

Create and use spreadsheets

Learner Guide

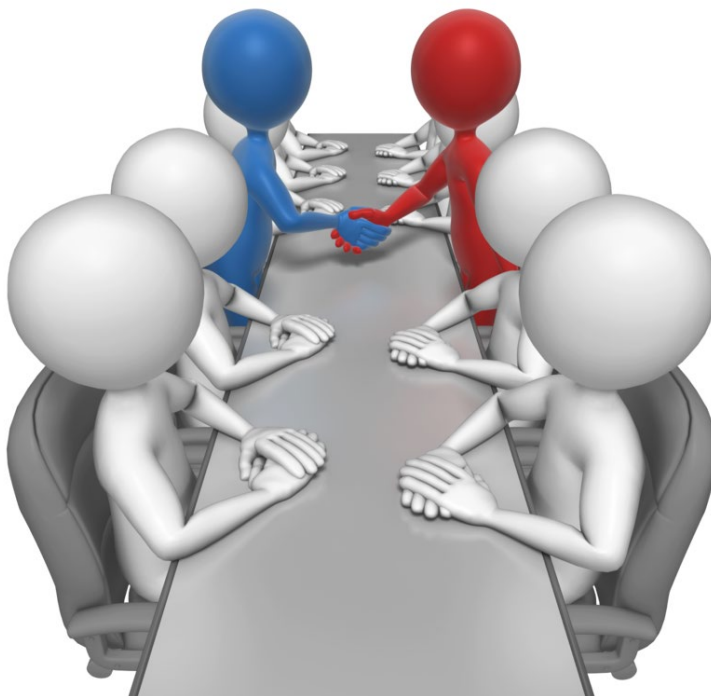


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1. Select and prepare resources

1.1 – Adjust workspace, furniture and equipment to suit own ergonomic, work organisation and work health and safety (WHS) requirements

Ergonomic requirements may include:

- Avoiding radiation from computer screens
- Chair height, seat and back adjustment
- Document holder
- Footrest
- Keyboard and mouse position
- Lighting
- Noise minimisation
- Posture
- Screen position
- Workstation height and layout



Work organisation requirements may include:

- Exercise breaks
- Mix of repetitive and other activities
- Rest periods

Any assessment of ergonomic conditions that exists in the workplace would normally be handled through the HR (Human Resource) department under a Risk Assessment as part of WHS (Work Health and Safety) or by a system that evaluates risk potential to employees.

Some of the areas suggested in the Range Statement would be more suitably handled by employees as part of a daily or periodic self-check of equipment, the workstation and work area before work commences and during work.

Example Self Check List

Question	Response/Action
Are you keying and using mouse activities interspersed with a variety of other work tasks?	
Do you include pauses such as deliberate breaks to reduce stress and tension?	
Do you conduct regular pause exercises during computer operation at least every hour?	

Do you alter your posture when seated, stand or move throughout the day?	
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For areas that may be covered under WPH&S and awards or Human Resource policies, responsibility of the employer to provide a safe workspace would be documented and form part of regular risk management checks.

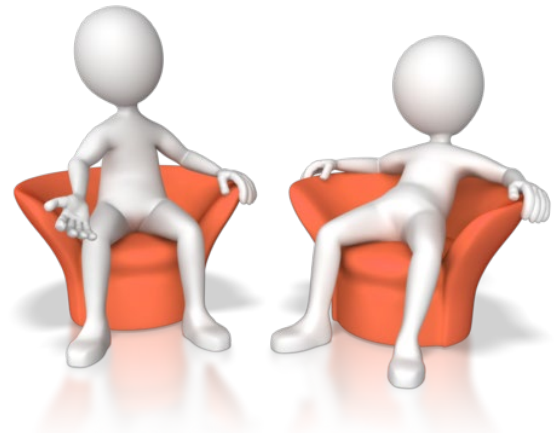
- Supervisors, managers, team leaders etc. are generally designated WHS officers so that there is a standard and policy driven culture present to the checks.
- Responsibilities include hazard reporting procedures, job procedures and safe work instructions, emergency procedures, accident and near miss reporting and recording procedures, consultation on WHS issues, correct selection, use, storage and maintenance procedures for use of personal protective equipment, control of risks under direct supervision.
- Awareness of relevant legislation from all levels of government (State or Federal) which affect business operation, especially in regard to WHS and environmental issues, equal opportunity, industrial relations, anti-discrimination and diversity.
- Compliance to behaviour that contributes to a safe working environment, identifying and reporting risks or hazards, using business equipment according to guidelines, listening to the ideas and opinions of others in the team, sharing opinions, views, knowledge and skills.
- Formal and informal health and safety meetings, meetings called by health and safety representatives, suggestions, requests, reports and concerns put forward to management.
- Workstation height and layout, chair height, seat and back adjustment, footrest, screen position, keyboard and mouse position, document holder, posture, avoiding radiation from computer screens, noise minimisation.
- Mix of repetitive and other activities, rest periods, exercise breaks, VDU eye testing.
- A range of environmental conditions including; noise, light, gas, smoke, odour, vapour, liquids/solids, particles and fumes.



If a particular office layout design is needed this would be a matter of personal and working circumstances.

For example:

- Does the workspace provide acoustical privacy (for example, can people talk in privacy, according to the level of confidentiality required; do noises and conversations interfere with their concentration; do noises or conversations make it difficult to hear or understand speech if much of their work involves using the telephone?)
- Are the walls permanent (i.e., fixed) or is the workspace in an open office environment?
- Does the workspace provide visual privacy?
- Can an employee personalise his or her individual work space?
- Is there access to natural light or only artificial lighting?
- Is the workplace layout designed to facilitate interpersonal contact?

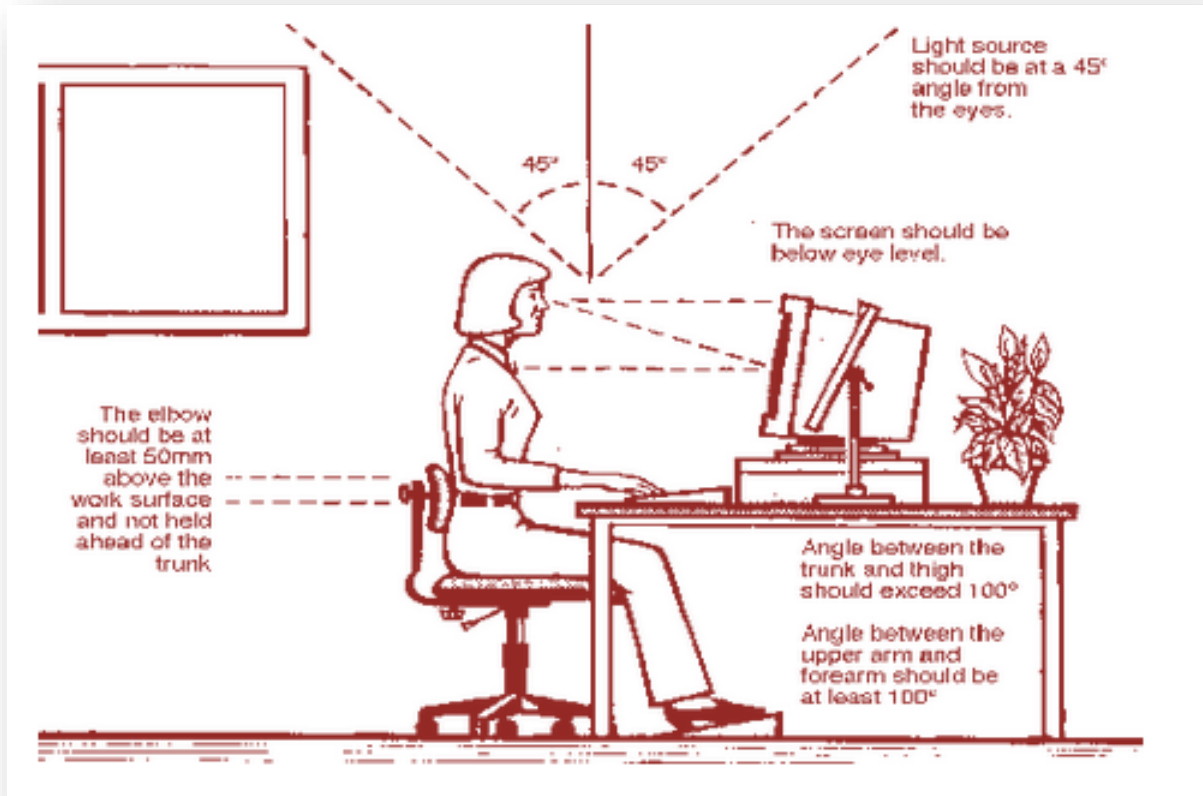


Examples of workplace policy requirements

- Maintain work areas in a safe, uncluttered and organised manner according to policy and procedures.
- Carry out all procedures safely, effectively and efficiently with minimum inconvenience to staff according to policy.
- Apply policy and procedures for tidying work areas and placing items in designated areas.

Clean work area

- Apply policy and procedures for personal hygiene.
- Apply policy and procedures for cleaning of work area.
- Sort, recycle, remove and dispose of waste promptly according to policy requirements.
- Safely remove and clean spills of food, waste or other potential hazards in compliance with WHS requirements and policy.
- Maintain equipment and consumable materials and store correctly after use.
- Use and clean equipment according to manufacturer instructions and policy requirements.



Consideration should be given to:

- The accessories required to operate properly
- The layout of equipment on the desk
- The location of furniture in the room

Work surface height

- Adjust the height of the work surface and/or the height of the chair so that the work surface allows your elbows to be bent at 90 degrees, forearms parallel with the floor, wrist straight, shoulders relaxed.

Chair

- Adjust the seat tilt so that you are comfortable when you are working on the keyboard. Usually, this will be close to horizontal but some people prefer the seat tilted slightly forwards. Your knees should be bent at a comfortable angle and greater than 90 degrees flexion. If this places an uncomfortable strain on the leg muscles or if the feet do not reach the floor then a footrest should be used. The footrest height must allow your knees to be bent at 90 degrees. Therefore the height of the footrest may need to be adjustable. Adjust the backrest so that it supports the lower back when you are sitting upright.

Keyboard placement

- Place the keyboard in a position that allows the forearms to be close to the horizontal and the wrists to be straight. That is, with the hand in line with the forearm. If this causes the elbows to be held far out from the side of the body then re-check the work surface height. Some people prefer to have their wrists supported on a wrist desk or the desk. Be careful not to have the wrist extended or bent in an up position.



Screen placement

- Set the eye to screen distance at the distance that permits you to most easily focus on the screen. Usually this will be within an arm's length. Set the height of the monitor so that the top of the screen is below eye level and the bottom of the screen can be read without a marked inclination of the head. Usually this means that the centre of the screen will need to be near shoulder height. Eyes level with the tool bar. People who wear bifocal or multi focal lenses will need to get a balance between where they see out of their lenses and avoid too much neck flexion.

Desk-top layout

- Place all controls and task materials within a comfortable reach of both hands so that there is no unnecessary twisting of any part of the body. Most people prefer the document holder to be between the keyboard and the monitor. There are many different types of document holders available.

Document holder

- Place this close to the monitor screen in the position that causes the least twisting or inclination of the head.

Posture and environment

- Change posture at frequent intervals to minimise fatigue. Avoid awkward postures at the extremes of the joint range, especially the wrists. Take frequent short rest breaks rather than infrequent longer ones. Avoid sharp increases in work rate. Changes should be gradual enough to ensure that the workload does not result in excessive fatigue. After prolonged absences from work the overall duration of periods of keyboard work should be increased gradually if conditions permit.

Lighting

- Place the monitor to the side of the light source/s, not directly underneath. Try to site desks between rows of lights. If the lighting is fluorescent strip lighting, the sides of the desks should be parallel with the lights. Try not to put the screen near a window. If it is unavoidable ensure that neither the screen nor the operator faces the window.
- If the monitor is well away from windows, there are no other sources of bright light and prolonged desk-work is the norm, use a low level of service light of 300 lux. If there are strongly contrasting light levels, then a moderate level of lighting of 400 – 500 lux may be desirable.



Glare and reflection

- It is important to detect the presence of glare and reflection. To determine whether there is glare from overhead lights whilst seated worker should hold an object such as a book above the eyes at eyebrow level and establish whether the screen image becomes clearer in the absence of overhead glare. To detect whether there are reflections from the desk surface, the worker should hold the book above the surface and assess the change in reflected glare from the screen.

A number of ways are available to eliminate or reduce the influence of these reflections:

- Tilt the screen (top part forwards) so that the reflections are directed below eye level.
- Purchase an LCD screen.
- Cover the screen with a light diffusing surface or anti-glare screen.
- Negative contrast screen (dark characters on light background) will reduce the influence of these reflections.

If you experience eye discomfort when using a bright screen you should make the following adjustments:

- Turn the screen brightness down to a comfortable level.
- Look away into the distance in order to rest the eyes for a short while every ten minutes or so.
- Change the text and background colours. Recommended are black characters on white or yellow background, or yellow on black, white on black, white on blue and green on white. Avoid red and green and yellow on white.

Using a mouse

- A well designed mouse should not cause undue pressure on the wrist and forearm muscles. A large bulky mouse may keep the wrist continuously bent at an uncomfortable angle. Pressure can be reduced by releasing the mouse at frequent intervals, by selecting a slim-line, low-profile mouse. Keep the mouse as close as possible to the keyboard, elbow bent and close to the body.



Keyboard equipment and radiation

- Computer screens emit visible light which allows the characters on the screen to be seen. Weak electromagnetic fields and very low levels of other radiation, not visible to the human eye, can be detected by sensitive instruments. Similar emissions are produced by television receivers.
- The levels of most radiations and electromagnetic fields emitted from computers are much less than those from natural sources, such as the sun or even the human body and are well below levels considered to be harmful by responsible expert bodies such as the International Radiation Protection Association (IRPA).

Keyboard and telephone operations

- Avoid cradling the phone between your head and shoulder when answering calls. If needing to access the computer at the same time a headset is recommended. Hands free/speaker phone is another option if the environment is suitable.

Posture during Keying

- Good posture is essential for all users of computers. It comprises of a natural and relaxed position, providing opportunity for movement, and from which the operator can assume a number of alternative positions. It is not a single, rigidly defined position.

Typing technique

Typing is a physical activity, and using a keyboard requires skill, hence the need to learn correct typing technique. Unskilled ('hunt and peck') typists are particularly at risk of Occupational Overuse Injury because they:

- Often use only one or two fingers which may overload the finger tendons;
- Are constantly looking from keyboard to screen to keyboard, which may strain neck muscles;
- Often adopt a tense posture (wrists bent back and fingers 'poised to strike').
- The University acknowledges the importance of learning correct typing technique. Departments should ensure that untrained staff receive appropriate training.

Speed of keying

- The efficiency and speed of modern computers makes it possible for a skilled operator to type extremely quickly. This capability, reinforced by workload pressures means the potential exists for operators to key at speeds which may cause or contribute to Occupational Overuse Syndrome.
- The role of the repetitive movement in injury is not fully understood, but is believed to interfere with the lubrication capacity of tendons, and the ability of muscles to receive sufficient oxygen supplies.



10,000 – 12,000 keystrokes per hour is considered an acceptable standard.

Length of time on the keyboard

- The maintenance of a fixed posture for long periods is tiring and increases the likelihood of muscular aches and pains. In addition, long periods of repetitive movement and sustained visual attention can also give rise to fatigue-related complaints.
- It is recommended that operators avoid spending more than five hours a day on keyboard duties and no longer than 50 minutes per hour without a postural/stretching break.
- Employees newly engaged in keyboard work, and staff returning from an absence of two or more weeks, need a period of adjustment. The adjustment may be achieved through reduced work rates, or provision of alternate duties with gradual re-introduction to keyboard work.

Jobs should be designed and organised so that either:

- Computer related tasks can be interspersed with non-computer related.
- Computer based tasks can be rotated amongst several staff (task/job sharing).
- It is not the change of task per se, but the change to using different movements and postures that is important. The whole purpose of task variety is to give the overloaded structures a necessary break.

Supervisors should ensure that workload controls are exercised using the following strategies:

- Planning ahead to avoid peaks, and rushed jobs.
- Delegating fairly to all staff not just the best workers.
- Considering the total workload of the individual (often comes from a number of sources).
- Clearly defining each operator's workload.
- Implementing systems of prioritisation e.g. work request forms, waiting lists.

- Using relief staff.
- Applying strict tests to the use of urgent labels.
- Discouraging endless drafts.
- Discouraging the use of typed internal minutes and memoranda.
- Encouraging authors to have realistic expectations.
- Teaching authors keyboard skills.
- Teaching operators how to be assertive, and how to prioritise.
- Supporting operators when authors impose unrealistic expectations.
- Refusing illegible drafts.



1.2 – Use energy and resource conservation techniques to minimise wastage in accordance with organisational and statutory requirements

Conservation techniques may include:

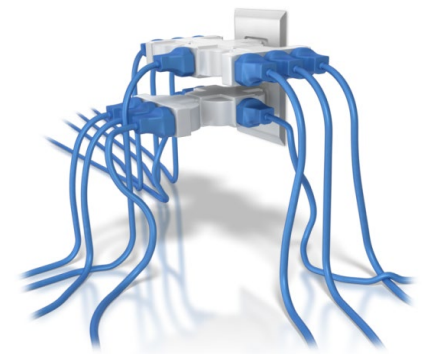
- Double-sided paper use
- Recycling used and shredded paper
- Re-using paper for rough drafts (observing confidentiality requirements)
- Utilising power-save options for equipment.

Energy and resource conservation in the workplace

In Australia, on July 1st 2012 a carbon pricing system (tax) was introduced.

This will see power price hikes in most parts of Australia.

There are practical solutions to the energy costs that all businesses will incur.



- Energy is part fixed cost and part variable cost and all organisations can exercise control over the amount of energy they use.
- It comes down to looking at ways to reduce your energy consumption while maintaining suitable and ongoing conditions in your building or your office.
- Consider engaging a consultant to conduct an audit and produce a report designed to your organisations energy needs.
- Do not engage in an audit that is not specifically targeted to your needs otherwise you will end up with a giant list to choose from.
- Don't be surprised how bad things are as a result of an energy audit, as in Australia most organisations have experienced very cheap energy costs where bad energy wasting habits have been left unchecked.

What are your energy efficiency priorities?

- After completing an energy audit and having addressed the report, you will need to implement an energy management plan.
- You may already have one and the audit will allow you a new approach to viewing the plan and prepare for carbon pricing system (tax) increases.
- If nothing else, prioritise which ones you can do now.

What is an energy management plan?

A plan in simple terms means:

- Designing with your employees and suppliers a critical management tool that clearly articulates the measures that can and will be deployed by each department or team or individual to reduce energy usage.
- The scope and coverage of your energy management plan can be developed for individual organisations, corporate entities or just for a single small operation.
- Decide on the different priorities and levels of energy management each requires such as the size and complexity of the workplace.

The audit results, as discussed above, can then be incorporated into your plan

- Where, how and why is the energy being consumed?
- What specific measures can you introduce to reduce consumption and how will they be implemented in the short, medium and longer terms?
- How will these measures be resourced and funded?
- What are the direct benefits and what are the associated risks?
- What are the advantages and disadvantages?
- Will the energy consumption reduction measures impact on your product or service delivery?
- What new roles and responsibilities will employees have within the organisation?
- How will relevant information and data be recorded and reported?



1.3 – Identify spreadsheet task requirements and clarify with relevant personnel as required

- Data entry
- Storage
- Output
- Presentation

Identify the task?

Use spreadsheets to list and maintain groups of numerically based data	Most general purpose information projects can be implemented with either a spreadsheet or a relational database
You can automatically create charts out of spreadsheet data, which you can then print or easily import into presentation applications.	Ease of Use: In fact, some would say that this is in fact the problem with spreadsheets! It is just too easy to knock together a new report without having to think about the big picture.
A spreadsheet can also be handy for simple data entry, because you can press the Tab key to easily advance from cell to cell, and the data are simply laid out in rows and columns.	The latest versions of Excel have stunning presentation facilities and they also connect very easily to Word or PowerPoint.

Organisational task requirements

- As the task and any organisational requirement in this instance may be hypothetical, it can be assumed that the challenge here is to firstly assume that we are talking about recording and evaluating data that a spreadsheet would likely serve as your number one choice as described above.
- In reality, however, there may be several other more suitable application options within your organisation such as word docs, major data base applications and other computerised formats for recording, storage, generating output, reporting and subsequent presentation requirements.

Spreadsheet specifications

- The structure of tables, as one example, is determined by different kinds of cells and their relationships. For example, the cells of a table can be distinguished according to their content into header, data, and computation cells. Moreover, some rows or columns of a table are fixed, like header and footer rows and columns, while other rows and columns are duplicated if new data is to be added.

Data entry, storage, output, reporting and presentation requirements

Data entry

Using a form for data entry in excel

Student ID	Last Name	Initial	Age	Program
SA267-567	Jones	B.	21	Languages
SA267-211				
SA267-788				
SA267-655				
SA267-898				
SA267-123				
SA267-987				
SA267-342				
SA267-522				
SA267-989				

Storage

- Spreadsheet applications can appear somewhat intimidating to uninitiated users, and this overwhelming initial appearance can lead users to use the applications for unintended purposes.
- Users should employ spreadsheet applications only for purposes of short-term data compilation and analysis, not for the long-term data storage that many users may attempt.
- Specific data bases are best used for longer and more sophisticated storage needs.

Output

- Spreadsheets are very handy tools in data output as they can help the user to do simple computations and checks on the data input.
- Simple statistical analysis and statistical parameters like mean, median, mode and range, etc. can be easily found using spreadsheet formulas.
- Data output is a process by which data can be studied under different circumstances and manipulated as required by the user.
- Any statistical analysis produces an output data that needs to be studied. This data needs to be modified in a presentable form so that further conclusions and inferences can be drawn by the team and other parties.

- As more software is developed there are many programs that help with data output. These tools can be used by the team to present the findings in different formats and also helps to do the required calculations on the data.

Presentation

- Spreadsheets are designed to record, sort, calculate and store data. There are, however, times when you need to add graphics in order to communicate the information more effectively.
- You might, for example, like to add graphics, photos or other enhancements to add to the presentation format of a report or spreadsheet on a PC.
- It's often not realised that graphics can be substituted for the vertical bars in a column chart.
- Perhaps the best way to enhance spreadsheet style is to project a spreadsheet on a screen and invite discussion about how its readability may be improved.

VEHICLE USAGE LOG				
<i>Week Ending:</i> <input type="text"/>				
<i>Customer Name & Store Number:</i> <input type="text"/>				
<i>I certify this to be an accurate and contemporaneous recording of the use of this vehicle for the dates indicated.</i>				
<i>Consultant's Initials:</i>		<input type="text" value="JKL"/>	<i>Date:</i> <input type="text"/>	
<i>Mileage Rate</i>		<input type="text" value="0.51"/>		
<i>DATE</i>	<i>FROM</i>	<i>TO</i>	<i>BUSINESS MILES</i>	<i>PURPOSE</i>
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2. Create simple spreadsheets

2.1 – Ensure data is entered, checked and amended in accordance with organisational and task requirements, to maintain consistency of design and layout

Data may include:

- Numbers
- Text

Checking data may include:

- Accuracy of data
- Accuracy of formulae with calculator
- Ensuring instructions with regard to content and format have been followed
- Proofreading
- Spelling, electronically and manually

Ensure data is entered, checked and amended to maintain consistency

- Depending on your workplace needs, the creation of a spreadsheet by inserting data, be it text or numbers will require some degree of checking for accuracy, consistency or whatever the requirement of your organisation has in place.

Example

Study Group 456										
CASUAL TIME SHEET										
Week Ending										
Employee Name: _____										
Department: _____										
NOTE: This timesheet can be used										
		Session 1			Session 2			Session 3		
Day	Date	Start Time	Finish Time	No. hours	Start Time	Finish time	No. hours	Start Time	Finish time	No. hours
Mon	1-Jan-00	7:45 AM	10:45 AM	3	10:45 AM	1:30 PM	2.75	2:30 PM	5:00 PM	2.5
Tue	2-Jan-00	8:00 AM	10:45 AM	2.75	11:00 AM	1:30 PM	2.5			
Wed	3-Jan-00									
Thu	4-Jan-00									
Fri	5-Jan-00									
		Total Weeks Hours								

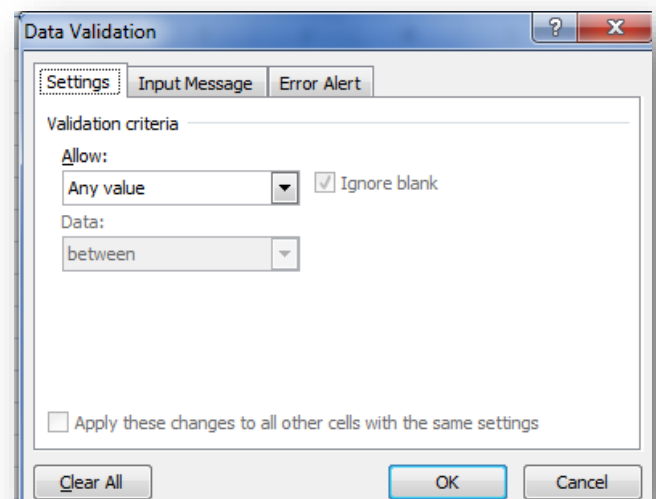
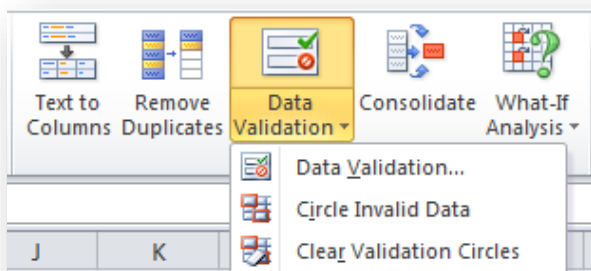
Accuracy of data

- Sometimes you may not want data to repeat itself.
- On an order form or an inventory sheet, for instance, you may not want a part number entered in one cell to repeat in another cell.
- You can use Excel's Data Validation to prevent a value from appearing more than once in a range.

You use data validation to control the type of data or the values that users enter into a cell.

For example:

- You may want to restrict data entry to a certain range of dates, limit choices by using a list, or make sure that only positive whole numbers are entered.
- Among other things, you can use data validation to restrict data to predefined items in a list such as types of departments to Sales, Finance, R&D, and IT.
- Similarly, you can create a list of values from a range of cells elsewhere in the worksheet.



Accuracy of formulae with calculator

NOTE: The plural of formula in English is formulae.

Calculation in Excel is the process of computing a formula and then displaying the result as a value in the cell that contain that formula.

- To avoid unnecessary calculations, Microsoft Office Excel automatically recalculates formulas only when the cells that the formula depends on have changed.
- This is the default behaviour when you first open a workbook and when you are editing a workbook. However, you can control when and how Excel recalculates formulas.

Iteration in Excel is the repeated recalculation of a worksheet until a specific numeric condition is met.

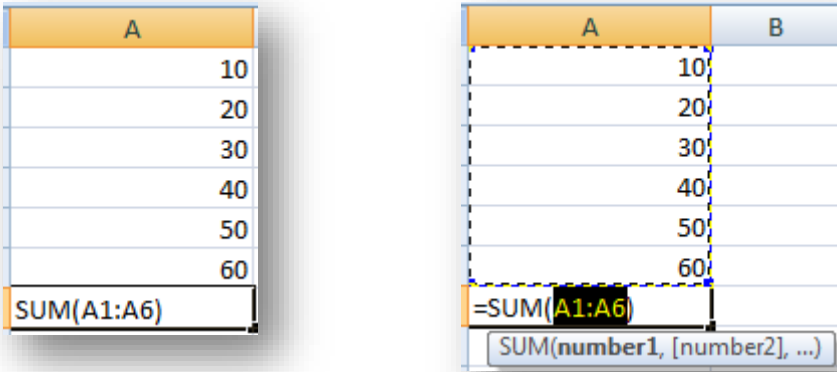
- Excel cannot automatically calculate a formula that refers to the cell — either directly or indirectly — that contains the formula.
- This is called a circular reference. If a formula refers back to one of its own cells, you must determine how many times the formula should recalculate.
- Circular references can iterate indefinitely. However, you can control the maximum number of iterations and the amount of acceptable change.

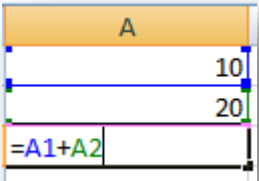
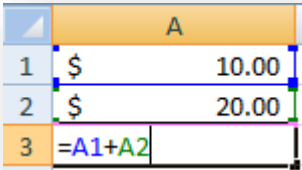
Precision in Excel is a measure of the degree of accuracy for a calculation.

- Excel stores and calculates with 15 significant digits of precision.
- However, you can change the precision of calculations so that Excel uses the displayed value instead of the stored value when it recalculates formulas.

Basic mathematical operations such as addition, subtraction, or multiplication.

- Use the following arithmetic operators.

Formula	Looks like
=SUM	

= A1+A2		
<p>Subtraction – minus sign (–)</p> <p>Addition – plus sign (+)</p> <p>Division – forward slash (/)</p> <p>Multiplication – asterisk (*)</p> <p>Exponentiation – caret (^) (<i>The operation of raising one quantity to the power of another</i>)</p>		
<p>Excel Order of Operations</p> <p>If more than one operator is used in a formula, there is a specific order that Excel will follow to perform these mathematical operations. This order of operations can be changed by adding brackets to the equation. An easy way to remember the order of operations is to use the acronym:</p> <p>BEDMAS</p> <p>The Order of Operations is:</p> <ul style="list-style-type: none"> ➤ Brackets ➤ Exponents ➤ Division ➤ Multiplication ➤ Addition ➤ Subtraction 		

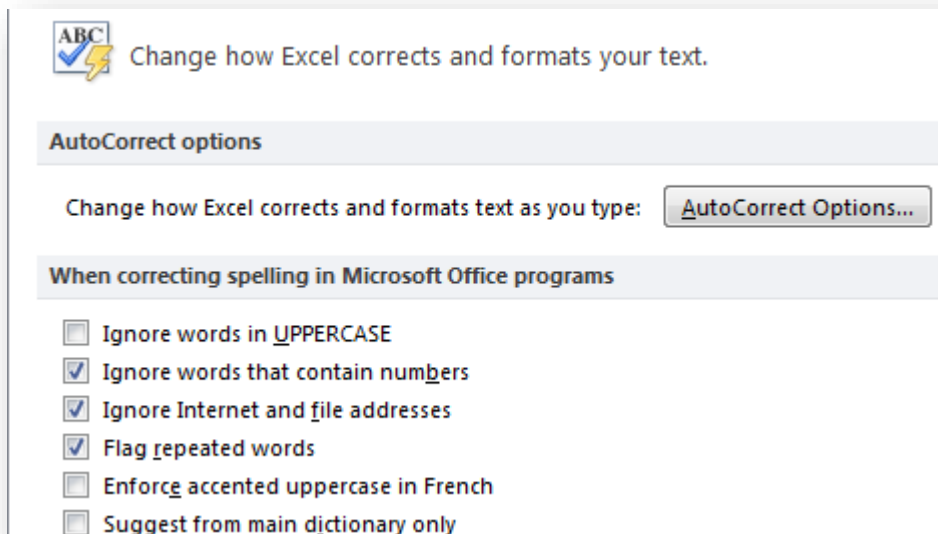
Ensuring instructions with regard to content and format have been followed

Depending on the instructions, there could be several requirements to follow content and format protocols.

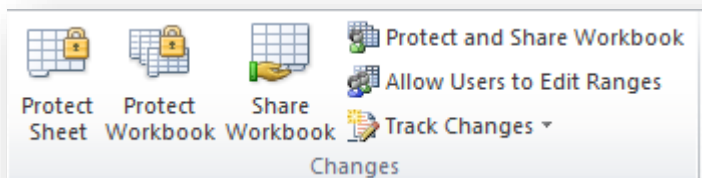
Content
<p>To display the contents of a worksheet cell in a shape, text box, or chart element, you can link the shape, text box, or chart element to the cell that contains the data that you want to display.</p> <p>Using the Camera command, you can also display the contents of a cell range by linking the cell range to a picture.</p>
<p>You can split the contents of one or more cells in a column and distribute those contents as individual parts across other cells in adjacent columns.</p> <p>For example, your worksheet contains a column of full names that you want to split into separate first name and last name columns.</p> <p>Select the cell, range, or entire column that contains the text values that you want to split.</p>

Format		
<p>You can save a Microsoft Excel 2010 file in another file format by clicking the File tab, and then clicking Save As. The file formats that are available in the Save As dialog box vary, depending on what type of sheet is active (a worksheet, chart sheet, or other type of sheet).</p> <p>In Excel 2010, you can open a file that was created in another file format, either in an earlier version of Excel or in another program, by clicking the File tab, and then clicking Open. If you open an Excel 97-2003 workbook, it automatically opens in Compatibility Mode. To take advantage of the new features of Excel 2010, you can save the workbook to an Excel 2010 file format. However, you also have the option to continue to work in Compatibility Mode, which retains the original file format for backward compatibility.</p>		
Format	Extension	Description
Excel Workbook	.xlsx	The default XML-based file format for Excel 2010 and Excel 2007. Cannot store Microsoft Visual Basic for Applications (VBA) macro code or Microsoft Office Excel 4.0 macro sheets (.xlm).
Excel 97- Excel 2003 Workbook	.xls	The Excel 97 – Excel 2003 Binary file format (BIFF8).
XML Spreadsheet 2003	Xml	XML Spreadsheet 2003 file format (XMLSS).
Other formatting requirements		
<ul style="list-style-type: none"> ➤ You can add content or apply formatting to two or more of the sheets on a multi-sheet worksheet by "grouping" the sheets together. ➤ When you group multiple sheets, any content or formatting that you add to one sheet also gets added to all the other sheets, so you can add a row of headers to one sheet and have it automatically appear on all the sheets that are grouped together with it. ➤ To group all the sheets in a worksheet, right-click on any of the tabs in the lower left of the window, and click Select All Sheets. ➤ If you only want to select two or more individual sheets, hold down the Ctrl key and click on the tabs of the sheets that you want to format or edit at the same time. ➤ When two or more sheets are grouped, Excel adds the word "[Group]" (in square brackets) after the sheet's name in the title bar. 		

Proofreading



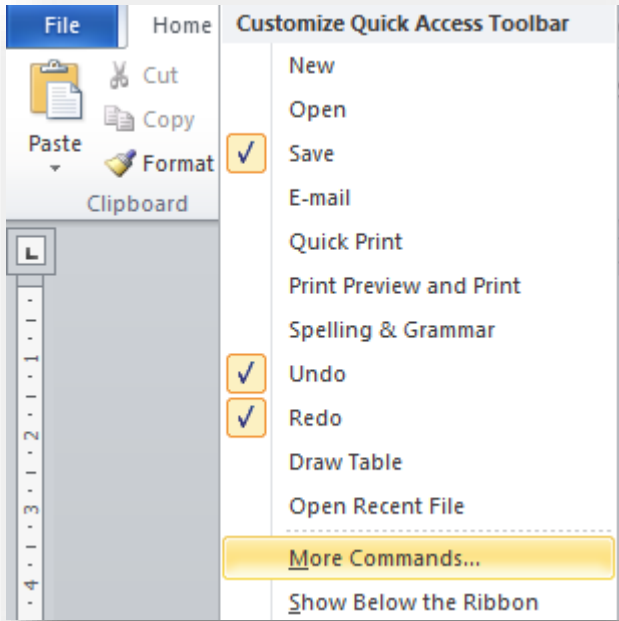
- If you are asked to proofread or collaborate on a worksheet someone else has written you might use a red pen to cross out cell data, mark misspellings, or add comments in the margins.
- In Excel 2010 you can do all of these things using the Track Changes and Comments features.
- Change tracking is available only in shared workbooks. In fact, when you turn on change tracking, the workbook automatically becomes a shared workbook



Excel can speak the cell contents to assist proofreading

- Instead of looking between a hard copy of data and comparing it to the data entered on the spreadsheet you can make Excel read your spreadsheet to you while you are looking at the hard copy version.

Use Excel's Text to Speech feature to do your proofreading



- Next to the Quick Access Toolbar, click Customize Quick Access Toolbar
- Click More Commands
- In the Choose commands from list, select All Commands
- Scroll down, and for each text-to-speech command that you want to use, click the Speak Cells command, and then click Add.
- Click OK.

When you want to use a text-to-speech command, click it on the Quick Access Toolbar

Spelling (Excel 2010)

- Click on File to open the menu
- Click on Options
- When the Word Options window opens, click on Proofing on the left pane
- Click on the AutoCorrect Options button

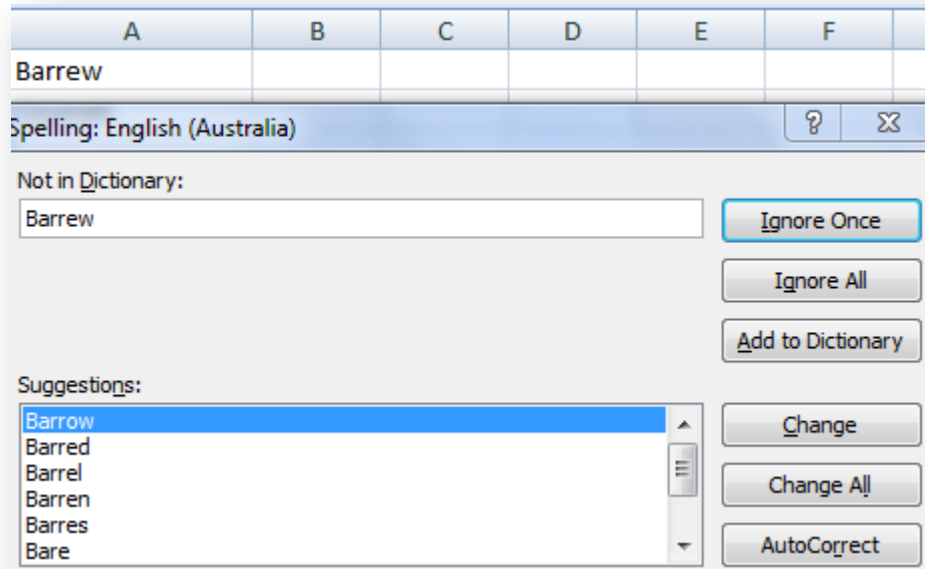
When correcting spelling in Microsoft Office programs

Ignore words in UPPERCASE
 Ignore words that contain numbers
 Ignore Internet and file addresses
 Flag repeated words
 Enforce accented uppercase in French
 Suggest from main dictionary only

French modes: Traditional and new spellings ▼
 Spanish h modes: Tuteo verb forms only ▼
 Dictionary language: English (Australia) ▼

To check the spelling in a worksheet, follow these steps:

- Click the Spelling command button in the Proofing group of the Review tab (or press F7).
- Excel begins checking the spelling of text entries in the worksheet. When the program comes across an unknown word, it displays the Spelling dialog box.



- Excel suggests replacements for the unknown word shown in the Not in Dictionary text box with a likely replacement in the Suggestions list box. If that replacement is incorrect, you can scroll through the Suggestions list and click the correct replacement.

Select one or more of the following dialog box options:

- Ignore Once or Ignore All: When Excel's spell check comes across a word its dictionary finds suspicious but you know is viable, click the Ignore Once button. If you don't want the spell checker to query you about this word again, click Ignore All.
- Add to Dictionary: Click this button to add the unknown word — such as your name — to a custom dictionary so that Excel won't flag it again.
- Change: Click this button to replace the word listed in the Not in Dictionary text box with the selected word in the Suggestions list box.
- Change All: Click this button to change all occurrences of this misspelled word in the worksheet to the selected word in the Suggestions list box.
- AutoCorrect: Click this button to have Excel automatically correct this spelling error with the selected suggestion in the Suggestions list box (by adding the misspelling and suggestion to the AutoCorrect dialog box).

2.2 – Format spreadsheet using software functions; to adjust page and cell layout to meet information requirements, in accordance with organisational style and presentation requirements

Formatting may include:

- Alignment on page
- Efficiency of formulae
- Enhancements to format – borders, patterns and colours
- Enhancements to text
- Headers/footers
- Use of absolute and relative cell addresses
- Use of cell addresses in formulae

Software functions may include:

- Adding/deleting columns/rows
- Formatting cells
- Formatting text
- Headers/footers
- Sizing columns/rows

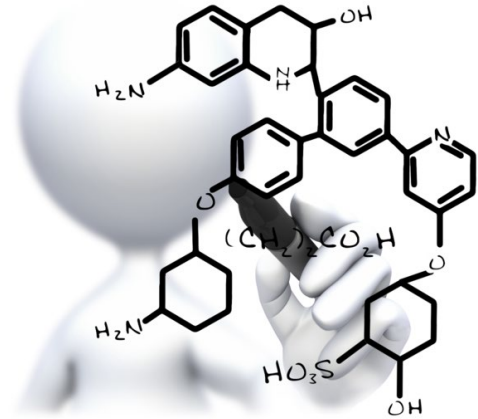


The practical application of all of these functions will depend on the workplace situation, the individual needs of the application and the context of the organisation need, e.g., records, lists comparative charts etc.

2.3 – Ensure formulae are used and tested to confirm output meets task requirements, in consultation with appropriate personnel as required

Formulae may include:

- Absolute cell referencing and/or mixed references
- Average
- Division
- Maximum
- Minimum
- Multiplication
- Subtraction
- Sum
- Combinations of above



Use cell or sheet auditing feature to check formulae

Normal View

AUSTRALIS WATCH	
300	250
120	100
30	25
39	32
17	14
206	171

Auditing View

AUSTRALIS WATCH	
300	250
=B32*F33	=C32*F33
=B32*F34	=C32*F34
=B32*F35	=C32*F35
=B32*F36	=C32*F36
=SUM(B33:B36)	171.428571428571

Normal View

member standard	non member standard			
37% of \$1800	37% of \$2138	37% is historical		
\$666	\$791			
		0.00	0.00	0.00
		0.00	0.00	0.00
\$0		0.00	0.00	0.00
	\$0	0.00	0.00	0.00
		<u>0.00</u>	<u>0.00</u>	<u>0.00</u>
		0.00	0.00	0.00

Auditing View

member standard	Non-member standard	
37% of \$1800	37% of \$2138	37% is historical
666	791	
		=J75
		=J76
=C77*A74		=J77
	=C78*B74	=J78
		<u>=SUM(C75:C78)</u>

2.4 – Use manuals, user documentation and online help to overcome problems with spreadsheet design and production

Manuals	<p>Provide a complete how to instruction in manual format!</p> <ul style="list-style-type: none"> ➤ Getting Started ➤ Definitions ➤ Ribbon ➤ Navigating Cells ➤ Data ➤ Entering Data/Text ➤ Editing Data/Text ➤ Autofill ➤ Controlling Your View of Data ➤ Sorting and Filtering ➤ Formulae ➤ Cell References Autofill with Formulae ➤ AutoSum ➤ Functions ➤ AutoCalculate ➤ Name Manager ➤ Charts ➤ Pivot table ➤ Trouble-shooting ➤ Printing
User documentation	<p>Resources</p> <p>For more information about Office Excel 2010, please visit:</p> <p>Office Excel 2010</p> <p>http://www.microsoft.com/office/excel</p>
Online help	<p style="text-align: center;">Excel: help and how-to</p> <hr/> <p>Version</p> <p>2010</p> <p>Excel Word PowerPoint Outlook Access</p> <p>Search Support Search</p>

Didn't find what you were looking for here?

Search the **Microsoft Answers** forum to get help from others in the Office community.



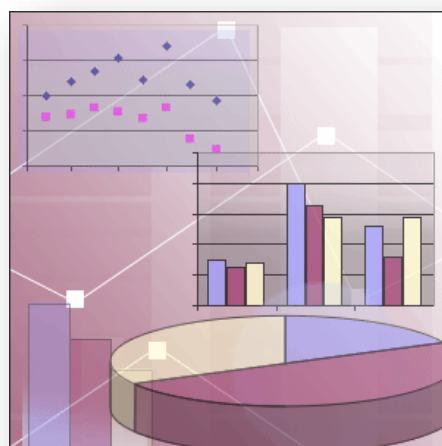
3. Produce simple charts

3.1 – Select chart type and design that enables valid representation of numerical data and meets organisational and task requirements

3.2 – Create chart using appropriate data range in spreadsheet

Chart types may include:

- Area
- Bar
- Column
- Exploded pie
- Line
- Pie and 3D pie
- Scatter/bubble
- Stacked/multiple bar
- Stacked, 3D column



Selecting the most effective chart type will make your data clearer, stronger, and more informative.

Microsoft Office Excel offers a wide variety of chart types and simple methods for selecting and previewing them.

Select chart type and design that enables valid representation of numerical data

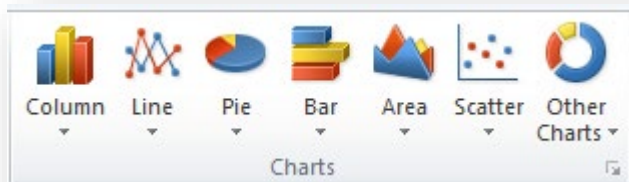
- Selecting the most effective chart type will make your data clearer, stronger, and more informative.
- Microsoft Office Excel offers a wide variety of chart types and simple methods for selecting and previewing them.
- There are many ways to enhance a chart to emphasise the point or purpose and to improve readability.

- Usually, Graphs and Charts are used for representing and organising a set of numerical data with a graphical representation such as pie chart, line charts, bar graphs and many more.
- With so many chart types available, how do you know which is best for you? Keep in mind, the point is to get your message across in the most effective way.

Meeting your organisational and task requirements will require the instructor to detail what that actually represents.

- Different chart types can deliver different messages about the same data.
- It's like several versions of a single story.

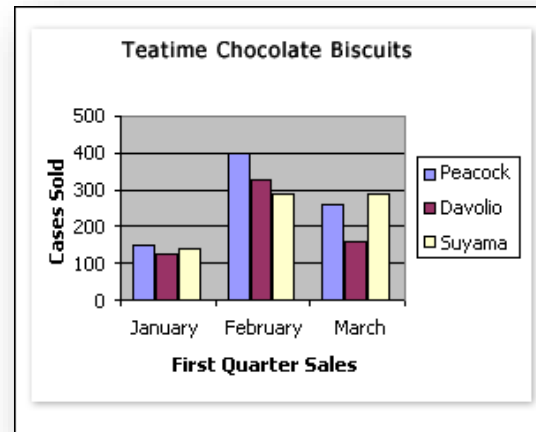
In Excel, there is a selection of chart options.



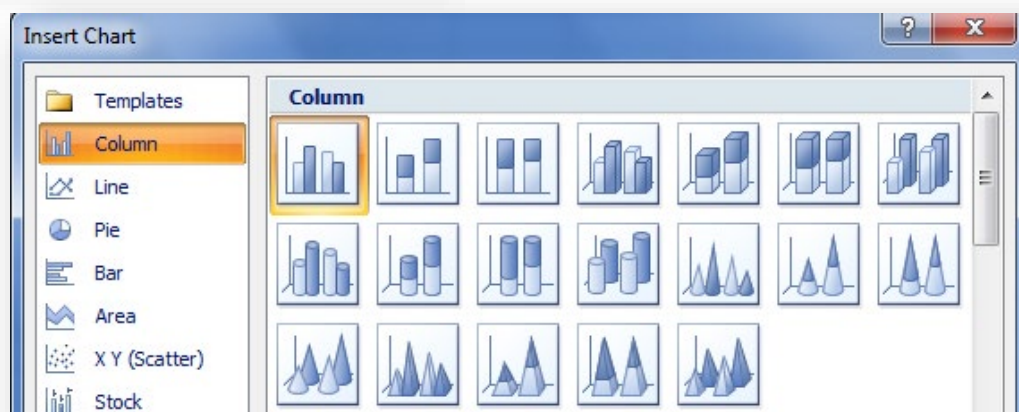


A Column chart is a good type for comparing values directly, and you want to compare how many cases each salesperson sold, so it's a good fit.

When choosing a chart type, it's often wise to keep it simple, so that your message comes across clearly.



As you can see in the chart above, Peacock sold the most cases in January and February, but Suyama pulled ahead in March. The sizes and colours of the columns tell the story at a glance.

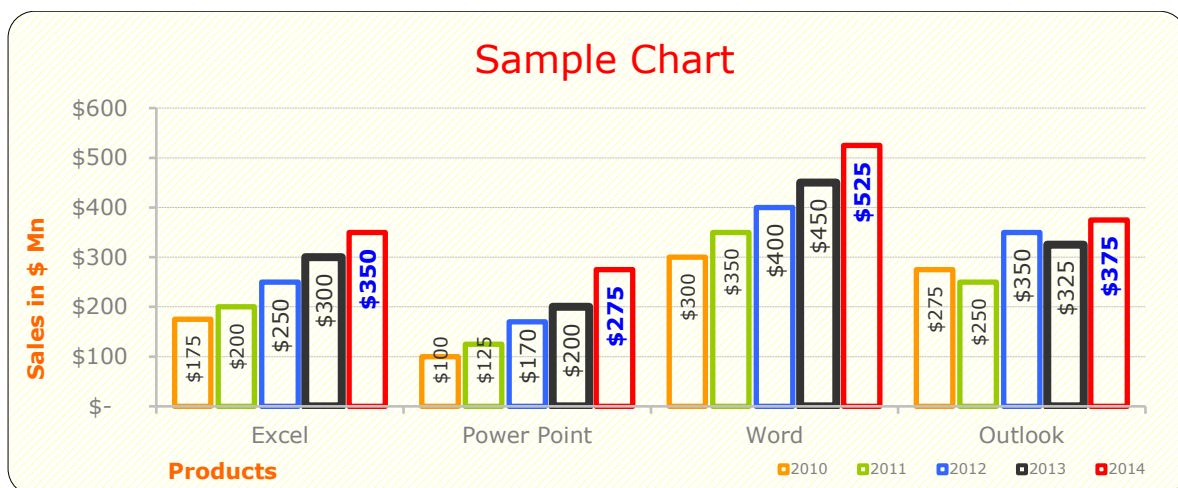
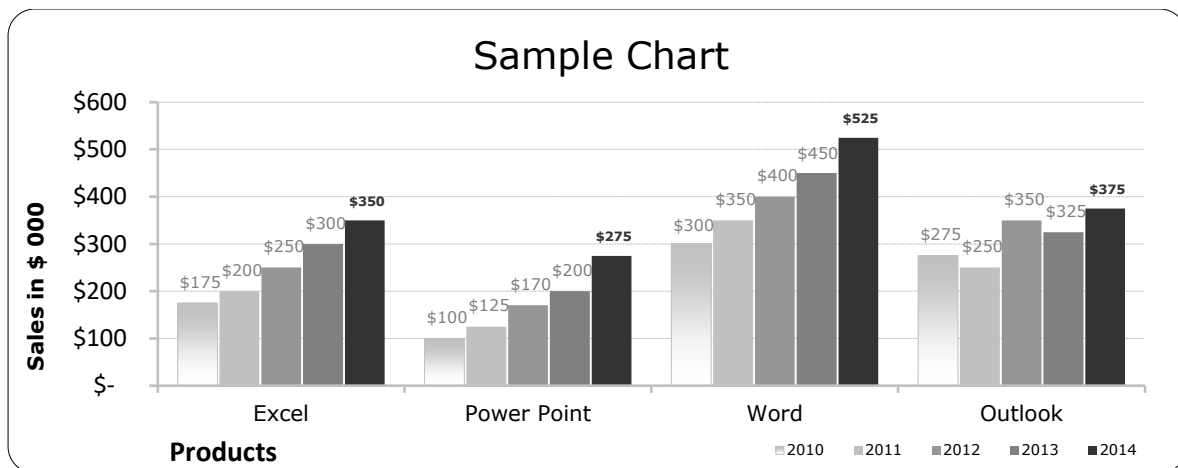
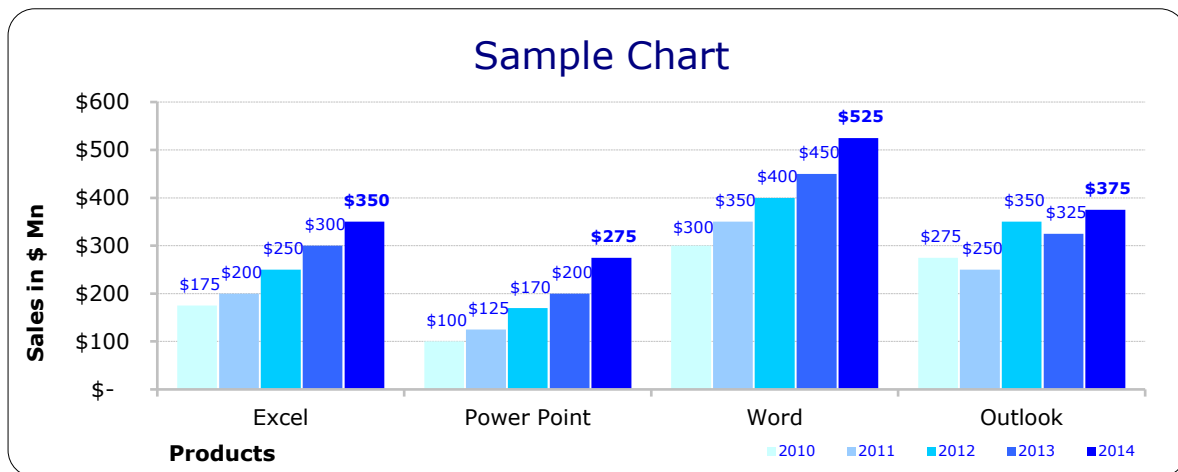


Examples of numerical placement in a Chart

Data used in this example:

Product Code	2010	2011	2012	Sales (in \$000)	
				2013	2014
Excel	\$ 175	\$ 200	\$ 250	\$ 300	\$ 350
Power Point	\$ 100	\$ 125	\$ 170	\$ 200	\$ 275

Word	\$ 300	\$ 350	\$ 400	\$ 450	\$ 525
Outlook	\$ 275	\$ 250	\$ 350	\$ 325	\$ 375



3.3 – Modify chart type and layout using formatting features

Features may include:

- Axes

- Axis title
- Borders
- Chart title
- Colours
- Data labels
- Data tables
- Fills
- Gridlines
- Legend
- Lines
- Patterns



After you create a chart, you can instantly change its look.

Instead of manually adding or changing chart elements or formatting the chart, you can quickly apply a predefined layout and style to your chart.

- Microsoft Office Excel provides a variety of useful predefined layouts and styles (or quick layouts and quick styles) that you can select from.
- You can do more with your data than create one chart. You can make your chart compare data another way by clicking a button to switch the chart view from one view to another.
- However, you can customise a layout or style of a chart further by manually changing the layout and style of the individual chart elements that are used in the chart.
- You cannot save a custom layout or format, but if you want to use the same layout or format again, you can save the chart as a chart template.

Change the layout of chart elements manually

1. Click the chart, or do the following to select the chart element for which you want to change the layout from a list of chart elements:

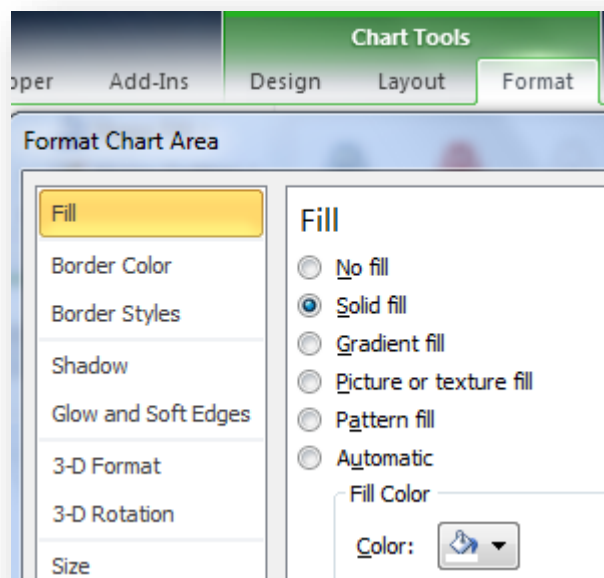
- a) Click a chart.

TIP This displays the Chart Tools, adding the Design, Layout, and Format tabs.

2. On the Format tab, in the Current Selection group, click the arrow next to the Chart Elements box, and then click the chart element that you want.

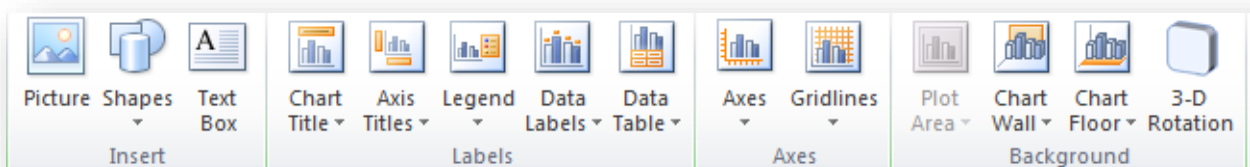


3. On the Format tab, in the Current Selection group, click the arrow next to the Chart Elements box, and then click the chart element that you want.

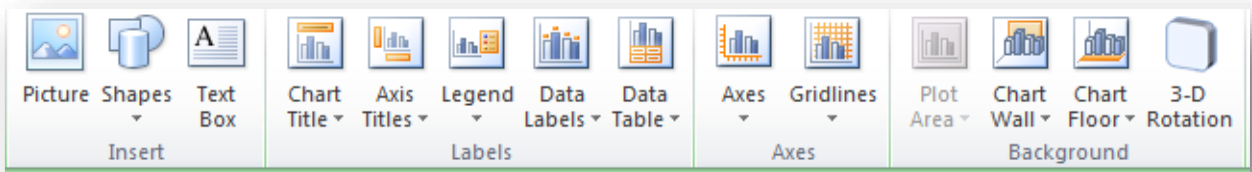


4. On the Layout tab, do the one or more of the following:

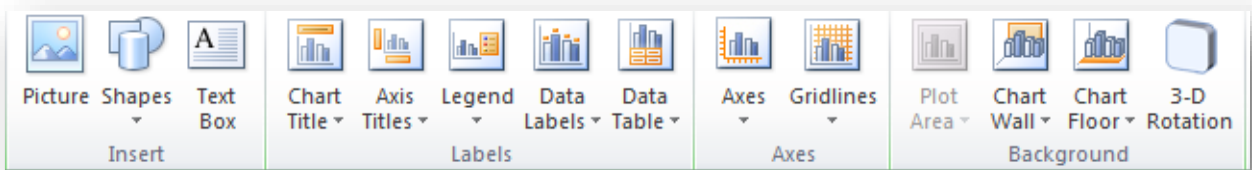
- o In the Labels group, click the label layout option that you want.



- In the Axes group, click the axis or gridline option that you want.



- In the Background group, click the layout option that you want.



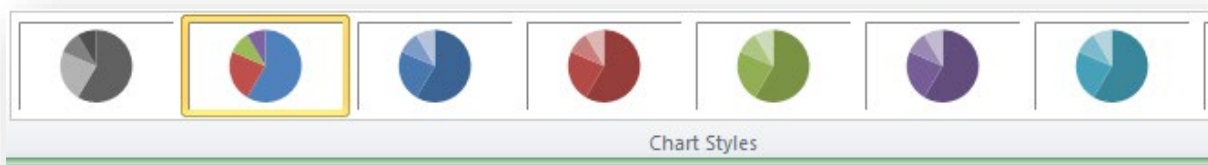
NOTE The layout options that you select are applied to the element that you have selected. For example, if you have the whole chart selected data labels will be applied to all data series. If you have a single data point selected, data labels will only be applied to the selected data series or data point.


Select a predefined chart style

1. Click the chart that you want to format.

TIP This displays the Chart Tools, adding the Design, Layout, and Format tabs.

2. On the Design tab, in the Chart Styles group, click the chart style that you want to use.



TIP To see all predefined chart styles, click More 

NOTE When the Excel window is reduced in size, chart styles will be available in the Chart Quick Styles gallery in the Chart Styles group.

TIP Chart styles use the colours of the current document theme that is applied to the workbook. You can change the colours by switching to a different document theme. You can also customize a document theme to display a chart in the exact colours that you want.

Select a predefined chart layout


1. Click the chart that you want to format.

TIP This displays the Chart Tools, adding the Design, Layout, and Format tabs.

2. On the Design tab, in the Chart Layouts group, click the chart layout that you want to use.



NOTE When the Excel window is reduced in size, chart layouts will be available in the Quick Layout gallery in the Chart Layouts group.

TIP To see all available layouts, click More 

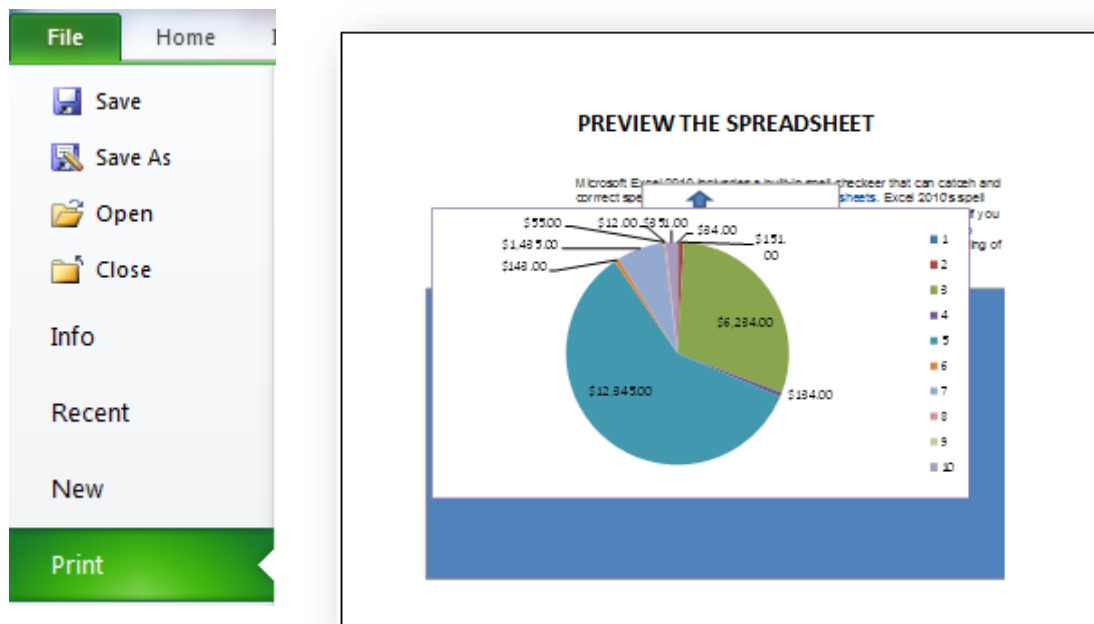
4. Finalise spreadsheets

4.1 – Ensure spreadsheet and any accompanying charts are previewed, adjusted and printed in accordance with organisational and task requirements

Printing may include:

- Fit on one page
- Fit specific number of pages
- With formulae
- With values

Previewing spreadsheets (Excel 2010)



Adjust and print spreadsheet

- Before you print a chart, you can adjust where the chart will print on the page by moving and sizing the chart in Page Layout or Page Break Preview view.
- You can also quickly print a chart without the worksheet data.
- For faster printing, you can change the print quality of the chart to draft quality or black and white printing.

Print a chart without worksheet data

You can print one chart without worksheet data per page.

1. Click the chart that you want to print.

TIP If the chart is on a separate chart sheet, click the chart sheet tab.

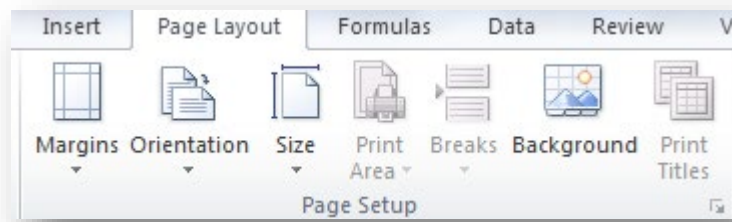
2. Click the Excel 2010 button , and then click Print. 

By default, the selected chart is displayed to see how the chart will look on the printed page.

NOTE You cannot scale a chart before you print it. Instead, you can move and size the chart area of the chart to adjust it as needed.

Set page options for a chart

1. On the Page Layout tab, in the Page Setup group, click the Dialog Box Launcher 



2. Do one or more of the following:
 - On the Page tab, specify the orientation, paper size, print quality, and the page number of the first page.

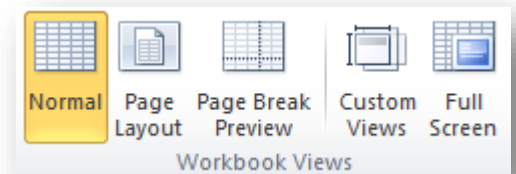
NOTE You cannot adjust the scaling of a chart.

TIP To quickly specify the orientation of the printed pages, on the Page Layout tab, in the Page Setup group, click Orientation, and then click Portrait or Landscape.

Print a chart with worksheet data

1. Click the worksheet that contains the chart that you want to print.
2. On the View tab, in the Workbook Views group, click Page Layout or Page Break Preview.
3. To move the chart, drag it to a preferred location on the page that you want to print.
4. To resize the chart, click the chart, and then drag the sizing handles to the size that you want.

TIP If a worksheet contains more than one chart, you may be able to print the charts on one page by reducing the size of the charts.

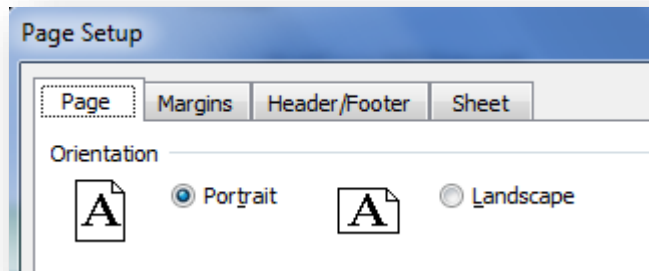


5. Click the worksheet.
6. Click the Excel 2010 **File** Button, and then click Print **Print**

NOTE By default, cell gridlines are not printed on a worksheet. To print the worksheet with cell gridlines displayed, see *Print with or without cell gridlines*

Printing

- By default, Excel prints worksheets in portrait orientation (taller than wide).



- You can change the page orientation to landscape (wider than tall) on a worksheet-by-worksheet basis.
- If you always want to print worksheets in landscape orientation, you can create a template, change the page orientation from portrait to landscape, and then use that template as the basis for all future workbooks.

NOTE Because you can set page orientation on a worksheet-by-worksheet basis, it is possible to print some worksheets in a workbook in one orientation (such as portrait orientation) and other worksheets in the same workbook in the opposite orientation (such as landscape orientation).



Simply set the orientation for each worksheet as appropriate, and then print the entire workbook.

Prints the whole worksheet

**Print a
entire**

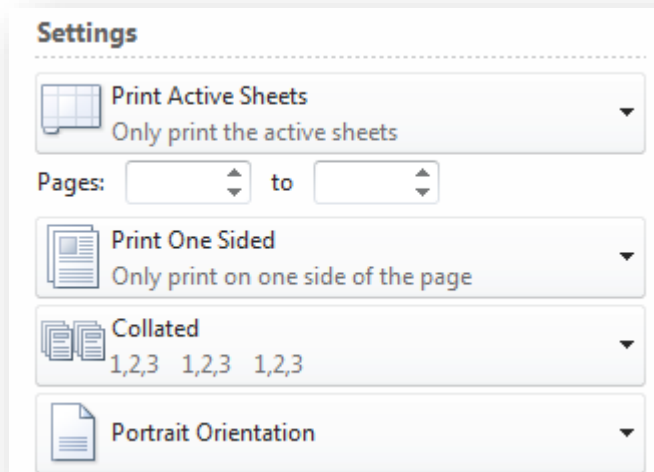
The image shows the 'Print' dialog box in Microsoft Excel. The 'Main' tab is selected. Under 'Printing Presets', there is a list of preset options on the left and configuration options on the right. The 'Orientation' section shows 'Portrait' selected. The 'Document Size' is set to 'A4 210 x 297 mm'. Other options include 'Borderless', 'Paper Type' (plain papers), 'Quality' (Normal), and 'Color' (Color).

**partial or
worksheet or
workbook**

1. Do one of the following:
 - To print a partial worksheet, click the worksheet, and then select the range of data that you want to print.
 - To print the entire worksheet, click the worksheet to activate it.
 - To print a workbook, click any of its worksheets.
 - Click the Excel 2010  Button, and then click Print 

Keyboard shortcut: You can also press CTRL+P.

- Under Print what, select an option to print the selection, the active sheet or sheets, or the entire workbook.



NOTE *If a worksheet has a defined print area, Excel will print only the print area. If you don't want to print a defined print area, select the Ignore print areas check box.*

4.2 – Ensure data input meets designated timelines and organisational requirements for speed and accuracy

Designated time lines may include:

- Organisational time line e.g. financial requirements.
- Time line agreed with internal/external client.
- Time line agreed with supervisor/person requiring spreadsheet.

Designated time lines may be:

- By month end
- Monthly
- Within agreed period
- Within organisational deadline



General administration timelines can be met if you observe common sense principles:

- Determine when the task must be accomplished by you.
- This becomes your end point on the timeline.

3. Calculate how long you have from the current date until the deadline arrives.
4. Write down specifically what needs to be done by the deadline.

For example, determine exactly the data input needs that are drawn from a range of sources either within your organisation or from external providers.

1. Divide the goal into smaller logical steps.
2. Think about what individual actions you need to take in order to get to the end result you defined.
3. Estimate how much time each step will take to complete. Use prior experience or your knowledge of the amount of work involved in processing the data.
4. Add up your time estimates to determine if the total time needed fits within the actual amount of time you have left or what has been determined as organisational requirements for speed and accuracy.
5. If not, adjust the time lengths for each step as necessary to fit the timeline.
6. Monitor your progress on each smaller step and toward the end goal at regular intervals. Make any adjustments to the timeline as necessary if you fall behind or get ahead of the estimated due dates.

4.3 – Name and store spreadsheet in accordance with organisational requirements and exit application without data loss/damage

Naming and storing spreadsheet may include:

- Authorised access
- File naming conventions
- Filing locations
- Organisational policy for backing up files
- Organisational policy for filing hard copies of spreadsheets
- Security
- Storage in electronic folders/sub-folders
- Storage on CD-ROM, USB, tape back-up, server

Naming and storing spreadsheet may include

The Open XML file formats and their extensions are used by Microsoft Word 2010, Microsoft Excel 2010, and Microsoft PowerPoint 2010.

Excel 2010 or Office

Excel Workbook. .xlsx The default Excel file format. Cannot store VBA macro code or Microsoft Excel 4.0 macro sheets (.xlm files in Excel 4.0).

Excel Macro-Enabled Workbook. .xlsm. Uses the same basic XML format as the Excel Workbook, but can store VBA macro code. Users saving an Excel workbook that has VBA code or Excel 4.0 macro sheets (.xlm files in Excel 4.0) are prompted to use this file format.

EXCEL

XML FILE TYPE	EXTENSION
Workbook	.xlsx
Macro-enabled workbook	.xlsm
Template	.xltx
Macro-enabled template	.xltm
Non-XML binary workbook	.xlsb
Macro-enabled add-in	.xlam

Filing locations

You can keep track of when records in a table are last modified, by using a form with a macro. When the form is used to modify a record, the macro stores the date and time in the table. Only the most recent modification date and time are stored.

The My Places bar is on the left side of some dialog boxes, such as Save As, Open, and Insert Picture, that allows you to specify a folder where you want to store your files. You can use the My Places bar to help save time getting to your folders and help make it easier to access your files in your various folders. After you update the My Places bar in one dialog box, the changes are available in the other dialog boxes with the My Places bar.

Security

Viruses, worms, Trojan horses, phishing, and spyware are security threats to your computer and data.

- **Virus** Software (or code) written with the express intention of replicating itself. A virus attempts to spread from computer to computer by attaching itself to another file or program.
- **Worm** Software that replicates independently by sending itself to other systems through network connections.
- **Trojan horse** Software that appears to be useful or harmless but that contains hidden code designed to exploit or damage the system on which it is run.
- **Spyware** Software that can display advertisements (such as pop-up ads), collect information about you, or change settings on your computer, generally without appropriately obtaining your consent. You usually download spyware without knowing it by visiting untrustworthy Web sites.
- **Phishing** A way of extracting personal information from you such as bank or credit card details, normally done via e-mail. There are also some phishing schemes designed to put spyware on your computer. The good news is that Outlook 2010

has anti-phishing features.

What are your storage needs?

- All organisations, large and small, need more space for data storage.
- Documentation in the form of e-mails, word documents, presentations, databases, graphics, audio files and excel spreadsheets is the lifeblood of most organisations.
- As the applications that run and protect your business require more and more memory and space so does the growth of storage options and storage protocols.
- The protocols and procedures for saving files, storing and backup are usually part of an operating policy so the organisation can minimise loss of data.
- Assess your storage needs associated with each application, the data it is producing and how and where you will access that data.



Exit the application without data loss/damage

- You can close each of these workbook windows one at a time, or you can close the whole workbook (including all of its workbook windows). To close all workbooks that are open, you can close the Excel window or exit Excel.





Close the active workbook window

1. Click the workbook window that you want to close.
2. In the upper-right corner of the workbook window, click Close Window.




NOTE *If the window is the only open window of the workbook, the whole workbook is closed. If there are more workbook windows of the same workbook, only the active workbook window is closed.*

Close a workbook

- Activate the workbook that you want to close.
- Click the Excel 2010  Button
- Click the  Button.

Close all workbooks and exit Excel without data loss/damage

Do one of the following:

- In the upper-right corner of the Excel window, click Close Window 
- Click the Excel 2010  Button
- Click the  Button.

Prevent data loss:

- Never store your documents on the same drive as your operating system
- Back up your files regularly, no matter where they're stored
- Beware of email attachments
- Beware of user error
- Keep hardcopies of your documents

References

These suggested references are for further reading and do not necessarily represent the contents of this learners guide

- Excel 2007 Bible [Paperback], John Walkenbach (Author)
- Excel 2007 Formulas (Mr. Spreadsheet's Bookshelf) [Paperback], John Walkenbach (Author)
- Learn Excel 2007 Essential Skills with The Smart Method: Courseware tutorial for self-instruction to beginner and intermediate level [Paperback], Mike Smart (Author)
- Microsoft® Office Excel® 2007 Step by Step (Step By Step (Microsoft)) [Paperback], Curtis Frye (Author)