1 WHAT IS ICT?

1.1 Vocabulary

guessing words in context • prefixes and suffixes

A Read the text. The red words are probably familiar to you in general English. But can you think of a different meaning for each word used in an ICT context? Change the form if necessary (e.g., change a noun into a verb).

Anna phoned the language school to say she had a virus and was too ill to work. She found a little bit of chocolate in the fridge, plugged in her CD player, and sat down to browse through her TV magazine and play with her pet mouse. On the table there was a menu for a local Chinese restaurant. Anna was choosing lunch when the postman arrived with a package addressed to her. She stepped out to get it and the door closed behind her. Anna realized her keys were inside the house and she was locked out.

B Read these sentences from ICT texts. Complete each sentence with one of the red words from Exercise A. Change the form if necessary.

1 Select an option from the drop-down _____ .
2 The smallest unit of data in a computer is a _____ , short for *binary digit*.
3 Anti _____ software protects computers from infection.
4 High-level programming _____ , such as C and C++, are made up of letters, numbers and symbols.
5 To view information on the Internet you need a web _____ .
6 Click on the _____ twice to open the program.
7 This software _____ includes a number of programs that businesses will find useful.
8 One way to protect data is to encrypt it so that only someone with the correct _____ , or password, can open it.
9 Most Internet _____ begin www.
10 You may need to install a _____ to play music or watch films on your computer.

C Study the words in box a.

1 What is the connection between all the words?
2 What is the base word in each case?
3 What do we call the extra letters?
4 What is the meaning of each prefix?
5 Can you think of another word with each prefix?

a
antivirus centimetre gigabyte
hyperlink Internet kilobit
microchip millisecond
miscalculate output restart
subnetwork superhighway
telecommunications undetected

D Study the words in box b.

1 What is the connection between all the words?
2 What is the base word in each case?
3 What do we call the extra letters?
4 What effect do the extra letters have on the base word?
5 Can you think of another word with each suffix?

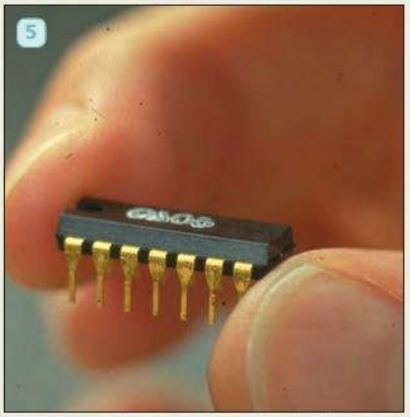
b
classify computerize connector
developer digital downloading
electronic instruction management
mobility paperless performance
software technology variable

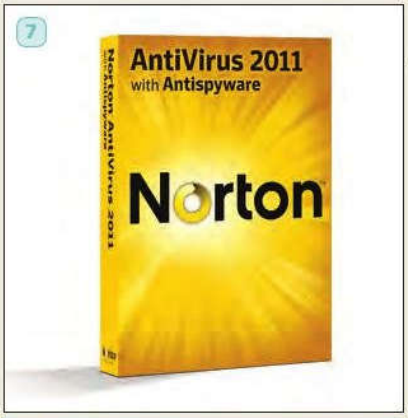
E Use words from this page to label the pictures on the opposite page. Add labels for other items in the pictures.

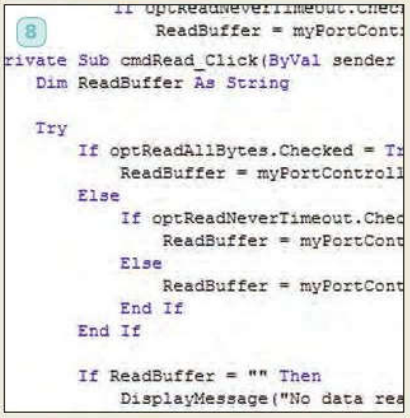

52 cm


SanDisk
Ultra
15MB/s
8GB
SanDisk


Chat
Attach
Address
Fonts
Colors
To: rj.flywheel@netmail.com
Cc:
Subject: Hello!
Hi Folks
All's well here down on the farm. How are you doing?




AntiVirus 2011
with Antispyware
Norton


ReadBuffer = myPortConti
rivate Sub cmdRead_Click(ByVal sender
Dim ReadBuffer As String
Try
If optReadAllBytes.Checked = Tr
ReadBuffer = myPortControll
Else
If optReadNeverTimeout.Chec
ReadBuffer = myPortCont
Else
ReadBuffer = myPortCont
End If
End If
If ReadBuffer = "" Then
DisplayMessage("No data rea


Arrange
Workspace
Save Workspace...
Delete Workspace...
Reset Palette Locati
Actions
Brushes
Channels
Character
Color
File Browser
Histogram
History
Info
Layer Comps
Layers
Navigator


http://www.nytimes.com/
.Mac
Welcome to TimesPeo
Get Started


http://www.whereinthew
Dionysus
Antigone

1.2 Listening

preparing for a lecture • predicting lecture content • making notes

A You are a student in the ICT Faculty of Hadford University. The title of your first lecture is *What is ICT?*

1 Write a definition of ICT.

2 How can you prepare for this lecture? Make some notes.

B Listen to Part 1 of the talk. What does the lecturer say about ICT? Tick the best choice.

a It is about computers. ____

b It is about information. ____

c It is about playing computer games. ____

d It is more than just using a computer. ____

C In Part 2 of the talk, the lecturer mentions *virus* and *driver*.

1 What do these words mean in the context of ICT?

2 Listen and check your ideas.

D In Part 3 of the talk, the lecturer describes different places where ICT has an impact.

1 How many different places can you think of?

2 What are some of the technologies used in each place?

3 Listen and check your ideas.

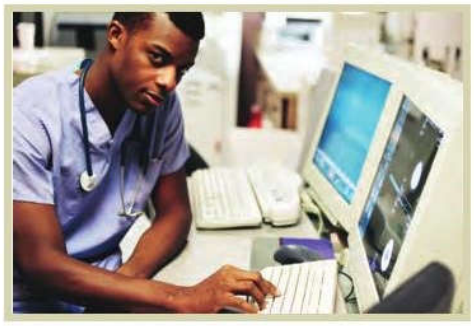
4 What will the lecturer talk about next?

E In the final part of the talk, the lecturer talks about information systems and communication systems. Listen and mark each word in the box **E** if it is an example and **D** if it is part of the definition.

communicate ____ data ____ e-mail ____
mobile phones ____ process ____
store ____ using technology ____ web page ____

F Draw a flowchart to illustrate ICT. Use some of the words from Exercise E in your flowchart.

G Describe ICT, using your flowchart.



H Look back at your notes from Exercise A. Did you predict:

- the main ideas?
- most of the special vocabulary?

See *Skills bank*

1.3 Extending skills

lecture organization • choosing the best form of notes

A What can you ...

1 develop?
2 process?
3 connect?
4 assemble?
5 install?
6 launch?
7 program?
8 computerize?
9 monitor?

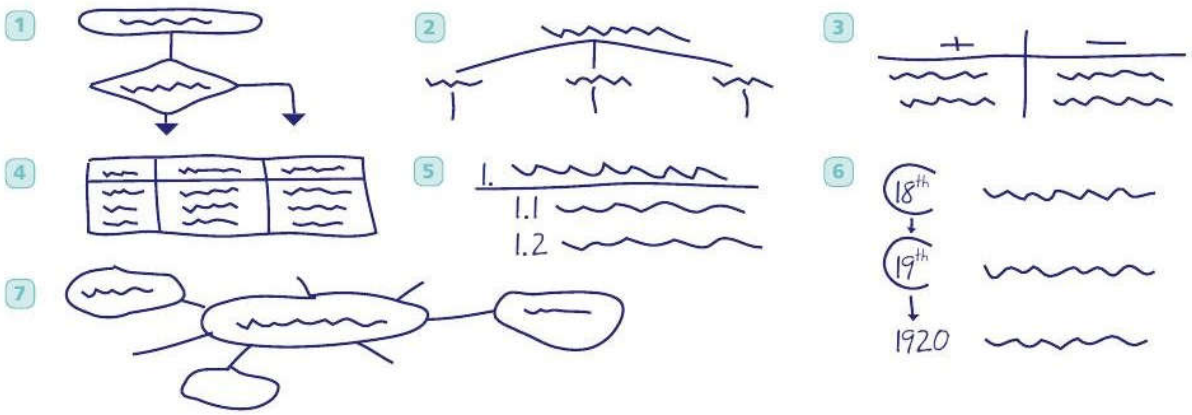
B How can you organize information in a lecture? Match the beginnings and endings.

1 question and [i]
2 problem and [ ]
3 classification and [ ]
4 advantages and [ ]
5 comparison and [ ]
6 cause and [ ]
7 sequence of [ ]
8 stages of a [ ]
9 theories or opinions then [ ]

a contrast
b definition
c disadvantages
d effect
e events
f supporting information
g process
h solution
i answer

C How can you record information during a lecture? Match the illustrations with the words and phrases in the box.

tree diagram flowchart headings and notes spidergram table timeline two columns



D Match each organization of information in Exercise B with a method of note-taking from Exercise C. You can use one method for different types of organization.

E Listen to five lecture introductions. Choose a possible way to take notes from Exercise C in each case.

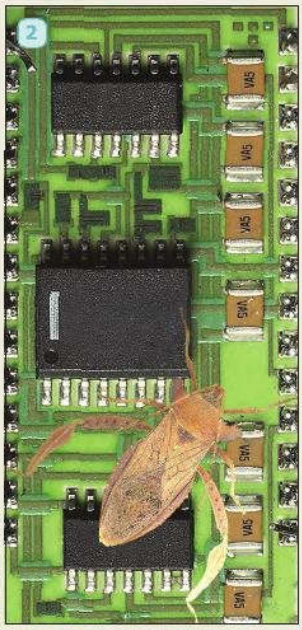
Example:

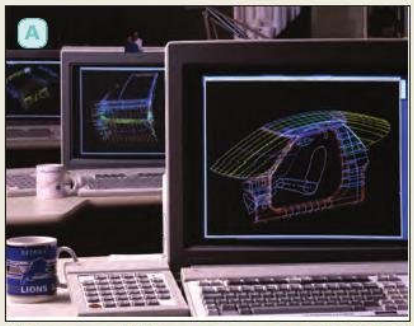
You hear: *In today's session, we're going to look at ICT in business. We will be looking at a car manufacturing company and discussing four areas of business: administration, finance, research and development, and operations, to see what happens in each area and how ICT supports workers in these areas.*

You choose: *tree diagram*

1.4 Extending skills

making notes • speaking from notes





A Study the pictures.

1 What do pictures 1–5 show? Use words from the box.

2 What does each picture A–C show?

engine rocket bug e-mail waterfall

B Cover the opposite page. Listen to the lecture introductions from Lesson 1.3 again. Make an outline on a separate sheet of paper for each introduction.

C Look at your outline for each lecture. What do you expect the lecturer to talk about in the lecture? In what order?

D Listen to the next part of each lecture. Complete your notes.

E Uncover the opposite page. Check your notes with the model notes. Are yours the same or different?

F Work in pairs.

1 Use the notes on the opposite page. Reconstruct one lecture.

2 Give the lecture to another pair.

1

ICT in business

administration

e.g., Internet, databases, WP, DTP, e-mail, intranet

advertising
staff records
company docs
communication

finance

e.g., specialized software, computerized banking

managing payments
recording money in/out
analyzing data

research and development

e.g., CAD, simulators

producing new designs
testing prototypes

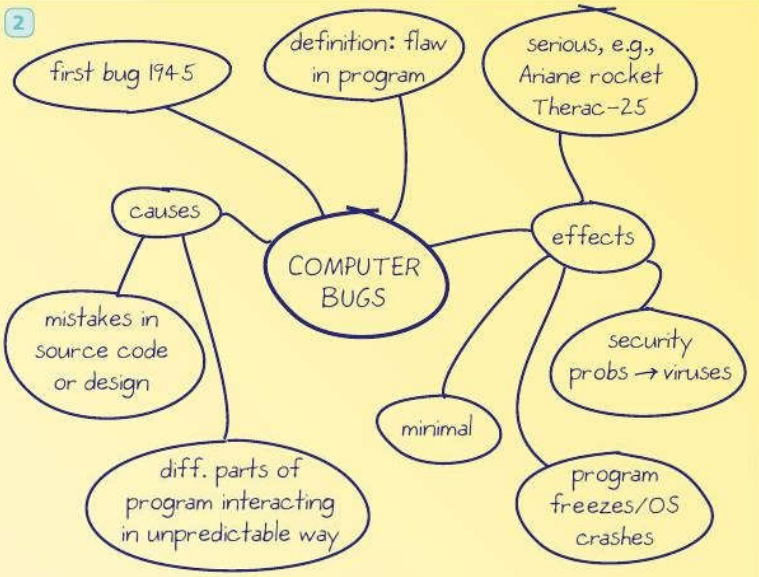
operations

e.g., CAM

stock control

control of production environment

2



3

Info systems life cycle

Waterfall model

(Winston Royce 1970)

1 – requirements specification (systems analyst)

2 – systems + software design (software designer/architect)

3 – development + unit testing (programmers)

4 – integration + systems testing

5 – installation, operation and maintenance

4

Internet – how it began

1957 – Sputnik I, US/Soviet Space Race begins
Advanced Research Projects Agency (ARPA) set up by US Gov.

1969 – ARPANET = small network of computers for use during nuclear attack

1972 – US scientists and academics using ARPANET

1973 –ARPANET used internationally
early 80s – Internet – worldwide network of computers for military use + academic/scientific research

1986 – general public begin using Internet
early 90s – Tim Berners-Lee invents HTML (diplays text+ images) + HTTP (information transfer)

2009 – over 1·7bn users (approx 25% world's pop.)

5

CMC (computer-mediated communication)

Electronic mail (e-mail)
messages sent/received in digital form via

intranet
internal

limited access

external Internet
open

worldwide access

Advantages of e-mail

- easy
- fast
- messages cheap to send
- can attach files, e.g., docs, photos, video
- can send 1 message to many people

Disadvantages

- sometimes e-mails get lost
- set-up costs high (computer, etc.)
- information overload
- spam/junk mail
- viruses

Guessing words in context

Using related words

Sometimes a word in general English has a special meaning in ICT.

Examples:
virus, bit, language, mouse

If you recognize a word but don't understand it in context, think:
What is the basic meaning of the word? Does that help me understand the special meaning?

Example:
*A **virus** is something that **infects** you and makes you feel ill, so a **computer virus** is something that **infects** a computer and has a negative effect on how it works.*

Removing prefixes

A **prefix** = letters at the **start of a word**.

A prefix changes the meaning of a word.

Examples:
restart – start again
miscalculate – calculate wrongly

If you don't recognize a word, think:
Is there is a prefix? Remove it. Do you recognize the word now?
What does that prefix mean? Add it to the meaning of the word.

Removing suffixes

A **suffix** = letters at the **end of a word**.

A suffix sometimes changes the part of speech of the word.

Examples:
develop ➔ *developer* = verb ➔ noun
vary ➔ *variable* = verb ➔ adjective

A suffix sometimes changes the meaning **in a predictable way**.

Examples:
paper + *less* – without (paper)
vary + *able* – able to (vary)

If you don't recognize a word, think:
Is there a suffix? Remove it. Do you recognize the word now?
What does that suffix mean? Add it to the meaning of the word.

Skills bank

Making the most of lectures

Before a lecture ...

Plan

- Find out the topic of the lecture.
- Research the topic.
- Check the pronunciation of names and key words in English.

Prepare

- Get to the lecture room early.
- Sit where you can see and hear well.
- Bring any equipment you may need.
- Write the date, topic and name of the lecturer at the top of a sheet of paper.

During a lecture ...

Predict

- Listen carefully to the introduction. Think: *What kind of lecture is this?*
- Write an outline. Leave space for notes.
- Think of possible answers/solutions/effects, etc., while the lecturer is speaking.

Produce

- Write notes/copy from the board.
- Record sources – books/websites/names.
- At the end, ask the lecturer/other students for missing information.

Making perfect lecture notes

Choose the best way to record information from a lecture.

advantages and disadvantages	→	two-column table
cause and effect	→	spidergram
classification and definition	→	tree diagram/spidergram
comparison and contrast	→	table
facts and figures	→	table
sequence of events	→	timeline
stages of a process	→	flowchart
question and answer	→	headings and notes

Speaking from notes

Sometimes you have to give a short talk in a seminar on research you have done.

- Prepare the listeners with an introduction.
- Match the introduction to the type of information/notes.