Using technology at work

Clocking In to Clocking Out Improving workplace basic education





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Vocabulary

Barcode	Output device
Biometrics	Personal data assistant (PDA)
Chat room	Program
Computer	Screen
Customise	Search engine
Desktop	Start menu
Document	Surf the Internet
Electronic	Swipe card
Email	Template
Favourites	Text bundles
File extension	Text messages
Forum	ΤοοΙ
Icon	Touch screen
Interactive	Visual display unit (VDU)
Internet	Web address
Internet access	Webmail
Keyboard	Website
Keypad	Window
Magnetic strip	World Wide Web (www)
Monitor	

Using a calculator

A calculator can add, subtract, multiply and divide simply and easily. It can also work out percentages. It is a very useful **tool** in the workplace and in our everyday lives. For example, we can calculate how much we are owed this week, how much we should get after tax, how much the bill in a restaurant is, and also how much we spend on shopping every week. It is especially useful when we are dealing with very large numbers or a lot of numbers at the same time.



Preparation is the key

- Press the ON button to turn the calculator on.
- As you key in each number, it appears on the display.
- When you press = the answer appears on the display.

Press the **Clear** button before you start another calculation.

This is the button with C on it. Sometimes it has AC or CA on it. This means All Clear or Clear All.



Clocking In to Clocking Out

Answer these questions.

Write your answers in your notebook.

- 1. Which button clears away all the numbers in the display?
- 2. Which button gives you the answer?
- 3. What part of the calculator shows you the numbers you key in and the answer?
- 4. In what situations is a calculator useful?

Use the calculator to find the answers.

Add 75 and 33.	
Add 31, 14, 296, 7, 16 and 495.	
Add 546, 879 and 398.	
Add €15.99 and €7.49.	
Add 2.5, 3.7, 3.19, 7, 14 and 39.8.	

Real maths problem

What calculations does Ann have to do? Work out how she gets her total.

Ann is the stockroom supervisor for a contract-cleaning agency. Every week each staff member starts with 12 bottles of cleaning agent. At the end of each week they tell her how many bottles they have left. Ann then needs to order more so that each person starts the following week with 12.

Here is the number of bottles each staff member has left on Friday afternoon. Use the calculator to see how many bottles Ann needs to order for Monday.

Мау	Marek	Tom	Irene	Sarah	Joe	Delma	Ana	Agnes	Farah
5	4	5	3	6	7	2	3	4	5



At work

What calculations do you need to do at work? For example, do you need to work out percentages? Do you need to add the cost of items? Make a list. Would a calculator help you? Practise using the calculator for these tasks.



At home

When you go shopping, you can use a calculator to add up the cost of items as you put them in your trolley. Some supermarkets also have hand-held scanners that you can use as you shop. They add up the cost of your shopping as you go. Try them out.



Computer skills

A computer has a calculator tool built into it. If you use a computer, find the calculator. See if you can use it. Mobile phones also have calculators built into them. Find the calculator on your mobile and see if you can use it.

Using numbers



Try out different function buttons on the calculator, for example x, -, %. Some calculators have other buttons to perform other functions. Can you use these functions? Discuss these functions and if they are useful to your work.

X

Writing

Some numbers can look like letters, especially on a digital calculator. Can you use the calculator to write words? What is the longest word you can write? *Hint: Turn the calculator upside down to read the numbers as letters*

Talk about



Have you used a calculator before? Do you find it easier or more difficult than calculating in your head or on paper? Do you think it is necessary to be able to solve the problem in your head or work it out on paper first before you try it on a calculator? Are certain maths problems more suited to using a calculator?

Using VDU screens

VDU stands for **visual display unit**. It is an electronic **screen** that displays information. In computer terms it is called an **output device** because it gives information out to you. Visual display units can be found in many workplaces such as shops, banks, offices and factories.

VDUs may show one piece of information such as the time, date or temperature. In modern industry, they may contain large amounts of information, also called readings. The readings give details of what is happening on a particular machine.



Here is a VDU from a car. It is displaying:

Here is a VDU from a food processing plant. It is displaying the temperature of each food silo. It is showing a problem in silo 3 and silo 6.

A VDU can be a simple screen with numbers and text on it. VDUs can also be computer **monitors** or television screens with pictures and sound. They not only display information to you but can be **interactive** as well. This



means that you can use a **keyboard** or a **touch screen** to get information from the VDU. You can find these kinds of VDUs in restaurants for staff use and in tourist information offices for public use.

Answer these questions.

Write your answers in your notebook.

- 1. What is a VDU?
- 2. Make a list of VDUs that you have come across in your work or outside of work.

Tick which of the following you could find on a VDU.

1.	Temperature readings for a car engine	
2.	Bed occupancy of a hotel	
3.	Smell of food rotting	
4.	Production line figures	
5.	Weight of an item	
6.	Age of an animal	
7.	Cost of a job	
8.	Texture of a piece of food	

Circle the word that makes the statement true.

Read the following sentences. Circle the right word. The first one is done for you.

- 1. VDU is short for visual display user (unit.)
- 2. A VDU is an electronic / manual screen.
- 3. A VDU is an **output** / **input** device.
- 4. The information on VDUs can also be called writings / readings.
- 5. An interactive VDU may have a **keyhole** / **keypad** for you to use.

At work



Do a survey of your workplace. Is any information given to you on VDUs? What type of information do they display? If you did not have VDUs, how would you get this information? If you do not have any VDUs, think about them. Would they help you in work? Remember, a VDU may be small and display only one piece of

At home

information, so look carefully.



Some sports are now very technical and use VDUs to display information as the sport event is happening. What sports do you watch? Does the trainer or manager use VDUs to help the team or competitor during an event? Do you think they add or take away from the skill required to compete?

Using numbers



Many VDUs are used to display temperature. Find out about temperature scales and common temperatures. Create a graph or scale with temperatures that you use or know.

Reading



The word **electronic** comes from Greek word 'elektron' and means 'made from amber'. What is amber? Find other words that come from this Greek word and are related to the word electronic. Find some other words that come from Greek.



Find out

Use the Internet to research modern technology and VDUs in your industry. Download and print this information. Compare it with others in your group.



Design

Look at one aspect of your work and how information could be displayed on a VDU. Draw or write up how you would like the information to be presented to you. Lay out the information in a way that is easy to understand.



Does this sound familiar? Many businesses are using hand-held computers to store information. Some are like mini personal computers and are called **personal data assistants**, or **PDAs** for short. They store information like contact details, diary information, and **document** files. They can even receive emails.

Others are for specific jobs within industry like stock control or sales. They work by scanning the barcode of an item. The information can be used to count stock, find stock and check prices. The information can be sent to a printer or it can be displayed on a screen. Some hand-held computers can store handwriting and are used for getting signatures as proof of delivery.

Barcodes

Almost everything you buy has a **barcode**. It contains information about the product like the price and size. European barcodes are made up of 13 numbers. Goods made in Europe start with 5. However, some items have very specific codes. For example, all books start with 978 or 979. The last number is a kind of checking system for the whole barcode.



Clocking In to Clocking Out

Answer these questions.

Write your answers in your notebook.

- 1. What does PDA stand for?
- 2. What information can a PDA store?
- 3. What type of tasks can a hand-held computer do?
- 4. In your words, what is a barcode?
- 5. What are the four parts to a barcode?
- 6. If the barcode starts with 978, what type of product is it?

Write examples

Where have you seen hand-held computers used? What were they used for?

Where I saw it	What it was used for



At work

Does your industry use hand-held computers? If so, what are they used for? If they scan barcodes, find out what information the barcodes contain. Can anyone tell you what happens with this information or where it is stored?



Writing

Write a description of the features you would like a hand-held computer to have that would help you at work.



Design

Design a hand-held computer. Think about who will use it and why. What size should it be? What weight should it be? Will it be used indoors or outdoors? Make a model or draw it on paper.



Find out

European barcodes use a system called the European Article Number. Look this up on the Internet and find out the product codes for different countries. Then look at products at work or home and identify where they come from.

Reading



Brochures describing technology use a lot of complicated words. Find a brochure for a hand-held computer (you can search for them on the Internet using the words 'hand-held devices'). As a group, explain or rewrite the brochure using plain English. If there are words you do not understand, use a dictionary.



Computer skills

Hand-held computers can send information to desktop computers, printers and monitors. How do they do this? What technology or links do they use?

Finding your way around a computer screen



The computer screen can be confusing when you start out learning **computers**. On top of that you have to get used to moving and clicking the mouse. This is all something you have to learn by doing. The more practice you have, the better.

When you have started up the computer, the first screen or **window** you get to is the **desktop**. The little pictures or symbols you see are called **icons**. The icons are like short cuts to the **programs** you use, for example the Internet connection. You can also set up icons to make short cuts to the documents and folders you use often.



To open something on the desktop, double click it with the mouse. Do not worry if you do not see the icon you want on the desk top. You can also find the documents and programs you want in the **Start menu**.

Double click on the Start button. Then go to Documents. You can find all your recent documents here.

Put the words in the box in the correct places.

The first one is done for you.

	shortcut mouse program Start desktop
1.	Thedesktop is the first screen you get to when you start
	up the computer.
2.	An icon is a on the desktop.
3.	To open a you need to double click the icon.
4.	You use the to double click an icon.
5.	You will also find your programs and documents in the
	menu.

Icons

What does the icon open?

The first one is done for you.

You can check this by moving the pointer over the icon on your desktop.





At work

Look at the programs and applications that you use often. Find out how to make a shortcut icon for them on your desktop.

Computer skills

Find out how to **customise** your desktop. Pick the background and colours that you like. Put the icons where you want them.



Design

Design an icon for your desktop. Look carefully at the size, shape and colour of other icons to help you design your icon. Can you use a graphics program on the computer to design the icon?

Using numbers



What do you use a computer for? Do you use it at work or at home? Do a survey of your co-workers about the different uses you all have for computers. Put the results on a chart or graph. You can use the spreadsheet program on a computer to make a graph or chart.



Find out

Find the history of the word 'icon'. Look at its original meaning and the meaning it has now in computing terms. Has the computing world taken any other words and changed the meaning so that they now have a new technological meaning?



At home

If you need to practise using the mouse, then play cards on the computer. Card games like Solitaire and Free Cell use the mouse to move and select the cards.

Using email

To tatoater@pala.in Cc Subject: Subject: Company Messages Attach Attach Attach Attach From next week, all company messages will be delivered by email. Thank you,	Company	Messages Message ()(TML)
To tanaser@nala.in Cc Subject: Subject: Company Messages Attach Attach Attach Attach From next week, all company messages will be delivered by email. Thank you,	the tate	Yen part Fyrnat Iook Actors Help
Cc Subsect: Company Messages Attach Attach Attach Attach From next week, all company messages will be delivered by email. Thank you,	-Igend	Sessoon Save Std 🕢 12 🔹 🛕 18 7 11 新聞 2 日日 注意 法 计
Subject: Company Messages Attach Attach Attach Attach Attach From next week, all company messages will be delivered by email. Thank you, Thank you,	Ta	tuaceaserdituale.in
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Attention all staff. From next week, all company messages will be delivered by email. Thank you,	Subject:	Company Messages
From next week, all company messages will be delivered by email. Thank you,	Attach	
Thank you, The Mercener		
The Manager	Thank you	4
the manager	The Mono	ger

Email, or electronic mail, is a common way of communicating at work and at home. You can send and receive messages, documents or photographs. To communicate by email you and the person you are emailing to need to have:

- computers that can connect to the Internet, and
- email accounts.

Usually if you use email at work, your company provides you with an email account and an email address. The address usually starts with your name or title. It also has the name of your company. For example, 'nala' is the company name in the note at the top of the page. Email addresses usually use small letters.

Many people also have personal email accounts. Many telephone companies provide email accounts. You are usually only able to use this email on one computer. It can be very handy, though, because you can type new messages or read your old messages without connecting to the Internet first.

Another type of email account is **webmail** such as Hotmail and Yahoo. The advantage is you can use your webmail account on any computer anywhere in the world. The disadvantage is you always have to connect to the Internet first.

It is important to know how to read an email address. johnkelly@nala.ie

You read the symbol @ as 'at'.

You read the . as 'dot'.

The last part ie means Ireland. You read this as the letters 'i e'.

Clocking In to Clocking Out

Answer these questions.

Write your answers in your notebook.

- 1. What do you need to send or receive email?
- 2. What kind of things can you communicate by email?
- 3. What is an advantage of webmail?
- 4. What is a disadvantage of webmail?
- 5. What are the different parts of the email in the note at the top of the information page? How do you say the parts?

Send an email.

Write a message to your manager asking for time off on Friday. His email address is johnkelly@nala.ie

Dottiled -	Messa	er (fitt	MET								
E Elle Est	Yes 1	Poert	Fgmat								
Sigend		1	e baru bis		14	+),A.I	117.	虹目即	思想	臣臣	N IN S
T0	-			_							
Ct	-			_							1
Subject:	-										1
Attach	1										- i
											20
											- 1
											191



Talk about

Have a debate about email. What are the advantages and disadvantages of email and regular mail? Do we need both of them?



Find out

Does your telephone company provide email and Internet? Research some other email providers. Which one has the best deal for you? Talk to people at work and at home for recommendations.



Computer skills

Set up an email account and learn how to use it. Some email accounts will give you instructions so you can learn on your own. Write down the steps you need to take and give them to a workmate.



At work

Look at all the different types of messages that you use at work. Which of these would be more suitable as email messages? Should everyone at work use email, or is it suitable for some jobs more than others?



Writing

Write a list of the people you often contact who have email. Put these contacts into the address book of your email account.

Reading



Look at the way formal letters are written. Emails are usually more casual than a formal letter. Look at the words you use for the greeting and to close a formal letter. What words could you use for this in an email?

Using the Internet



At City Hall, Cork On 22 March

For more information check our website at www.nala.ie



Luke is going to the Student Forum. He wants to book train tickets, arrange accommodation and get directions to the fair. He can use the **Internet** to do all these.

What is the Internet?

The Internet is a worldwide network of computers that you can search for information. The information is stored on the **World Wide Web**. This is a collection of millions of websites. A company can set up a website to promote itself, to show what products or services it sells, to update customers and to let people know how to contact them.

How can I use the Internet?

To use the Internet, you need a computer with Internet access.

To get to a website, you need the **web address**. The NALA website is at **www.nala.ie**. A website address has three parts: www. stands for world wide web. **nala** is the website name. .ie is the file extension, which tells you the country or type of organisation.

If you do not know the web address, you can type key words into a **search engine** such as Google. The search engine searches through the World Wide Web and shows you a list of websites that may have what you are looking for. You can browse or **surf the Internet** like this until you find what you want. For example, Luke types in 'accommodation in Cork' to find somewhere to stay.

What do these words mean?

Internet
Website
World Wide Web
search engine
surf the Internet

Keywords

Web MSN Images Video News Maps Shopping	
	Search Web
	🕙 Live Search

What would you enter in the search box to look for...

1.	Health and safety information
2.	A brochure for a camera
3.	A recycling depot in Tipperary
4.	Tax information

Now try this out on your computer and see what websites you get.

File extensions

In www.nala.ie .ie is the file extension and it stands for Ireland. What do these file extensions show? It may be a country or a type of organisation.

.com	 .fr	
.net	 .org	
.gov	 .pl	
.co.uk	 .ru	

Clocking In to Clocking Out



At work

The Internet is a very good way to find out about a company. Do an Internet search on the company you work for and see what comes up. Your company's website may advertise job promotions or other opportunities.

At home



If you have a particular hobby or pastime, look it up on the Internet. You will be surprised by the number of websites about every subject. Many leisure websites have **forums** and **chat rooms** you can join. Here you can talk to people with the same interests as you and get advice.

Find out



Here are some useful websites. Find out what information they have. www.citizensinformation.ie www.irlgov.ie www.hsa.ie www.aaroadwatch.ie/routes www.ireland.ie What search engines are popular? Try them out in your website search and see if you find them useful.

Computer skills



When you find a website or search engine you like, put it in the **Favourites** menu on the toolbar. This will save them on your computer so that you can find them again easily. Can you work out how to add sites to the Favorites menu?



Using numbers

Do a survey about Internet use. Design a questionnaire to find out what people use the Internet for. Display the results in a chart or a graph.



Writing

Imagine you have a website. What would you put on it? Write an article for the home page that describes you and your interests. You can write it directly on the computer if you want and insert pictures. Some computer programs can lay it out as a web page.

Text messaging

Text messages make it much easier to contact people and send short messages. The message is stored on the mobile phone, so the person you send it to can read it any time. Text messages are very useful if you do not work in the same place every day. For example, you can send and receive texts to check what jobs you need to do or to get help if you have a problem. Text messages are also very useful for checking addresses and directions.



Here is how to send a message when you are not using Predictive Messaging.

- 1. Press the Menu key on your mobile phone.
- 2. Select Messages from the menu.
- 3. Select **Text messages** from the menu.
- 4. Select Create message from the menu.
- Write the message using the keys. Each number key has 3 or 4 letters on it. To write an 'a' press 2 once. To write a 'c' press 2 three times.
- 6. When you are finished writing your message, press **Send**.
- 7. Enter the phone number and press OK.

Your phone might have slightly different options to the ones above.

When you receive a message the phone will beep. Here is how you read the message.

- 1. Press the Menu key on your phone.
- 2. Select Messages from the menu.
- 3. Select **Text messages** from the menu.
- 4. Select Inbox from your folder.
- 5. Select the message you want to read.
- 6. To reply to a message you have received, select **Reply**.

You can store phone numbers on your mobile phone and insert them automatically into a text message. The user manual that comes with your phone tells you how to do this.

Sending texts

If you press these buttons, what will the message say?

44 33 555 555 6	66
44 444	
222 2 555 555	6 33
4 666 666 3	22 999 33
94428 844	4 6 33

Text speak

Look at this message.

What does 2day mean?

You can use numbers or leave out letters when writing text messages. It is then faster and easier to write.



Match the text speak to the meaning



What does this text speak message say? John y r u I8 again 2day c u wed

Clocking In to Clocking Out

Talk about

Texting or talking: which do you prefer and why? Does it depend on age or whether you are male or female? Does it depend on who you are sending your message to or what the message is about?



Do you feel confident about sending text messages? What can you do to help yourself if you feel nervous about sending or replying to texts? For example, you could find a quiet place to concentrate while you send a text or you could practise the ones you send most often.

At home



Put the details of all your contacts on the phone. Include their name, landline number and mobile number. The mobile phone will save them in alphabetical order for you. You can also set up groups on your phone, which lets you send one text to a group of people. This is great when you want to send one message to everyone at work or in a club.



At work

If you need to send the same type of message a lot for work, you can type it into the phone and save it as a **template**.

Using numbers



Different companies have different rates for text messages. You can buy **text bundles** if you send a lot of texts. Text bundles are credit for your phone for texts only. They are cheaper than regular credit. Find out what your rate is and if text bundles would be better value. Compare the rates of different telephone companies and see which has the best value for you.



Writing

Not many people use punctuation marks in text messages, but they are on your phone to use. Find the punctuation key on your phone. Practise writing full sentences with correct punctuation.

Using technology for security

Keypads

The picture shows an entry system **keypad**. That means you need to enter a code to get in. It is used in alarm systems. It is also used to lock and unlock doors. The code can be numbers such as **1742**. The code can be a word that is easy to remember. If the code is a word, the keypad works like the keypad on your mobile phone. For example, if the code word is **pass**, press **6177**.



Here are some examples of keypads used in the workplace.

- Alarms at entrances
- Locked doors to restricted areas
- Store rooms
- Fridges and freezers

Swipe cards

A **swipe card** is the size of a credit card. It has a **magnetic strip** that contains information about the user. The user swipes the card through a card reader. A swipe card is used for the same reasons as a keypad.

A keypad and swipe card can be combined. The swipe card identifies who you are and then you need to enter your personal code on the keypad. One example of this is a time clock that keeps account of your working hours.

Safety and security uses

Swipe cards can be used to count the number of times employees wash their hands or use a piece of equipment. Swipe cards and codes can also record who is on a premises and what room they are in. This is very important in businesses with sensitive information or industries that use chemicals.

Some people are concerned, however, that tracking devices like these could lead to an invasion of workers' privacy

Answer these questions.

Write your answers in your notebook.

- 1. Where would you find a keypad?
- 2. What can you use a keypad for in the workplace?
- 3. What do you need in order to use a keypad?
- 4. Where is the information stored on a swipe card?
- 5. What can a swipe card be used for in the workplace?

What do you think?

Write your answers in your notebook.

- 1. Why do you think storerooms, fridges and freezers need keypads?
- 2. In what industries is hand hygiene important?
- 3. What types of businesses deal with sensitive information?

Words

Put these words into a sentence.

ntry
ode
estricted
nagnetic
lentify



At home

Keypads are often found in the workplace. Can you think of when they would be used in the home? What about leisure time, shopping and hobbies? Look at all the different type of keypads that you see during the week.

Using numbers



We use number codes for many things. We have codes for cash machines or automatic teller machines (ATMs), personal identification numbers (PINs) on credit cards and a code to turn on a mobile phone. Trying to remember all the numbers is difficult. Do you have a simple way to remember them? Putting the numbers in a sequence or making a pattern out of them helps. Or using a simple word that relates to the letters can also work. Play with numbers and see how you can make patterns from them to help you remember a sequence.



Writing

Write an article on your feelings about keypads and swipe cards. Do you feel that they are necessary? Or does it mean that we are 'being followed' too much?



Talk about

How can you prove that you are who you say you are? What are the different ways you have of identifying yourself to others? Look at everything you need to carry or what you need to produce to prove who you are. Think of a way that can prove your identity beyond doubt.



Find out

What do you think is the next step in entry security? What is **biometrics**? Is it science fiction or reality?

Design



Design the perfect storeroom or staff room for a workplace. If designing a storeroom, include in it safe storage for chemicals. If designing a staff room, think about what staff need in a staff room. Now put keypads and swipe cards where they improve safety and security.

Notes

Using technology at work

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