Achieved
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### Explanatory notes

- 1 All activities associated with this unit standard must comply with occupational health and safety guidelines and recommendations in relation to working environment and work practices. Reference for this unit standard includes OSH 3211 AFC: 1996 *Approved Code of Practice for the use of Visual Display Units in the Place Of Work*. Occupational Safety and Health Service: Department of Labour, available at <http://www.osh.govt.nz/order/catalogue/pdf/vdu-ac.pdf>.
- 2 Accuracy calculation – five keystrokes represents an average word. Keystrokes include punctuation and spacing. One error only is counted in each word. A 98% accuracy level allows two errors per 100 words.
- 3 Touch typing skills are not required to achieve this unit standard. The keyboarding techniques required are those that promote safe, ergonomic use of keyboards including the location of guide keys and use of fingering pathways.
- 4 Spelling, grammar, vocabulary, and punctuation in the documents must be consistent with the nature and purpose of the business or organisational information required. Candidates must be given the opportunity to proofread their work prior to submission.
- 5 Symbols or special characters refer to only those indicated on keys accessible on the keyboard.
- 6 The following legislation and subsequent amendments provide reference, where needed, for this unit standard:  
Health and Safety in Employment Act 1992.

## Outcomes and evidence requirements

### Outcome 1

Develop keyboarding techniques to key in alpha and numeric text, and symbols or special characters, using a standard alphanumeric keyboard.

#### Evidence requirements

- 1.1 Text entry settings established for line spacing, font size, and page margins are consistent with information provided and output required.
- 1.2 Keyboarding techniques are used to key in sentences and paragraphs containing alphanumeric text entries, symbols, and special characters, of a minimum of 1000 keystrokes, in accordance with information provided and output required.

### Outcome 2

Demonstrate keyboarding techniques to avoid overuse injuries and explain concepts of ergonomic practices and workstation care and maintenance.

#### Evidence requirements

- 2.1 Positioning of fingers, wrists, forearms, and back, in relationship to the size, slope, and type of keyboard and workstation being used, is consistent with occupational health and safety guidelines for keyboarding operators.
- 2.2 Overuse syndrome prevention techniques are demonstrated in relation to posture and technique in accordance with occupational health and safety guidelines for keyboarding operators.
- 2.3 Concepts of ergonomic practice relating to keyboarding are explained in accordance with occupational health and safety guidelines for keyboarding operators.

Range examples of ergonomic factors may include but are not limited to – room temperature, humidity, ventilation, work station location and design, chair design and height, noise, lighting, positioning of power cables, positioning of keyboard and screen, screen background colour, screen brightness control, reduction of screen glare and radiation, screen tilt, copyholder type and position, use of footrests, anti-static furnishings;  
explanation for five ergonomic factors is required.

- 2.4 Workstation care and maintenance are described in relation to keyboarding operations.

Range may include but is not limited to – cleaning, storage, notification of equipment faults, confirmation of replacement of consumables by designated personnel;  
evidence of two is required.



<b>Planned review date</b>	31 December 2015
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**Status information and last date for assessment for superseded versions**

<b>Process</b>	<b>Version</b>	<b>Date</b>	<b>Last Date for Assessment</b>
Registration	1	30 March 1993	December 2011
Review	2	27 June 1996	December 2011
Review	3	28 April 1997	December 2011
Review	4	28 June 1999	December 2011
Review	5	26 September 2005	December 2012
Review	6	17 December 2010	N/A

<b>Accreditation and Moderation Action Plan (AMAP) reference</b>	0113
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This AMAP can be accessed at <http://www.nzqa.govt.nz/framework/search/index.do>.

Sample Document

# Text Processing, Ergonomics Starting Word 2013 Saving, Printing Learning the Alphabetic Keys



## Learning Outcomes

*At the end of this section you should be able to -*

- ☐ Understand text processing
- ☐ Understand the term ergonomics and apply concepts and exercises to prevent health problems
- ☐ Describe parts of the keyboard
- ☐ Start Word 2013, understand the screens and defaults
- ☐ Sit properly at your workstation and use correct fingering
- ☐ Type alphabetic text on the keyboard
- ☐ Consolidate keyboard learning
- ☐ Type alphabetic sentences
- ☐ Type short paragraphs



*In this section you will come across the following words highlighted in bold. This indicates that the word is included in the Glossary at the end of the book together with a description of that word.*

**Copy-Holder**  
**Defaults**  
**Ergonomics**  
**Foot-Rest**  
**Hard Copy**

**Hardware**  
**Home Keys**  
**Micropause**  
**Software**  
**Soft Copy**

**Text Processing**  
**Word Processing**  
**Workstation**  
**Wrist Rest**

# What is Text Processing?

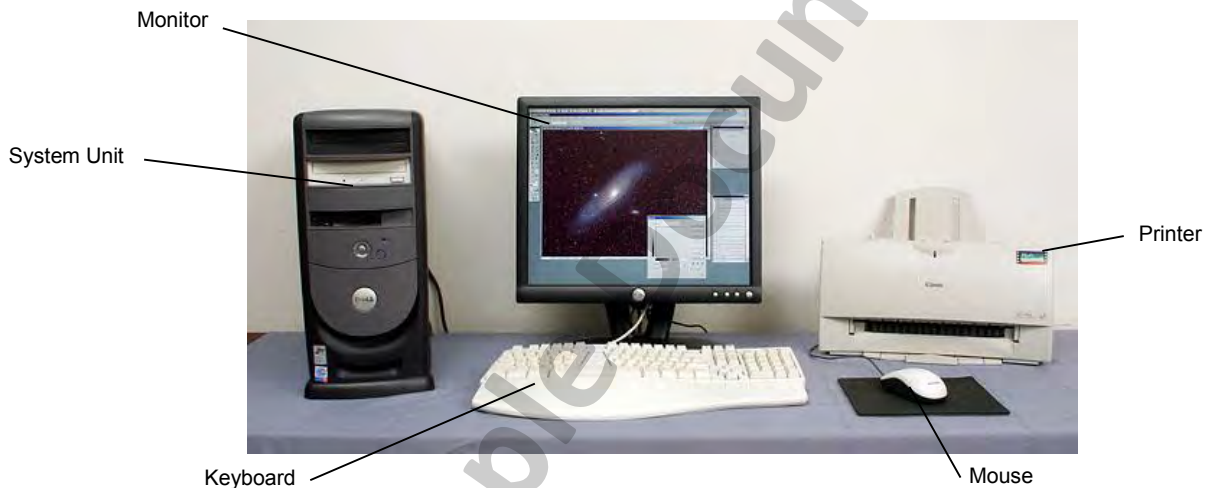
**Text processing** refers to the use of a computer program, generally word processing, to produce, change and store text.

A **word processing** system provides the means of processing the text via a keyboard and screen and storing this text so that it can be recalled to the screen, edited and reformatted as many times as required without any retyping. One or more copies can be printed at any stage during this process.

Word processing is usually done on a computer which can also be used for various functions, eg spreadsheets, database programs, small business accounting programs etc. These programs are called **software**.

The computer system is called **hardware** and consists of a keyboard, monitor, and system unit. A printer is necessary to print **hard copy**. (The term **soft copy** is given to a document that is read on screen.)

Parts of a computer system are shown below:

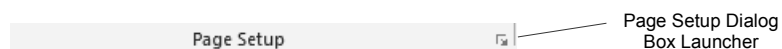


Instructions in this manual will cover Microsoft Word 2013.

- Any illustrations from the Word program will be in Word 2013.
- Instructions will be displayed as shown below.

To change left and right margins -

- 1 Click on the **PAGE LAYOUT** tab at the top of the screen.
- 2 Click on the Page Setup Dialog Box Launcher button as shown below, to display the Page Setup dialog box.



- 3 In the Margins section, type in measurements in the Left: and Right: boxes.
- 4 Click on OK.

# What is Ergonomics?

sector  
= division

**Ergonomics** is the study of the efficiency, comfort and safety of people in their working environment. In the office/computing sector, the field of ergonomics plays an important role in the production of monitors, keyboards and furniture, specifically in ensuring good design techniques that avoid the cause of backaches and muscle cramps.

Learning how to sit at a desk and use your computer in an ergonomically sound manner will reduce the risk of health problems and ensure that you are comfortable in your working environment.

The New Zealand Department of Labour has published an approved *Code of Practice for the use of Visual Display Units* covering all of the ergonomic factors that should be considered in a workplace. This is available on our web site (Resources tab, Free Resources) at [www.cherylprice.co.nz](http://www.cherylprice.co.nz).



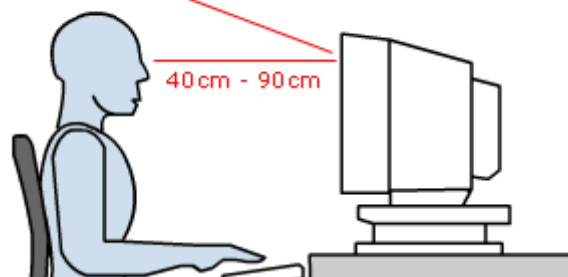
## Ergonomic Computer Equipment

### Monitor

monitor  
= screen

The monitor should be positioned so that it is straight in front of the operator, an arm's length (40cm - 90cm) away from the eyes. The top of the viewing area of the screen should be just below eye level and the screen should be tilted so that the operator looks slightly downwards onto the screen. The height of the monitor should be adjustable; this may require using a monitor stand to ensure it is at the correct height.

Top of the viewing area of the screen  
should be just below eye level



## Anti-glare Screens and UV Filters

Where a computer monitor is located near a window or lights, glare can commonly be a problem, causing eyestrain or headaches. Many modern computer screens include an anti-glare surface.

Many anti-glare screens incorporate a filter which protects from ultra-violet (UV) radiation.

## Copy-holder

A **copy-holder** (also called a document holder) is used to position documents so they can be viewed easily while typing. A well positioned copy-holder reduces the need to bend the neck. There are various types of copy-holder; the most common are free standing devices which are positioned beside the computer screen. Others can be attached to the side of the monitor.



## Keyboard

While there are many different types of keyboard, all keyboards should have the following attributes:

- They should be thin; the 'asdf' row should be 30mm or less in height.
- The slope should be between 0° and 15° and should be adjustable.
- The keys should be sensitive enough so that they do not need to be hit hard.
- They should make a clicking noise when the key is pressed successfully.



To ensure the keyboard is correctly positioned on the workstation, place your hands over the centre of the keyboard and check the following:

- Your forearms are parallel with the ground.
- Your elbows are at a 90° angle (forming an L shape between the upper and lower arms).
- Your fingers rest over the 'asdf' row and all keys are able to be reached without stretching the fingers or forearms.
- Your wrists are not raised or bent in an unnatural angle.
- Your elbows are tucked in neatly by your sides.
- Your fingers are curved in a natural position.

## Keyboard Wrist Rest

The purpose of a **wrist rest** is to support the wrists in a natural, comfortable position. This is an important ergonomic consideration for many people who experience pain or tiredness in their wrists when using a keyboard. The wrist rest is positioned in front of the keyboard. Some keyboards have built-in wrist rests.



Built-in wrist rest

## Mouse

The mouse needs to be positioned so that the operator can move it without having to stretch their arm. It should be placed on a flat surface such as a specifically designed mouse pad, which allows it to be moved easily.

The mouse should be shaped so that the hand rests on it comfortably. The buttons should be able to be used without cramping the hand. The pressure required to click the buttons should not be so hard as to make it tiring to use, nor so light that they are easily clicked in error. The mouse movement and click speed should be adjustable to suit the individual.

Some mice are designed specifically with ergonomics in mind. Wireless mice (ie used without an attached cord to the computer) allow total freedom of movement. Other mice are shaped specifically to fit the hand's natural shape and provide support.



### Mouse Wrist Rest

In the same vein as keyboard rests, there is a huge range of wrist rests available to support the wrist while using the mouse. All are designed to keep the wrist in a relaxed, natural position to avoid discomfort and injury.

Some mouse pads come with a built in wrist rest as shown at the right.

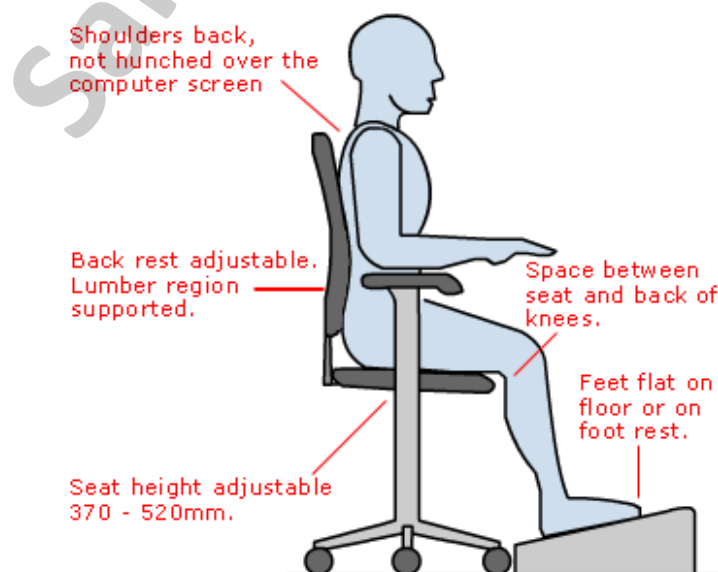


## Chair

A well designed, adjustable chair is one of the most important factors in preventing posture problems. Your chair should be adjustable vertically (usually between 450 mm and 520 mm in height). The chair should be at a height where you can sit comfortably with both feet on the floor, or on a foot-rest.

The back rest should be adjustable for height and angle. The back rest should provide support for the lumbar region of the back.

The recommended seat depth is between 380 and 480 mm. When seated in the chair you should be able to fit one hand-width between the seat and the back of your knee.



## Position in the Chair

It is important to sit upright in the chair with your back pushed into the backrest, rather than slumped forward over the keyboard. This will reduce the chance of back and shoulder pain. When you are seated in your chair ensure you are sitting at the back, not perched at the edge. Ensure your feet are flat on the floor or on a footrest, your shoulders are straight and there is a slight curve of the spine in the lumbar region.

## Foot-rest

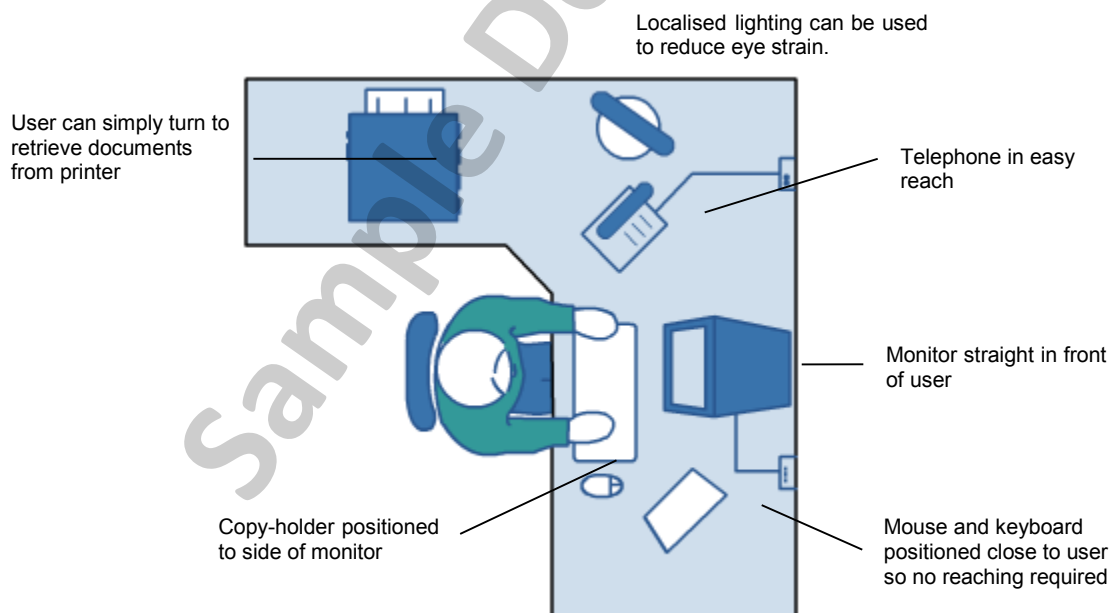
A **foot-rest** is useful when the desk and chair cannot be adjusted and can be used to ensure proper posture. Ideally the foot-rest slope should be comfortable; 0°-10° is recommended, with a flat surface area of 350 x 45 mm.



## Workstation

A **workstation** is simply the desk or table used when working on a computer. The workstation should be deep enough to allow the positioning of the keyboard and monitor correctly. The work surface needs to be big enough to allow the mouse, documents, document holder, and any other items which are used regularly (telephone, desk caddy, etc) to be within easy reach. It should also be as thin as practical, preferably less than 2.5 cm, to give maximum knee room. Ideally the height of the workstation should be adjustable to suit the height of the operator. If it is not adjustable a foot-rest may need to be used.

The equipment on the workstation needs to be arranged so that all equipment can be reached comfortably. Frequently-used items should be within easy reach. A possible workstation layout is shown below.



## Workstation Location

The location of the workstation within an office needs to be chosen with care. The workstation should be positioned at right angles to windows, mirrors or other light sources to help reduce glare or reflections. Power cables need to be able to reach the computer safely, without being stretched or lying across access ways. People need clear access to and around the workstation. In a large office, space or partitions between desks can help with privacy in one's workspace.



# The Office Environment

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## Room Space and Arrangement

In an office environment there should always be enough space for everyone to carry out their work safely. There needs to be clear access ways through the office, so that people can access all working spaces without the risk of tripping over obstacles or bumping into furniture. Ensure that power cables are kept tidy and out of the way. Special desks have a cavity that encloses computer cables - an alternative is to use cable ties to bind cords together, or use special tape that can be purchased for this purpose. Long and dangling cords can cause accidents.

## Décor and Lighting

Bad office lighting can lead to work problems including poor performance, fatigue, blurred vision and headaches. The lighting must be strong enough to allow the worker to perform their duties without squinting and straining their eyes. Too much light however, from bright fluorescent lights, direct sunlight or reflections from windows can also cause problems.

In order to reduce glare, rooms should be decorated in pastel shades. Blinds should be used to prevent strong sunlight from entering the room. Workstations should be located away from windows and positioned to avoid reflections.



## Temperature and Ventilation



Temperature and ventilation in an office needs to be monitored carefully. Temperatures that are too hot or too cold or inadequate ventilation, can lead to problems such as tiredness, headaches and dry eyes. For computer work, the temperature should ideally be kept between 20 and 24 degrees Celsius.

Computers produce heat which can make your work space warmer than the rest of the office. Make sure the screen is not hard up against a wall or partition and that there is plenty of air flow around the unit. A small desk fan may be necessary if you are working in a confined space. Windows can be used for additional ventilation. Air conditioning can be used to regulate temperature but can also lead to a dry atmosphere.

## Noise

People and equipment such as printers, photocopiers and phones, contribute to the noise factor within an office. Too much noise can make it hard to concentrate and can lead to health problems such as headaches and ringing in the ears.

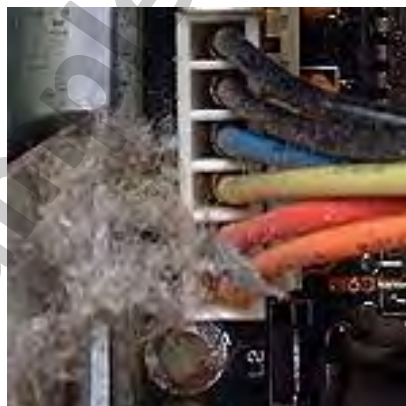
Try to select equipment which makes the least noise possible. Noisy equipment can be enclosed in noise reducing covers or hoods. Padding can be used to stabilise vibrating equipment. Walls, floors and ceilings can be covered in sound absorbent materials. Noisy equipment can be positioned away from the working area and separated by noise reducing partitions. Heavy drapes can also help to absorb noise.



## Dust

Dust can be a real enemy of computer equipment, both internally and externally. Dust can get inside the system unit and clog up the internal fans, reducing their heat protection capabilities. When dust settles on the monitor it makes images on the screen more difficult to view which can cause eye strain.

The best defence against dust is to have the office area cleaned regularly. Some screen cleaners can be purchased which reduce the build-up of dust on the screen. Dust covers can also be purchased for computer equipment, to protect the computer while it is not in use.



# Good Operator Habits

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## OOS

Occupational Overuse Syndrome (OOS) is a term for a range of conditions which cause discomfort or pain and which are caused by performing repetitive tasks. Symptoms can include fatigue, pain in the muscles or tendons, burning sensations, stiffness, general aches, weakness, numbness and tingling.



OOS used to be referred to as Repetitive Strain Injury or RSI; however this term is now seldom used.

People who work at a computer workstation for lengthy periods are particularly susceptible to OOS. Typing and using the mouse both require repetitive action which can result in pain in the hands, wrists, arms, shoulders and neck.



OOS may occur due to:

- poor planning for VDU work
- poor work organisation
- inappropriate selection of computer hardware and software
- inappropriate selection of office furniture
- an inappropriate VDU environment
- poor workstation layout
- lack of education, training and skills

It is important that steps be taken to prevent these health problems from occurring. Repetitive tasks should be minimised and work breaks taken. Exercises should be used to stimulate blood flow – to help reverse the effects of muscle tension – and help you to relax. Ensure that your posture is correct at all times and report any aches and pains promptly so that they can be dealt with before they become severe or chronic.

## Work Breaks

Operators should be given frequent breaks away from their computer in order to avoid eyestrain and posture problems. The recommended break is 10 minutes every hour worked where work is screen-intensive. Try to vary tasks and take a break from your computer to do filing, make business phone calls, etc.

### ***Micropauses***

A **micropause** is a short break in work for muscle relaxation. Specifically, it is a 5-15 second break in work for muscle relaxation every 5-10 minutes or so. Micropauses allow for the restoration of blood flow to muscles which have been held tense. It is when the muscles relax fully that micropauses are of most value. Micropauses help you be more productive.

## Physical Exercises

There are exercises which, when done regularly, can help to prevent OOS. These exercises are designed to reduce muscle tension and increase blood flow.

 <p><b>Side neck stretch</b> Slowly tilt your head to one side, stretching the side of your neck. Return your head to upright and repeat on the other side.</p>	 <p><b>Head turn</b> Slowly turn your head to one side. Return to centre and repeat on the other side.</p>	 <p><b>Bi-directional neck stretch</b> Bend your head forward and then turn your head to right. Use your right hand to gently pull your chin down towards your armpit. Repeat on the other side.</p>
 <p><b>Shoulder Roll</b> Lift both shoulders upward toward your ears, and then down again slowly. Roll your shoulders gently backwards and forwards to ease tension in the neck.</p>	 <p><b>Upper back stretch</b> Clasp your hands behind your head, keeping your elbows straight out to the side. Gently lean over the back of your chair, stretching your upper back.</p>	 <p><b>Upper arm and shoulder stretch</b> Bend your right arm placing your right hand on your upper back. Hold your right elbow with your left hand and use this hand to gently push your right arm down. Repeat on the other side.</p>
 <p><b>Chest and shoulder stretch</b> Interlace your fingers behind your back. Gently turn your elbows inwards, straightening your arms. Pause and then release.</p>	 <p><b>Arm and rib cage stretch</b> Interlock your fingers; stretch your arms above your head, palms upward. Try to keep your shoulders lowered.</p>	 <p><b>Finger Spread</b> Hold your right arm out bent upward at the elbow. Spread fingers wide apart stretching the inner palm and fingers. Repeat on the other side.</p>
 <p><b>Chair twist</b> Sit in a chair with your left knee crossing your right. Place your right hand on the outside of your left knee. Twist and place your left hand on the back of the chair. Hold and repeat on the other side.</p>	 <p><b>Front wrist stretch</b> Hold your right forearm out straight, palm facing up. Take your fingers with your left hand and pull them back gently so the front of your wrist is stretched. Repeat on the other side.</p>	 <p><b>Back wrist stretch</b> Hold your right forearm out bent upward at the elbow. Take your fingers with your left hand and pull them gently downward so the back of your wrist is stretched. Repeat on the other side.</p>

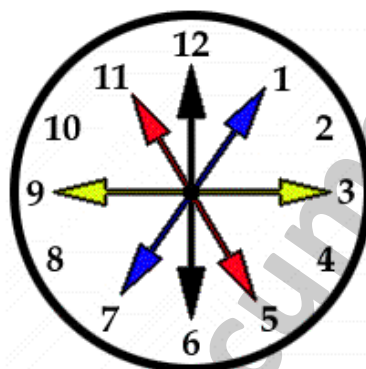
## Preventing Eye Strain

To avoid eye strain when using a computer screen do the following.

- Blink often to prevent the surface of your eyes drying out and becoming irritated.
- Stare off into space – every now and then, look across the room or out the window.
- Adjust your screen so it is not too bright.
- Wipe the dust off your screen regularly.

### *Exercises to Prevent Eye Strain*

Pretend you are looking at a giant clock. Move your eyes to look at the different hours on the clock face as listed below.



- 12 to 6 (from ceiling to floor)
- 9 to 3 (from one side of the room to the other)
- 1 to 7
- 11 to 5
- Begin at 12 and circle around to 3, 6, 9 and back to 12 three times. Then reverse directions.

To release tension in your face around your eyes, close them tightly and gently squeeze, allowing your facial muscles to draw up. Hold for two seconds, relax your face and open your eyes, then open your mouth wide while raising your eyebrows. Repeat three times.



### **EXERCISE 1**

- Try out the exercises above and on the previous page, then think about how you can incorporate them into your schedule whenever you work on a computer.

# The Keyboard

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A keyboard allows you to communicate with your computer by using keystrokes for commands, and to enter and edit data. There are many styles of keyboards available, including some that have additional functions (eg sound keys on a multimedia keyboard).



Standard 101 Keyboard



Multimedia Keyboard

The keys on a computer keyboard can be grouped into four main categories.

- 1 QWERTY keys
- 2 Function keys
- 3 Cursor/Control keys
- 4 Numeric keys



Microsoft Natural Keyboard

## QWERTY keys

“QWERTY” refers to the layout of the keys on the keyboard, ie the top left alphabetic keys spell QWERTY.



This area has all the normal QWERTY keys as well as the following special keys.

## Caps Lock Key

Used for typing in capitals and numbers. The Caps Lock light appears on your keyboard. (In some computer programs the word CAPS appears on the Status Line at the bottom of the screen when this key is on.)