BSBWOR204
Use business technology
Release 1

Learner guide

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Aspire Version 1.1

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Contact details

Participant
Name:
Start date:
Phone number:
Email:

Work location
Name:
Address:
Postal address:
Workplace supervisor name:
Phone number:
Fax:
Email:

Registered Training Organisation (RTO)
Name:
Address:
Postal address (if different):
Phone number:
Fax:
RTO contact name:
Mobile:
Email:

Contents

Before you begin

This learner guide is based on the unit of competency *BSBWOR204 Use business technology*, Release 1. Your trainer or training organisation must give you information about this unit of competency as part of your training program. You can access the unit of competency and assessment requirements at: www.training.gov.au.

How to work through this learner guide

This learner guide contains a number of features that will assist you in your learning. Your trainer will advise which parts of the learner guide you need to read, and which practice tasks and learning checkpoints you need to complete. The features of this learner guide are detailed in the following table.

Feature of the learner guide	How you can use each feature
Learning content	Read each topic in this learner guide. If you come across content that is confusing, make a note and discuss it with your trainer. Your trainer is in the best position to offer assistance. It is very important that you take on some of the responsibility for the learning you will undertake.
Examples and case studies	Examples of completed documents that may be used in a workplace are included in this learner guide. You can use these examples as models to help you complete practice tasks and learning checkpoints. Case studies highlight learning points and provide realistic examples of workplace situations.
Practice tasks	Practice tasks give you the opportunity to put your skills and knowledge into action. Your trainer will tell you which practice tasks to complete.
Video clips	Where QR codes appear, learners can use smartphones and other devices to access video clips relating to the content. For information about how to download a QR reader app or accessing video on your device, please visit our website: www.aspirelr.com.au/help
Summary	Key learning points are provided at the end of each topic.
Learning checkpoints	There is a learning checkpoint at the end of each topic. Your trainer will tell you which learning checkpoints to complete. These checkpoints give you an opportunity to check your progress and apply the skills and knowledge you have learnt.

Foundation skills

As you complete learning using this guide, you will be developing the foundation skills relevant for this unit. Foundation skills are the language, literacy and numeracy (LLN) skills and the employability skills required for participation in modern workplaces and contemporary life.

The following table outlines specific foundation skills noted for your learning in this learner guide.

Foundation skill area	Foundation skill description
Reading	• Recognises and interprets information from familiar sources to determine job role and task requirements
Writing	• Produces and amends files to meet task and organisational requirements • Completes required documentation using organisational formats
Oral communication	• Uses specific and relevant language to refer faults to others
Navigate the world of work	• Recognises and follows legislative requirements and organisational policies and procedures associated with own role
Get the work done	• Uses business technologies and systems safely, when gathering, storing, accessing and sharing information • Understands purposes, specific functions and key features of common digital systems and business tools • Operates digital systems and business tools effectively to complete routine tasks using some basic troubleshooting strategies as required

What do you already know?

Use the following table to identify what you may already know. This may assist you to work out what to focus on in your learning.

Topic	Key outcome		Rate your confidence in each section
Topic 1: Select and use business technology	1A	Select appropriate technology and software	❑ Confident ❑ Basic understanding ❑ Not confident
	1B	Use ergonomic practices	❑ Confident ❑ Basic understanding ❑ Not confident
	1C	Use technology according to organisational requirements	❑ Confident ❑ Basic understanding ❑ Not confident
Topic 2: Process and organise data	2A	Manage files and records	❑ Confident ❑ Basic understanding ❑ Not confident
	2B	Operate input devices	❑ Confident ❑ Basic understanding ❑ Not confident
	2C	Store data and exit applications safely	❑ Confident ❑ Basic understanding ❑ Not confident
	2D	Access and use help	❑ Confident ❑ Basic understanding ❑ Not confident
Topic 3: Maintain technology	3A	Identify and use business technology consumables	❑ Confident ❑ Basic understanding ❑ Not confident
	3B	Maintain business technology	❑ Confident ❑ Basic understanding ❑ Not confident
	3C	Identify equipment faults and take appropriate action	❑ Confident ❑ Basic understanding ❑ Not confident

Topic 1
Select and use business technology

All office environments use a variety of technology to carry out their work. Business technology includes any hardware or software used to complete workplace tasks. For example, the technology you use might include a computer and monitor, software, a scanner, a photocopier, a printer, a fax machine and a shredder. To select appropriate technology and software for your tasks, you need to understand the functions of the technology available to you.

You also need to understand the operational guidelines for using the equipment safely. If you are working at a computer for an extended period each day, you should make sure your workstation is comfortable and designed so you can carry out your tasks efficiently. You will need to organise your work so you aren't doing a repetitive task for a long time. You also need to take time to stand up and stretch.

You must learn how to use technology according to your organisation's requirements; for example, you should know your organisation's login procedures and how to name, open and close files. You must be aware of your workplace's work health and safety (WHS) policies and procedures.

In this topic you will learn how to:

1A   Select appropriate technology and software
1B   Use ergonomic practices
1C   Use technology according to organisational requirements

1A | Select appropriate technology and software

Technology varies from organisation to organisation. All workers should receive training in the technology they need to use. Organisations should have training manuals specific to the equipment used. If you are unsure, ask your manager or work colleagues to tell you where manuals are stored.

Before you can select the appropriate technology for your work, you need to understand how each type of business technology functions. Computers will be examined first as they have become essential in workplaces. Here is a basic outline of personal computers and laptops, and the benefits of using both.

Personal computers

A computer is an electronic device for storing and processing information. A personal computer has a separate hard drive and monitor that are attached to other equipment such as a keyboard and mouse. Personal computers are used in all organisations to carry out many different tasks. Organisational data is usually processed using a computer and different software applications.

Laptops

A laptop is a small, portable computer that has its hard drive, screen and keyboard within the same piece of equipment. Laptops are popular as they are portable, lightweight and don't solely rely on a plug-in power supply (they have rechargeable batteries). However, laptops have disadvantages. Their small size makes them easy to steal, and they are not adjustable and, therefore, not as comfortable to use unless a separate laptop stand is available.

Technological devices

The following devices are used for a range of functions, including capturing images and storing data, connecting, copying, binding, finishing and shredding.

Office technology

Digital cameras

A digital camera takes photographs using an electronic imaging sensor, rather than film. Digital photos can be downloaded directly to a computer and the image can be altered or enhanced before being used. Organisations frequently use digital cameras to quickly record images and insert them into documents such as newsletters and reports. Most mobile phones also have digital camera capabilities.

Scanners

Scanners convert hard copy (paper) information into digital (electronic) information, which you can send electronically via email

An image of handwriting, or map on paper, converted into an electronic image, can be inserted into the document you are working on. It can also be resized or cropped if you only want a part of the image. This can also be done using a digital photo instead of a scanned image. In most offices, scanners are incorporated into a photocopier.

Shredders

Paper shredders are very useful in the workplace to destroy sensitive or confidential workplace information. Paper shredders slice documents into long thin vertical strips and render them unreadable. The Privacy Act 1988 (Cth) places particular restrictions on the sharing and use of information in the workplace.

Modem

The word 'modem' stands for modulator/demodulator. A modem converts digital signals from a computer into analogue sound signals that can be sent over a telephone line. It is a device that lets a computer talk to another computer over a telephone line; that is, it connects you to the internet. In the workplace, a modem is connected to a server and personal computers are connected to the server with a network cable.

Wireless router

The internet connection of an organisation's computers is likely to be made through a wireless ADSL router. Incoming and outgoing data will be sent wirelessly to and from the organisation's wireless router, which connects by cable to the internet.

Other technological devices

Here are some examples of other technological devices that can be used for a range of functions.

Binders

A binder is a machine that binds a quantity of paper together. It is often used in a business environment for important reports that need to look professional, such as an annual report.

Laminators

You may need to use laminating machines in your workplace. Laminators attach a permanent film of plastic over posters, papers and signs. This helps to prevent these items from tearing, and makes them last longer.

Cutters

A paper cutter or guillotine cuts large blocks of paper in a single action. When using any business equipment, be mindful of personal safety. Make sure you follow your workplaces procedures for using this equipment, or ask your supervisor if you are unsure.

Printers and photocopiers

Officers frequently have one piece of equipment known as a printer copier, which does the work of photocopiers and printers. Smaller offices may still have both separate pieces of equipment.

Photocopiers make paper copies of documents and most businesses need the ability to do this. There are many different photocopiers with different functionality, and you will need to familiarise yourself with the photocopier in your workplace. Remember to refer to your workplace procedures for guidance on how to use the photocopier in your workplace.

A printer is a device that produces a paper copy of the information displayed on your computer screen. The main differences between printers include the printing speeds, the quality of the print, the extra options available and the cost.

Your organisation may have several printers, so you will need to know which one is most appropriate for your printing task. For example, does your document need to be printed in colour or in black and white? Do you need to print on one side or both sides of the paper? Is it okay to use recycled paper, or do you need to use 'clean' paper? Do you need to print at actual size or can you scale the copy down to fit one page?

Before you press 'print', consider:

* the specific requirements of your task
* the software application you are using
* the capabilities of your printer.

Select appropriate software

If you begin working in an office, you will have to operate business software. You need to find out what kind of software your organisation uses, and request training if you don't know how to use it.

There are two major categories of software: system software and application software. System software supports application software, but is not specific to any particular application. An example of system software is the Windows 8 operating system. Application software has a particular data-processing function. Examples of application software are Microsoft Word, Access and Excel.

Here are examples of the main types of application software available.

Types of application software
Word processing
Spreadsheets and accounting
Database
Presentation
Email
Web browsers

Select appropriate software

Types of software

You need to choose appropriate technology for each workplace task. Consider the outcome and what it is you want to produce. The type of technology you use depends on the type of documents you need. For instance, use Microsoft PowerPoint to develop a slide show presentation, rather than Microsoft Word.

Here are examples of commonly used types of software.

Word processing software

Word processing software allows the user to create, store and print written documents. You can type, edit and insert graphics to create documents that you can easily print and save. The most commonly used word processing software is Microsoft Word.

Spreadsheets and accounting software

In accounting, a spreadsheet is a large sheet of paper that displays the financial transactions of a company. Spreadsheet software records and processes accounting transactions within areas such as accounts payable, accounts receivable and payroll. It spreads, or shows, all the information, such as costs, income, taxes, on a single sheet and organises information into columns and rows. The data can then be manipulated by a formula to give a total or sum.

A spreadsheet presents a lot of information in an easy-to-read format. It helps the decision makers see the financial 'big picture' of an organisation. The most commonly used spreadsheet software is Microsoft Excel. Alternatively, you may need to use designated accounting software such as Attaché. Attaché includes features that manage a business's accounts payable, accounts receivable, payroll, stock, customer orders, etc.

Database software

A database organises information a way that allows you to quickly find a desired piece of data or information. Data is organised by fields, records and tables.

A field is a single piece of information; for example, a client's surname. A record is one complete set of fields; for example, a client's complete name and address. A table is a collection of records; for example, every client's name and address.

A database allows an organisation to store, modify, and extract information about customers and products; for example, a database full of client details can be used to extract information about all clients who live in a certain area. Common database software includes Microsoft Access and MySQL.

Other types of software

A single job may require you to use different business software and equipment. For example, you might be asked to design a slide show presentation for your manager and supply them with a hard copy of your notes. To do this you would need to use both presentation and word processing software. You would also need to use a printer to print out the notes. Here are further examples of commonly used types of software.

Presentation software

Presentation software is used to create slide shows or multimedia presentations. It usually includes three major functions:

- The slide show system to display content
- An editor that allows text to be moved around from slide to slide
- A graphics system for quickly drawing charts and graphs.

Presentation software is frequently used to give a clear, visual display of the points covered in a talk. The most commonly used presentation software is Microsoft PowerPoint

Email software

Email is a system of exchanging messages using computers attached to a network. Email servers exchange messages using SMTP (Simple Mail Transfer Protocol). Users log into servers to send and receive email using an email protocol (a set of rules). Email protocols include POP3 (Post Office Protocol 3), IMAP (internet Message Application), and MAPI (Messaging Application Programming Interface).

Every internet domain or host has an email server that manages all addresses in that domain. Each email address is expressed in the form of 'name@ domainaddress' and is unique in that domain. A domain address is usually the name of an organisation, its field and location, as in: simone@cheapmovers. com.au. This domain address tells us that Simone works at Cheap Movers, a company (com) based in Australia (au).

Web browsers

The internet is an interconnecting network of computers from around the world that communicate with each around. It started with four interconnected computers developed by the US Department of Defence in 1969 and was known as ARPA net, the Advanced Research Projects Agency Network. The internet has a rich range of useful features, capabilities and functions. Knowing how to use and get the most out of the internet helps organisations communicate, research new products and services, advertise their own products and services, and gain a greater understanding of competitors.

For a computer to gain access to the internet, it needs to have a web browser. Web browsers provide a way to look at all the information on the internet or World Wide Web. There are four leading web browser applications: Microsoft Internet Explorer, Safari, Mozilla Firefox, and Google Chrome.

To search for information on the web, you need to use a search engine. A search engine receives a user's question, searches its database for documents most relevant to the question and returns a relevance-ranked list of documents back to the user. Search engines include Google, Bing and Yahoo Search.

Practice task 1

1. List two advantages and two disadvantages of using a laptop computer instead of a personal computer.

2. Name of a piece of technology that could perform each of the following functions. For example, if the functions was 'Allows a computer to talk to another computer over a telephone line', the answer would be 'modem'.

   a) Electronically capture a photograph

   b) Cut large blocks of paper in a single action

   c) Process data in a lightweight and portable way

   d) Produce a paper copy of digital information

   e) Convert hard copy information into digital information

   f) Cover signs and posters in plastic film

   g) Bind documents, such as an annual report

... continued

3. What software organises information in such a way that a computer program can quickly select a piece of data?

4. What software would you use if you wanted to type, edit and insert graphics to create documents that you can easily print and save?

5. Is Google Chrome a search engine or a web browser?

6. What is the domain name part of your own email address?

1B | Use ergonomic practices

Ergonomics is about creating comfortable conditions to work in. It is concerned with fitting the job to the worker, rather than the worker to the job. This is done by adapting workstations, tools and equipment to suit each worker's individual needs.

Using good ergonomic practice reduces the risk of accident and injury, and the potential for ill health. It also improves overall performance and productivity at work.

Aspects of ergonomic practice
• Workstation design • Equipment and posture • Environmental factors • Organising your work

Set up your workstation

An office workstation is usually made up of a chair, desk, computer, monitor, keyboard and mouse. You spend a lot of time at your workstation, so a badly designed workstation will have a negative impact on your health and wellbeing.

Chair

You should adjust your chair height so your feet are completely flat on the floor, your thighs are horizontal and your lower legs are vertical to the floor.

Most office chairs have adjustable backrests. You should raise the backrest to maximum height, and then move it down until it fits the curve of your lower back. If this is uncomfortable, lower it a few more centimetres. Continue lowering it until you find a comfortable position. Make sure the backrest supports your lower back.

The backrest on some chairs can also be adjusted backwards and forwards. Sit in your usual working position and move the backrest until it exerts a gentle pressure on your lower back. Make sure you have at least two centimetres of space between the front of the seat and the back of your knees. The armrests of your chair need to be in a position that doesn't interfere with the way you carry out tasks.

Here is an example of a checklist that can help you set up your chair.

Office chair checklist:
- ❑ Chair is high enough and can be adjusted.
- ❑ You can sit comfortably over the keyboard.
- ❑ Chair is stable and swivels.
- ❑ Height of the backrest is adjustable, and tilts backwards and forwards.
- ❑ If it has arms, you can still get close enough to the desk and swivel the chair.
- ❑ Your feet are flat on the floor. You have a footrest if necessary.
- ❑ You sit up straight with the backrest firm against your back.

Desk

When you sit at your desk, the surface should be just below your elbow height. If your desk is not height-adjustable, try raising your chair so you are sitting at the correct height, and use a footrest to make up the difference.

If your desk is too low, you may be able to extend the legs. You should have plenty of leg space underneath your desk. Don't clutter the space with bags and bins, as your legs may become cramped and your posture twisted. The equipment you use should be placed so you can easily reach it without twisting; for example, put the stationery items you frequently use in the top desk drawer. Place your keyboard and screen directly in front of you so you don't have to tilt or twist your body.

Here is an example of a checklist that can help you set up your desk.

Office desk checklist:

☐ Desk is large enough, and the monitor and keyboard are correctly positioned.

☐ Desk is high enough for your thighs fit comfortably underneath.

☐ Desk is low enough for your forearms to be horizontal when using the keyboard.

Mouse

Place the mouse and mouse mat directly next to your keyboard on the side you prefer. If you use the mouse a lot, try to alternate sides. You may be surprised at how easy this becomes with practice. Your wrist should be straight. The desk should support the weight of your wrist, not your arm. Try to keep your wrist flat and rest your fingers on the mouse between clicks. Hold the mouse lightly. Don't hold onto the mouse when you are not using it.

Keyboard

You can adjust the angle of your keyboard to suit you by moving the supports underneath it. Place the keyboard as close as possible to the front of your desk. Don't place documents between yourself and the keyboard, as stretching will eventually cause muscle strain in the arms, shoulders and neck.

It is best not to rest your wrists while typing, as they should not be bent up, down or to the side. Tilt the keyboard down slightly, away from you. The knuckle, wrist and top of your forearm should form a straight line. Wrist supports, or rests, should only be a place to rest your hands when you take a pause – not while you are typing. Do not pound the keys. Use a light touch. Leave enough room on your desk to put the keyboard away to one side when you aren't using it.

Here is an example of a checklist that can help you set up your keyboard.

Office keyboard checklist:

☐ You can tilt the keyboard and adjust the height or angle.

☐ The symbols on the keys are clear and easy to see.

☐ There is enough space in front of the keyboard and you can correctly position your arms.

Monitor

Adjust the monitor so the top of the screen is level with, or slightly lower than, your eyes. The screen should be at least an arm's length, away from your seated position to minimise your exposure to radiation. It is best to position the monitor so you can clearly read the text without leaning forward, twisting your neck or looking up too far.

As you position your monitor, consider surrounding factors such as reflection, glare and shadows. A glass filter can be fitted to your monitor to absorb overhead lighting and sunlight reflecting off the screen. This helps to provide a clear, sharp and almost glare-free image.

Here is an example of a checklist that can help you set up your monitor.

Office monitor checklist:
- ❑ You can easily adjust brightness and contrast controls.
- ❑ The image on the screen is stable and flicker-free.
- ❑ You can tilt, swivel or raise the screen to avoid glare and maintain a natural and relaxed posture.
- ❑ You sit far enough away from the monitor for comfort and safety.

Desktop layout

The layout of your desktop is also important. Everything on your desk, including equipment and resources, should be arranged within easy reach.

Your desk area can be divided into three zones:

1. The optimum-reach sector: the area closest to you, where your hands operate most of the time

2. The maximum-reach sector: further away, but still close enough to reach comfortably

3. The outer-reach sector: where you may have to bend forward or stand to reach items.

Organise your desk in the following way:
- Frequently used objects, such as your keyboard, should be close
- Intermittently used objects, such as your telephone, should be out of the way but still within easy reach.
- Less frequently used resources, such as in-trays and out-trays, should be in the outer-reach zone

Equipment and posture

Always adjust your workstation to suit your body shape and size, and the tasks you are doing. Also consider your posture.

If you have poor posture, you can suffer from aches and pains. Spending a long time in the same position puts stress on the body. This is made worse if you are in an uncomfortable or poorly supported position. Your symptoms may be slight to begin with; however, continued poor posture will make them worse. It can result in cumulative stress, which is caused by constant stress on your muscles, nerves or tendons.

Here are examples of more things that can assist in improving your posture at your workstation.

Document holders

A document holder holds paper and reference material in a convenient position. It is a good idea to place it at a similar level, angle and distance as your monitor to avoid changing your eye focus. If it is below the monitor, or too far off to the side, your eyes will have to adjust each time you look from one source to the other. If you do this for too long, it can cause headaches and eyestrain.

Angle boards

An angle board allows you to maintain good posture while reading because it reduces the angle between the work surface and your vertical posture. You may need to adjust the height and angle of your angle board so that you can read comfortably with your neck as straight as possible.

Footrests

If you can't place your feet comfortably on the floor, you might need to use a footrest. A footrest allows your feet to rest at a tilting angle. This prevents strain on the lower back. Make sure your footrest has an adjustable height and heel stop and is big enough to allow your feet to move around.

Headsets

If you use a telephone for long periods of time, use a headset. A headset keeps your neck straight and your arms free. Headsets prevent you from bending your neck to support the telephone handpiece.

Environmental factors

Environmental factors in the workplace include light, noise and air quality. If your work environment isn't monitored or controlled you may suffer adverse effects, such as headaches, fatigue, hearing loss or eyestrain.

Light

Good lighting is essential for a safe and hazard-free workplace. You need to see things clearly to work effectively. Improper lighting can cause eyestrain and headaches.

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Here is further information about hazards associated with lighting and tips on reducing these.

Lighting hazards

Hazards associated with lighting include:

- Glare: a computer screen positioned in front of a bright window is difficult to see
- Flickering lights: a fluorescent globe might malfunction, causing irritation and nausea
- Inadequate or dim light: reading in dim light causes eyestrain
- Reflections: sunlight reflecting on a screen makes it very difficult to read
- Shadows: shadows shifting across your work area may cause you to sit with bad posture when reading.

Avoiding hazards

Simply shifting the screen slightly, using desk lamps, adjusting blinds and the brightness settings on the screen can avoid many light hazards. Try to:

- use natural sunlight whenever possible
- keep bulbs and fixtures clean
- focus light on your task
- use fluorescent lights wherever possible.

Noise

Noise can be considered to be any annoying or disturbing sound. Excessive noise from heavy machinery or equipment can cause permanent hearing loss. Noise can come from outside the office; for example, on a factory floor, a construction site or near an airport. Noise is a problem if it disturbs people, distracts them, inhibits communication, causes stress or generally interferes with their work. However, remember that noise is only a hazard if it stops you from working productively, comfortably and safely. Most people prefer to work with low levels of noise, rather than in complete silence.

Noise in the office can come from a variety of sources, including machines such as printer copiers, background noise and people talking.

Ways to control problem noise in the workplace

Consider noise levels when setting up a workstation in an open plan office. Workers still need some privacy when they are on the telephone and carrying out duties.

You may have to wear ear protection if you are required to work in, or visit, excessively noisy areas

Noisy machines can be put in a separate room or area.

Sound-absorbent materials, such as carpet and partitions, can be installed or arranged to deflect and absorb noise.

Lower the volume level on your speaker phone.

Air quality

The air quality in an office is also important. It should not be too hot, cold or stuffy. Achieving the right balance can sometimes be difficult. They can also suffer from dry and itchy eyes. The situation may be corrected by adjusting the air-conditioning. The air in an office should also be kept as clean as possible, even if it is circulated and there is little opportunity for fresh air or open windows.

Sometimes people in an office complain of headaches, tiredness, dizziness, nausea, and irritation of the eye, nose and throat. If this happens, your building could be suffering from Sick Building Syndrome (SBS). SBS is rare, but it is useful to be aware of it. Contact your work health and safety officer or supervisor as soon as possible if there is a breakdown in the air-conditioning system or increased incidents of employees becoming ill.

Mix up work activities and tasks

Having a well-planned workstation and comfortable surroundings won't prevent injury if you don't organise your work properly. You need to make sure you plan your daily tasks in a way that prevents you from performing repetitive tasks for long periods of time.

Where possible, it is a good idea to mix up your tasks and activities, take rest periods and have exercise breaks. Here is more information about these strategies.

Mixing up activities

You may have to perform repetitive tasks at work, such as typing up reports or entering data. The best way to prevent repetitive actions that cause stress on your body is to make sure you carry out a variety of tasks during the day. For example, if you have to enter a lot of data, break the repetitive nature of the task by performing other tasks associated with the project such, as discussing the project with a fellow worker, doing some research from the internet or reading related material. Tasks should be designed to prevent one person being responsible for a lot of repetitive tasks.

Taking rest and exercise breaks

All employers need to provide rest periods for employees. Rest periods may be tea or lunch breaks. During the working day, everyone needs to sit down, breathe easily, relax and take time to think about something other than work.

If you work with a computer, you should take short breaks at regular intervals to combat stress and prevent pain and discomfort. Using a computer for too long without a break has been associated with backaches, neck ache, headaches, migraines and eyestrain.

Perform stretches several times a day and encourage others around you to try them too. Make sure you are relaxed and stretch gently. Stop if you feel any pain or discomfort, and remember to exercise both sides of your body. Breathe deeply and evenly throughout each stretch

Example: stretching exercices

1. Neck: Turn your head gently to look over your right shoulder. Hold for 10 seconds. Now roll your head forward to look over your left shoulder and hold for 10 seconds. Repeat several times.

2. Shoulders: Sit with a straight back and neck. Roll your shoulders forward, then back. Repeat three to five times.

3. Wrists, hands and arms: Interlace your fingers with your palms turned outward. Now lift your arms over your head and stretch, leaning gently to the left and then to the right. Repeat several times.

4. Upper and lower back: Stand and place your hands in the small of your back. Gently arch your back and hold for 10 seconds. Repeat when needed.

5. Shoulders and arms: Stretch your arms above your head. Cradle one elbow with your hand and gently pull the elbow behind your head. Repeat this on the other side. Hold each stretch for 10 seconds.

6. Eyes: Every 20 minutes, look away from the screen. Focus on a distant object (more than three metres away).

Practice task 2

Read the case study, and then answer the questions that follow.

Case study

Adam is a personal assistant in a large organisation. He spends at least six hours every day working at a computer. His duties involve typing up hand-written documents, reading documents and answering the telephone. Adam frequently suffers from headaches, a sore neck and a sore lower back.

1. What sort of equipment could be used to make Adam's workstation ergonomic?

2. How can he organise his work better?

3. Think of a time when you have had physical discomfort at work. Describe the situation and suggest how your work practice could have been improved. For example, could you have changed your posture, used different equipment or organised your work differently?

1C | Use technology according to organisational requirements

All organisations have policies and procedures for using technology. All staff should be aware of these policies and procedures and be trained to use the relevant technology. If you are unsure of any aspects of technology operation, ask your manager for advice.

Organisational requirements for the use of technology include:

- using login procedures
- locating data
- identifying, opening, closing, saving and storing files
- complying with legal requirements and following organisational policies and procedures
- following manufacturers' guidelines.

Login procedures

To login means to identify or verify your identity on a computer system or network. This is usually done by entering a username and password. Login procedures are an integral part of computer security. They are used to control access to computer systems or networks and are the electronic equivalent of showing your ID. Login procedures are controlled by network administrators to ensure only authorised individuals gain access to computer networks. The network administrator creates a username and the user makes up a password.

A password is a series of characters or digits specific to a user. Many organisations ask employees to change their passwords regularly, so the network can remain secure. Most people choose a password that is easy to remember, such as their name or their initials; however, this makes it easier for others to break into computer systems. If you do forget your password, the network administrator in your organisation will be able to reset it and allow you to choose another.

Data accessibility

It is important for organisations to make data or information accessible to those who need to use it. If information cannot be located, it is useless and clutters up the system. Your organisation will have procedures for locating and storing particular archives of information. The *Privacy Act 1988* (Cth) restricts the sharing and use of personal information in the workplace. You should familiarise yourself with your workplace's policies and procedures on information handling. The policies might have a variety of names, such as Privacy Policy, Information Management Policy and Information Technology Policy and Procedures Manual.

Identify, open and close files

All organisations need to have effective file management, which includes procedures for identifying, opening, closing, saving and storing files.

You need to understand how to identify the information you need to access. Some organisations have naming conventions for files and folders that assist you in this process. Naming conventions identify information and allow authorised people access to that information quickly and easily. One organisation, might give all personnel files the prefix PER, so PER_M_Walker would be an electronic file containing M. Walker's personal details.

Take precaution to prevent data loss when closing files. Data loss occurs when a computer program stops performing its expected function. When you have finished working on a document, exit the application to maintain security and free-up computer resources, such as memory, for other applications. Working on one document at a time allows your computer to work more quickly and prevents data loss if a computer failure occurs. Data loss can also occur if someone else tampers with your work. If you are working on a document at your workstation, you should lock your computer or exit the application before leaving your workstation unattended.

Save files

Different organisations may have different procedures for saving files. If you are unsure where or how to save a file, ask your supervisor or manager for assistance.

It is important you understand your organisation's procedures for saving files.

Organisational procedures may include saving:

- files in the correct place so others can find them
- files using meaningful and logical names
- different versions of the same file or document
- attachments separately
- files regularly in use, so no information is lost in the event of a program malfunction
- any work you have done before you exit a file.

Store files

You must be familiar with the information storage options in your organisation. If you store information on your personal computer, the information might not be secure or accessible to your colleagues. Most organisations have servers containing the organisation's relevant information. A server is a computer that delivers information and software to other computers linked by a network. Saving documents in the organisational network keeps them safe and accessible. The contents of the server are usually saved at the end of the day and stored in a safe location away from the office. This prevents all information from being lost if the server is damaged.

You also need to be able to find information once it has been stored. It is important to store information in the right place or make a note of the file path.

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Computer viruses

Computer viruses are easily transmitted through email messages, especially in attachments. They can cause significant damage to your computer and your organisation's computer network. Your organisation will almost certainly have policies about how you are to handle incoming email. This may apply especially to email that looks suspicious or dangerous to the organisation.

Email services usually have some kind of virus filter protection for emails that are sent or received through them. Your organisation will also probably have antivirus software installed on your computer. The anti-virus software files will be updated regularly to make sure they automatically scan infected files, but this does not guarantee protection against viruses. Sometimes you may receive an infected message before the anti-virus software has had a chance to develop a program to fight it.

To avoid information loss, your organisation's network system will probably back up files on a regular basis. So if a virus destroys your files, they can be replaced.

Here are examples of suspicious activities that you need to be aware of.

Suspicious activities
Emails from an unknown sender and have an attachment, or perhaps unusual emails from people you know
Emails from an unknown sender and have a subject line urging you to open the message immediately, such as 'You've got to see this picture!'
Emails with attachments that have unusual file extensions, rather than the common file ones you would usually receive

Prevent virus damage

If you see any suspicious messages or extensions that you are not familiar with, don't open them under any circumstances. Ask your supervisor or IT help desk for assistance. Make sure your virus protection program is set to scan your incoming mail and notify you of any infection it finds. It's also good practice to undertake a virus scan of your entire computer system on a regular basis, just in case.

Most viruses require you to actively open the email that contains them before they become active, so your best method of prevention is not to open any email until you're sure it's safe to do so.

Actions to take if your computer is infected
• Immediately run a full scan of your computer. If you have a virus, virus protection programs will advise you on what course of action is required.
• Delete the infected file if prompted to do so.
• Download a special file from the internet to remove the virus completely.
• Seek professional advice.
• Advise your IT department or manager, in line with your particular workplace policy and procedures.
• Look up the name of the virus (if you know it) on the internet for more information.

Report problems

It is important to remember that any questions regarding your IT systems and email use are important. Email is a vital tool in today's global workplace.

Non-reported problems may result in major losses including:

- computer 'downtime'
- information corruption
- transmission of viruses and potential litigation
- loss of reputation.

Legal requirements

Your organisation must adhere to all relevant legislative requirements, both Commonwealth and state or territory. This is usually managed by incorporating all legislative requirements into the workplace policies and procedures.

Relevant legislation may include:

- anti-discrimination legislation
- privacy legislation
- occupational health and safety legislation.

Discrimination, privacy and codes of practice

When using technology, the workplace must ensure employees are not discriminated against by imposing unreasonable conditions or practices that may have an unfair or negative impact on people with particular attributes. For example, people with a hearing impairment may need assistive technology to support them in their work.

As discussed previously, there are legal restrictions on the storage and retrieval of personal information in the workplace. You should be guided by your workplace policies and procedures on how to comply with legislative requirements in this area. If you are still unsure, ask your manager or supervisor for guidance.

When using business technology, you need to be sure that you are aware of your role and personal responsibilities, including the limits of your position. Your position description will tell you what your role and responsibilities are, although it may not describe exactly the boundaries of your position. Depending on the sector in which you work, there may be codes of practice or ethical principles you have to follow. These can be workplace-based or applied by a professional association; for example, for example, the Accounting Professional and Ethical Standards Board code of ethics.

Work health and safety

When you are using technology, all equipment must be used correctly and safely in accordance with work health and safety (WHS) requirements. WHS requirements are designed to prevent workplace death, injury and disease. Both employers and employees have rights and responsibilities regarding WHS. Employees must take reasonable care of their own and others' health and safety.

Employers have a duty of care towards their employees. They have a legal duty to identify possible causes of injury and illness and plan to prevent them. They are responsible for maintaining equipment to a high standard and supplying personal protective equipment (PPE) to employees when necessary.

If you use technology and handle resources, you should be offered training in correct procedures. It might include how to lift weights, such as boxes of paper, or how to handle the chemicals used in photocopiers.

All organisations should have processes in place to report accidents, incidents, maintenance requests or breakdowns. You should have to fill out a report form and let your WHS representative know about any incidents or risks. You need to be aware of the occupational health and safety reporting processes in your organisation.

Example: follow manufacturers' guidelines

The technology you use in the workplace will have manufacturers' guidelines for how to use it safely and effectively. Find out where manuals or guidelines are kept and read the manufacturer's instructions for operating the technology you use daily.

A manufacturer's guidelines may be in hard copy or electronic form.

They are generally written in a brief style, but may contain technical terms and you may need to clarify some instructions with your team leader.

Here is an example of a manufacturer's guidelines for setting the paper type in a photocopier.

Set page type

Press **password** on the control panel.

Enter your password and press **confirm**.

Select **paper type** and choose the paper you need.

Select **paper tray** and choose the paper tray you want to use.

To exit, press **close**.

Practice task 3

1. Why should you close computer applications when you are not using them?

2. Where do most organisations store information?

3. Before exiting a file, what should you do?

... continued

4. What does your organisation require when you save a file? How would you name a draft letter document? Which drive and folder would you save it to?

5. Why are regular backups of data done?

6. Explain two ways you protect your work computer from damage by computer viruses.

7. Locate manufacturer's instructions for a workplace photocopier. What do the instructions say about ventilation?

8. If somebody was injured at your workplace, or an organisation that you have researched, what is the process for reporting the incident?

9. What kind of information is required when reporting an incident?

Summary

1. You need to choose appropriate business technology for your work tasks.

2. The main types of application software are word processing, spreadsheet, database and presentation programs, as well as email software and web browsers.

3. The internet is an international, electronic network of computers that gives you access to email and the World Wide Web.

4. Ergonomics deal with creating comfortable conditions to work in.

5. A badly designed workstation can have an impact on your health and wellbeing.

6. Adjust your workspace to suit your body shape and size, and the tasks you are doing.

7. All organisations should have policies and procedures for using technology. You need to follow these procedures at all times.

8. When you are using technology, all equipment must be used correctly and safely in accordance with occupational health and safety guidelines.

Learning checkpoint 1
Select and use business technology

This learning checkpoint allows you to review your skills and knowledge in selecting and using business technology

Part A

1. List the most appropriate use for each of the following software types:
    a) Word processing

    b) Spreadsheet

    c) Database

    d) Presentation

    e) Email

    f) Web browser

2. The table below shows a range of tasks an assistant at a promotions company may be required to undertake. Complete the following table by choosing the appropriate technology and software for each of the listed tasks.

Task	Technology	Software
Email eight customers and send each of them a large file of information.		
Word process the company's annual report and arrange for copies to be posted to the six directors of the company.		
Place a sign above the kitchen sink asking people to wash up after they have used the kitchen.		
Do some Web research and compile your findings in a word processed document, which must then be emailed to your manager.		
Take three photographs of staff for an electronic newsletter and place them on the company server for the newsletter editor to access.		

3. List three reasons a person may have physical discomfort when spending a lot of time at a workstation.

4. For each reason you listed above, describe a solution that could relieve the physical discomfort.

5. If a worker's office is poorly lit and they experience eyestrain while using a computer for a length of time, what are their WHS obligations and what are their employer's obligations?

Part B

Read the case study, then answer the questions that follow.

Case study

Nadelle works as a personal assistant to a manager in a large organisation. Her role involves accessing and printing information from the organisation's server. One day, Nadelle was asked to locate some electronic files about a current project and print out some double-sided copies of the contents.

To access the server, Nadelle had to use her login ID and password. To print out information, she had to fill the printer with paper and replace an ink cartridge. Nadelle located the files by searching for them using the organisation's naming conventions. She used her occupational health and safety training to correctly lift the paper for the printer. Nadelle referred to the manufacturer's guide to print double-sided copies. To change the ink cartridge, she read a step-by-step poster displayed above the printer.

1. How did Nadelle gain access to her organisation's server?

2. How did Nadelle find the files requested by her manager?

3. Describe how lifting paper could potentially injure Nadelle.

4. Describe the benefits of using a manufacturer's guidelines to operate business technology.

Part B

Topic 2
Process and organise data

Organisations generate a lot of data, so it is essential there are procedures in place to manage it. Files and records need to be created, identified, opened and altered according to organisational requirements. All office environments use 'input' devices such as keyboards and scanners, which send information to a computer hard drive. You need to be able to operate these devices properly to do your work efficiently.

Documents need to be stored in appropriate locations. You need to know how to use your organisation's folder structures and naming standards. Software applications should be closed without damaging or losing information. You also need to know how to access manuals, training booklets and help desks when you have trouble producing business documents.

In this topic you will learn how to:

2A   Manage files and records
2B   Operate input devices
2C   Store data and exit applications safely
2D   Access and use help

2A | Manage files and records

Business documents are often developed from records that are stored in files; for example, a report may contain information taken from accounting or departmental records. A record is a piece of information about any organisational issue; for example, database records, accounts statements, photographs and written reports. A file is a collection of similar records; for example, a collection of staff meeting minutes or account statements.

Different organisations have different records and files, depending on the information needs of the workplace. Organisations need to create, update and store their files in suitable locations, so that staff can easily access and maintain them.

Records and files must be managed properly so the workplace is efficient and productive. Proper management also safeguards vital information and provides a better support for managers to make decisions.

Here is what you need to be aware of to successfully manage records and files.

File management requirements
• Know your responsibilities
• Possess skills in creating a new record or file
• Know how to update a record or file.

Responsibilities

If one of your duties is to manage records and files, you need to know how your organisation wants you to organise, create, maintain and store them.

You should know the subject and purpose of the record or file; for example, if your organisation has a file full of records about software purchases, you need to know why that information is necessary. The software file may be part of the organisation's assets register and may be located with other assets files, or it may be located in the same place as other software records.

You need to know if there are any security requirements regarding records and files. You may also need to find out where records and files should be stored so they can be easily retrieved.

When managing information, you need to find out:

* if the file is confidential
* who is authorised to access it
* where existing files are located
* where the new files should be stored.

Create a new record or file

Organisations must constantly gather new information and use their existing information in different ways to remain responsive to changes in the environment they operate in. To do this, new records and files must be generated. These are sometimes completely new and sometimes a new record for an existing file.

When creating records and files, think about the different types of information you are dealing with and make sure information meant only for you is kept separate from organisational information.

Here is an overview on naming, checking and storing files.

Naming files

If you are naming a new file, you must think about the names of files that already exist. This is the only way to ensure consistency and prevent duplication. Your organisation may have a file classification system that sorts files by codes or ID numbers. If this is the case, you may have to generate a new code or ID number for the new file.

Checking files

Once you have created a new file, make sure you have all the relevant records in the file and that they contain adequate information. Files and records are created because the organisation needs them. If they don't have adequate information, they are not useful.

Storing files

You must place records in the appropriate files and store the files in the right place so everyone can access them as required. This may mean registering the files on the company's database so employees can search for and find them easily.

Steps to create records or files

Keep these considerations and steps in mind when creating new files and records.

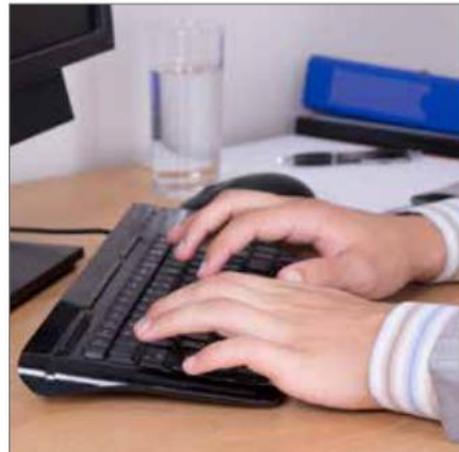| Creating records and files |
|---|
| Identify a need for creating a new record or file. |
| Create records containing appropriate information. |
| Name records and files in a similar way to other records and files, but make sure there is no other file with the exact same name. |
| Register the file on the organisation's database. |
| Place files where they can be easily accessed. |
| Keep personal records and files separate from organisational records and files. |

Update a record or file

Records and files must be updated as organisations constantly acquire new information. Updating records can involve destroying information no longer needed or updating the files with new information. An organisation overloaded with irrelevant information is not efficient. However, make sure you have authorisation or permission before you destroy records and files.

Updating a file might mean renaming it or inserting new records. If you need to rename a file, follow the same steps for creating a file. If you need to add new records to a file, find out what new information needs to be recorded; document this information and add it as a record to the existing file.

Maintaining up-to-date records is vital for every organisation. Organisations use records and files to make decisions about the future and to ensure the organisation is complying with legal regulations. Law requires that organisations maintain certain types of records; for example, taxation and personnel records. Organisations can be fined if their records are not up to date.

Manage records and files

It is essential you are able to manage files and records efficiently in the workplace.

Tips for managing files and records:

- Identify what documentation needs to be kept for each workplace activity.
- Create records and files to document workplace activities.
- Maintain records and files so employees can access them as required.
- Remove or destroy records after receiving authorisation.
- Keep organisational records and files separate from personal documentation.
- Protect records against damage, theft and unauthorised access.
- Manage records and files in a way that supports organisational requirements.

Example: create a new hard copy file

One of Kevin's work tasks is to update records and files. He was recently asked to update three files by renaming two files and adding a new record to the third file.

Kevin located the two files that needed renaming. He used the organisation's file classification system to add new ID numbers. He then chose new names that did not match existing file names. After that, he wrote the new names on labels and placed them on the front of each file.

Kevin now had to add a new record to a file. He located the appropriate file and added a progress report record to it.

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Practice task 4

Read the case study, then answer the questions that follow.

Case study

Sofia's work duties include organising, creating, maintaining and storing records and files. One day she was asked to do the following tasks:

- Retrieve a hard copy, confidential file for a staff member.
- Create a new file for information about ergonomic chairs.
- Store the ergonomic chairs file in a place where her manager could easily access it.

Sofia found the confidential file but couldn't remember which staff member requested it, so, she left the file on her desk in view of everyone in the office. She then created the new ergonomics file and labelled it 'Furniture'. She found one piece of information about desks and placed this in the file as a record. Sofia then placed the file with other files in a section called 'Existing Office Furniture'.

1. Sofia did not place the confidential file in the hands of the authorised staff member. What might be the consequences of her action?

2. What should Sofia have done with the confidential file?

3. Sofia's manager requested a file about ergonomic chairs. Will the manager have difficulty finding Sofia's file? Why or why not?

4. Why is it important for organisations to manage their records and files effectively?

5. Did the file contain adequate and appropriate information?

2B | Operate input devices

An input device is any equipment that allows you to put information into a computer. There are many devices that facilitate this, such as the keyboard, mouse, scanner, touchscreen, graphic tablets, digital cameras and barcode readers; however, this section focuses on the main input devices.
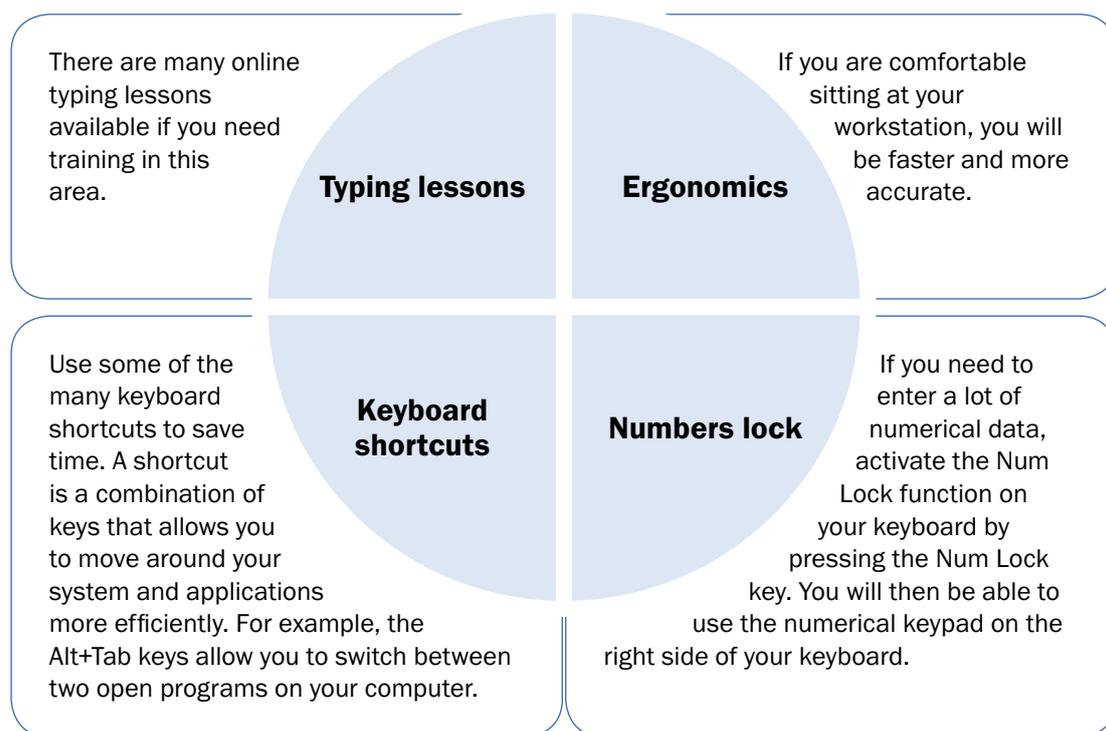
The four main input devices used in an office are:

- keyboard
- mouse
- scanner
- touchscreens.

Keyboard

The keyboard is one of the primary peripherals attached to your computer. A computer peripheral is a hardware device that transfers information into a computer. To use a keyboard with speed and accuracy, you need to be confident and streamline your actions.

Here are several strategies that can help streamline the way you input data using a keyboard.

Typing lessons
There are many online typing lessons available if you need training in this area.

Ergonomics
If you are comfortable sitting at your workstation, you will be faster and more accurate.

Keyboard shortcuts
Use some of the many keyboard shortcuts to save time. A shortcut is a combination of keys that allows you to move around your system and applications more efficiently. For example, the Alt+Tab keys allow you to switch between two open programs on your computer.

Numbers lock
If you need to enter a lot of numerical data, activate the Num Lock function on your keyboard by pressing the Num Lock key. You will then be able to use the numerical keypad on the right side of your keyboard.

Mouse

The mouse controls the cursor on your computer. It can be customised to suit your individual needs. This will improve the way you move around the screen.

If you customise the mouse settings, you will be able to choose a right-handed or left-handed mouse button configuration, adjust the double-click speed and turn on the ClickLock feature. The ClickLock feature allows you to highlight or drag without holding down the mouse button.

Other mouse options allow you to change the pointer scheme; that is, how it looks and to adjust the pointer speed and its acceleration rate. You can also show pointer trails, hide the pointer while typing and show the location of the pointer. You can change your mouse properties on a computer running Windows 7 by going to Start, selecting Control Panel and then Mouse.

Scanner

The most commonly used scanner in a small workplace is the flat-bed scanner. A flat-bed scanner is similar to a copy machine, in that it has a glass plate underneath a lid and moving light that scans across it. A flat-bed scanner can scan photos, paper documents, books, magazines and maps. A scanner is different to a copy machine in that it creates an image in electronic memory, rather than a paper copy. This image can be stored on your computer's hard drive. The image can then be inserted into any business document such as a newsletter or report. The digital image can also be emailed, printed or placed into an electronic presentation.

Multifunction printers or office copy machines are used as scanners in large offices. They allow an image of a scanned document to be emailed from the machine to a selected recipient. Organisations that have specialised scanning needs, such as the need to scan large maps or high volume batch scanning, will seek out different scanning solutions.

Touchscreens

Touchscreens are the main device used to input data into mobile phones and tablets. Touchscreens are also used in workplaces when employees need to be mobile; for example, with sales staff.

Touchscreen PCs are available for office use and are preferred by users who want to employ a greater variety of movements when inputting data.

In some workplaces, customers are provided with interactive touchscreen booths for accessing the information they require or for booking a place in a customer service queue.

Example: keyboard shortcuts

Most computers allow keyboard shortcuts, with many of them using the Control key (or Command if using a Mac) plus one more; for example, Control+C copies the selected item to the clipboard.

Here are commonly used keyboard shortcuts for use with a Windows operating system, which is used in many organisations.

Keyboard shortcuts	
CTRL+ESC: Open Start menu	CTRL+V: Paste
ALT+F4: Save and quit program	CTRL+Z: Undo
CTRL+C: Copy	CTRL+B: Bold
CTRL+X: Cut	

Practice task 5

1. What shortcuts would you use to cut, copy and paste content within a program?

2. How would you activate the Num Lock function on your keyboard?

3. Why do you think adjusting your mouse pointer will make you more efficient when entering information?

4. Obtain access to a scanner and use the manufacturer's guidelines or other training material to help you to scan a document.

2C | Store data and exit applications safely

All organisations are constantly obtaining data, such as information about clients or products and services. Data storage should be managed carefully. You need to know your organisation's procedures for storing data and for closing applications carefully to avoid damage or data loss. Usually an organisation will use several different methods for storing data; for example, digital and paper-based storage.

Digital storage

Digital storage saves paper and space. Most organisations use their servers to store documents. If the documents are recorded in a database, it allows you to find specific information more quickly and easily than searching through hard copies of files. Databases have powerful metrics and reporting tools; for example, statistical information can be queried from a database and a detailed report produced.

Most organisations have folder structures and naming standards. This allows their staff to set up folders quickly and easily. Here is more information about shared directories.

Benefits of shared directories

By using shared directories and naming standards, you can avoid losing or misfiling electronic documents. Setting up a shared directory means work is less likely to be duplicated and information can easily be exchanged. Using a shared directory also means that documents on the same or related subjects are located together. This helps when you need to find or retrieve documents.

Setting up a shared directory

To set up a shared directory, you have to find the shared network drive. Then go to the folder level. This is the first place to organise the directory. Folders have a tree-like structure that branches from a parent directory to sub-folders.

Naming folders

As well as placing folders and files in the appropriate place, you also need to give them appropriate names. Remember that naming methods must be consistent, simple and meaningful. Naming conventions help to identify and retrieve documents. Some organisations have strict naming standards that must be followed; for example, all project files may have to start with PRO.

Data back up

Organisations of all sizes can suffer significant losses if they lose data that has not been backed up. It is recommended that backups are scheduled for regular intervals. Organisations of different sizes may choose different locations for storing the backed up data. Most organisational folders and files are stored on a server and copied to a back-up server. In the case of a medium to large organisation, cloud computing is becoming more important as a location for backed up files but backup tapes are still a vital tool. Information is saved onto a data cartridge and stored in a safe location.

Electronic files and folders can be periodically deleted to ensure the most efficient use of server space. Always ask for permission before you delete a file.

Hard copy storage

With time, paper documents can become yellowed, brittle and damaged. Unless you are very careful about storage and use, important documents can be easily torn, misfiled or accidentally thrown away. Some items, such as letters and invoices, are only available in hard copy.

Hard copy storage requires space. It also requires a filing system that uses consistent, simple and meaningful names similar to digital storage. Storing lots of documents can be expensive, so most organisations prefer to store information digitally. However, it's common for documents stored digitally to also be stored in hard copy. This is a safeguard against a catastrophic computer system failure.

Hard copy documents need to be kept up to date. Invalid documents need to be destroyed. Retention schedules are used to determine which documents need to be retained and for how long. Retention schedules list the time frame documents need be kept for before they can be destroyed and they save money, as only records of lasting value are permanently retained. Some documents need to be kept for legal reasons; for example, tax records must be kept for at least seven years.

Avoid data loss

After creating or modifying an electronic document, you need to exit the software application without causing damage or loss to the data. Data loss can be a very serious occurrence and must be avoided whenever possible. Always be on your guard. This is the best precaution against data loss. For instance, if your computer starts to make an unusual noise, save all your files, shut down the computer immediately and do not power up again until you have received advice from your IT coordinator.

To avoid data loss, manage your files appropriately by:

- opening only one application at a time whenever possible
- ensuring records are properly saved before closing them
- locking your computer when you are not at your workstation
- identifying and acting on hardware or software problems.

Practice task 6

Read the case study, then answer the questions that follow.

Case study

Matt retired after working for an organisation for 10 years. At work, he was responsible for two areas: projects and accounts. The day after he retired, somebody urgently needed a file that Matt had created and stored. The file contained vital accounting information. The organisation discovered that Matt had saved over 500 files in a variety of folders and the file couldn't be located. The folders had names such as Folder1 and Folder2, and the files had names such as august1.doc and march2.doc.

1. Describe why Matt's folder and file naming system failed.

2. Matt was responsible for two areas. What folder names could he have used to ensure files were placed in the correct folders?

3. Explain why folder and file names should be consistent, simple and meaningful.

4. Describe the consequences of placing folders and files with unclear names on shared directories.

5. What are the naming standards for folders and files at your work or your learning centre? Alternatively, what conventions do you use for naming folders and files at home?

2D Access and use help

When using business technology, it is likely you will need to access help to overcome problems. You will often experience difficulties when processing or organising data. The business equipment you use might fail or the business software might crash. Whatever the problem, it helps to have a plan in place for dealing with the unexpected. Organisations deal with difficulties in a number of different ways. They might have manuals or training booklets. Some may even have a helpdesk to assist employees.

Training booklets and manuals

You should receive some training when you first start a job, but it is important the training does not stop there. You should try to keep up to date with technology. An easy way to do this is to locate the courses in your area that offer software training. These courses usually provide a comprehensive set of instructions or booklets based on the training that are worth keeping for future reference.

Most equipment and software comes with a user manual. Manuals explain the features of the equipment and provide step-by-step instructions for general use, and can exist in a paper-based or online format.

Manuals include information about:

* functions
* maintenance
* use
* relevant WHS issues.

Websites

There are many websites with information about Microsoft Office applications. These usually contain frequently asked questions (FAQs) and give solutions to common problems. Typing a question into a search engine such as Google or Bing can often lead you to an answer to your question about using software. You can also download updates, tools and any 'fixes' Microsoft has developed for its software problems.

Here are sources of information about software applications.

Help function

F1 help function

Try pressing the F1 help function in the Microsoft Office software applications. This option provides you with an index of information to help solve any problems you may be experiencing with the software. You can open this function by going to the File menu, selecting Help and Microsoft Office Help.

Microsoft support

http://support.microsoft.com

This is Microsoft's main site for finding help with Microsoft products. You can ask questions online and download files including service packs, drivers and patches. You can also access the Microsoft Knowledge Base. This is a good source of help for all problems related to Office programs.

Microsoft office

http://.office.microsoft.com

This site provides general information about Office 2013 and provides resources for all Office applications. You can find out about installing Office 2013 and updating all Office products. The site also has a number of other useful tips and tricks.

Practice task 7

Read the case study, then answer the questions that follow.

Case study

One of Anna's duties as personal assistant to the manager of a large organisation is to produce business documents using Microsoft Office applications. While producing documents, Anna often needs to use the F1 help function to find answers to questions about the software.

Sometimes Anna experiences software function problems that cannot be solved using F1, so she uses Microsoft's support websites to find solutions. There are also paper-based Microsoft Office manuals available in her workplace. She has copied the pages that she needs most frequently, and keeps them in a 'Help' folder on her desk.

... continued

1. Anna sometimes has software functionality problems. Where does she go for help?

2. How does Anna use the paper-based manuals available to her?

3. Do you ever experience software problems while producing a document? Describe the steps you would take to solve the problem.

Summary

1. Organisations need to create, update and store their files in suitable locations so they can be easily accessed and maintained.

2. If you are naming a new file, you must consider the names of files that already exist to ensure consistency and prevent duplication.

3. Updating a file might mean renaming it or inserting new records.

4. The keyboard, mouse and scanner are the main input devices used in office environments.

5. Most organisations store data using both digital and paper-based storage methods.

6. All methods of storing data have folder structures and naming standards to enable staff to find and set up folders quickly and easily.

7. After creating or modifying an electronic document, you need to exit the software application without causing damage or loss to the data.

8. You should access paper-based or online help resources when experiencing difficulties with business technology.

Learning checkpoint 2
Process and organise data

This learning checkpoint allows you to review your skills and knowledge in processing and organising data.

Part A

1. Imagine you are training someone to use basic keys and keyboard shortcuts. Design a lesson for a colleague or friend with at least five points that will teach your student to use their keyboard and mouse more efficiently.

    - What documents would you use?
    - If you wanted to save your documents on your personal computer, what would you name it and which folder would you store it in? Where would it be logical to store this folder on your computer?
    - Provide instructions for making one adjustment to your mouse to be able to use it more efficiently.

2. What are three causes of data loss? Explain three things that you can do to prevent it from occurring.

3. Why are regular backups of data performed?

4. If you were having trouble using Microsoft Word to create a table in a document that you were working on, what are two sources of online help you could use?

Part B

Read the case study, then answer the questions that follow.

Case study

Seta has to organise and maintain the hard copy filing system in her organisation. She designed a filing system that tracks the life span of all documents. When documents are delivered to her for filing, she stamps them with a current date. Then, depending on the type of document, adds an expiry date. Seta files the documents chronologically with the oldest documents located at the back of the cabinet. This system enables Seta to keep track of documents and destroy them when they reach their expiry date. If Seta is unsure of the life span of a document, she asks her manager for advice.

1. Describe how Seta organises incoming and outgoing documents. Comment on whether you think her system is efficient.

2. If Seta were going to destroy old documents, where would she look for them?

3. Explain why organisations need to have retention schedules.

4. Describe what you would do if you were in doubt about destroying a document.

Topic 3
Maintain technology

Organisations need to care for the technology and equipment they have invested in. Equipment and technology faults reduce workplace productivity and may result in financial losses, such as repair and replacement costs. Well-maintained equipment is likely to perform more efficiently, be more reliable and last longer.

Routine maintenance needs to be carried out to ensure equipment is always ready for use and to prevent breakdown. If equipment breaks down or faults occur, the incidents need to be recorded. Organisations need to decide whether to use internal staff or external contractors to correct equipment or technology failure. Your workplace should have a maintenance program to keep its equipment and technology in good working order.

Technology consumables such as toner cartridges should be stored carefully and replaced according to the manufacturers' instructions.

In this topic you will learn how to:

3A   Identify and use business technology consumables

3B   Maintain business technology

3C   Identify equipment faults and take appropriate action

3A | Identify and use business technology consumables

All organisations use technology consumables. Consumables are simply items that are consumed or used during the production process, such as printer toner cartridges, flash drives and data projector lamps. CD-ROMs are used less than DVD-ROMs. Consumables need to be replaced. How consumables are monitored and ordered will vary depending on each organisation's requirements; for example, an organisation may have a first-in, first-out (FIFO) policy, where the oldest stock is used first, or a last-in, first-out (LIFO) policy, where the stock most recently ordered is the first used.

If it is your responsibility to order stock, make sure you are aware of the stocktaking method used in your organisation. Stock may need to be checked on a daily, weekly or monthly basis. You will also need to find out the organisation's preferred suppliers and how you record what has been ordered and its delivery date.

Consumables that are used frequently, such as printer toner cartridges, may need to be constantly monitored. To effectively order consumables, you must be able to identify each item and understand its function.

Common consumables

Printer toner cartridges contain toner that is transferred onto paper during the printing process. A non-colour printer has a black toner cartridge. Colour printers have four toner cartridges: black, magenta, yellow and cyan. These four colours are applied to the page by the printer drum, which contains light-sensitive elements that help apply the toner to the paper. Printer toner cartridges are sold separately, meaning they have to be monitored and replaced at different times.

Printers come with manufacturers' manuals that have step-by-step instructions on how to replace the toner cartridge. The instructions also come with estimates of how long the toner cartridge should last. Keeping an eye on the quality of printing is a good way to monitor whether cartridges need replacing.

Here is some information on other business technology consumables.

Business technology consumables

Data projector globes

These are very expensive items, so try to lengthen the life of the globe by running the data projector on economy and not switching on and off rapidly.

Flash drive/memory stick/USB

These transportable data storage devices can fit in the palm of your hand and often have a large memory capacity.

Backup tapes

These are used for backing up data and archiving. They are sometimes called tape cartridges.

Example: choice of consumables to backup data

The organisation that Jim works for has a backup plan to ensure that there is more than one copy of data that is important to the organisation.

At Jim's organisation, a weekly full backup is scheduled for Sundays, when computer use is low. The organisation he works for is small and the business owner has chosen the slower but cheaper option of backing up onto tapes. In the future, they may switch to the more expensive but faster method of backing up to a DAT (digital audio tape) drive.

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Practice task 8

Locate your organisation's instructions for changing the toner cartridge on your office photocopier, or locate instructions on the internet. Instructions will be found in the manufacturer's document, but there may also be a simplified version available.

1. What personal protective equipment (PPE) is recommended to use when changing a toner cartridge?

2. Why do you need to use PPE?

3. What should you do in the event of spillage from a damaged cartridge?

3B Maintain business technology

All organisations need to maintain technical equipment and consumables. Routine or preventative maintenance ensures that technical equipment remains in good working order. Business technology may be maintained in-house or by using a manufacturer-approved technician.

By routinely cleaning and maintaining equipment, you can prevent problems and faults occurring. There are some maintenance processes you can do yourself to keep the equipment you use in good working order. For example, you can routinely clean your keyboard, monitor and mouse by using a damp cloth or other cleaning materials such as monitor wipes. You can remove dust from inside your keyboard by turning it upside down and tapping it.

Check the printer copier

A printer is an output device that receives and displays information sent to it from a computer. Printers require frequent maintenance. Changing cartridges and drums, removing all torn paper from paper jams and generally cleaning a printer helps it work better. Most printers have a print head that can be cleaned using a print head cleaning kit. Make sure you read the manufacturer's instructions before performing any maintenance. A service contractor recommended by the printer's manufacturer may also be used to carry out maintenance.

Storing consumables

Your consumables must be stored safely so they are useable when required. Consumables are expensive and should be stored in a clean, dry area to prevent damage.

Backup tapes should be stored away from the magnetic fields that all electrical equipment produces. Storing tapes close to magnetic fields can erase information from the tape. Printer paper needs to be stored in a sealed container so it remains dry. If printer paper becomes too moist it tends to curl and jam the paper path of a printer.

Practice task 9

Read the case study, then answer the questions that follow.

Case study

Delia works in an organisation that has two printers and a server. The server holds all the company's electronic data. Part of Delia's role is to maintain business equipment, including the consumables.

One of the printers was due for routine maintenance but Delia forgot to call the external technician and the printer broke down. The printer paper had been stored in a humid cupboard and, when used on the other printer, caused a jam. Delia stored backup tapes containing master copies of data in a storage cupboard near an elevator and the data on them deteriorated because they were close to a motor with a magnetic field.

1. How did Delia fail to maintain technology equipment and consumables?

2. Describe the possible consequences for the organisation due to Delia failing to maintain or store equipment properly.

3. List routine maintenance tasks a printer requires.

3C | Identify equipment faults and take appropriate action

All organisations experience difficulties with equipment. A printer may jam, a digital camera may stop operating and a scanner may fail to scan. All equipment comes with operating manuals and these often have troubleshooting sections that can help you overcome problems. Troubleshooting is a form of problem-solving. It means systematically searching for the source of a problem so it can be solved.

Maintenance programs

Organisations develop maintenance programs to ensure all staff are aware of procedures for reporting or managing faults. A maintenance program also records all repairs and allows an organisation to know exactly what equipment is failing and how much maintenance and repairs cost. Maintenance issues include routinely checking all equipment, regularly backing up data, keeping a logbook of faults and regular health and safety inspections.

Maintenance issues are numerous and organisations often develop lists of frequently asked questions (FAQs) to help staff when they are having problems with technology. Each frequently asked question is supplied with the correct procedure for the technical difficulty.

FAQs can be put together using feedback from employees about problems experienced regularly. FAQs can also be taken from fault logbooks. If employees are required to record incidents of equipment failure, it becomes easy for an organisation to find out which faults commonly occur. Once a fault has been recorded, an organisation also has to make sure the fault has been corrected.

An example of a common FAQ is 'I can't print from my workstation, what should I do?'

Work health and safety checks

All equipment and business technology must be used in accordance with health and safety requirements. If you manually handle technology consumables, such as toner cartridges, you must be trained in the correct procedures for you to remain safe and injury free. The training you receive must be relevant to the resources you handle. It may also include additional information such as how to set up your workstation ergonomically.

Electrical equipment needs to be tested and tagged to make sure the electrical voltage received is correct. For example, a computer might be receiving too little or too much electricity, which can lead to computer failure and is dangerous for the user.

WHS checks and considerations:

- Check technical equipment for noise, heat and odour emissions.
- Place equipment, such as photocopiers in rooms with ventilation, ensuring adequate space is around them.
- Place equipment with flashing lights out of sight of staff.

Electrical safety hazards and possible solutions

Be aware of the following issues, hazards and solutions regarding electrical safety in the workplace. The procedure for addressing equipment faults exposing workers to danger involves removing the equipment from service immediately, labelling it as unsafe and recording it as a hazard on an appropriate organisational form. What happens next will vary according to the organisation and its policies and procedures, but procedures should always ensure dangerous equipment is quickly attended to. If the organisation is large enough to employ a designated maintenance officer, they may organise routine repairs. Less dangerous repairs may be reported on a maintenance request form.

Here is a list of safety hazards and their possible solutions.

Liquid spillages

To avoid electrics shocks, alert staff of the need to keep liquids away from all equipment connected to the electricity supply.

Advise staff to disconnect equipment from power supply before mopping up spills.

Defective appliances

To avoid electric shocks, have all electric appliances inspected, tested and tagged on a regular basis.

When equipment is identified for repair, it should be immediately be removed from service and appropriately labelled to prevent further use.

Extension leads with exposed wiring

Use extension leads for temporary connection, not as a permanent method of supplying power.

If an extension cord has to be used and is exposed to foot traffic, make sure it is taped down.

Overloading power circuits by piggybacking adaptors

If additional appliances are needed permanently, install a larger power socket (four sockets).

Discourage the use of adaptors and the connection of unauthorised appliances that may overload the circuit dangerously (fan heaters, electric radiators).

Communicate faults

If your job role involves checking and maintaining business equipment, you will need to communicate verbally with other staff to ask them about anything that is not routinely recorded in writing. If you identify unsafe equipment, you will need to speak to others about why a piece of equipment has been removed and what the procedure and timeline is for replacing it.

Equipment faults that are not dangerous will also require you to speak to others to organise repairs. You will be more effective if you know the correct terms for key parts of the equipment. Manufacturer's instructions are likely to contain a labelled diagram of the equipment you can use.

Communicate any faults to your immediate supervisor, manager or IT specialist.

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Example: safety checklist

It is important to ensure that you and others can work safely by complying with workplace safety standards. This might require you to undertake several tasks in maintaining such safety. For example, equipment should be installed in an adequately ventilated area to ensure safe removal of any dusts, gases or vapours.

Here is a list of other examples of task you may perfect to ensure your workplace and its surroundings are kept safe.

Safety Checklist
If equipment is installed in an enclosed room, an air-conditioning unit is required.
There should be adequate space around photocopiers to allow for good airflow and to assist maintenance.
Equipment should be regularly maintained.
The working surface of the copier should be at a comfortable height for the operator.
Where necessary, a collating table at a comfortable working height should be provided.

Practice task 10

Read the case study and answer the questions that follow.

Case study

Wei works in a large organisation. One of his roles is to make sure all equipment is operational and that equipment faults are recorded in a logbook. During the course of one week, Wei had to check that all the printers were in good working order. He also had to check the fault types recorded in the logbook and make sure repairs and maintenance had been done.

Wei used the manufacturers' guidebooks to service the printers. He replaced toner cartridges and cleaned the printer heads. Next, Wei checked the logbook and found five incidents of computer problems related to network failures. Wei contacted the systems administrator and arranged for her to visit the affected area to solve the network problem. Wei then spoke to his colleagues and found out whether any other incidents had occurred that had not been recorded. Any unrecorded incidents were then added to the logbook.

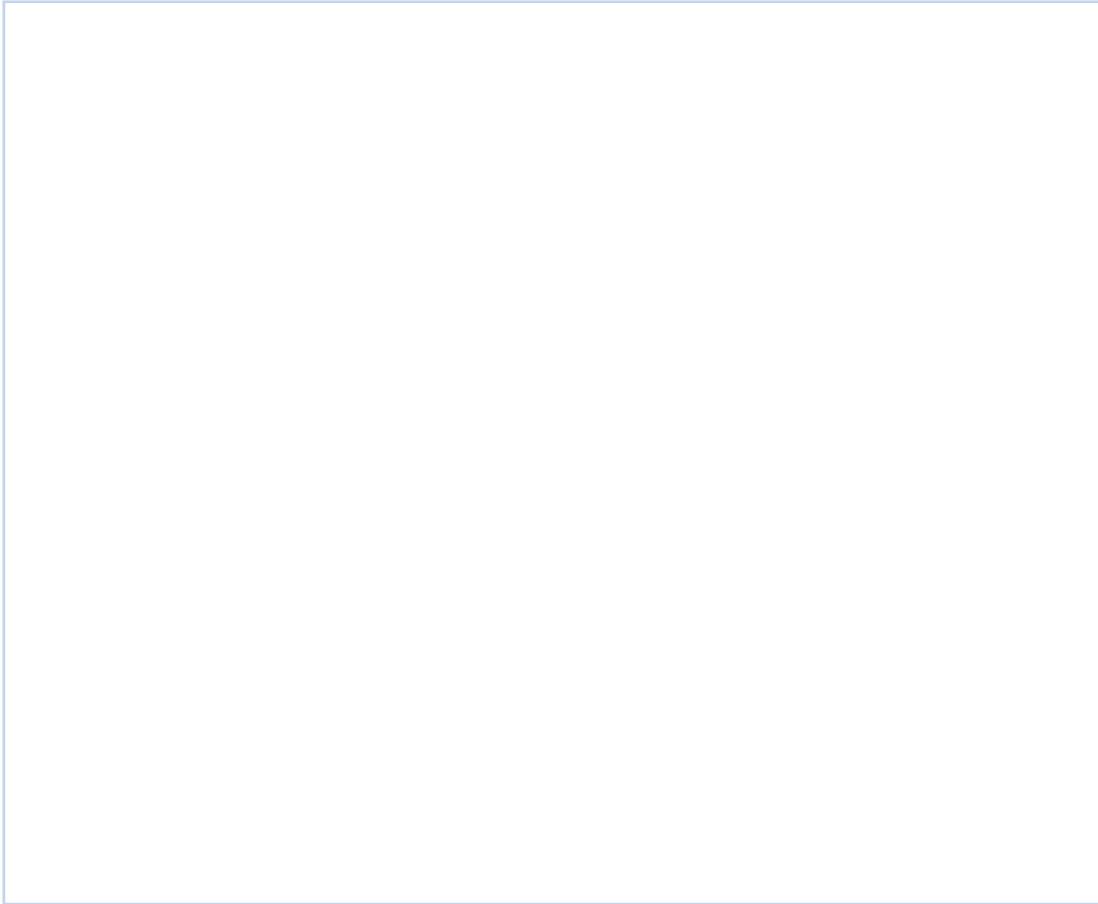1. List Wei's responsibilities for maintaining equipment.

2. List the steps Wei took to maintain the printers.

3. Describe how Wei used the logbook to solve equipment faults.

... continued

4. Explain why routinely checking equipment and keeping a logbook of equipment faults helps an organisation maintain technical equipment.

Summary

1. Technology consumables need to be monitored to ensure they are stored safely and replaced when necessary.

2. Routine or preventative maintenance ensures technical equipment remains in good working order.

3. Routinely clean your keyboard, monitor and mouse by using a damp cloth or other cleaning materials, such as monitor wipes.

4. Read the manufacturer's instructions before cleaning or maintaining equipment.

5. Equipment faults need to be identified and corrected.

6. 'Troubleshooting' means searching for the source of a problem so it can be resolved.

7. Maintenance programs are developed to ensure all staff are aware of the procedures for reporting and managing faults.

8. To maintain equipment, it must be used correctly and safely in accordance with work health and safety requirements.

Learning checkpoint 3
Maintain technology

This learning checkpoint allows you to review your skills and knowledge in maintaining technology.

Part A

1. Complete the following table with information about technology consumables. An example has been included to help you.

Consumable	Use	Consequences when unavailable
Backup tape	Records and stores copy of an organisations records	The organisation may fail to comply with legal requirements if it cannot backup data. Data that is essential for the functioning of the organisation may be lost. The organisation may choose to backup data to the cloud as an alternative.
Data projector globe		
Printer/copier toner cartridge		
Flash drive/ USB		

2. Choose a piece of office equipment you are familiar with. Prepare a chart of tips for maintaining the equipment you have chosen. It should be suitable for displaying in an office. An example has been provided.

Tips for maintaining the printer
Clean the printer heads using cleaning solution recommended by the manufacturer.
Read the manufacturer's instructions.

3. List three WHS checks you could perform in an organisation to ensure business technology is being used safely.

4. List three common faults experienced with office equipment and their solutions.

5. What is a FIFO policy? What are the advantages to an organisation of having a FIFO policy?

6. If you are given the responsibility of ordering stock in an organisation, what must you learn?

7. What type of form is used in many organisation**s** to identify dangerous equipment and bring it to the attention of a person with designated responsibilities to address dangerous equipment faults**?**

Part B

Read the scenario, and then answer the question that follows.

Scenario

You have just started working for a small accounting firm. You are responsible for maintaining office equipment. Before your appointment, everyone was responsible for looking after the equipment they used. For example, if the printer needed new toner, whoever was using it at the time added the new cartridge. If there was a paper jam, the person responsible had to fix it. Because staff were not trained to care for or maintain equipment, it often broke down.

Explain the steps you would take to improve equipment maintenance.