

**ACTION-BASED ACTIVITIES**

## **TOPIC C6.2 : WIRELESS TECHNOLOGY**

**THEME C6 USING ICT IN SOCIAL ROLES**



**COMMUNICATION**

**LEVELS 1 & 2**

**ISSUED SEPTEMBER 2005**

# INSTRUCTIONS

## WHAT DO I DO?

Use this booklet to help you:

- plan an Action-based Activity on the theme of 'Wireless Technology'
- carry out an investigation into the subject
- produce ALL the evidence needed for your portfolio.

**NOTE:** Use this booklet WITH the Learner's Planner and Guide.

## WHAT IS ASSESSED?

*Using ICT in Social Roles* is one of six themes you can choose for your Action-based Activity/portfolio work. It includes topics such as:

C6.1 ICT Job Seek

C6.2 WIRELESS  
TECHNOLOGY

C6.3 ICT Presentation Skills

COMMUNICATION

TOPIC C6.2 : WIRELESS TECHNOLOGY

### TOPIC C6.2 WIRELESS TECHNOLOGY

This is an opportunity to explore the latest developments and applications of ICT equipment. This guide will take you step by step from getting started, to writing and checking your final pieces of work. Each step follows Part Two of your *Learner's Planner & Guide*, so read it alongside this booklet.



It's a good idea to follow this advice.



You must do this to get the qualification.



**STEP  
A**



#### CHOOSING A TOPIC

Think about the topic "*Wireless Technology*" and things about it that you might like to study. Don't rush or you may miss something. One of the best ways to start is to *mindmap*.

#### TASK 1 GETTING STARTED MAKING A MINDMAP

Allow about  
20 minutes

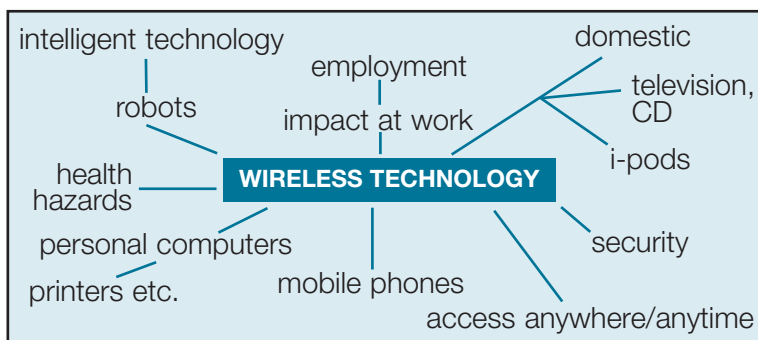
On your own, or with a colleague, think about and talk about '*Wireless technology or technology that communicates with itself*' and aspects of it you might like to study.

Work together to make a **mindmap** of the subject. You can find this on page 5 of the *Learner's Planner & Guide*.

You may want to think about:

- advantages of computers without cables
- the impact on the domestic environment with CD players, televisions, phones even fridges and microwaves able to communicate with each other
- the impact on the workplace when you can access information anywhere anytime
- 'on-line' advantages when you are on the move
- the future of robotics
- possible dangers from Electro Magnetic Radiation

**PORTFOLIO EVIDENCE** – You could copy and add to the unfinished example below. This could then go into your portfolio as evidence that you have thought about your chosen subject.



# ESSENTIAL SKILLS

## ACTION BASED ACTIVITIES



*Continued*

### TASK 2 FRAMING A QUESTION

Allow about 15 minutes

When you have made your mindmap, focus in on one or two ideas that:

- interest you
- will be easy to research and get information about (talk to your tutor if you are unsure).

Write these ideas down and then try to turn them into **QUESTIONS**. This will help when you write up your conclusions later. The examples in the box may help you do this.



Topic : Wireless or Bluetooth technology	
Original Idea	Question
<b>Computers without wires</b>	How have personal computers evolved to 'Bluetooth' status?
<b>Connecting everything</b>	What are the advantages of connecting all technologies together?
<b>Mobile communication</b>	How can a computer be used via a mobile phone anywhere anytime?
<b>Robotics</b>	Using wireless technology, how far away is the reality of robots?

In your portfolio, write down your chosen title/question.

Check with your tutor that it is okay. (Remember, you can always change it later if necessary.)

### TASK 3 LOCATING RELEVANT INFORMATION

Allow about 10 minutes

Your next task is to locate relevant information for your portfolio. Check with your tutor that:

- there is enough information
- it is easily located
- it is of the right standard

### TASK 4 ACTION PLANNING

Allow about 30 minutes



**PLAN** – It's a good idea next to draw up a plan of action. Make a table and on it write down what you intend to do and when you will do it by. Highlight key dates and deadlines (e.g. when you are giving a talk or having a discussion).

# COMMUNICATION

## TOPIC C6.2 : WIRELESS TECHNOLOGY

**STEP  
B**



### READING TO OBTAIN INFORMATION

Reading and obtaining information are an essential part of the qualification and you must be able to show that you have collected, read and extracted information for **DIFFERENT** sorts of documents.

There are lots of ways of finding information on this subject such as:

- computer books and other resources in the library
- computer magazine and in newspaper articles
- computer manuals
- using the Internet
- talking with IT experts about the subject.

#### TASK 5 READING AND FINDING OUT (to answer your question)

Allow about  
1½ hours

Look for suitable documents to read. If you are studying for **level 2** communication skills they will need to be more than 500 words long.

#### TASK 6 RECORDING INFORMATION

Allow about  
1½ hours

**READ and MAKE NOTES** from all documents that you think are helpful and relevant (the box below shows you how to write your notes).



**Topic: 'How wireless technology works'**

**Internet article:** *'The future of the Intelligent House'*

**Date:** February 2004

**Author:** Olaf Diegel, Glen Bright

**Source:** *Robotics and Automation Magazine*

**Main points in the article:**

1. Wireless technology can connect all computers in your house.
2. The computer in your dishwasher can 'talk' to your computer.
3. A computer in your fridge can call your mobile to tell you that you are out of milk.
4. The idea behind 'Bluetooth' is to standardise all products with computerised functions to be able to 'talk' to each other.
5. Personal computing becomes much more independent.
6. The development of domestic robots in a wireless environment becomes a real possibility.

**Summary:** Write up your notes in your own words.

**This is a major piece of evidence.**



**ASSESSMENT** Your tutor will assess that:

- the notes you have made are relevant
- you have clearly identified key points
- you understand what you have read.

**STEP  
C**



**DISCUSSIONS**

Taking part in discussions is an essential part of the qualification. For **LEVEL 1** you can take part in a one-to-one **OR** a group discussion. At **LEVEL 2**, it must be a group discussion. A discussion can be on any topic from the six Themes (See *Learner's Planner & Guide*, page 10).

Your **tutor** will need to observe and assess how well you do.

**TASK 7**

**TAKING PART IN DISCUSSIONS ABOUT YOUR TOPIC**

Allow about  
1 hour

1. **Invite** colleagues to join you in a discussion about your chosen topic and fix a time and date when you will meet. Make sure your tutor is also able to be there if you want to be assessed.
2. **Plan** and practise for the discussion so you are properly prepared (see the box below).



**PLANNING AND TAKING PART IN DISCUSSIONS**

1. Think about what you will talk about – it's no good just having a chat! The discussion must be focussed on the subject.
2. Decide on a subject and a question to discuss e.g. *"How real is the threat from electromagnetic radiation used in wireless technology?"*
3. Agree a time and place for the discussion.
4. Set aside 15–20 minutes for the meeting.
5. Make sure your tutor is there to assess it.



**ASSESSMENT** Your tutor will assess you on:

- speaking clearly
- keeping to the point
- giving relevant information
- listening to others
- using positive body language
- keeping the discussion going.

**STEP  
D**



### GIVING A TALK (Level 2 only)

At level 2 you must give a short talk to an audience (see your *Learner's Planner & Guide*, page 21 for detailed tips on how to give a good talk).

Although there are no hard and fast rules, a talk will normally follow the format given in the box below (in this case on the topic of "Using PowerPoint")



It is a good idea to prepare prompt cards and material (e.g. pictures, PowerPoint etc) to illustrate your talk.



1. Think up a **title** e.g. "**Wireless Computing**"
2. **Introduction** – *"My talk today is about using computers, scanners, printers, the keyboard, the mouse and digital cameras; all without being connected by cumbersome cables. I will also be looking at other Bluetooth applications."*
3. **Main section** – take each of the main findings of your research expand on them.
4. **Conclusion** – *"So, I hope I have been able to show you that using wireless technology really does take us into the future ..."*
5. **Questions** – *"Are there any questions or observations you would like to make?"*

### TASK 8

Allow about  
2 hours

### GIVING A TALK OF AT LEAST 4 MINUTES ABOUT YOUR TOPIC

**Note: This task is only relevant if you are doing level 2.**

Plan and prepare for your talk. Make sure the time and date is fixed and that your tutor can be there to assess it. Practise at home – it really does help!



**ASSESSMENT** Your tutor will assess you on:

- speaking and making your case clearly
- keeping to the point
- giving relevant information
- being well organised
- using positive body language
- answering questions clearly.

**STEP  
E**



**PLANNING AND WRITING DOCUMENTS**

Your portfolio must contain at least two different written or word-processed documents (see pages 12–13 in your *Learner’s Planner & Guide*). At level 2, one of them must be over 500 words long.

**TASK 9**

Allow about  
2 hours

**PLANNING AND WRITING ONE TYPE OF DOCUMENT ON YOUR CHOSEN TOPIC**

1. Check what you already have in your portfolio. You should have notes of documents you have read and information gathered. You may find that you have already written a letter or short report which you can use as evidence of writing!
2. Decide on **one** type of document you will produce on your chosen topic. For example, you might include a report on research you have carried out into improving the organisation or a layout of a letter or report. The box contains more examples:



**EXAMPLES OF DOCUMENTS YOU MIGHT WRITE ON ‘WIRELESS TECHNOLOGY’**

**Short documents:**

- letters, e-mails or notes typed using a computer
- a short guide on how to use a wireless PC
- a short report comparing two PC systems.

**Longer documents:**

- a description of the Bluetooth SIG and how it got its name.
- a full report on research you have carried out on the use of wireless technology in the home and the workplace.
- the future of robotics – science fiction or fact?

3. Start **WRITING** one type of document on your chosen topic. You are strongly advised to use a computer to do this as this will:
  - enable you to redraft work quickly and easily
  - make your work look more professional
  - make spell checking easy
  - provide opportunities to include images, tables, charts, graphs etc. – you **MUST** include an **image**.
4. **PROOF READ** your work carefully.

# ESSENTIAL SKILLS

## ACTION BASED ACTIVITIES



**ASSESSMENT** Your tutor will assess your work for:

- its relevance – sticking to the point
- its structure – it must be organised
- its style – easy to read and suited to the job

### **TASK 10** PLANNING AND WRITING A DIFFERENT TYPE OF DOCUMENT ON YOUR CHOSEN TOPIC

Allow about  
2 hours

Repeat Task 9 for a different type of document on your chosen topic.



### **COMPILING THE FINAL PORTFOLIO**

### **TASK 11** THE FINAL PORTFOLIO OF EVIDENCE

Gather together all your work and select from it the evidence needed to meet the requirements of the qualification.

(Your tutor will help you with this task).



## WIRELESS TECHNOLOGY MORE ACTION-BASED ACTIVITY IDEAS

1. **Investigation** – Look at several websites and magazines detailing the “state of the art” computer technology and software from the mid 1990’s. Compare and contrast this with the technology on sale today. How do they compare? What changes do you think the next five years will bring? Keep the main notes you have collected in your portfolio.
2. **Write a report** – Undertake a survey of the average domestic environment. Calculate how many computers are used in different appliances. What could be the impact of Bluetooth technology?
3. **Visit a PC Centre** – Arrange a visit to a PC Centre to talk to staff about the changing technology. Ask what they think about wireless technology and how PCs can now interact with other technology such as mobile phones. Prepare a short report on this visit.
4. **Contact Objectors** – Investigate what objections there are to wireless technology. What scientific or factual grounds are there for these objections? Prepare a short ‘For’ and ‘Against’ leaflet which summarises the main points.
5. **Conduct a survey** – devise a questionnaire to determine levels of ownership of technology within your group.
  - ownership of home computers
  - ownership of laptops
  - ownership of mobile phones
  - ownership of personal CD players, i-pods etc.
  - ownership of Gameboys

Determine how many people now find such items as the mobile phone an indispensable part of their lives. How do the group react to the predictions for the “intelligent” home that uses joined up Bluetooth technology?

Write up your findings, conclusions and predictions.





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PUBLISHED BY NORTHERN IRELAND COUNCIL FOR CURRICULUM, EXAMINATIONS AND ASSESSMENT



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