SAMPLE CHAPTER

INTERACT WITH INFORMATION TECHNOLOGY

New Edition

3

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DYNAMIC LEARNING
HODDER EDUCATION

Contents

1 Being IT safe – taking care of IT things (3)

Objectives

At the end of the chapter, you will be able to:

- identify possible problems associated with computer hardware and software
- select from a variety of solutions to solve a problem
- record troubleshooting steps
- state the rules for personal safety in a computer room or lab
- state the rules for equipment safety and use in a computer room or lab
- identify emergency procedures in a computer room or lab
- explain how government agencies with responsibility for health and safety legislation carry out their mandate in relation to ICT/IT industry.

In *Interact with IT* Book 2, we looked at how to identify the ports on our computer and how to identify the cables that connect peripheral devices to the computer. We also looked at how to maintain and care for devices. In Book 1, you learned that some causes of hardware malfunctions or problems can be normal wear and tear of parts and circuitry, poor assembly by manufacturer, dust accumulation, extreme heat, humidity, power fluctuations and vermin. In this first chapter of Book 3, we will look at how to identify and troubleshoot basic computer problems and find possible solutions.

However, before we look at how to troubleshoot problems and find solutions, let us revise some rules for working in a computer laboratory. Obeying these rules is important to work safely and also to prevent some problems from happening.

- Avoid stepping on electrical wires or any other computer cables.
- Do not touch, connect or disconnect any plug or cable without your teacher's permission. Report any broken cables, sparks or smoke in the laboratory immediately.
- Place chairs under the desks when not in use and return any items used to their original place.
- Always shut down computers using the proper procedure 'onscreen', rather than directly using the on/off switch.
- Protect computers from dust by covering them with dust covers after use. Too much dust may affect the circuitry.
- Avoid using USB drives, CDs and DVDs that were used to store information in computers from outside the laboratory. These storage devices may contain viruses that can affect the computers.
- Do not pile anything onto the computer keyboard. Objects on the keyboard may damage the keys.
- Do not eat or drink in the computer laboratory. Liquids can cause short circuits or electric shocks, and the crumbs from food can cause malfunctions inside the computer.
- Do not change any of the settings in the computer.
- Do not install or attempt to copy any software without your teacher's permission.

Figure 1.1 Some computer problems may need a technician to do the repairs.

Computer problems

Troubleshooting is a form of problem solving and, in computers, troubleshooting means finding the source of the problem and coming up with a solution to fix it. Have you ever experienced any of the following problems?

* Your computer will not start up.
* Your computer screen goes blank.
* You send something to the printer, but it will not print.
* You plug in the projector, but nothing shows on the screen.
* You are not hearing any sound from your speakers.

In some cases, the solution may be very simple and you are able to resolve it on your own. However, some problems will need to be sent to a professional, such as a technician, to repair or resolve.

In this chapter, we will look at two types of computer problems:

* Basic hardware problems and how to fix them
* Basic software (Windows) errors and how to fix them.

You will also need to be able to tell the difference between whether it is a hardware or software issue. Although most problems you may encounter will be software problems, some will be related to hardware. There are also some problems that can be caused by either the hardware or the software. Table 1.1 lists the main computer problems and their causes.

Note!

When you have a computer problem, stay calm and do not panic! Relax and breathe – some problems can seem more serious than they actually are.

Did you know?

The Windows operating system comes with a troubleshooting tool that helps with diagnosing and fixing common software problems. It is found in the control panel under System and Security.

Figure 1.2 The 'blue screen of death' is caused by a software problem.

Table 1.1 Computer problems and their causes (hardware, software or both hardware and software)

Problem		Hardware	Software
1	The computer does not start up when the power button is pressed.	✓	✓
2	The computer is operating slowly.	✓	✓
3	An application is frozen.		✓
4	The computer is frozen.	✓	
5	The sound is not working.	✓	✓
6	The screen is blank.		✓
7	The 'blue screen of death' appears.		✓
8	The keyboard does not work.		✓
9	The computer keeps restarting.	✓	✓
10	The printer does not print or is not working properly.	✓	✓
11	The Internet (WiFi) is slow or not working.	✓	✓
12	The computer is not seeing the flash drive.	✓	✓

Note!

It is important to record the model and serial numbers of the device, in case you are unable to fix the problem and have to refer the device to a technician.

Some computer problems may need you to try many different approaches before you find the actual solution. It is important to record the various approaches you have tried, to prevent repeating them. You can use the simple form in Figure 1.3 to record your troubleshooting steps and solutions.

Computer Troubleshooting Form

Device name: [Insert the name of the device with the issue]	
Date: [Insert the date]	
Owner of device: [Insert the name of the owner of the device]	
Model #:	Serial #:
Possible problem type: Software ☐	Hardware ☐
Problem description:	
What were you doing when the problem occurred? What software was open when the problem occurred?	
Was there an error message? Yes ☐ No ☐	
If Yes, what was it?	
Has the problem occurred before? Yes ☐ No ☐	
Option 1:	
Did it work? Yes ☐ No ☐	
Option 2:	
Did it work? Yes ☐ No ☐	
Option 3:	
Did it work? Yes ☐ No ☐	
Resolved: Yes ☐ No ☐	If Yes, date resolved:
If No, need to call a technician: [Insert technician's information here]	

Figure 1.3 Troubleshooting form

Now let us look at each of the computer problems listed in Table 1.1 in more detail.

Problem 1

Problem 1 is that the computer does not start up when the power button is pressed. Table 1.2 shows some causes for why the computer may not start up and a few possible solutions.

Table 1.2 Some causes and possible solutions for a computer not starting up

Causes	Possible solutions
• The cause of the problem can be as simple as a loose cable or connector (USB, HDMI, power cord, network cable, mouse, keyboard, speaker, monitor, projector cable, and so on). • The power strip or power outlet is faulty. • The power cable is faulty. • The power supply button in the power unit is faulty. • The power supply is the incorrect type. • The battery is faulty. (If your computer is a laptop or portable computer that uses a battery, it may be causing the problem.)	Check if all cables and connectors are securely plugged into the appropriate outlets.
	Check if your power strip, surge protector or UPS is turned on and has power, or is working. Remember that a surge protector and UPS are designed to protect your equipment from power spikes such as lightning, which can burn or fry the electronic components in your equipment.
	Check to see if your screen or monitor is turned on. Although this may seem very obvious, sometimes the cause of the problem might be very simple.
	Check to see if the outlet has electricity. Plug something else into the outlet to make sure that it is not faulty.
	If you are using a laptop, check to see if the battery is charged. Plug it into an electrical outlet and then wait a few minutes and restart the device.

Problem 2

Problem 2 is that the computer and all its programs or applications are operating slowly. Table 1.3 shows some causes for why the computer is operating slowly and a few possible solutions.

Table 1.3 Some causes and possible solutions for a computer operating slowly

Causes	Possible solutions
• The computer is infected with a virus or malware. • The hard drive is full and has no more space. • The computer's hard drive is too fragmented. A fragmented disk is one in which the files on the disk are divided into several segments and stored in different locations. When the computer searches for a file, it has to look in several areas of the disk for the different parts of the file to put it back together into a single file. This process slows down the computer. Defragmentation puts the files back as one single file in a single location.	Check for a virus or malware by running your antivirus scanner. Clean the virus if one is found.
	Delete any unnecessary files or save your pictures, videos and music to an external drive. Pictures, videos and music can take up a lot of space on your hard drive.
	Run your disk defragmenter: • Click on the **Search icon** on the taskbar. • Type and select **Defragment and Optimize Drives** from the search bar. • Click **Optimize** (see Figure 1.4 on the next page).

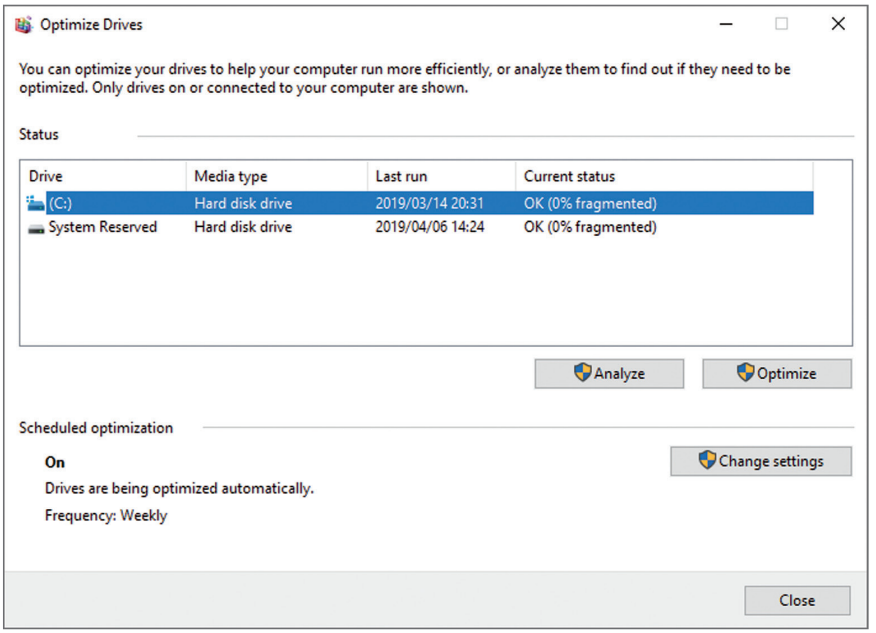


Figure 1.4 Defragment and optimise drives

Table 1.4 shows some causes for why only one application may be operating slowly and a few possible solutions.

Table 1.4 Some causes and possible solutions for only one application operating slowly

Causes	Possible solutions
• The computer is infected with a virus or malware. • The program or application is not functioning correctly due to a bug in the program.	Try closing and reopening the application.
	Check for any new updates to the program or application.

Problem 3

Problem 3 is that an application on your computer is frozen. Table 1.5 shows some causes for why an application or a program may become stuck or frozen, and a few possible solutions.

Table 1.5 Some causes and possible solutions for an application or a program becoming stuck or frozen

Causes	Possible solutions
• The computer is infected with a virus or malware. • The program or application is not functioning correctly due to a bug in the program.	Close the window or application and reopen it. If you cannot close window or application, try the next possible solution.
	Force the application to close. Hold down the Control, Alt and Delete keys together. Select the **Task Manager option**. Choose the appropriate application and then click on **End Task** (see Figure 1.3). Restart your application.
	Hold down the ALT + F4 keys together, which will shut down the window you are working in.

Did you know?

If you regularly backup your computer data, in event of a system crash you can restore your computer from the backup.

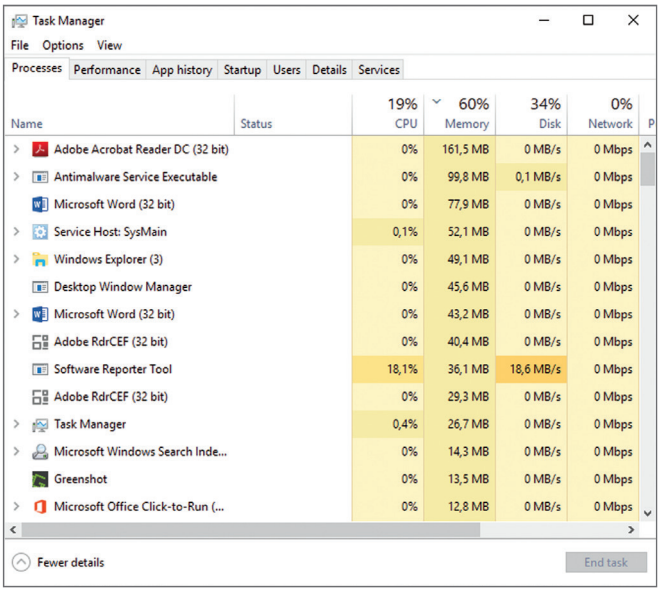


Figure 1.5 Task Manager

Problem 4

Problem 4 is that the computer is frozen. This means that everything on your screen is frozen, and the mouse and keyboard do not respond either. Your computer is completely locked up, and you cannot close or open any applications or even select the Shut-down option. You will need to reboot the computer. Table 1.6 shows some causes for why your computer may become stuck or frozen, and a few possible solutions.

Table 1.6 Some causes and possible solutions for a computer becoming stuck or frozen

Causes	Possible solutions
• The mouse has stopped working. • The computer system or system unit (the tower or chassis of a desktop computer that houses the CPU, DVD drives, motherboard, RAM and other components) is overheating. Some systems are very sensitive to changes in temperature. • Driver corruption errors have occurred. Drivers are a type of software that allows the hardware device to communicate with the computer's operating system. • Software errors have occurred. The application software is not running correctly. • The computer is infected with a virus or malware.	Check if the indicator light on the mouse is on, as well as whether the batteries in the mouse need changing.
	Check to see whether any of the air vents are blocked.
	Hold down the Control, Alt and Delete keys together. Click on the **Power button icon** that appears in the lower right-hand corner of the screen and select **Restart**.
	Press and hold down the **Power button** for 5 to 10 seconds to force the computer to shut down. Restart the computer after a few seconds.
	LAST RESORT (Only attempt this if other options fail): Unplug the power cord from the electrical outlet or if you are using a laptop that is not connected to an electrical outlet, remove the battery. Wait for a couple of minutes, reinsert the battery or plug in the computer and restart.
	Once the computer restarts, check your computer for viruses. Update your antivirus software and scan your computer.

Problem 5

Problem 5 is that the computer sound is not working. Table 1.7 shows some causes for why the computer sound may not work, and a few possible solutions.

Table 1.7 Some causes and possible solutions for the computer sound not working

Causes	Possible solutions
• The volume is low. • The cables are not attached correctly. • The speakers are plugged into the wrong port. • The speakers are defective.	Check to see if the volume level is up. Click the **Audio button (speaker icon)** in the taskbar. Double-clicking on the icon will bring up the audio controls. See if the volume control is muted or turned down very low. Adjust the controls or unmute the volume control.
	Check to see if the cables are securely attached to the computer and that the speakers are plugged into the correct audio port.
	Check if you can hear sound by using headphones.

Problem 6

Problem 6 is that the computer screen is blank. Table 1.8 shows some causes for why a computer screen may be blank, and a few possible solutions.

Table 1.8 Some causes and possible solutions for a computer screen being blank

Causes	Possible solutions
• The monitor is switched off. • The computer is 'asleep' (gone into standby or hibernation mode). • The connections between the computer and the monitor are loose. • The screen brightness and contrast is turned down.	Switch on the monitor.
	Move the mouse or touch the keys on the keyboard to wake up the computer.
	Check if the monitor cable is securely plugged into the computer and the back of the monitor. Check if the monitor power cord is securely connected to the electrical outlet and that the power light is on.
	Check if the computer is plugged in and turned on.
	Check if the brightness and contrast levels on the monitor are set too dark, so that you cannot make out anything on the screen. The brightness control is found on the monitor and on some keyboards.

Figure 1.6 Check that the monitor cable is plugged in if the computer screen is blank.

Problem 7

Problem 7 is that the computer shows a blue screen, which is known as the 'blue screen of death'. Although both software and hardware issues can cause this problem, it is mostly due to the hardware. Table 1.9 shows some causes for why the computer may show a blue screen, and a few possible solutions.

Table 1.9 Some causes and possible solutions for a computer showing a blue screen

Causes	Possible solutions
• The drivers are corrupt. • There are too many demands on the RAM. If too many programs are open, the amount of RAM is not enough to handle the memory requirements. • The hard disk is faulty.	Reboot the computer. Unfortunately, there is not much else that you can do. If this solution does not work and the problem re-occurs, then this means that the problem is more serious and you need to contact your technician.

Problem 8

Problem 8 is that the keyboard or mouse does not work. Table 1.10 shows some causes for why a keyboard or mouse may not work, and a few possible solutions.

Table 1.10 Some causes and possible solutions for the keyboard or mouse not working

Causes	Possible solutions
• The keyboard or mouse is not connected or is not turned on. • The wireless adapter for the keyboard or mouse is not plugged into the computer. • The battery in the keyboard or mouse is flat (has no more power). • The components in the keyboard or mouse are damaged.	Check to see if the keyboard or mouse is securely plugged in. Disconnect and reconnect it in the same port. If the keyboard or mouse still does not work, reconnect it in a different port.
	If you are using a wireless keyboard or mouse, check to see if the power switch is turned on.
	If you are using a wireless keyboard or mouse, check to see if the wireless adapter is plugged into the computer and that nothing is blocking the signal.
	Change the battery in the keyboard or mouse.
	Try another keyboard or mouse.

Problem 9

Problem 9 is that the computer keeps restarting (randomly rebooting) or crashing. Table 1.11 shows some causes for why a computer may keep restarting or crashing, and a few possible solutions.

Table 1.11 Some causes and possible solutions for why a computer keeps restarting or crashing

Causes	Possible solutions
• Your computer is overheating. • Your computer is infected with a virus or malware.	Check if something is blocking the air vents. Make sure that air can flow freely around your computer.
	Check for viruses on your computer. Update your antivirus software and scan your computer.

Problem 10: The printer does not print or is not working properly.

Problem 10 is that the printer is not printing or working correctly. Table 1.12 shows some causes for why a printer may not print or work, and a few possible solutions.

Table 1.12 Some causes and possible solutions for a printer not printing or working correctly

Causes	Possible solutions
• The printer cables are not connected properly. • Paper is jammed. • The printer is out of paper, ink or toner. • The printer is not connected to the network or wirelessly to your computer. • There is a printer error (orange or blinking light). After your printer has completed its initial start-up, you should see a solid-coloured light. If the indicator light is blinking or is orange, this often means that there is a printer error, such as a paper jam or an issue with the ink or toner cartridge. **Note!** The toner in cartridges is carcinogenic (cancer causing), so empty toner cartridges need to be disposed of carefully and responsibly. Check the printer's manual on the correct disposal procedures for ink and toner cartridges.	Check that you are sending your print instruction to the correct printer.
	Check to make sure that the printer is turned on and that the power light is on.
	Check that the power cord and the printer cable are securely attached. If the printer is connected wirelessly, check if wireless light is on.
	Check if the printer has a paper jam. The printer will display a message on the LCD screen or an indicator light to show that there is a paper jam. Note: Check the printer's manual on how to remove a paper jam.
	Check if the printer is out of paper, ink or toner. Load the printer paper tray with paper. Install new ink cartridges or toner cartridges. Note: Check the printer's manual on how to install new ink or toner cartridges.
	Turn off the printer, wait 15–20 seconds and turn the printer back on. Unplug the printer, wait 15–20 seconds and plug it back in. Restart the printer.
	Check the printer's print queue by looking for the printer icon in the system tray and double-clicking it. The print queue shows the status of each job, as well as the general status of your printer. Delete any jobs sent to the printer and resend.

Figure 1.7 Always follow the instructions in the manual for removing paper jams.

Problem 11

Problem 11 is that the internet (WiFi) is slow or not working. Table 1.13 shows some causes for why the internet (WiFi) may be slow or not working, and a few possible solutions.

Table 1.13 Some causes and possible solutions for the internet (WiFi) being slow or not working

Causes	Possible solutions
• The computer's WiFi is not turned on. • The modem is not plugged in. • The internet connection is down (not working).	Check if the WiFi on your computer is turned on. Many laptops have a light, usually green or blue, to show that the WiFi is turned on. Some laptops may have either a WiFi button or function key. If neither a button nor function key is present, then you can find the WiFi icon in the Notification area of the taskbar. Double-clicking on the icon with your mouse will give you the option to enable (turn on) or disable (turn off) the WiFi on your device.
	Make sure that the internet is working. Check that you are connecting to the internet using another device such as your tablet or smartphone.
	Reset the modem. Unplug or disconnect the modem power cord, wait 15–20 seconds and then reconnect the power. Wait a few minutes to reconnect to the internet. Test your connection.
	Reboot your computer.
	Note: If these solutions do not work to solve the problem, then you will need to contact your technician.

Problem 12

Problem 12 is that the computer is not seeing the flash drive or external drive, or cannot access files on the drive or save to the drive. Table 1.14 shows some causes for these problems, and a few possible solutions.

Table 1.14 Some causes and possible solutions for a computer not seeing the flash or external drive, or being able to access files on the drive, or save to the drive

Causes	Possible solutions
• The computer's USB port is not working. • The drive has a virus. • The drive is locked. • The drive is corrupt. • The drive is physically damaged.	Try another USB port. The problem may not be that your flash drive is not working but that the port to which it is connected is not.
	Use your computer's antivirus to scan and clean any viruses.
	Check to see if your flash drive or external drive is locked. Some drives have a physical lock on the drive, which prevents persons from deleting files or saving to the drive.
	LAST RESORT (Only attempt this if the other options all fail): Your flash drive or external drive may be corrupt and you may have no other choice but to format your drive. Remember that formatting your drive deletes all information on the drive. To format your drive, right-click on the **Drive icon** in the Explorer folder and select **Format**.

Scenario

Work through this scenario to practise your problem-solving skills.

You have just completed your assignment that is due for tomorrow. You clicked on Print, but the document has not printed. Use the process of elimination to determine what is wrong and try to resolve the issue. Use the troubleshooting form. Figure 1.8 shows an example of a completed troubleshooting form to resolve the problem.

Computer Troubleshooting Form

Device name: Printer	
Date: 4 February 2020	
Owner of device: My own	
Model #: HP Officejet 8610	Serial #: 1459826
Possible problem type: Software ☑	Hardware ☑
Problem description: Sent document to print, but printer is not printing.	
What were you doing when the problem occurred? What software was open when the problem occurred?	
Finished working on my assignment in Microsoft Word and sent it to print.	
Was there an error message? Yes ☐ No ☑	
If Yes, what was it?	
Has the problem occurred before? Yes ☐ No ☑	
Option 1: Power is on.	
Did it work? Yes ☐ No ☑	
Option 2: Cables are secure.	
Did it work? Yes ☐ No ☑	
Option 3: Printer is out of paper.	
Did it work? Yes ☑ No ☐	
Resolved: Yes ☑ No ☐	If Yes, date resolved: 4 February 2020
If No, need to call a technician:	

Figure 1.8 Completed troubleshooting form for resolving the issue of a printer not printing

Health and safety legislation

Figure 1.9 Many companies have their own safety procedures and guidelines for working safely with computers.

No Occupational Safety and Health (OSH) Standards are provided for the use of computers. However, many Occupational Safety and Health Acts (OSHA) legislated in various countries have guidelines for injuries that occur while working on the job.

The Jamaican Occupational Safety and Health Act (JOSHA) and the Occupational Safety and Health (OSH) Management Policy of Trinidad and Tobago, as well as the OSHAs in many other countries, require the following to prevent injuries in the workplace:

* employers to take reasonable precautions to ensure the safe operation of equipment
* employees to follow all safety procedures to operate equipment safely.

Many companies also write and implement their own acceptable-use policies or guidelines to reduce the problems that can happen through extended and improper computer use. These policies refer to general computer use, **email**, the internet and other online computer use, hardware, security, copyright, cyberbullying and the physical impact of increased computer (computer health-related injuries) use in the workplace.

Note!

Not all printers can use refills and refilling ink cartridges can damage your printer. Refilling ink cartridges also void (cancel) the warranty on the printer.

Green computing

The term 'green computing' is an emerging field in information technology and computer science. Also called green information technology or green IT, green computing is the use of computers and computer resources in an environmentally-friendly and responsible manner. It involves the using and disposing of computers and their devices in a way that reduces the impact on the environment. It also means designing, engineering and manufacturing computers and devices in an eco-friendly way.

Green computing involves reducing the impact on computers and devices on the environment by using fewer resources to build the devices. This can involve the following:

* **Green design**, where computers and devices are designed to be energy efficient
* **Green manufacturing**, where computers and devices are built with minimal wastage of resources
* **Green use**, where the amount of electricity used by computers and devices is the least possible
* **Green disposal**, where computer equipment is recycled and re-purposed to make other devices, or is disposed of correctly.

As computer users, we can also play our part in green computing by using some green approaches, including the following:

* Place the computer in sleep or hibernation mode if you are away from it for a long time.
* Purchase energy-efficient laptops and notebooks instead of desktops.
* Use the power management system on your computer to reduce the amount of energy your computer uses.
* Shut down your computer and devices at the end of the day.
* Refill printer cartridges instead of purchasing new ones.
* Refurbish your computer or devices instead of buying new ones.

Summary 1

1. 'Troubleshooting' means finding the source of the problem and fixing it.
2. Hardware malfunctions can be caused by wear and tear of parts and circuitry, poor assembly by the manufacturer, dust, extreme heat, humidity, power fluctuations and vermin.
3. A fragmented disk has files that are divided into several segments and stored in different locations.
4. Defragmentation puts the files back as one single file in a single location.
5. Many computer problems can be caused either by hardware or software, or both.
6. Driver corruption errors are caused when software (drivers) that allow the hardware device to communicate with the computer's operating system are not working properly.
7. Green computing involves using computers and devices in a way that reduces their impact on the environment.

Questions 1

Copy and fill in the blanks questions

1. A _____ disk is one in which the files on the disk are divided into several segments and stored in different locations.
2. _____ are a type of software that allows the hardware device to communicate with the computer's operating system.

True or false questions

1. The print queue shows the status of each job, as well as the general status of your printer.
2. If the speakers are plugged into the wrong port, you will not hear sound.
3. A keyboard may not work if its wireless adaptor is connected to the computer.
4. Defragmenting your hard drive will destroy all the information on it.

Multiple-choice questions

1. Which of the following is NOT a cause for the computer not starting up when the power button is pressed?
   - **a** A loose cable
   - **b** A bad power strip
   - **c** The speaker not plugged in
   - **d** A flat battery
2. All are causes for a frozen computer except for:
   - **a** an infection by a virus or malware.
   - **b** driver corruption.
   - **c** an overheating system.
   - **d** a keyboard that is not working.

Short-answer questions

1. Explain the term 'troubleshooting'.
2. List two situations for which you need to contact a technician.
3. Give two reasons why you should record the steps you take in troubleshooting a problem with your computer system.

Scenarios

Use the troubleshooting form to identify and suggest possible solutions for problems:

1. Jason is using his mother's computer. He plugs in his flash drive, but it does not appear in the Explorer window. Suggest what Jason can do to try and resolve the problem.
2. The computer shows a blue screen when you start it. How can you solve this problem?
3. Your sister uses her computer on the bed. She complains that her computer continually shuts down and restarts.

Research question

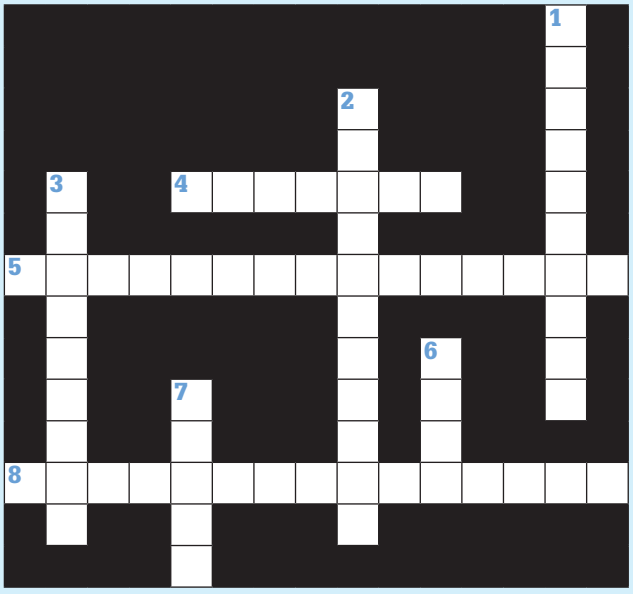
Determine if your school has any guidelines or policies based on the Occupational Safety and Health Act to protect employees and students when using ICTs in the school.

Hint: Ask your school's health and safety officer or guidance councillor, teachers or principal. Your school may have a representative for the school board or teacher's union from whom you can get information.

Project

Produce a campaign to promote health and safety practices when using the computer system. You can use promotional flyers and charts, audio podcasts, speeches, debates, and demonstrations. At the end of your campaign, create and distribute a survey to find out if students learned anything from your campaign.

Crossword



Across

4 The 'blue screen of death' can be caused by corrupt _____.

5 The process of finding the source of a problem and fixing it

8 The process of putting files back in a single location as one single file

Down

1 Files that are divided into several segments and stored in different locations on the hard disk

2 A reason for a computer to randomly restart

3 When driver software that lets hardware communicate with a computer's operating system has errors, it is said to be _____.

6 The Act that contains regulations to safeguard employees in the workplace

7 A computer being asleep or in hibernation mode can be a reason for _____ screen.

STEM project

Kevin, your friend who is not doing IT at school, is working on a computerised presentation for his mid-term English Language assignment and is having problems. Firstly, he successfully downloaded a video from a website without a secured sign. Then he realised that he was not getting sound during the video playback and now his computer screen has frozen. He has asked for your help to get his presentation back on track.

1 What do you suspect are the major causes of the problems that Kevin is experiencing?

2 Outline the steps you would take in troubleshooting the problems.

3 Write brief notes to explain the most likely problems and corresponding solutions in language that Kevin can understand.

4 Develop a checklist for Kevin if he has such problems again. Share it with a classmate.

5 What feedback did you receive from your classmate? How can you use this feedback to improve your checklist?

Hints

1 Write down any assumptions you are making in suggesting the most likely problems.

2 Create a glossary of the IT terms that Kevin will not understand.

Provide an accessible approach to theory and practice with this new edition updated to comprehensively cover recent IT developments and the latest Caribbean curricula for Forms 1 to 3 (Grades 7 to 9).

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- The answers can be found here: www.hoddereducation.co.uk/interactanswers

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ISBN 978-1-5104-7398-0

FSC