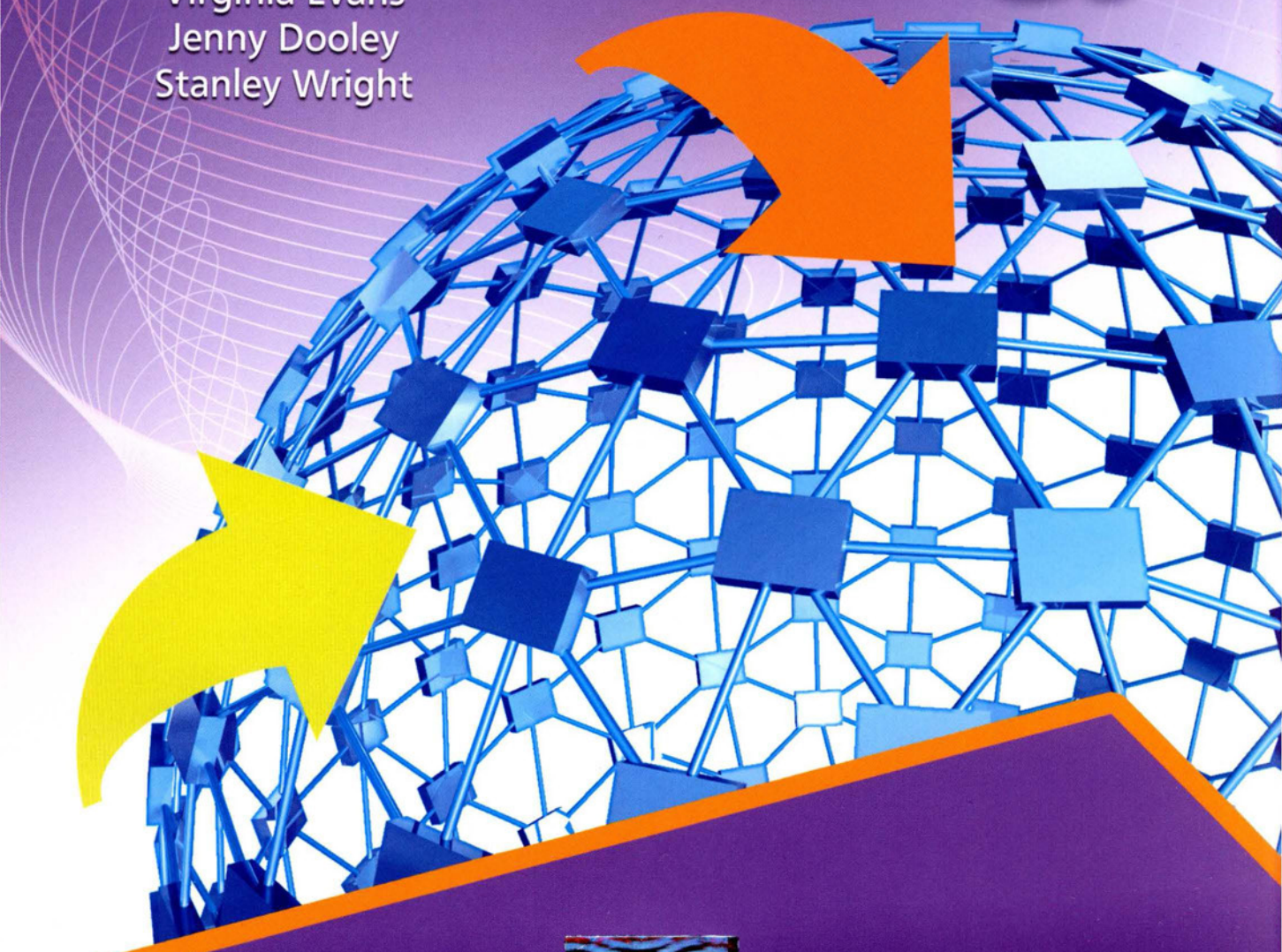
CAREER PATHS

Information Technology

Virginia Evans
Jenny Dooley
Stanley Wright



Express Publishing

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CAREER PATHS

Information Technology

Book 1

Virginia Evans
Jenny Dooley
Stanley Wright

Express Publishing

Scope and Sequence

Unit	Topic	Reading context	Vocabulary	Function
1	Information Technology	Manual	code, data processing, data, encoding, hardware, information security, online, quality assurance, software, technical support	Getting someone's attention
2	Introduction to Computing Systems	Email	cell phone, computer, desktop computer, handheld PC, laptop, mainframe, PDA, server, supercomputer, workstation	Giving instructions
3	Inside the Computer	Product Guide	case, expansion card, fan, hard drive, heat sink, motherboard, power supply, processor, RAM	Describing a process
4	Computing Devices	Catalog	input device, microphone, monitor, mouse, printer, scanner, scroll wheel, touch screen, USB	Making a suggestion
5	Networking	Magazine Article	CAT-5, configuration, cycle, DHCP, Internet, IP address, LAN, network, router, WLAN	Describing options
6	The User Interface	Manual	desktop, drag, folder, GUI, icon, maxmize, menu, minimize, OS, pointer, shortcut, window	Offering a solution
7	Word Processing	Advertisement	compatibility, document, font, format, formatting, layout, macro, spell check, template, word processing program	Clarifying a situation
8	Email	Memo	attachment, domain name, email address, email client, ISP, password, POP3, SMTP server, username, webmail	Checking for errors
9	Web Browsing	Email	HTML, http, hyperlink, meta tag, search engine, URL, web browser, web host, web site, www	Expressing confusion
10	Image and Graphic Design	Magazine Article	contrast, crop, exposure, graphic editing program, graphics, JPEG, pixel, resize, resolution, tint	Answering the phone
11	Databases vs. Spreadsheets	Email	cell, database field, database, formula, function, operator, query, sort, spreadsheets, table, worksheet	Asking for help
12	Web Design vs. Web Development	Course Descriptions	appearance, coding, content, CSS, functionality, navigation, usability, visibility, web design, web development	Asking about purpose
13	Desktop Publishing	Job Listing	clip art, comprehensive layout, design, desktop publishing software, desktop publishing, electronic pages, electronic paper, electrostatic printing, graphic communications, offset lithography, page layout	Talking about experience
14	Videoconferencing	Email	bandwidth, dedicated system, document sharing, echo-cancellation, monitor, multipoint videoconference, video bridge, videoconferencing, webcam	Explaining differences
15	E-commerce	Email	affiliate, banner, brick and mortar, certificate authority, digital certificate, e-commerce, FAQs, shopping cart, traffic	Clarifying information

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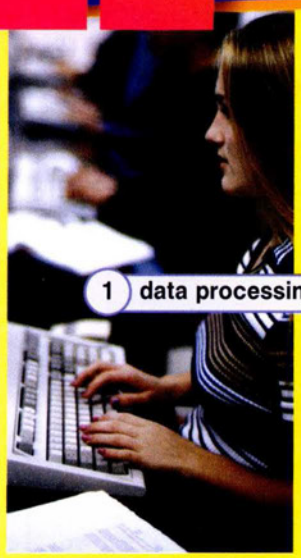
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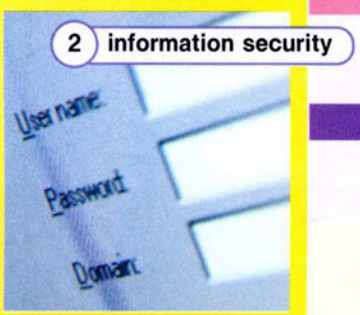
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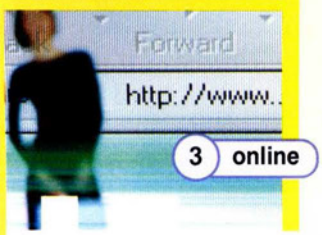
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1 Information Technology







IT Department Restructuring



DataPro Inc. is growing, and so our workload is increasing. But our IT department is not dealing with this increase effectively. So I am dividing the IT department into three sections: **quality assurance**, **data processing** and **information security**. The responsibilities of each section are:

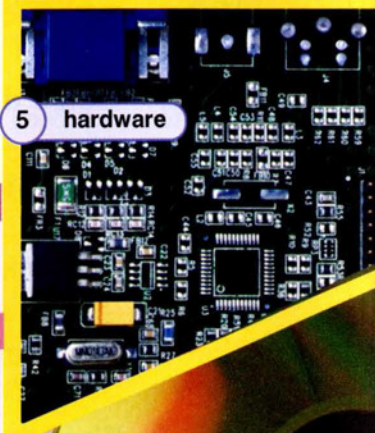
Quality Assurance
Testing **hardware**
Providing **technical support**

Data Processing
Writing **code**
Organizing **data**

Information Security
Encoding online data transfers
Updating security **software**

These changes are not simple or easy. But smaller groups deal with tasks more efficiently than larger ones. See your supervisors for your new section assignment.

Thomas Jenkins,
CEO DataPro Inc.





Get ready!

1 Before you read the passage, talk about these questions.

1 What is Information Technology?
2 What do Information Technology professionals do?

Reading

2 Read the statement from the DataPro Inc. CEO. Then, mark the following statements as true (T) or false (F).

1 __ The IT Department is increasing.
2 __ Data Processing employees now encode data.
3 __ Supervisors know the employees' new assignments.

Vocabulary

3 Match the words (1-10) with the definitions (A-J).

1 __ software
2 __ code
3 __ hardware
4 __ data processing
5 __ information security
6 __ online
7 __ technical support
8 __ data
9 __ quality assurance
10 __ encoding

A putting secret information into code
B the physical parts of a computer
C connected to the Internet
D numbers entered/held in a computer
E checking products for problems
F the act of using information
G programs/instructions added to computers
H helping people use/understand technology
I program language
J the act of protecting information

4 Fill in the blanks with the correct words from the word bank.

WORD BANK

data quality assurance encoding

1 Enter the _____ into the computer.

2 The company uses _____ to protect information.

3 _____ finds and fixes problems in new products.

5 Listen and read the statement from the DataPro Inc. CEO again. Which section is responsible for helping people to understand technology?

Listening

6 Listen to a conversation between a DataPro Inc. employee and her supervisor. Choose the correct answers.

1 What is the dialogue mainly about?

A asking for a raise
B requesting a transfer
C assuring product quality
D improving hardware

2 What can you infer about the employee?

A She does not like her new section.
B She has experience with hardware.
C She does not understand the changes.
D She creates valuable software.

7 Listen again and complete the conversation.

Employee: Excuse me, Mr. Hopkins? I have a question about the **1** _____.
Hopkins: Please, come in. What's your question?
Employee: Well, I'm now in the **2** _____ _____ section.
Hopkins: Yes. You have a great understanding of hardware.
Employee: Thanks, but I have more experience with **3** _____ _____.
Hopkins: I see. You want a **4** _____, then?
Employee: Exactly. I feel that I'm more valuable there.
Hopkins: Let me **5** _____ _____ it.

Speaking

8 With a partner, act out the roles below, based on Task 7. Then, switch roles.

USE LANGUAGE SUCH AS:

I have a question about ...
I'm in the ___ section.
I have more experience with ...

Student A: You are a supervisor. Speak with Student B to find out:

- current section
- desired section
- reason

Student B: You are an employee. Answer Student A's questions.
Make up a name for your supervisor.

Writing

9 Use the conversation from Task 8 to fill out the transfer request.

Transfer Request

Employee's Name:

_____

Supervisor's Name:

_____

Current Section:

_____

Requested Section:

_____

Reason for Transfer Request:

_____

2 Introduction to computing systems

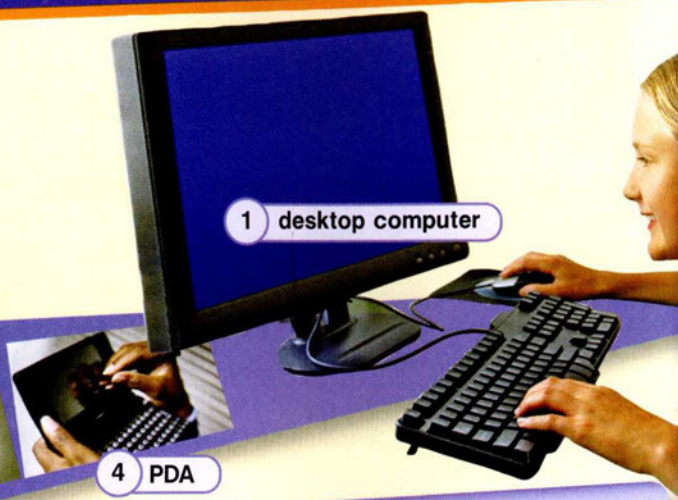
Get ready!

1 Before you read the passage, talk about these questions.

1 What kind of computers do you use?
2 What do you use computers for at work?









From: bruce.roberts@tei.com
To: chris.carter@techmagazine.net
Re: TEI **Computers**?

Thanks for including TEI Inc. in your article on workplace technology. We have many types of computers at our disposal. First, all employees receive **PDA**s and **desktop computers**. But we only use those for word processing and spreadsheets. Of course, some programs are too powerful for desktops. So many employees use the faster **workstations**. And we do have a few **laptops** and **handheld PCs**. However, employees only use them on business trips. Most employees just answer email with their **cell phones**. The new **server** provides access to all printers. Finally, our **mainframe** processes our largest data files. No need for a **supercomputer** yet!

Regards,
Bruce Roberts



Reading

2 Read the email about computers available at TEI Inc. Then, choose the correct answers.

1 What is the email about?
- **A** the types of work employees do
- **B** computers that the company sells
- **C** what computers the company uses
- **D** the installation of a server

2 According to the passage, employees use laptops when they ___.
- **A** respond to email
- **B** work on spreadsheets
- **C** process the largest files
- **D** work outside of the office

3 Which of the following is NOT true?
- **A** The company has a mainframe.
- **B** Employees get email on their cell phones.
- **C** All employees receive desktop computers.
- **D** The desktop computers are faster than the workstations.

Vocabulary

3 Read the sentence and choose the correct word.

1 My **(PDA / mainframe)** notifies me when I have a meeting.
2 I have a **(laptop / supercomputer)** to do work on the plane.
3 John has a **(server / desktop computer)** because he only uses simple programs.
4 This **(computer / server)** runs programs, but doesn't have Internet access.
5 A **(workstation / handheld PC)** is smaller than a laptop, but still has a keyboard.
6 Connect to the **(server / PDA)** to use that printer.
7 A **(supercomputer / handheld PC)** is the most powerful machine in the world.

4 Match the words (1-3) with the definitions (A-C).

1 __ workstation 3 __ cell phone

2 __ mainframe

A large and powerful computer that supports many other computers working at once

B fast computer that is used by one person and has more memory than an ordinary personal computer.

C a device that makes and receives calls

5 Listen and read the email about computers available at TEI Inc. again. Why do some employees not use a desktop?

Listening

6 Listen to a conversation between an IT professional and a new employee. Choose the correct answers.

1 Which of the following computers are NOT shared by employees at TEI Inc.?

A the server **C** laptops

B workstations **D** desktop computers

2 According to the dialogue, employees use the server to ___.

A open programs

B reserve workstations

C log onto desktop computers

D borrow laptops

7 Listen again and complete the conversation.

A: Here's your new office. Jon works in here, too.

B: So, everyone has their own 1 _____ _____. Do we have laptops?

A: Yes. That's your computer there. Laptops are in the 2 _____ _____.

B: Okay, but I also need a 3 _____.

A: Right, you work on some powerful programs. Those are next door.

B: Do I sign up to use them? I mean, how do I get access to one?

A: Just 4 _____ _____ to the server. All computers connect to it. Then, click "5 _____ workstation".

B: Thanks!

Speaking

8 With a partner, act out the roles below based on Task 7. Then, switch roles.

USE LANGUAGE SUCH AS:

Ok, but I also need a workstation.

How do I get access to one?

Then click 'reserve workstation'

Student A: You are a new employee. Ask Student B questions about:

- what computers they have
- where the computers are
- how to access computers

Student B: You are an IT Professional. Answer Student A's questions about the computers.

Writing

9 Use the conversation from Task 8 to fill out the notes.

TEI Inc.

Computers & Locations

1. _____ : Every employee has one in their office.

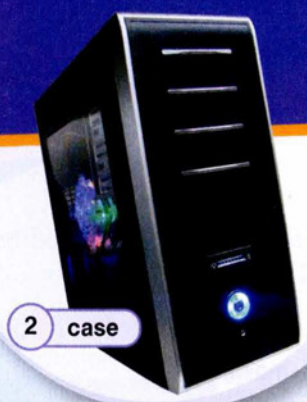
2. _____ : These are available in the IT department.

3. Server: All computers _____.

4. _____ : Log on to the server to reserve these.

3 Inside the computer





The Glacier Gazette - December 17

Assembly Instructions

Step #1: First, gather your parts. These include a motherboard, power supply, processor, case, heat sink, fan, RAM, expansion cards, hard drive, and disk drive.

Step #2: Next, Attach the **motherboard** to the **case**. Then, connect the **processor** to the **motherboard**'s primary socket.

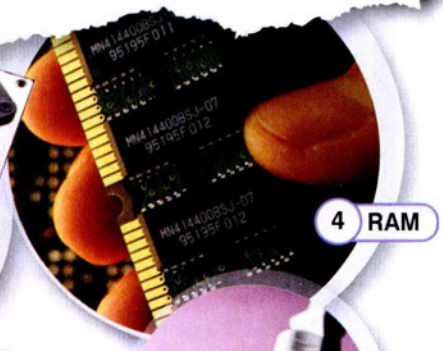
Step #3: Attach the **heat sink** and cooling **fan** to the processor.

Step #4: Insert the **RAM** card into an open memory slot. Put any **expansion cards** into the expansion slots.

Step #5: Connect your **hard drive** to the motherboard and **power supply**.

Step #6: Close the case and connect the power supply.









Get ready!

1 Before you read the passage, talk about these questions.

1 Which components make up a typical desktop computer?

2 What do you call a person who repairs computers?

Reading

2 Read the technology guide about computer assembly. Then, choose the correct answers.

1 What is the guide mostly about?

A putting together a computer
B problems with computer parts
C uses of expansion cards
D repairing a broken computer

2 When should the hard drive be installed?

A Step #1 **C** Step #5
B Step #3 **D** Step#6

3 According to the guide, what is NOT an assembly step?

A collecting parts
B opening the case
C connecting the drives
D installing the RAM card

Vocabulary

3 Match the words (1-6) with the definitions (A-F).

1 __ heat sink
2 __ RAM
3 __ expansion card
4 __ processor
5 __ hard drive
6 __ motherboard

A a slotted board with circuits and ports
B a short term, quick memory source
C a part used to cool the processor
D a part used to store large amounts of data
E a part used to increase a computer's functions
F a part that completes tasks for the computer

4 Write a word that is similar in meaning to the underlined part.

1 Spinning blades keep the computer from overheating. f _ _
2 The electrical source directs power throughout the computer. _ _ w _ r _ _ p p _ _
3 Joey purchased a protective bag for his computer. c _ _ _
4 Can the coded disk reader play DVDs? d _ _ _ d _ _ v _

5 Listen and read the technology guide about computer assembly again. What should be hooked up to the motherboard?

Listening

6 Listen to a conversation between a technology support specialist and a customer. Mark the statements as true (T) or false (F).

1 __ The woman replaces the disk drive.
2 __ The woman disconnects the power supply first.
3 __ The hard drive connects to the motherboard.

7 Listen again and complete the conversation.

Support Specialist: Technology Support, Ivan speaking. How can I help?
Customer: I have an old **1** _____ _____ and need help taking it out.
Support Specialist: Okay. Unplug the connection to the power supply first. Then, disconnect the **2** _____ cable.
Customer: Which one is the **3** _____ _____?
Support Specialist: It's the smaller black box in the corner.
Customer: I'm **4** _____ both. What's next?
Support Specialist: Next, take out the two small screws. They fasten the hard drive to the **5** _____ .
Customer: I see, and then it slides out. Thanks!

Speaking

8 With a partner, act out the roles below, based on Task 7. Then, switch roles.

USE LANGUAGE SUCH AS:

I need help taking out ...
Disconnect the ...
What is the next step?

Student A: You are a customer. Ask Student B questions about:

- taking out an old hard drive
- the power supply
- the next step in dismantling the old hard drive

Student B: You are a Support Specialist. Answer Student A's questions about dismantling the old hard drive.

Make up a name for the specialist.

Writing

9 Use the conversation from Task 8 to fill out this feedback form. Invent names where necessary.

Technology Support Summary

Technician: _____

Date: _____

Caller's name: _____

Problem:
The caller needs to _____ an old _____.

Suggested Action(s): _____

_____

_____

_____

Was the problem resolved? Y / N

4 Computing devices



COMPUTERS INTERNATIONAL — MAY ISSUE - page 14

Peripherals

Device:	Description:	Cost:
S57 Keyboard	This **input device** is available in three languages. It has a **USB** connection.	$75
Standard Mouse	Our **mouse** has a wireless connection, two buttons and a **scroll wheel**.	$64
Ep320 Scanner	This **scanner** reads documents up to 216mm by 297mm.	$179
PR-15 Microphone	Our **microphone** collects crystal clear sound.	$56
LCD **Monitor**	Our LCD (Liquid Crystal Display) monitors offer crisp images, and take up little space.	$167
Prinpro 2000 **Printer**	The Prinpro2000 produces color pictures and documents quickly.	$99
SoftTouch Touch Screen	The **touch screen** allows input without a keyboard and is programmable for many uses.	$280

Get ready!

1 Before you read the passage, talk about these questions.

1 How do computers receive information from users?

2 What devices can you attach to computers?

Reading

2 Read the advertisement from a computer parts catalogue. Then, mark the following answers as true (T) or false (F).

1 ___ The keyboard has a wireless connection.

2 ___ The LCD monitor does not require a lot of room.

3 ___ The touch screen comes with a keyboard.

Vocabulary

3 Match the words (1-5) with the definitions (A-E).

1 ___ keyboard
2 ___ mouse
3 ___ scanner
4 ___ microphone
5 ___ monitor

A a device that reads images and sends them to a computer

B a device that displays images

C a device that enters information into a computer

D a device that gathers sounds

E a device that is used to control a pointer or cursor

4 Check (✓) the sentence that is true.

1 ___ **A** A keyboard reads documents.
___ **B** A USB cable connects computers and devices.

2 ___ **A** A peripheral is the main part of a computer.
___ **B** A printer creates documents and pictures.

3 ___ **A** An input device enters information.
___ **B** A microphone creates sounds.

4 ___ **A** A monitor inputs sound.
___ **B** A touch screen does not need a mouse.

5 ___ **A** A scanner displays pictures and words.
___ **B** A peripheral is a device that is added to a computer.

5 Listen and read the advertisement from a computer catalog again. What is a USB used for?

Listening

6 Listen to a telephone conversation between an employee and a business owner. Check each item that the employee suggests.

1 ☐ Monitor
2 ☐ Touch Screen
3 ☐ Keyboard
4 ☐ Mouse
5 ☐ Printer
6 ☐ Scanner

7 Listen again and complete the conversation.

A: Computers International, can I help you?
B: Yes. My firm's computer system needs an **1** _____.
A: What type of business is it?
B: A restaurant. Here's the problem. Customer's orders take too long to **2** _____.
A: Then, I suggest our new **3** _____ _____. You just move the data on the screen with your fingertip.
B: That sounds good. I want to create menus, too. Do you have **4** _____ for that?
A: Well, I recommend a new **5** _____. The new ones print as well as a professional service.
B: Great. Let's talk about prices.

Speaking

8 With a partner, act out the roles below based on Task 7. Then, switch roles.

USE LANGUAGE SUCH AS:

My computer system needs an upgrade.
What type of business is it?
I suggest our ...

Student A: You are an employee helping a business owner who needs an equipment upgrade. Ask Student B:

- what he or she wants
- his or her type of business
- types of peripherals needed

Student B: You are a business owner. Ask the employee for help with a computer upgrade.

Writing

9 Using the conversation from Task 8, fill in your feedback on the form.

COMPUTERS INTERNATIONAL

Customer feedback form

1 Was our employee helpful?
Y / N

2 Did our employee make suggestions?
Y / N

3 What products were you interested in?
_____
_____

4 What peripherals did our employee recommend?
_____
_____

5 Networking

Get ready!

1 Before you read the passage, talk about these questions.

1 What are some components of a computer network?
2 How does a computer network help a business?

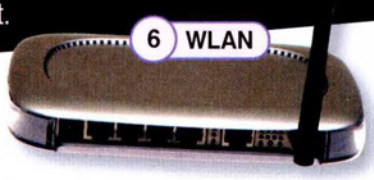


PC Tech Vol. 29, No. 3

Solutions for Networking

Network Troubleshooting

People often call IT professionals about **network** connection problems. But many problems are easy to fix without help. First, reconnect any loose **CAT-5** cable connections. Next, investigate **IP address** issues. This group of numbers allows communication on the **Internet**. Renewing your **DHCP** fixes most IP problems. Next, check the **router**. The router links **LANs** to the Internet. Make sure the router's **configuration** is correct. **WLANs** have other problems. Interference often blocks their wireless signals. But there is a simple solution. Just move the router away from walls and metals. Finally, **cycle** the network. Turn all equipment off for a full minute and then restart.



Reading

2 Read the article about networks. Then, choose the correct answers.

1 What is the main idea of the passage?
- **A** how to set up a network
- **B** correcting network problems
- **C** choosing network equipment
- **D** a comparison of LANs and WLANs

2 What can you infer from the passage?
- **A** A computer is not functioning during a cycle.
- **B** LAN routers do not work well near walls or metals.
- **C** Interference impacts a router's configuration.
- **D** Renewing an IP address fixes DHCP errors.

3 According to the passage, a LAN ___.
- **A** assigns IP addresses
- **B** requires a router
- **C** links CAT-5 cables
- **D** cycles a network

Vocabulary

3 Fill in the blanks with the correct words or phrases from the word bank.

word BANK

DHCP CAT-5 cable router network
cycle WLAN Internet configuration

1 The _____ lets a network connect to the Internet.
2 A LAN is a type of _____.
3 Businesses communicate on the _____.
4 We do not use cables for our network. We have a _____.
5 Routers need a correct _____ to work properly.
6 Businesses with a LAN use _____ to connect computers.
7 It is sometimes necessary to _____ a network to make it work.
8 The _____ provides different IP addresses for computers.

4 Choose the best definition for each word.

1 router

A a part of a computer **C** a networking device

B a wireless network

2 IP address

A a city-wide network **C** a networking device

B an identification number

3 LAN

A a local network **C** a wireless network

B a networking device

5 Listen and read the article about networks again. What could help a user having problems with an IP address?

Listening

6 Listen to an IT professional talking with a customer about setting up a network. Choose the correct answers.

1 What does the woman want to buy?

A a LAN **C** a router

B a WLAN **D** a CAT-5 cable

2 Why does the woman choose a wireless network?

A She does not have CAT-5 cables.

B Her computers are not close to each other.

C She does not like her present network.

D Her router doesn't support a LAN.

7 Listen again and complete the conversation.

IT Professional: Hi. Can I help you find something?

Customer: Oh, please. I need a **1** _____.

IT Professional: Well, there are a few types. What kind of **2** _____ do you have?

Customer: I don't have one yet, but it's for the computers in my home.

IT Professional: Do you want a LAN or a WLAN? Some routers don't **3** _____ both types.

Customer: What's the difference?

IT Professional: A WLAN connects computers wirelessly. A LAN **4** _____ _____ with CAT-5 cables.

Customer: My computers are far **5** _____. I'd need a WLAN.

Speaking

8 With a partner, act out the roles below based on Task 7. Then, switch roles.

USE LANGUAGE SUCH AS:

Can I help you find something?

Do you want a LAN or a WLAN?

A WLAN connects computers wirelessly.

Student A: You are a computer store employee. Your customer needs a router. Ask Student B:

- the equipment he or she needs
- type of network she uses

Student B: You are a customer. Answer Student A's questions to choose a router and network.

Writing

9 Using the conversation from Task 8, fill in the network description sheet.

New Network Description

Location of network: _____

_____

Type of network: _____

_____

Components needed: _____

_____

_____

_____

6 The user interface



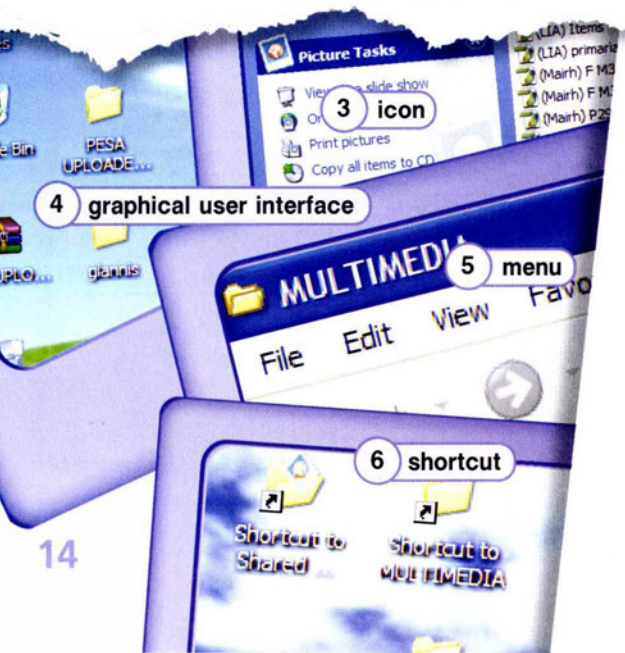
Beginner's Guide

The New CCC OPERATING SYSTEM

Welcome to the CCC **(OS)**. Review these key terms before starting your new system.

Icons: The CCC **graphical user interface** (GUI) uses icons. These pictograms are on the **desktop**. They represent files and software.
Pointer: Use the pointer to click on icons. This opens files or starts software. The pointer also **drags** files to different folders.
Shortcuts: Shortcuts are special icons. They are placed on the desktop, and you can click them to get to a program quickly.
Folders: Store your files in these icons.
Windows: Visual areas on a computer screen where different programs are operating.
Minimize: Hide windows without taking them off screen.
Maximize: Extend windows to the full width of the screen.
Menu: Each window has a menu. Click it to select a command from the list.

1



Get ready!

1 Before you read the passage, talk about these questions.

1 What is a User Interface?
2 How does a User Interface make computing easy?

Reading

2 Read the introduction to the operating system manual. Then, choose the correct answers.

1 What is the main idea of the passage?
- **A** where to locate shortcuts
- **B** the advantages of the CCC OS
- **C** how to identify and use parts of the OS
- **D** types of operating systems available

2 What can you infer about this operating system?
- **A** It comes with free software.
- **B** Files have to stay in one folder.
- **C** Menus contain multiple commands.
- **D** Folders do not maximize or minimize.

3 According to the passage, what does the pointer NOT do?
- **A** move files
- **B** open menus
- **C** start software
- **D** minimize windows

Vocabulary

3 Fill in the blanks with the correct words and phrases from the word bank.

WORD BANK

icons desktop operating system
pointer windows GUI

1 Use the _____ to choose files and commands.
2 Small pictures or symbols in software are _____.
3 The _____ is the program that makes a computer work.
4 When something is on the _____ you see it onscreen.
5 An OS that uses small pictures to represent files is a _____.
6 You can minimize files and programs in different _____.

4 Choose the best definition for each word.

1 Drag
- **A** save an icon
- **B** close a desktop
- **C** move a file

2 Folders
- **A** organize files
- **B** move windows
- **C** create shortcuts

3 Shortcut
- **A** a type of software
- **B** a type of icon
- **C** a type of window

5 Listen and read the introduction to the operating system manual again. Why would someone use a shortcut on their GUI?

Listening

6 Listen to a customer calling the help line about the operating system. Choose the correct answers.

1 What is the dialogue mainly about?
- **A** Saving files
- **B** Organizing icons
- **C** Finding shortcuts
- **D** Locating folders

2 The customer does not know where to find the ___.
- **A** icons
- **B** desktop
- **C** pointer
- **D** options menu

7 Listen again and complete the conversation.

A: Hello, CCC Solutions. What do you need help with today?

B: Well, it's my **1** _____ _____. I add a shortcut one day, and it's gone the next.

A: Oh, no problem. Just **2** _____ them to the desktop.

B: Okay. How do I do that?

A: First, add the shortcuts. Then, move the pointer to the **3** _____ _____ and click 'save icons and folders'.

B: Options? **4** _____ _____, where is that?

A: See the "CCC" icon in the corner? **5** _____-_____ that.

B: Got it. **6** _____!

Speaking

8 With a partner, act out the roles below based on Task 7. Then, switch roles.

USE LANGUAGE SUCH AS:

The shortcut is gone.

Click 'save icons and folders'.

Where is that?

Student A: You need help with the new operating system. Ask Student B questions to find out how to:
- save icons
- open menus

Student B: You provide technical support for operating systems. Answer Student A's questions.

Writing

9 Using the conversation from Task 8, fill in the how-to sheet for the operating system.

CCC OPERATING SYSTEM

Customer Service Call Summary Form

Customer Problem:
The shortcuts in the OS....
_____

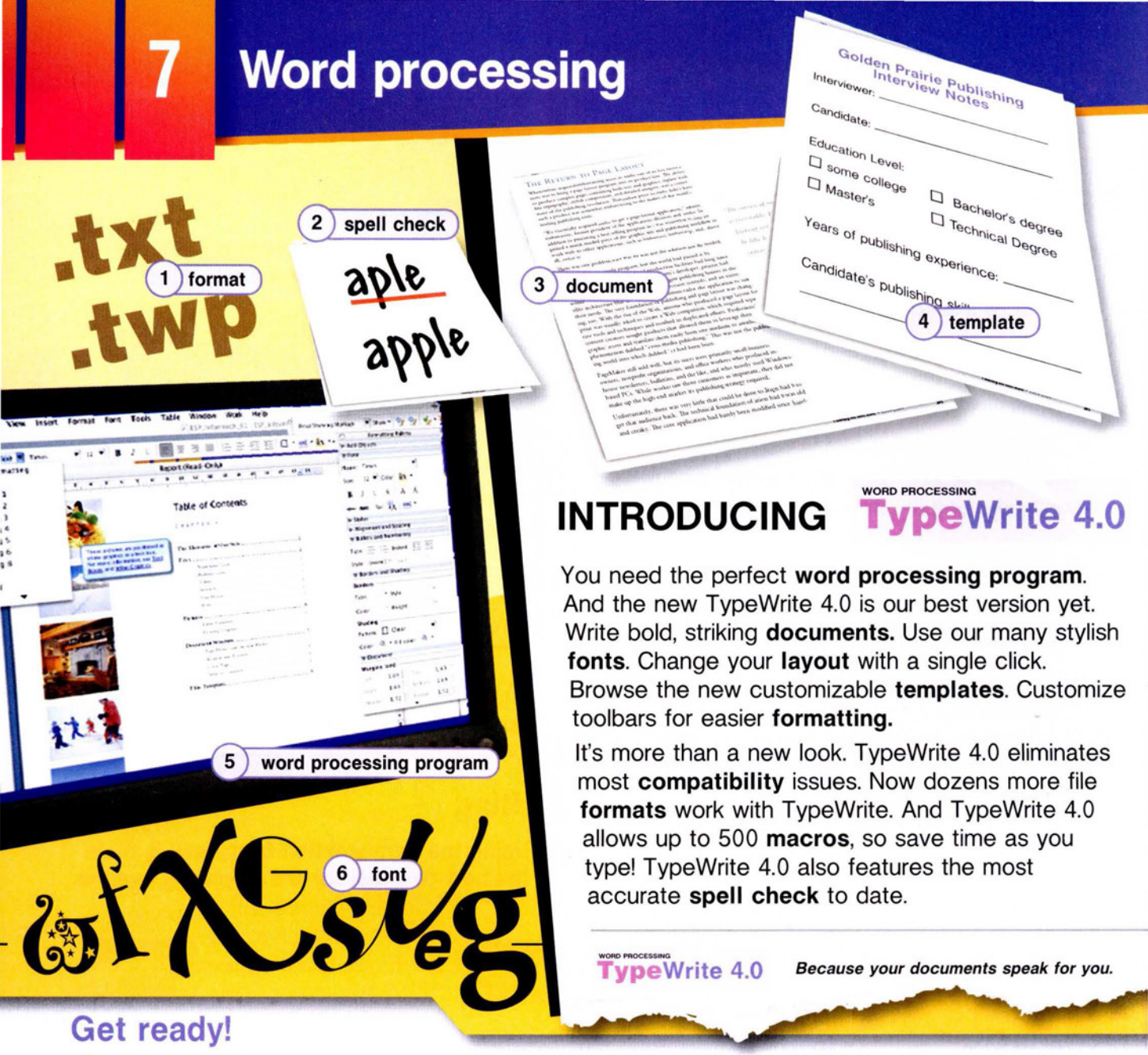
Recommendation:
Move the pointer .... _____

Click on.... _____

Save the icons to .... _____

Problem Solved? *Yes / No*

7 Word processing



INTRODUCING WORD PROCESSING TypeWrite 4.0

You need the perfect **word processing program**. And the new TypeWrite 4.0 is our best version yet. Write bold, striking **documents.** Use our many stylish **fonts**. Change your **layout** with a single click. Browse the new customizable **templates**. Customize toolbars for easier **formatting.**

It's more than a new look. TypeWrite 4.0 eliminates most **compatibility** issues. Now dozens more file **formats** work with TypeWrite. And TypeWrite 4.0 allows up to 500 **macros**, so save time as you type! TypeWrite 4.0 also features the most accurate **spell check** to date.

WORD PROCESSING TypeWrite 4.0 *Because your documents speak for you.*

Get ready!

1 Before you read the passage, talk about these questions.

1 When do people use word processing programs?

2 What kinds of word processing programs are there?

Reading

2 Read the advertisement for a new word processing program. Then, mark the following statements as true (T) or false (F).

1 ___ Macros determine the layout of a document.

2 ___ TypeWrite 4.0 features customizable fonts.

3 ___ Not all file formats work with TypeWrite 4.0

Vocabulary

3 Fill in the blanks with the correct words and phrases from the word bank.

word BANK

compatibility document font format layout
macro spell check word processing program

1 Use a _____ to type out phrases that you use a lot.

2 My file won't open in other programs due to a _____ problem.

3 Instead of writing by hand, use a _____ .

4 This file is in a _____ that doesn't open in TypeWrite.

5 Save each _____ with a different name so you have a copy of each.

6 The letter's _____ is wrong. The heading is in the wrong place.

7 Increase the _____ size to make the file easier to read.

8 Most word processors offer _____ to help you find mistakes.

4 Choose the word that is closest in meaning to the underlined part.

1 The style you use for this document makes it hard to read.
A macro **B** formatting **C** compatibility

2 To write a business letter, use the appropriate document pattern.
A word processing **B** compatibility **C** template

3 She did not think that her typing command was saving her any time.
A formatting **B** macro **C** template

5 Listen and read the advertisement for a new word processing program again. What does the advertisement say about compatibility problems?

Listening

6 Listen to a conversation between an IT professional and a computer user. Choose the correct answers.

1 What is the dialogue mostly about?
A how to open a file
B common word processing errors
C types of word processing programs
D ways to change file formats

2 What solution does the IT Professional suggest?
A buy the TypeWrite program
B download the file and try again
C get the file in a different format
D ask the client to send a program

7 Listen again and complete the conversation.

IT Professional: Technical Support, can I help you?
User: Yes, I have a **1** _____ _____ problem.
IT Professional: Okay. What seems to be wrong?
User: I have a file from a client, but it won't **2** _____.
IT Professional: What kind of file is it? And what program are you using?
User: It's in ".tpw" **3** _____. I use Typing Suite.
IT Professional: Oh, that's a TypeWrite file. It isn't **4** _____ with Typing Suite.
User: Oh no. I need that **5** _____.
IT Professional: Have the client send it as a ".txt" file. That opens in most **6** _____.
User: Great, thanks!

Speaking

8 With a partner, act out the roles below based on Task 7. Then, switch roles.

USE LANGUAGE SUCH AS:
Can I help you?
What seems to be wrong?
That file isn't compatible.

Student A: You are an IT Professional. Ask Student B questions to find out:
- the problem
- what program
- file format

Student B: You are a User. Answer Student A's questions.

Writing

9 Use the conversation from Task 8 to fill in the email. Make up a name for the user.

Dear _____,

Thank you for sending the document, but _____. Your file is in the wrong _____. My word processing program is _____. It isn't _____ with the program you're using which is TypeWrite.

Please send me the file in a .txt format. It _____ most programs.

Regards,

8 Email



Get ready!

1 Before you read the passage, talk about these questions.

1 How is email helpful to people and businesses?

2 What are some problems with email?

Reading

2 Read the excerpt from the employee handbook guide at T.B. Brown Inc. Then, mark the following statements as true (T) or false (F).

1 ___ The company uses a POP3 server to receive email.

2 ___ The company provides webmail for all employees.

3 ___ All employees have multiple company email accounts.

Vocabulary

3 Match the words (1-5) with the definitions (A-E).

1 ___ attachment
2 ___ domain name
3 ___ password
4 ___ email client
5 ___ SMTP server

A a computer that sends email

B a program that saves, sends and receives email

C words/letters used to identify companies and addresses

D letters/numbers that let a person access something

E a file that is sent with an email

4 Choose the word that is closest in meaning to the underlined part.

1 That <u>company that provides access to the Internet</u> has very good service.
A ISP B email address C username

2 I use <u>an email service available on web browsers</u>, so my emails are not saved on my computer.
A POP3 B webmail C ISP

3 Enter your <u>code that identifies you on a computer</u> and press "enter".
A username B webmail C POP3

4 Most people use a <u>method to receive emails from a server</u> to get their email.
A email address B POP3 C webmail

5 Listen and read the excerpt from the employee handbook guide at T.B Brown Inc. again. What must be included with the user name when setting up the email address?

Listening

6 Listen to a conversation between a QuickTel employee and a customer. Choose the correct answers.

1 What are the speakers mostly talking about?
A how to create a new email address
B why a customer is not pleased with QuickTel
C when to enter a username and password
D what's wrong with a customer's email

2 Which of the following is NOT a potential cause of the customer's problem?
A username C POP3 settings
B password D webmail account

7 Listen again and complete the conversation.

E: Thanks for calling QuickTel. How may I help you?
C: Well, I'm a new customer, and my **1** _____ _____ isn't receiving mail.
E: Okay. Do you have the correct **2** _____ and **3** _____?
C: Yes. Those work fine.
E: Okay, do you have a **4** _____ account or an email client? There are some common mistakes with those.
C: An **5** _____ _____. Does that matter?
E: New customers often make mistakes with the **6** _____ settings. The correct server is POP.QuickTel.net.
C: Oh, that's it. I have Pop.QuickTel.com. Thanks.

Speaking

8 With a partner, act out the roles below based on Task 7. Then, switch roles.

USE LANGUAGE SUCH AS:

My email address isn't receiving mail.

Do you have the correct username and password?

Does that matter?

Student A: You are a QuickTel employee. A customer has a problem with his or her email. Find the problem. Ask Student B:

- username
- password
- POP3 server

Student B: You are a customer. Answer Student A's questions.

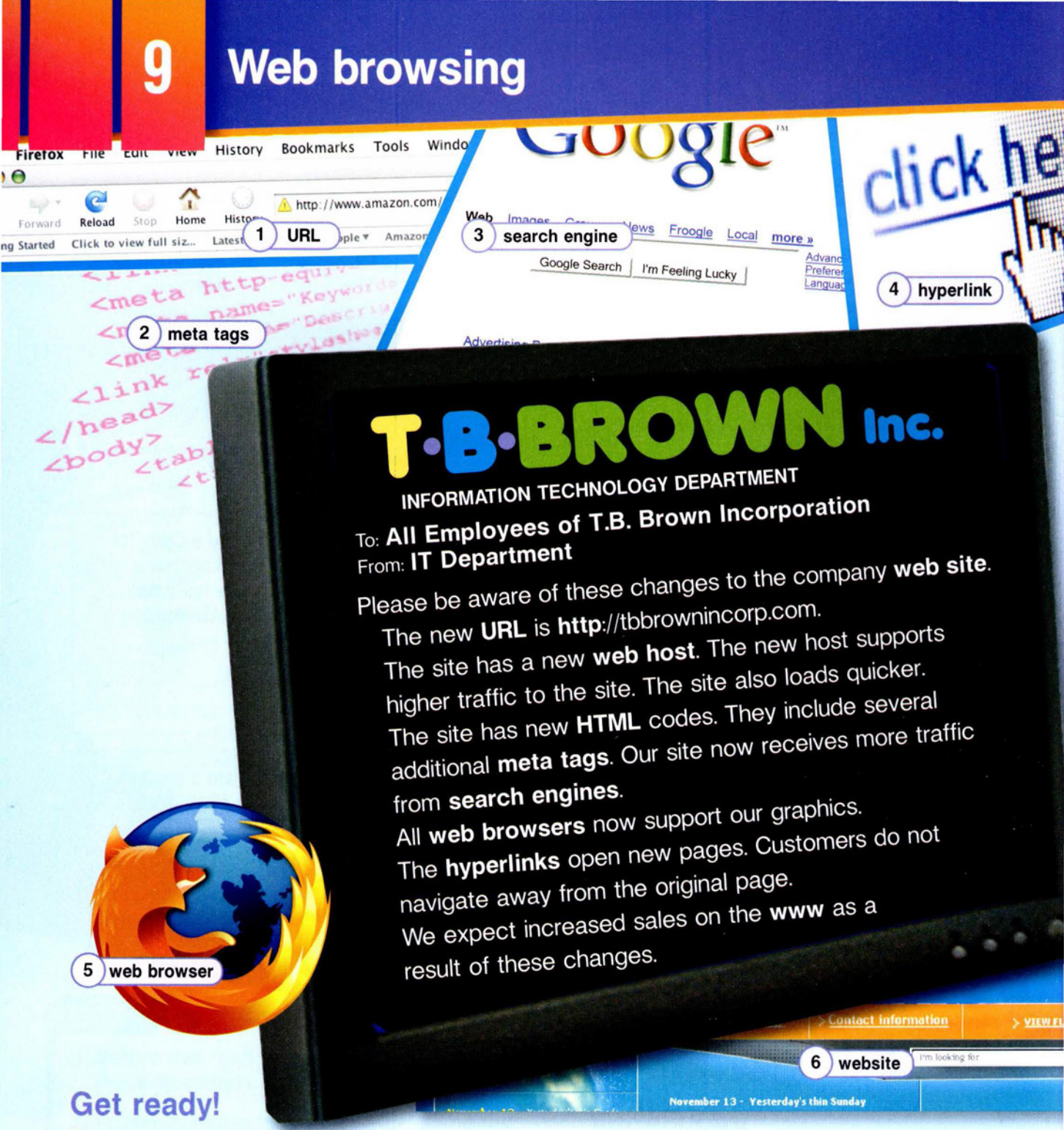
Writing

9 Use the conversation from Task 8 to complete the Troubleshooting Guide.

QUICKTel Email Troubleshooting Guide

1 Is the _____ correct? Y / N
2 Is the _____ correct? Y / N
3 What _____ is the customer using?
4 Does that server name match ours? Y / N
5 Problem resolved by: _____

9 Web browsing



Get ready!

1 Before you read the passage, talk about these questions.

1 When do you browse the web at work?
2 What kind of things do you browse for?

Reading

2 Read the email from the IT department of T.B. Brown Inc. Then, mark the following statements as true (T) or false (F).

1 ___ T.B. Brown Inc. now has a different URL.
2 ___ The hyperlinks navigate away from the original page.
3 ___ The web site now has fewer meta tags.

Vocabulary

3 Match the words (1-5) with the definitions (A-E).

1 ___ hyperlink
2 ___ website
3 ___ HTML
4 ___ web host
5 ___ web browser

A a collection of related Internet pages
B a program that lets you look at web pages
C a word/image that you can click on to navigate
D a computer language used to make web sites
E a company that provides space for a website

4 Choose the word that is closest in meaning to the underlined part.

1 The text used in webpage codes that provide information to search engines gives us high search rankings.
A hyperlink **B** meta tag **C** web host

2 Type a word into the computer program that allows people to look for particular information to find a web site.
A search engine **C** website
B http

3 Our website is very popular on the system of information that is available on the Internet.
A meta tag **B** hyperlink **C** www

4 The company's text and symbols that form a web address is http://tbbrownincorp.com.
A URL **B** search engine **C** web host

5 Please begin the web address with the part of the web address that allows the computer to connect to the site.
A HTML **B** web browser **C** http

5 Listen and read the email from the IT department of T.B Brown Inc. again. Where does their site get more activity from?

Listening

6 Listen to a conversation between two employees of T.B. Brown Inc. Choose the correct answers.

1 What is the main idea of the dialogue?
A how to compose a memo
B the importance of meta tags
C finding a better search engine
D what a hyperlink is

2 What does the man say about the website?
A It displays larger meta tags.
B It contains more hyperlinks.
C It has larger web pages available.
D It appears near the top of search results.

7 Listen again and complete the conversation.

B: Hi Susan! Did you receive the staff email?
S: Yes, and I have a question, Bob.
B: Okay, no problem. What is it?
S: I don't even know what **1** _____ _____ are. Why are they important?
B: They're descriptive words on the **2** _____ _____. They make the site rank higher in **3** _____ _____.
S: You mean our **4** _____ appears at the top of the search results?
B: Exactly. Customers **5** _____ _____ our hyperlink first.
S: That's good news for our sales department.

Speaking

8 With a partner, act out the roles below based on Task 7. Then, switch roles.

USE LANGUAGE SUCH AS:

I don't even know what meta tags are.
Our site appears at the top of the search results.
Customers click on our hyperlink first.

Student A: You are a T.B. Brown Inc. employee. You want to know more about meta tags and the company's website. Talk about:
- meta tags
- search engines
- search results

Make up a name for your co-worker.

Student B: You are an IT department employee. Answer A's questions.

Make up a name for your co-worker.

Writing

9 Use the conversation from Task 8 to fill in the email.

Dear _____,

Thanks for explaining what the _____ are. I had no idea they were so _____. Now, I can see why our website appears at _____. There are some pretty good _____ on the new website. Anyway, as long as customers keep _____ first, it'll be good for business!

Regards,

_____

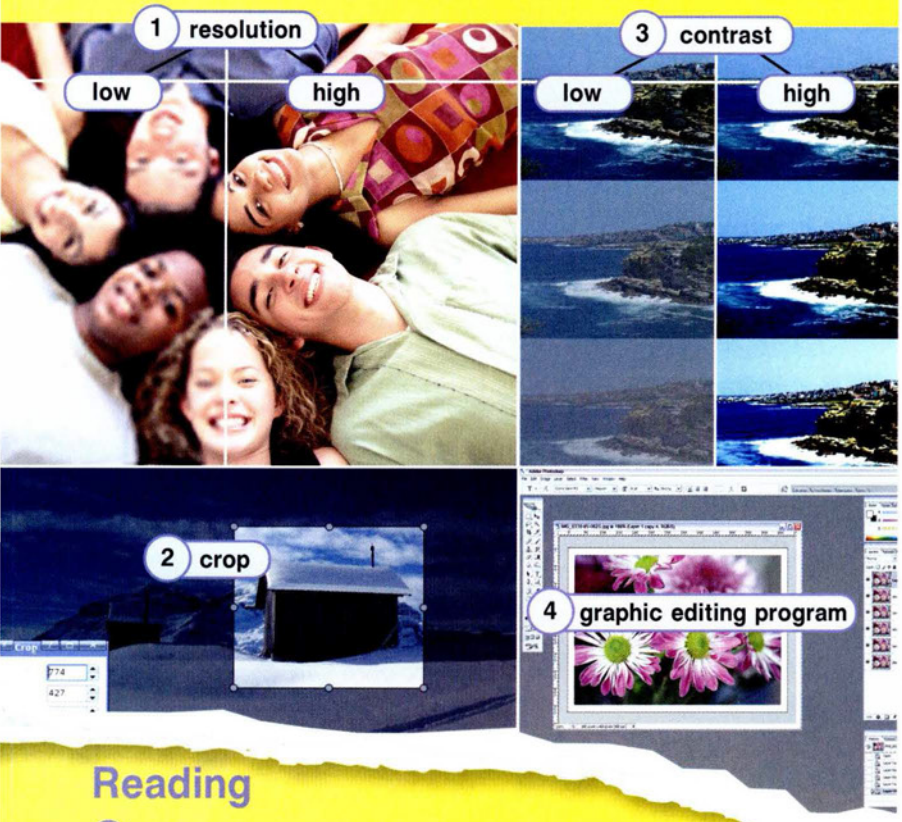
10 Images and graphic design

Get ready!

1 Before you read the passage, talk about these questions.

1 What are some reasons people edit images?

2 How do people edit their pictures?



Reading

2 Read the article from Graphic Arts Magazine. Then choose the correct answers.

1 What is the article mostly about?

- **A** why people edit graphics
- **B** how to edit graphics
- **C** the causes of poor exposure
- **D** how to crop a picture

2 According to the article, how can you remove unwanted parts of images?

- **A** crop the picture
- **B** resize the image
- **C** save the picture as a JPEG
- **D** increase the number of pixels

3 According to the article, what is NOT a way to fix a blurry photo?

- **A** resize the photo
- **B** increase the lighting
- **C** save in JPEG format
- **D** increase the amount of pixels



Graphic Arts PAGE 34 NOVEMBER ISSUE

Nowadays, anyone can edit **graphics**. But new users encounter many difficulties. Here are some common problems and solutions:

Problem: The image is dark or has a strange **tint**.
Cause: Poor **exposure** or bad lighting.
Solution: Adjust the **contrast** using a **graphic editing program**.

Problem: There is white space around the image.
Solution: **Crop** the picture. This removes unnecessary parts.

Problem: The photograph is blurry.
Cause: Low **resolution**.
Solution: Increase the number of **pixels** in the image. This makes it sharper. Or **resize** the picture and make it smaller. Also, save the photo as a **JPEG** file. This format creates high quality photographs.

Vocabulary

3 Match the words (1-6) with the definitions (A-F).

1 __ pixel
2 __ exposure
3 __ JPEG
4 __ graphics
5 __ resolution
6 __ tint

- **A** images on a computer, in a book or magazine, etc.
- **B** a small dot that makes up part of an image on a computer screen
- **C** a file used to store pictures on a computer
- **D** the length of time film is open to light when taking a picture
- **E** a small amount of a color in something
- **F** a computer or camera's ability to produce a clear picture

4 **Fill in the blanks with the words and phrases from the word bank.**

WORD BANK

graphic editing program
contrast resize crop

1 It's hard to see the details of this picture. Please _____ it so that it is bigger.
2 I want to edit my pictures. I need a _____.
3 I don't like the background of this picture. Let's _____ it out.
4 This picture is too dark. Make the _____ a little lighter.

5 **Listen and read the article from Graphic Arts Magazine again. What might be the reason for a blurry photograph?**

Listening

6 **Listen to a telephone conversation between a customer and an IT worker. Mark the following statements as true (T) or false (F).**

1 __ Cropping a picture fixes poor exposure.
2 __ An editing program lets you change aspects of a picture.
3 __ Saving photos as JPEGs will keep them from being too blurry.

7 **Listen again and complete the conversation.**

IT Worker: Thanks for calling Picture Perfect's support center. How can I help you?
Customer: I want to put a picture on my website, but it's too dark. Is there a way to fix **1** _____ _____?
IT Worker: Do you have a **2** _____ _____ program?
Customer: Yes, but I never use it. I just don't know how.
IT Worker: No problem. **3** _____ the file with the program and find the contrast controls.
Customer: Is that in the **4** _____ _____?
IT Worker: It is. Increase the **5** _____ to lighten the picture.
Customer: Great! Thanks.

Speaking

8 **With a partner, act out the roles below based on Task 7. Then, switch roles.**

USE LANGUAGE SUCH AS:

Is there a way to fix poor exposure?
Do you have a graphic editing program?
Increase the contrast to lighten the picture.

Student A: You are a support center worker. Student B needs help editing a photograph. Talk about:

- what the editing software is
- what the problem is
- how to fix the problem

Student B: You are a customer calling Picture Perfect's support center. Answer Student A's questions.

Writing

9 **Use the conversation from Task 8 to complete the note.**

PICTURE PERFECT

Support Center

Customer Issue: Picture too _____.

Does customer have a _____ _____ _____ to edit pictures? Y/N

Advice given: _____. This fixes the poor _____.

11 Databases vs. spreadsheets

T·B·BROWN Inc.
INFORMATION TECHNOLOGY DEPARTMENT

From: **IT Department**
To: **All Users**
Re: **Spreadsheets vs Database**

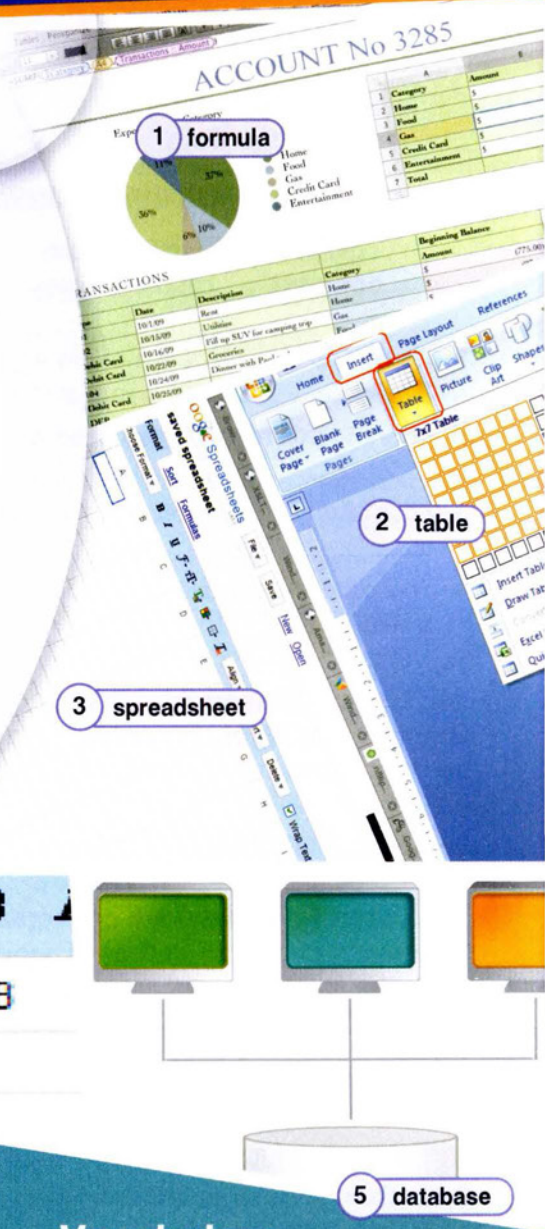
Currently, many employees use **spreadsheets** incorrectly. They are not for data storage. Please review the following guidelines.

Use our **database** program to:

Organize and **sort** large amounts of data regarding clients. Enter the client names and addresses into the **database fields**. Perform complex **queries**. Search multiple **tables** for client information.

Use our **spreadsheet** program to:

Perform calculations about cost and revenue. Create **formulas** using different **functions** and **operators**. Use this to analyze sales data.
Create graphs and charts that show profits. Use the data in the **cells** of a **worksheet** to create these charts.



Get ready!

1 Before you read the passage, talk about these questions.

1 What kind of information do you find in databases?
2 What do you use spreadsheets for?

Reading

2 Read the email from the IT department of T.B. Brown Inc. Then, read the paraphrase of the email. Fill in the blanks with the correct words from the word bank.

WORD BANK

tables profits database
calculations clients

Employees often use databases and spreadsheets incorrectly. Use a 1 _____ to organize large amounts of information about 2 _____. A database makes it easy to search multiple 3 _____ for client information. Use a spreadsheet to perform 4 _____ about sales data. Spreadsheets are also able to create graphs and charts showing 5 _____.

Vocabulary

3 Match the words (1-5) with the definitions (A-E).

1 ___ worksheet
2 ___ database
3 ___ sort
4 ___ field
5 ___ formula

A to arrange the information in a database
B a large group of data organized in a computer
C a mathematical instruction that performs spreadsheet calculations
D a single page of a spreadsheet
E a database category that holds a type of information

4 Choose the word that is closest in meaning to the underlined part.

1 Sue types in a(n) <u>symbol that performs a specific calculation</u> on the line.
A cell **B** operator **C** worksheet

2 Please arrange the client addresses in a <u>single collection of information in a database</u>.
A table **B** field **C** query

3 Dave adds up the values with a <u>mathematical spreadsheet calculation</u>.
A worksheet **B** formula **C** database

4 Jim organizes records in a <u>computer program that organizes information and performs calculations</u>.
A function **B** query **C** spreadsheet

5 Martha finds clients who live nearby with a <u>search that locates all information of a specific type</u>.
A query **B** field **C** operator

6 Some information in one <u>unit of a spreadsheet that holds a piece of information</u> is incorrect.
A table **B** function **C** cell

5 Listen and read the email from the IT Department of T.B. Brown Inc. again. What exactly is a spreadsheet?

Listening

6 Listen to a conversation between two co-workers at T.B. Brown Inc. Mark the following statements as true (T) or false (F).

1 __ Sam is using a database program.
2 __ Rachel tells Sam to perform a query.
3 __ Sam enters a formula that calculates profits.

7 Listen again and complete the conversation.

Employee 1: Rachel, I need help. I don't understand this **1**_____ program.
Employee 2: Sure. What are you trying to do?
Employee 1: I need to **2** _____ our estimated profits for next month. But I don't know how to do that.
Employee 2: Well, is all the **3** _____ in the **4** _____ correct?
Employee 1: Yes, I'm sure it is.
Employee 2: Okay. Then just type this **5** _____ into the top cell.
Employee 1: Really? That's all?
Employee 2: Yes. The formula calculates the estimated **6** _____ and shows them at the bottom of the spreadsheet.

Speaking

8 With a partner, act out the roles below based on Task 7. Then, switch roles.

USE LANGUAGE SUCH AS:

I don't understand this spreadsheet program.
Is the data in the cells correct?
Type this formula into the top cell.

Student A: You are a worker at T.B. Brown Inc. Student B needs help using a spreadsheet. Talk about:

- what the problem is
- possible mistakes
- solutions

Student B: You are Student A's co-worker. You need help using a spreadsheet. Answer Student A's questions.

Make up a name for your co-worker.

Writing

9 Use the conversation from Task 8 to complete the page.

T.B. BROWN Inc.
Spreadsheet Help Guide

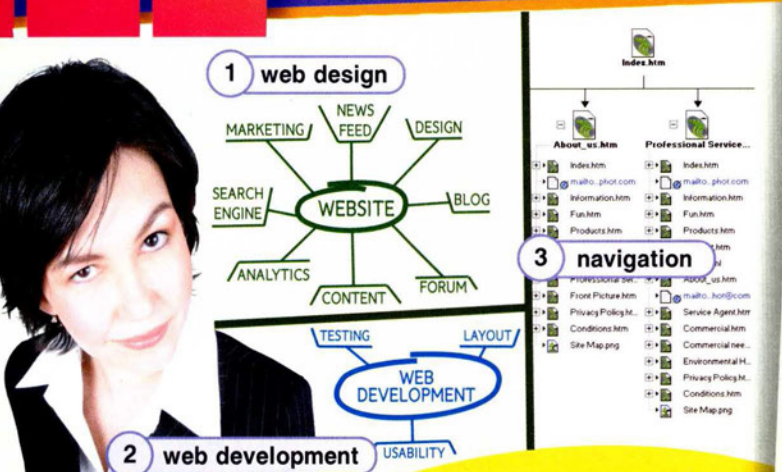
Question: How do I _____ _____?

1 Make sure _____ _____.

2 Enter _____.

3 The formula calculates the customer orders and _____ _____ _____.

12 Web design vs. web development





Now Offering!

Spring Professional Development Courses

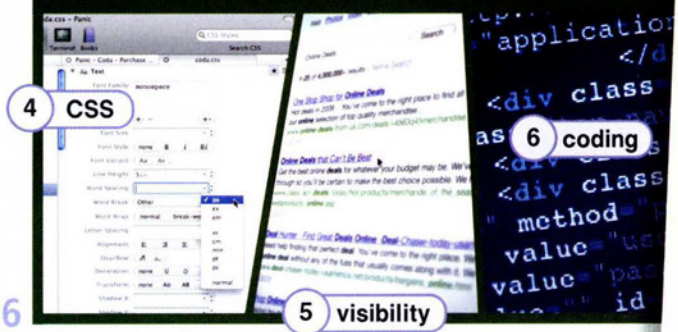
Website Review SOLUTIONS

Website Review Solutions now offers two spring classes. These classes focus on creating websites.

Web Development: Learn how to make a simple website. Create **coding** to build sites. Explore ways to expand **functionality**. Discuss improving **navigation** and **usability**. Learn ways to increase a website's **visibility**.

Web Design: Learn how to change a website's **appearance**. Use **CSS** to change a website's style. Compare the effect of different fonts and colors. Create attractive **content** to catch a user's attention.

E-mail Mary Shelton at mshelton@wrsolutions.com to register for classes.



Get ready!

1 Before you read the passage, talk about these questions.

1 What makes a good business website?
2 What kind of websites do you like to use?

Reading

2 Read the article from a business newsletter. Then, choose the correct answers.

1 What does the Web Development class NOT teach?
- **A** making a website easy to use
- **B** improving a website's visibility
- **C** using code to program a website
- **D** how to market a new website

2 What can you infer about the Web Design class?
- **A** Attending the class is mandatory.
- **B** The first class addresses functionality.
- **C** It focuses on improving a site's visual element.
- **D** Its registration fee is less than the Web Development class.

3 What is the function of CSS?
- **A** It helps improve navigation.
- **B** It decreases a website's visibility.
- **C** It changes the style of a web page.
- **D** It expands the functionality of a website.

Vocabulary

3 Match the words (1-6) with the definitions (A-F).

1 __ web design
2 __ coding
3 __ navigation
4 __ visibility
5 __ usability
6 __ content

- **A** choosing a website's visuals
- **B** how easily you can find a website on a search engine
- **C** a website's programming
- **D** how easily a user can use a website
- **E** moving around a website
- **F** everything contained in a website

4 **Fill in the blanks with the correct words and phrases from the word bank.**

WORD BANK

CSS web development
appearance functionality

1 The website doesn't work well. I want to improve its _____.
2 My website looks boring. I'll give it a more interesting _____.
3 If you are interested in making a website, take a _____ class.
4 I'm learning _____ so that I can change my website.

5 **Listen and read the article from a business newsletter again. Which class would someone attend to learn about developing a website's performance?**

Listening

6 **Listen to a conversation between an instructor for a web development class and an employee. Choose the correct answers.**

1 What do the speakers mostly talk about?
- **A** how to change content
- **B** why sheets are separate
- **C** choosing the correct CSS style sheet
- **D** the difference between content and style

2 What happens when the style sheet and the content are separated?
- **A** It alters the content.
- **B** The content does not change.
- **C** Content needs creating.
- **D** The words are changed in the content.

7 **Listen again and complete the conversation.**

Instructor: So, that's how we change the website's style. Does anyone have any questions?
Employee: Yes. I have one. It's about **1** _____.
Instructor: Oh, the **2** _____ _____ _____. What do you want to know?
Employee: Why do we separate the style sheet and the **3** _____?
Instructor: It makes changing the **4** _____ _____ easier. The **5** _____ changes, but the content doesn't.
Employee: So, I change the style sheet. What happens to the content?
Instructor: Nothing, because the two are **6** _____.
Employee: Okay. I understand now. The words stay the same, but their appearance changes.

Speaking

8 **With a partner, act out the roles below based on Task 7. Then, switch roles.**

USE LANGUAGE SUCH AS:

I have a question about CSS.
Why do we separate the style sheet and the content?
What happens to the content?

Student A: You are in a web design class. Ask Student B questions to find out about:
- style sheet and content
- changing the style sheet
- effects on content

Student B: You are the instructor of a web design class. Answer Student A's questions about web design.

Writing

9 **Use the conversation from Task 8 to answer the sample test questions on web design.**

EXAMPLE TEST QUESTIONS ON WEB DESIGN – Spring Professional Development Courses:

1 What do the letters CSS stand for?
_____

2 What is the importance of separating the style sheets and the content?
_____

3 If the style sheet is changed, what happens to the content?
_____

13 Desktop publishing



TOP-QUALITY RECRUITS

Golden Prairie Publishing

***Now Hiring:* Desktop Publishing Specialist**

Golden Prairie Publishing is hiring a Desktop Publishing Specialist. Qualifications/Skills must include:

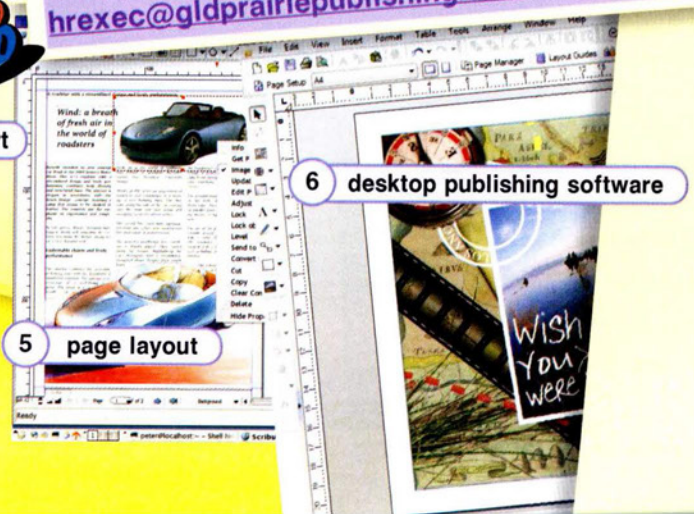
2+ years work in the field. Position requires college degree.
Experience with **desktop publishing software**.
A background in **graphic communications** and **design**.
Skill to create **electronic pages** for print.
Using text and **clip art** to make expert **page layouts**.
Planning skills. Ability to turn a first sketch into a **comprehensive layout.**
Experience working with **electronic paper**.
Familiarity with **offset lithography** or **electrostatic printing** methods, but not essential as full training will be given.

To apply, send a cover letter and résumé to **hrexec@gldprairiepublishing.com**









Get ready!

1 Before you read the passage, talk about these questions.

1 What do you know about desktop publishing?
2 What skills are needed in publishing?

Reading

2 Read the job listing for a position at Golden Pairie Publishing. Then, choose the correct answers.

1 What is the purpose of this advertisement?
- **A** to post a job opening
- **B** to describe a company
- **C** to start a publishing company
- **D** to sell a desktop publishing program

2 Which is NOT a job qualification?
- **A** the ability to make clip art
- **B** project planning skills
- **C** a college education
- **D** the ability to make layouts

3 What can you infer from this advertisement?
- **A** The job pays very well.
- **B** This is a managerial position.
- **C** The company is hiring from within.
- **D** Students do not meet the requirements.

Vocabulary

3 Read the sentence pairs. Choose where the words best fit in the blanks.

1 electronic pages/electronic paper
Many books are available on _____ _____.
Desktop publishing specialists assemble _____ _____.

2 page layout/clip art
If you need an extra picture use _____ _____.
That _____ _____ looks complete.

3 electrostatic printing/offset lithography
_____ _____ is all done with machines.
_____ _____ uses oil and water to transfer ink.

4 Match the words (1-4) with the definitions (A-D).

1 __ comprehensive layout
2 __ desktop publishing
3 __ desktop publishing software
4 __ graphic communications

A a form of visual language
B a piece that is ready for print
C the design of a layout using software
D a computer program used by publishers

5 Listen and read the job listing for a position at Golden Prairie Publishing again. What does the applicant not necessarily have to be skilled in?.

Listening

6 Listen as a candidate interviews for a desktop publishing job. Mark the following statements as either true (T) or false (F).

1 __ The candidate works with electronic paper.
2 __ The candidate is in college.
3 __ The candidate creates layouts.

7 Listen again and complete the conversation.

Interviewer: Good morning, please take a **1** _____.
Candidate: Hello, it's nice meeting you.
Interviewer: Right! I see you have a degree in **2** _____ communications. Do you have experience creating **3** _____?
Candidate: Yes. I work with desktop **4** _____ _____ every day.
Interviewer: What type of work do you do? I want to hear more.
Candidate: I combine text with graphics to create **5** _____ _____.
Interviewer: Interesting. Do you ever work with **6** _____ _____?
Candidate: Fairly often actually. I think it's the future of publishing.

Speaking

8 With a partner, act out the roles below based on Task 7. Then, switch roles.

USE LANGUAGE SUCH AS:

Do you have experience ...
I want to hear more.
I work with ... fairly often actually.

Student A: You are an interviewer. Ask Student B questions to learn about his or her:

- education level
- job experience
- publishing skills

Student B: You are being interviewed. Answer Student A's questions.

Writing

9 Use the conversation from Task 8 to complete the interview notes. Create some personal details.

Golden Prairie Publishing
Interview Notes

Interviewer: _____

Candidate: _____

Education Level:

☐ College ☐ Bachelor's degree
☐ Master's ☐ Technical Degree

Candidate's publishing skills: _____

Overall impression: _____
_____

14 Videoconferencing





From: Chuck Roberts
To: Brad Smith
Subject: Purchase Request

Mr. Smith,

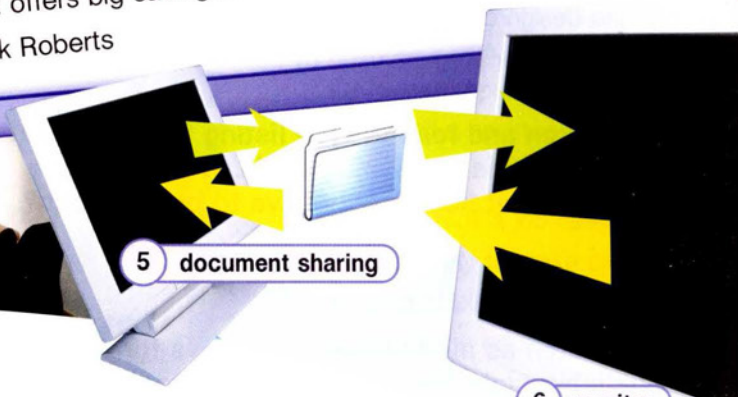
At present, we travel a lot to meet with our business partners. I propose that we use **videoconferencing** instead. It saves time and reduces costs. We only need a **webcam** to do basic videoconferencing. However, a **dedicated system** is even better. It allows us to do **multipoint videoconferences**. And it supports **document sharing**. It also has an **echo-cancellation** feature.

The system comes with a camera and TV **monitor**. It also comes with a **codec**, but we need to order a **video bridge** separately. We also need to make sure we have high **bandwidth** Internet access. Still, it offers big savings. Let me know your thoughts.

Chuck Roberts







Get ready!

1 Before you read the passage, talk about these questions.

1 What is videoconferencing?
2 What can video conferencing be used for?

Reading

2 Read the email from an IT professional at Acme Enterprise. Then, mark the following statements as true (T) or false (F).

1 __ Videoconferencing reduces traveling time and cost.
2 __ The dedicated system comes with a video bridge.
3 __ Videoconferencing works best with low bandwidth Internet access.

Vocabulary

3 Fill in the blanks with the correct words and phrases from the word bank.

WORD BANK

dedicated system document sharing echo-cancellation
monitor videoconference video bridge

1 My computer isn't working. No images are showing on the _____.
2 Let's purchase a _____. It comes with everything we need for videoconferencing.
3 Only I can edit the report. The videoconference system does not allow _____.
4 You can't hold a multipoint videoconference without a _____.
5 The _____ feature eliminates unwanted sound during a videoconference.
6 I want a face-to-face meeting. Let's hold a _____.

4 Write a word that is similar in meaning to the underlined part.

1 A high <u>amount of information that a network sends and receives</u> helps images load quickly on the Internet.
b _ n _ _ i _ _ h

2 To set up a videoconference system, first connect the <u>equipment that codes and reads signals</u>. c _ d _ _

3 John attached a <u>camera that broadcasts sound and video on the Internet</u>. w _ _ c _ m

4 Our offices can hold a <u>videoconference among people in different locations</u>.
m _ _ t _ _ o _ n _ v _ _ e _ _ _ n _ _ r _ _ _ _

5 Listen and read the email from an IT professional at Acme Enterprise again. Why does Chuck Roberts suggest having a dedicated system?

Listening

6 Listen to a conversation between the IT professional and a sales representative at Clearwater Technologies. Choose the correct answers.

1 What are the speakers mostly talking about?
- **A** what the benefits of videoconferencing are
- **B** what the IT professional wants to purchase
- **C** how to set up videoconference equipment
- **D** what the use of a video bridge is

2 What is the advantage of having two monitors?
- **A** It lets you hold multipoint videoconferences.
- **B** It enhances the sound and picture quality.
- **C** It comes with a video bridge.
- **D** It lets you do document sharing.

7 Listen again and complete the conversation.

SR: ClearWater Technologies. How can I help you?
P: I want to purchase a **1** _____ system for **2** _____. What are my options?
SR: Well, we have systems with one or two TV **3** _____.
P: What's the difference?
SR: The system with two TV monitors lets you hold **4** _____ _____.
P: I need **5** _____ TV monitors then. Does it come with a video bridge?
SR: No, you order that separately.
P: Okay, then I need to order one **6** _____ _____ as well, please.

Speaking

8 With a partner, act out the roles below based on Task 7. Then, switch roles.

USE LANGUAGE SUCH AS:

What are my options?

We have systems with one or two TV monitors.

Does it come with a video bridge?

Student A: You want to purchase a dedicated system. Ask Student B questions to find out:
- the options
- differences in number of monitors
- a video bridge

Student B: You are a sales representative. Answer Student A's questions.

Writing

9 Use the conversation from Task 8 to complete the order form.

ClearWater TECHNOLOGIES **Order #1162**

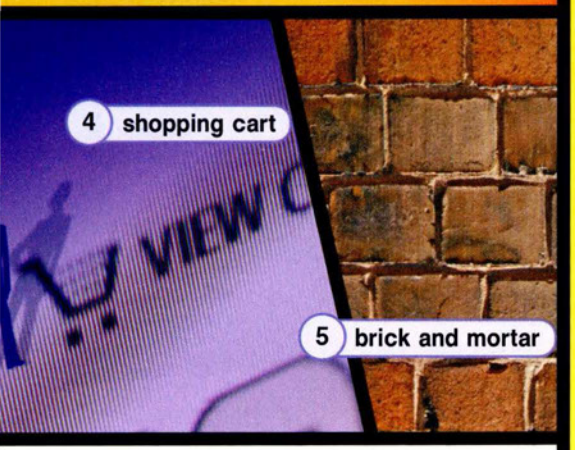
Request for _____
_____ for videoconferencing.
Number of TV _____:
One/Two

Number of _____ bridges:
One/Two

Total Cost: $2,249.99

15 E-commerce





From: johnson.mark@bargainequipment.com
To: amanda.jackson@marketing.tfcgaming.com
Subject: **Lowest Price Affiliate Program**

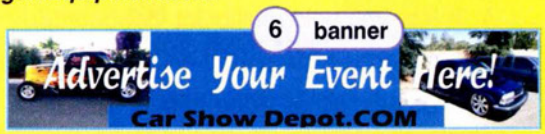
Dear Miss. Jackson,

Our advertising at **brick and mortar** gaming shops is not producing video game equipment sales. Those consumers are much more active in **e-commerce**. So, we at BargainEquipment.com want TFC Gaming to become an **affiliate**. Our program works in the following manner. You display our **banner** when customers view their **shopping cart**. This directs **traffic** our way. TFC Gaming earns a percentage of sales from that traffic. We pay a smaller percentage for increases in **page views** without sales.

Our **FAQs** explain that affiliates are not responsible for our products. We do ask that affiliates obtain a **digital certificate** with our preferred **certificate authority**.

Contact me with any questions.
Regards,

Mark Johnson
Marketing Director, BargainEquipment.com



Get ready!

1 Before you read the passage, talk about these questions.

1 What do you buy online?
2 How does online shopping help businesses?

Reading

2 Read the email from the marketing director of bargainequipment.com. Then, mark the following statements as true (T) or (F) false.

1 __ BargainEquipment.com has a brick and mortar shop.
2 __ TFC Gaming is an affiliate of BargainEquipment.com.
3 __ Affiliates earn a percentage of sales for increases in page views.

Vocabulary

3 Read the sentence pairs. Choose where the words best fit in the blanks.

1 digital certificate/certificate authority
I don't trust this site, it has no _____.
The _____ will tell customers our site is safe.

2 page views/traffic
My site has two hundred more _____ today.
Advertising a website should increase _____.

3 FAQs/banner
Let's display a new _____ to attract attention.
Check the _____ to find out about the company.

4 Fill in the blanks with the correct words and phrases form the word bank.

WORD BANK

affiliate e-commerce
shopping cart brick and mortar

1 _____ allows people to shop with businesses globally.
2 My business is a(n) _____ of that website. We share profits.
3 There are many _____ shops on Main Street.
4 Put an item in a _____ and pay for it later.

5 Listen and read the email from the marketing director of bargainequipment.com again. What happens when a consumer clicks on a page view, but doesn't purchase?

Listening

6 Listen to part of a conversation between employees of BargainEquipment.com and TFC Gaming. Choose the correct answers.

1 What are the employees mostly talking about?
A raising sales C calculating profits
B meeting affiliates D payment percentages

2 TFC Gaming earns a half percent for ___.
A each sale C 100 page views
B slowing traffic D becoming an affiliate

7 Listen again and complete the conversation.

Employee 1: Hi Mark. This is Amanda from TFC Gaming.
Employee 2: Hi Amanda. Glad to hear from you.
Employee 1: Well, we're definitely interested in being an **1** _____. But we have some questions.
Employee 2: Of course. What do you want to know?
Employee 1: About the **2** _____. What do we earn for just an increase in **3** _____ _____?
Employee 2: That's 0.5% per hundred.
Employee 1: I see, and for sales from our **4** _____?
Employee 2: All BargainEquipment.com affiliates get 2% of the **5** _____ _____.

Speaking

8 With a partner, act out the roles below based on Task 7. Then, switch roles.

USE LANGUAGE SUCH AS:

What do you want to know?
What do we earn for ...?
Affiliates get ...

Student A: Your company is considering becoming an affiliate. Ask Student B about:

- percentages
- page views
- traffic and sales

Student B: You work at BargainEquipment.com. Answer Student A's questions.

Writing

9 Use the email and the conversation from Task 8 to complete the recommendation.

From: _____,
TFC Gaming Marketing
Department: _____

To: James Harper,
President, TFC Gaming

Mr. Harper,

BargainEquipment.com wants us _____. We would earn _____ for an increase in page views. We would also earn _____.

My recommendation is _____.

Glossary

affiliate [N-COUNT-U15] An **affiliate** is a person or business that directs Internet traffic to a business's website in exchange for a percentage of sales.

appearance [N-COUNT-U12] **Appearance** is the way that a web page looks.

attachment [N-COUNT-U8] An **attachment** is a file that is sent with an email.

bandwidth [N-UNCOUNT-U14] **Bandwidth** is a measurement of the amount of information that a computer network can send or receive. High bandwidth allows images and websites to load quickly on the Internet.

banner [N-COUNT-U15] A **banner** is a rectangular graphic on a website that advertises a business.

brick and mortar [N-COUNT-U15] A **brick and mortar** is a business that operates in a physical location instead of online.

case [N-COUNT-U3] A **case** is an enclosure that holds the computer's components.

CAT-5 (Category 5) cables [N-COUNT-U5] **CAT-5 cables** are the standard cables that connect computers to networks.

cell [N-COUNT-U11] A **cell** is a unit of a spreadsheet that holds a piece of information.

cell phone [N-COUNT-U2] A **cell phone** is a telephone that you take with you to make calls anywhere.

certificate authority [N-COUNT-U15] A **certificate authority** creates, offers and verifies reliable digital certificates.

clip art [N-UNCOUNT-U13] **Clip art** is electronic artwork that can be used in publications.

code [N-COUNT-U1] **Code** is a set of words and signs that give instructions to a computer.

codec [N-COUNT-U14] A **codec** is a piece of videoconferencing equipment. It codes signals that go out and reads signals that come in.

coding [N-UNCOUNT-U12] **Coding** is the programming language that makes up a website.

compatibility [N-UNCOUNT-U7] **Compatibility** is the ability of one program or file to work with a different program.

comprehensive layout [N-UNCOUNT-U13] A **comprehensive layout** is a nearly complete version of a publication.

computer [N-COUNT-U2] A **computer** is an electronic device that manipulates data.

configuration [N-COUNT-U5] The **configuration** of a network is the group of settings that control how information is sent and received on a network.

content [N-UNCOUNT-U12] **Content** is the material on a web page, including text and graphics.

contrast [N-UNCOUNT-U10] **Contrast** is the amount of difference between the dark areas and light areas of an image.

crop [V-COUNT-U10] To **crop** is to cut off unwanted parts of an image.

CSS [N-UNCOUNT-U12] **CSS** (cascading style sheets) is a simple language that decides how a web page looks.

cycle [V-UNCOUNT-U5] To **cycle** a device on a network means to turn it off and then turn it on again or to unplug it from its power source.

data [N-UNCOUNT-U1] **Data** are numbers that can be entered into a computer.

data processing [N-UNCOUNT-U1] **Data processing** is the act of entering, using or manipulating data with computers.

database [N-COUNT-U11] A **database** is a large group of data organized in a computer system. It allows you to search and find information easily.

dedicated system [N-COUNT-U14] A **dedicated system** includes all the necessary components of videoconferencing together as a set.

desktop [N-COUNT-U6] A computer **desktop** is everything that a user sees on a computer screen.

desktop computer [N-COUNT-U2] A **desktop computer** is a computer that is small enough to use at a desk, but too big to carry around.

desktop publishing software [N-UNCOUNT-U13] **Desktop publishing software** is a computer program that is used to make page layouts.

desktop publishing [N-UNCOUNT-U13] **Desktop publishing** is art of using computers to design finished, printable documents.

DHCP (Dynamic Host Configuration Protocol) [N-COUNT-U5] The **DHCP** is a system for computer networks to receive IP addresses and other configuration information.

digital certificate [N-COUNT-U15] A **digital certificate** is an electronic document that proves an online business or person is who that business or person claims to be.

disk drive [N-COUNT-U3] A **disk drive** reads information from a magnetic spinning disc.

document [N-COUNT-U7] A **document** is a file created on a word processing program.

document sharing [N-UNCOUNT-U14] **Document sharing** is a feature of some videoconferencing systems. It allows everyone participating in the videoconference to look at and edit the same document.

domain name [N-COUNT-U8] A **domain name** is a set of words and letters that identify a company or address on the Internet.

drag [V-UNCOUNT-U6] To **drag** files, folders or icons is to move them around on a desktop.

e-commerce [N-UNCOUNT-U15] **E-commerce** is the purchase or sale of items on the Internet.

echo-cancellation [N-UNCOUNT-U14] **Echo-cancellation** is a process that reduces the amount of echo heard by participants of a videoconference.

electronic page [N-COUNT-U13] An **electronic page** is a computerized version of a piece of paper.

electronic paper [N-COUNT-U13] **Electronic paper** is a special digital screen that can be read like paper.

electrostatic printing [N-UNCOUNT-U13] **Electrostatic printing** is a method that uses the forces of electricity to print.

email address [N-COUNT-U8] An **email address** is a location to which electronic messages can be delivered.

email client [N-COUNT-U8] An **email client** is a program that receives, sends and stores email on a computer.

encoding [N-UNCOUNT-U1] **Encoding** is the act of changing data so that no one can read it until it is changed again.

expansion cards [N-COUNT-U3] **Expansion cards** are extra circuit boards that are used to increase the functions of a computer.

exposure [N-COUNT-U10] An **exposure** is the length of time film is open to light when taking a picture.

fan [N-COUNT-U9] A **fan** moves cool air onto computer components inside the case.

FAQs [N-COUNT-U15] **FAQs** (Frequently Asked Questions) are a set of questions and answers that are provided on a website to provide users with information that users commonly want to know.

field [N-COUNT-U11] A **field** is a category in a database that holds a particular type of information.

folder [N-COUNT-U6] A **folder** holds and organizes files and documents on a computer.

font [N-COUNT-U7] **Font** is the style of the typed characters on a document.

Glossary

format [N-COUNT-U7] A **format** is a file's type. Different files might not work in different programs.

formatting [N-UNCOUNT-U7] **Formatting** is the design of the words on a document.

formula [N-COUNT-U11] A **formula** is any mathematical calculation that you perform in a spreadsheet.

function [N-COUNT-U11] A **function** is a mathematical instruction that performs a specific calculation in a spreadsheet, such as adding a set of values.

functionality [N-COUNT-U12] **Functionality** is the ability of different elements of a website to work together.

graphic communications [N-UNCOUNT-U13] **Graphic communications** is the study of sending and receiving visual messages.

graphic editing program [N-COUNT-U10] A **graphic editing program** is a computer program that lets you change different aspects of an image.

Graphical User Interface [N-COUNT-U6] A **graphical user interface** (GUI) is an operating system that uses icons to represent programs and files and allow users to access to them.

graphics [N-COUNT-U10] **Graphics** are images on a computer, in a book or magazine, etc.

handheld PC [N-COUNT-U2] A **handheld PC** is a computer that is smaller, slower and less powerful than a laptop and used to browse the Internet and check email.

hard drive [N-COUNT-U3] A **hard drive** stores data electronically.

hardware [N-COUNT-U1] **Hardware** refers to the physical parts of a computer.

heat sink [N-COUNT-U3] A **heat sink** transfers heat away from nearby components of a computer.

HTML [N-UNCOUNT-U9] **HTML** (Hypertext Markup Language) is a computer language that is used to construct web sites on the Internet.

http [N-UNCOUNT-U9] An **http** is a part of an Internet address that allows a computer to connect to the site.

hyperlink [N-COUNT-U9] A **hyperlink** is a word or image on a web page that you can click on to go to a different web page.

icon [N-COUNT-U6] An **icon** is a picture that represents something on a computer.

information security [N-COUNT-U1] **Information security** is the act or process of keeping information safe and preventing others from seeing it.

Internet [N-UNCOUNT-U5] The **Internet** is a worldwide network of computers.

IP (Internet Protocol) address [N-COUNT-U5] An **IP address** is a group of numbers that identify a computer on a network.

ISP [N-COUNT-U8] An **ISP** (Internet Service Provider) is a company that gives its customers access to the Internet, email addresses and data storage.

JPEG [N-UNCOUNT-U10] **JPEG** (Joint Photographic Experts Group) is a kind of computer file used it to store pictures on a computer.

keyboard [N-COUNT-U4] A **keyboard** is a set of buttons that is used to enter information into a computer.

laptop [N-COUNT-U2] A **laptop** is a computer that is small enough for you to carry around and use anywhere.

layout [N-COUNT-U7] **Layout** is the way that items are arranged on a document.

LCD [N-COUNT-U4] An **LCD** (Liquid Crystal Display) is a type of display that is created by liquid crystals and that is used in thin monitors.

local area network (LAN) [N-COUNT-U5] A **local area network** is a network that connects a small group of computers.

macro [N-COUNT-U7] A **macro** is a short keystroke that performs a predetermined action.

mainframe [N-COUNT-U2] A **mainframe** is a very powerful computer that can process large amounts of data.

maximize [V-UNCOUNT-U6] To **maximize** a window is to make it fill an entire computer screen or desktop.

meta tag [N-COUNT] A **meta tag** is text that is used in the codes of a web page to provide information about the site to search engines.

microphone [N-COUNT-U4] A **microphone** is a device that is used to record sound.

minimize [V-UNCOUNT-U6] To **minimize** a window is to make it leave the screen without closing the window.

monitor [N-COUNT-U4-U14] A **monitor** is a screen that displays text, video, or images.

motherboard [N-COUNT-U3] A **motherboard** is a firm slotted board onto which computer circuitry is attached.

mouse [N-COUNT-U4] A **mouse** is a small device that is used to move the cursor and select items on a computer screen.

multipoint videoconference [N-COUNT-U14] A **multipoint videoconference** is a videoconference among people in three or more different locations.

navigation [N-COUNT-U12] **Navigation** is the act of using and finding things on a website.

network [N-COUNT-U5] A **network** is a group of computers that are connected in order to share data or communicate.

offset lithography [N-UNCOUNT-U13] **Offset lithography** is a common form of printing.

online [ADJ-COUNT-U1] If a computer is **online**, it is connected to the Internet.

operating system (OS) [N-COUNT-U6] The **operating system** is the software that controls a computer.

operator [N-COUNT-U11] An **operator** is a symbol in a formula that performs a particular calculation, such as a plus sign (+).

page layout [V-INT-U13] **Page layout** is the process of arranging text and graphics on a page.

page view [N-COUNT-U15] A **page view** is a request from a computer to load a page of a web site. They can be counted to analyze the number of people viewing a website.

password [N-COUNT-U8] A **password** is a set of letters and/or numbers that allow someone to use or access something on a computer.

PDA [N-COUNT-U2] A **PDA** (Personal Digital Assistant) is a small computer that is used to organize a person's schedules and information.

peripheral [N-COUNT-U4] A **peripheral** is a device that can be connected to a computer.

pixel [N-COUNT-U10] A **pixel** is one of the small dots that make up an image on a computer or television screen.

pointer [N-COUNT-U6] A **pointer** is a small arrow that lets a user choose what to do on a computer.

POP3 [N-COUNT-U8] A **POP3** (Post Office Protocol) is a method that allows computer users to receive email from a server.

power supply [N-COUNT-U3] A **power supply** delivers electricity to all parts of a computer.

printer [N-COUNT-U4] A **printer** is a device that is used by a computer to transfer ink onto paper.

processor [N-COUNT-U3] A **processor** carries out the instructions of computer programs.

Glossary

quality assurance [N-UNCOUNT-U1] **Quality assurance** is the act of checking products for problems.

query [N-COUNT-U11] A **query** is a search that locates all information of a specific type in a database.

RAM [N-UNCOUNT-U3] **RAM** (Random Access Memory) is memory that can be quickly accessed.

resize [V-COUNT-U10] To **resize** is to make an image on a computer bigger or smaller.

resolution [N-UNCOUNT-U10] **Resolution** is the ability of a computer or camera to produce a clear and detailed image.

router [N-COUNT-U5] A **router** is a device that allows more than one computer to connect to a network at the same time.

scanner [N-COUNT-U4] A **scanner** is a device that is used for transferring printed documents and pictures into a computer system.

search engine [N-COUNT] A **search engine** is a computer program that allows people to search for particular information, products, etc. on the Internet.

server [N-COUNT-U2] A **server** is a computer that connects many computers to hardware.

shopping cart [N-COUNT-U15] A **shopping cart** is a part of an online store that displays items that a consumer has selected for purchase, but has not yet paid for.

shortcut [N-COUNT-U6] A **shortcut** is an icon that has been moved to a desktop to make opening a file or program easier.

software [N-UNCOUNT-U1] **Software** is a program or instruction that makes a computer perform a specific task.

sort [V-INT-U11] To **sort** is to arrange the information in a database in a specific way.

spell check [N-UNCOUNT-U7] **Spell check** is a function that reviews a document for spelling errors.

spreadsheet [N-COUNT-U11] A **spreadsheet** is a computer program that organizes information and performs calculations.

STMP [N-COUNT-U8] A **SMTP** (Simple Mail Transfer Protocol) is a method that allows computer users to send emails to other users.

supercomputer [N-COUNT-U2] A **supercomputer** is a large computer that is built to process large amounts of information at a higher speed than other computers can handle.

table [N-COUNT-U11] A **table** is a single collection or arrangement of information in a database.

technical support [N-UNCOUNT-U1] **Technical support** is the task of helping people use and understand technology.

template [N-COUNT-U7] A **template** is blank layout for certain types of documents.

tint [N-COUNT-U10] A **tint** is a small amount of a color in something.

touch Screen [N-COUNT-U4] A **touch screen** is a monitor that lets users interact with the computer by touching the screen.

traffic [N-UNCOUNT-U15] **Traffic** is the total number of users that go to and view a website in a certain amount of time.

URL [N-COUNT-U9] A **URL** (Uniform Resource Locator) is the text and symbols that form a web address.

usability [N-UNCOUNT-U12] **Usability** is how easy it is for a person to use a website.

USB [N-COUNT-U4] **USB** (Universal Serial Bus) is a commonly used type of connection or port to connect a peripheral to a computer.

username [N-UNCOUNT-U8] A **username** is a name or code that identifies a person on a computer and allows that person to access his or her files.

video bridge [N-COUNT-U14] A **video bridge** is a device that allows you to hold multipoint videoconferences. It connects calls from several different locations.

videoconference [N-COUNT-U14] A **videoconference** is a meeting or conversation between two or more people in different locations using computer technology.

visibility [N-UNCOUNT-U12] **Visibility** is how easily people find a website using search engines, based on how many other websites link to it.

web browser [N-COUNT-U9] A **web browser** is a computer program that allows people to look at web pages on the Internet.

web design [N-UNCOUNT-U12] **Web design** is the act or practice of determining how a website looks.

web development [N-UNCOUNT-U12] **Web development** is the act or practice of determining how a website works.

web host [N-COUNT-U9] A **web host** is a company that provides the space for a web site on the Internet.

web site [N-COUNT-U9] A **web site** is a collection of related pages on the Internet that contains information, pictures, etc. and is usually published by a person, group, or company.

webcam [N-COUNT-U14] A **webcam** is a small camera that connects to a computer. It broadcasts sound and video on the Internet.

webmail [N-UNCOUNT-U8] **Webmail** is an email service that people access through a web browser, and which sends and receives email but does not store it on computers.

window [N-COUNT-U6] A **window** is a rectangle on the desktop of a computer monitor that displays a file or program. Its contents are independent of the desktop screen.

wireless Local Area Network (WLAN) [N-COUNT-U5] A **wireless local area network** is a network that connects computers to a network without cables.

word processing program [N-COUNT-U7] People use **word processing programs** to write on computers.

worksheet [N-COUNT-U11] A **worksheet** is a single page of a spreadsheet.

workstation [N-COUNT-U2] A **workstation** is a very fast computer that runs powerful work programs.

www [N-UNCOUNT-U9] The **www** (World Wide Web) is the system of web pages, information, pictures, etc. that is available on the Internet.

CAREER PATHS

Information Technology

Book 2

Virginia Evans
Jenny Dooley
Stanley Wright

Express Publishing

Scope and Sequence

Unit	Topic	Reading context	Vocabulary	Function
1	Computer Memory	Guide	bit size, bit, bus speed, DIMM, hard drive, MB, MHz, motherboard, paging file, RAM, SIMM, virtual memory	Describing minimum requirements
2	Programming Languages	Letter	Assembler, BASIC, C#, C, C++, compiler, computer language, CPU, Java, linker, machine code, multi-thread	Expressing a concern
3	ISPs and Internet Access	Business Letter	antivirus software, broadband, dial-up, DSL, hotspot, ISP, modem, T-1, T-3, upgrade, Wi-Fi, wireless router	Describing benefits
4	Storage Devices	Suggestion Form	array, CD-R, CD-RW, data compression, failure, floppy disk, magnetic tape, memory storage density, RAID, SATA, USB flash drive, zip drive	Asking about deadlines
5	Peripherals	Advertisement	automatic document feeder, calibration, CCD, digital camera, digital zoom, DPI, flash memory, inkjet printer, laser printer, megapixel, optical zoom, transparency adapter	Making a recommendation
6	MP3 Players	Announcement	AAC, bitrate, capacity, decode, dock, driver, freeze, gigabyte, playlist, upload	Investigating a problem
7	Cell Phones	Advertisement	3G network, apps, Bluetooth, call waiting, caller ID, cell phone, lithium-ion battery, ringtone, text message, touchscreen, voicemail	Offering help
8	Communications	Instant Messages	barcode, data plan, email, EPC, instant message, PDA, scan, smartphone, spam, text, UPC	Assigning a task
9	Entertainment and Social Networking	Memo	avatar, blog, feed, forum, gaming, handle, link, MMORPG, post, profile, social networking, virtual world	Giving a summary
10	GPS Systems	Advertisement	accuracy, acquisition time, cartography, coordinates, GPS, integrity, latitude, longitude, navigation, waypoint	Describing capabilities
11	Banking	Website	account activity, account alert, bank fraud, bill pay, electronic statement, identity theft, lockout, online banking, PIN, site key, SSL	Reporting a problem
12	Education and Research	Advertisement	boolean operator, catalog, ebook, ejournal, EZproxy, index, license restriction, media, remote access, subscription, VPN	Recognizing a cause
13	Robotics	Email	actuator, autonomous, drive power, dynamic model, enabling device, enabling device, end-effector, equality constraint, joints, manipulator, pendant, robotics, serial robot	Citing a previous example
14	Electronic Publishing	Website	active matrix display, bitmapped graphics, black and white, download, ergonomic, offline, PDF reader, publication, reflow, sub-pixel rendering, system requirements, upload	Describing completion
15	Artificial Intelligence Magazine	Article	agent, algorithm, case-based reasoning, cognitive scientist, computer vision, heuristic, machine learning, model-based reasoning, pattern recognition, robot	Asking for clarification

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1 Computer memory


1 motherboard

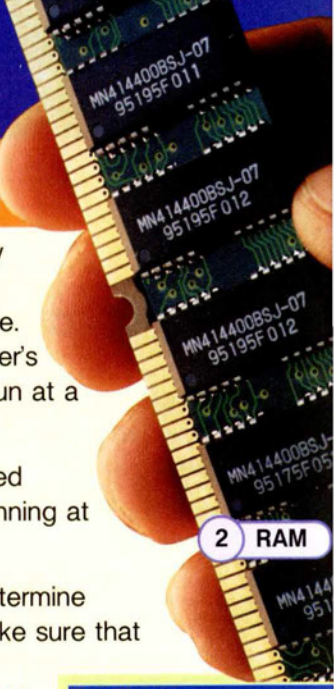
ClearPic Troubleshooting Guide

Certain memory requirements are necessary to install and run ClearPic. Check that the computer has at least 500 **MB** of **RAM** available. For optimal performance, make sure the computer's CPU has a **bit size** of at least 32 **bits**. It should run at a **bus speed** of 800 **MHz**.

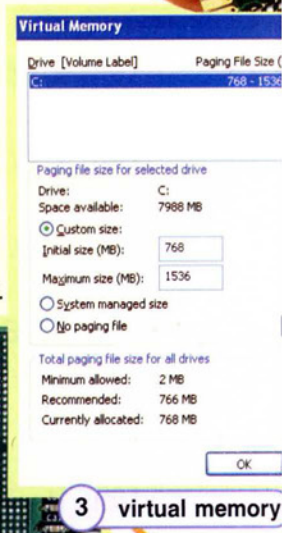
There are several options to fix problems with limited memory. One, is to limit the number of programs running at the same time.

Another, is to increase the amount of RAM. First, determine whether your computer uses **SIMMs** or **DIMMs**. Make sure that the memory's **bus speed** matches that of the computer. Purchase the appropriate amount of RAM and attach it to the **motherboard**.

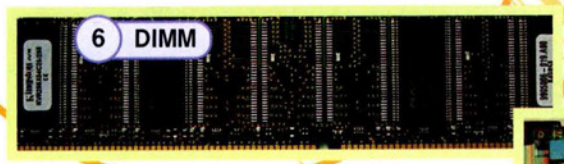
You can also increase your computer's **virtual memory**. This temporarily stores data on a **paging file** on the computer's **hard drive**. To add virtual memory, click on the "My Computer" icon. Under "Properties," increase the maximum memory amount.

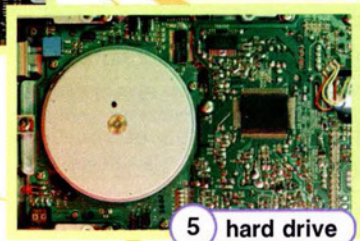


2 RAM



3 virtual memory


6 DIMM


5 hard drive


4 CPU

Get ready!

1 Before you read the passage, talk about these questions.

1 How has increased computer memory changed business?

2 When do people need to add more computer memory?

Reading

2 Read the troubleshooting guide. Then, choose the correct answers.

1 What is the passage mainly about?

- **A** the main function of the CPU
- **B** where to install the ClearPic file
- **C** how to add or modify computer memory
- **D** speeds of RAM attached to the motherboard

2 What should people do first when increasing available RAM?

- **A** check to see if they need SIMMs or DIMMs
- **B** increase the amount of virtual memory
- **C** temporarily store their data on a paging file
- **D** make sure the CPU runs at a speed of 800 MHz

3 What is NOT a way to fix a limited memory problem?

- **A** increase the amount of virtual memory
- **B** buy a new motherboard for the computer
- **C** reduce the number of programs running
- **D** increase the amount of available RAM

Vocabulary

3 Match the words (1-7) with the definitions (A-G).

1 __ MHz
2 __ SIMM
3 __ motherboard
4 __ DIMM
5 __ virtual memory
6 __ paging file
7 __ bit

- **A** where data that doesn't fit in the RAM is stored
- **B** the main circuit board in a computer
- **C** a unit of measurement that measures the speed of a CPU
- **D** a data storage method that stores data on the hard drive
- **E** the smallest unit of computer data
- **F** an memory module that sends up to 32 bits of data to a CPU
- **G** a memory module that sends up to 64 bits of data to a CPU

4 Fill in the blanks with the correct words and phrases from the word bank.

WORD BANK

hard drive RAM bit size
MB bus speed

1 The computer has a _____ of 64 bits.
2 The computer's CPU has a _____ of 800 MHz.
3 Increase the virtual memory to store data on the _____.
4 This computer comes with 900 _____ of RAM.
5 Install additional _____ into the motherboard.

5 Listen and read the troubleshooting guide again. What happens when a computer's virtual memory is made bigger?

Listening

6 Listen to a conversation between a customer and an employee of ClearPic. Mark the statements as true (T) or false (F).

1 __ The customer's CPU is too slow to run the program.
2 __ The employee advises the customer to buy more RAM.
3 __ Increasing the virtual memory will increase the paging file size.

7 Listen again and complete the conversation.

Employee: Well, **1** _____ _____ _____. To run ClearPic you really want to have at least 500 MB of memory.
Customer: So how can I fix that?
Employee: One easy way is to increase your computer's **2** _____ _____.
Customer: What will that do?
Employee: It increases the paging file size. That way, your computer's **3** _____ _____ can store more data.
Customer: I see. So **4** _____ _____ do I increase the memory?
Employee: **5** _____ _____ on the "My Computer" icon. Under "Properties", increase the maximum memory amount **6** _____ _____ _____ half.

Speaking

8 With a partner, act out the roles below based on Task 7. Then, switch roles.

USE LANGUAGE SUCH AS:

How can I help you?
The program keeps freezing.
How can I fix that?

Student A: Your computer program keeps freezing. Talk to Student B about:

- the problem
- solutions
- increasing virtual memory

Student B: You are a support center employee. Answer Student A's questions.

Writing

9 Use the conversation from Task 8 to complete the receipt.

ClearPic
Support Center Receipt

Customer
Issue: _____

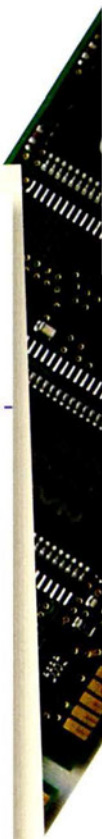
Does computer have enough memory? Y / N

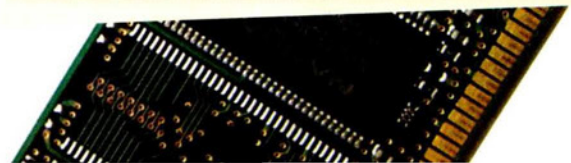
Advice given: Increase _____

How to do this:

1 _____

2 _____





2 Programming languages



Mr. Daniels,

As the head of the computer programming department, I feel that we need to update the department's resources. This includes our programmers. Most of our programmers are comfortable with the **C**, **C++**, and **Java computer languages**. We even have one programmer who can use **C#**. But we don't have anyone proficient in **Assembler**. I think we need some programmers who are familiar with it. That way, we can translate between programs more easily.

In addition, we have two programmers who specialize in **BASIC**. This language is in decline and will probably be phased out soon.

Some of our machines are getting older, too. A few computers need their **compilers** and **linkers** updated. Otherwise, they'll never be able to convert to **machine code** efficiently. One of our older **CPUs** cannot **multi-thread** very well. As you know, the programming department is very important to this company's future. Please help us stay updated.

Thanks,
Sarah Jennings

Get ready!

1 Before you read the passage, talk about these questions.

1 How does computer programming affect business?

2 Why is computer programming becoming more important?

Reading

2 Read the letter from the head of a computer programming department to her boss. Then, choose the correct answers.

1 What is the letter mainly about?

A purchasing more CPUs
B writing better computer programs
C learning new computer languages
D requesting updated resources

2 Which of these programming languages do the programmers NOT know?

A C#
B Assembler
C BASIC
D C++

3 What can be inferred about BASIC?

A It is used in Assembler.
B It is used less frequently than C++.
C It cannot be used by compilers.
D It is the most difficult to learn.

Vocabulary

3 Write a word that is similar in meaning to the underlined part.

1 He's writing a new <u>language that computers can process</u>.
c _ _ _ _ _ _ r _ _ _ _ u _ _ _

2 <u>An object-oriented programming language</u> is used often.
_ _ v _

3 I'd use <u>a programming language that translates between programs</u>. _ s s _ _ _ _ _ _

4 Many of the first PCs used <u>an early programming language that is not widely used anymore</u>.
_ _ S _ C

5 Harold often used <u>a competitor to Java</u> instead of Java. _ _

6 Do you know <u>a programming language that adds capabilities to C</u>? _ _ +

7 Linux® is created with <u>a programming language that programs operating systems</u>. _

8 The <u>central processing unit</u> is a computer's most important part. _ P _

9 A <u>computer part that changes source code into machine code</u> is essential to programming. _ _ _ _ _ _ e r

4 Check (✓) the sentence that uses the underlined parts correctly.

1 ___ **A** Linkers allow programmers to control computers.
___ **B** CPU was the first programming language.

2 ___ **A** A new Java can make your computer run faster.
___ **B** Machine code makes programming possible.

3 ___ **A** Added memory allows computers to multi-thread.
___ **B** I'm learning compiler, a new programming language.

5 Listen and read the letter from the head of a computer programming department to her boss. Why will a few of the old computers need their linkers and compilers updated?

Listening

6 Listen to a conversation between a programmer and her manager. Mark the following statements as true (T) or false (F).

1 ___ The manager intends to hire more programmers.
2 ___ The woman is going to learn Assembler.
3 ___ The manager denied the request to upgrade the CPUs.

7 Listen again and complete the conversation.

Programmer: Well, without someone who knows Assembler we can't efficiently **1** _____ _____ _____.

Manager: I know, but I think the best way to address that problem is to have you trained in it.

Programmer: I'm up for that. But I'm worried that I'll get behind on the **2** _____ programs I'm writing.

Manager: We can shift some of your workload to other **3** _____, then.

Programmer: Okay. What do you think about our **4** _____ _____?

Manager: How pressing would you say those needs are?

Programmer: If we had some updated CPUs, we could finish our projects in a **5** _____ _____ _____ _____.

Manager: All right. Let me **6** _____ _____ _____ at the budget and see what I can do.

Speaking

8 With a partner, act out the roles below based on Task 7. Then switch roles.

USE LANGUAGE SUCH AS:

I don't think we can afford more programmers.
What do you think about our CPU needs?
How pressing would you say those needs are?

Student A: You are talking to a programmer. Ask Student B about:

- department's needs
- importance of needs
- possible solutions

Student B: You are a programming employee. Answer Student A's questions.

Writing

9 Use the conversation from task 8 to write an email to your manager to ask for updated resources. Create names for the employee and his/her manager.

To: _____
From: _____
Subject: _____

Dear _____

_____

_____

_____

Thanks,

_____

3 ISPs and Internet access



Dear Mindeye Customer,

Last week, Websurf Internet purchased Mindeye Communications. Starting next month we will be your **ISP**.

This new relationship has many benefits. First, you receive a free download of our exclusive VirusWatch 9.0 **antivirus software** to protect your computer. We're also building all-new **T-3** lines to accommodate the new customers. This means greater bandwidth for **broadband** and **T-1** users.

Unfortunately, we're discontinuing **dial-up** service. But we are **upgrading** to **DSL**. Turn in your old **modem** to us to receive a new DSL modem free of charge.

You also receive our award-winning technical support. We'll help you set up your **wireless router** to bring **Wi-Fi** to your household. We can even help recover your password if you forget.

You'll also have access to WebSurf **hotspots**. You can find them at selected airports, restaurants and coffee shops. All you need is a valid WebSurf account.

We look forward to providing you with the world's best Internet service.

Sincerely,
Gina Matson
Customer Relations,
Websurf Internet

Get ready!

1 Before you read the passage, talk about these questions.

1 How do people access the Internet?

2 What type of Internet connection is best for businesses?

Reading

2 Read the notification from an Internet service provider. Then, choose the correct answers.

1 What is this notice about?

A Mindeye's plan to buy WebSurf
B what WebSurf offers to new customers
C WebSpot offering free wireless routers
D troubleshooting Internet access issues

2 Which service does WebSurf NOT offer?

A tech support
B dial-up Internet
C hotspot access
D broadband Internet access

3 What can you infer from the notice?

A Anyone can use WebSurf hotspots.
B More people use T-1 than broadband.
C WebSurf expects to retain Mindeye customers.
D Mindeye offers its customers more services.

Vocabulary

3 Match the words (1-5) with the definitions (A-E).

1 __ T-1
2 __ Wi-Fi
3 __ dial-up
4 __ modem
5 __ broadband

A an Internet connection using wireless signals
B an Internet connection using regular phone lines
C a device that sends information over phone lines
D lines that allow many users to connect to the Internet
E a system allowing the transfer of large amounts of data

4 **Fill in the blanks with the correct words and phrases from the word bank.**

WORD BANK

antivirus software hotspot ISP upgrade
wireless router DSL T-3

1 This coffee shop has a(n) _____ so customers can go online.
2 A _____ connection only requires a phone line to work.
3 Contact your _____ to get in touch with tech support.
4 _____ my service because I need more bandwidth.
5 Using _____ protects your computer.
6 You need a(n) _____ to get a Wi-Fi network.
7 The new _____ lines offer greater bandwidth

5 **Listen and read the notification from an Internet Service provider again. What service will Websurf Internet put an end to?**

Listening

6 **Listen to a conversation between a customer and a WebSurf customer representative. Mark the following statements as true (T) or false (F).**

1 __ The customer plans to cancel his service.
2 __ The new T-3 lines will increase bandwidth.
3 __ Customers must pay extra for services like tech support.

7 **Listen again and complete the conversation.**

Customer: Just **1** _____ Internet.
Representative: Oh, that's it then. We're in the process of installing new **2** _____ lines.
Customer: But how does that affect my billing?
Representative: T-3 lines are expensive, so we've increased rates. But it allows for greater **3** _____ .
Customer: I'm not sure that justifies the price hike.
Representative: Well, it also supports other WebSurf benefits. Live **4** _____ _____, for instance.
Customer: I guess I have used that a few times already.
Representative: You also get free **5** _____ _____ . And you can log into any of our **6** _____ at no additional charge.

Speaking

8 **With a partner, act out the roles below based on Task 7. Then, switch roles.**

USE LANGUAGE SUCH AS:

What service do you have?
It allows for greater bandwidth.
You can log into hotspots.

Student A: You are calling customer service. Ask Student A about:

- a bill increase
- causes
- benefits

Student B: You work in customer service. Answer Student B's questions.

Writing

9 **Use the conversation from Task 8 to fill in the customer survey.**

Websurf.

Dear Customer,

Thank you for calling WebSurf customer service! In order to help improve the quality of our service, we'd like to ask you a few questions.

What was your call concerning?

_____
_____
_____

Was our Customer Rep able to help you with your problem? How?

_____
_____
_____
_____

4 Storage devices

Get ready!

1 Before you read the passage, talk about these questions.

1 Which types of storage devices do people use?

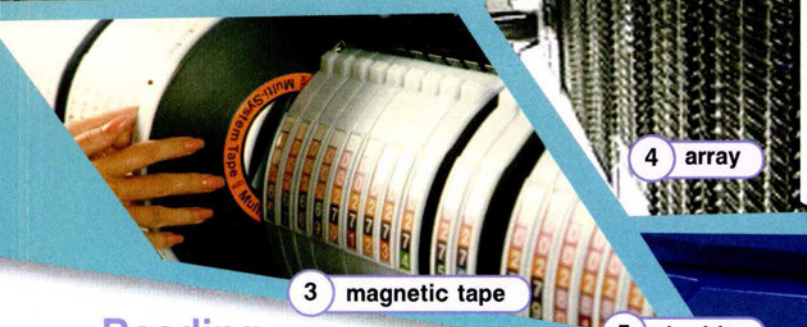
2 What do people use USB flash drives for?



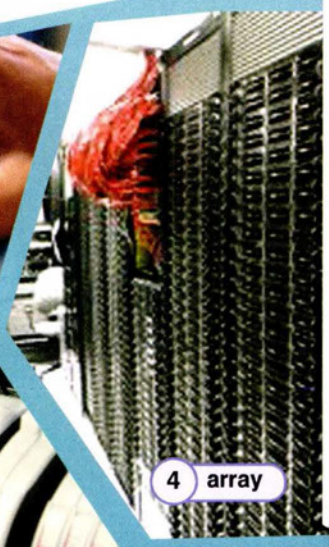
1 USB flash drive



2 CD-R



3 magnetic tape



4 array



5 zip drive



6 floppy disk

Suggestion Form

GENE Tech Systems

Name: Harold Gibbons
Department: IT **Suggestion:**

The IT department is in desperate need of new storage devices. To begin, we need a group of har drives arranged in an **array.** That means we'll also need **RAID** software. Just last week, an engineer lost months of data in a drive **failure**. An array will help us avoid such costly losses in the future.

Furthermore, many employees are still using outdated devices like **CD-Rs, CD-RWs** and **floppy disks** to transfer files. Providing each engineer with at least a **USB flash drive** and a **zip drive** would be much more efficient. Some employees do use their own drives. But state-of-the-art storage devices should be provided by the company.

Finally, GenTech Systems would do well to upgrad the main data backup. We are still using **magnetic tape**. Even using **data compression**, the **memory storage density** of magnetic tape can't compare to modern technology. A 2TB **SATA** drive could store more data at a fraction of the cost.

Reading

2 Read the suggestion form sent from an employee in the IT department to his manager. Then, choose the correct answers.

1 What is the main idea of the form?

- **A** a request for new equipment
- **B** suggestions on improving efficiency
- **C** where to place new storage devices
- **D** how to speed up file transfers

2 Which drive stores more data than magnetic tape?

- **A** zip drive
- **B** RAID
- **C** SATA
- **D** USB flash drive

3 It can be inferred the USB flash drives are...

- **A** less reliable than magnetic tape.
- **B** more efficient than floppy disks.
- **C** more expensive than zip drives.
- **D** less efficient than SATA drives.

Vocabulary

3 Fill in the blanks with the correct words and phrases from the word bank.

WORD BANK

array memory storage density CD-R
zip drive data compression CD-RW
RAID

1 Set up a(n) _____ to combine drives.

2 The old drive has low _____ and holds little data.

3 A(n) _____ can only be written on once.

4 A(n) _____ uses removable disks to transfer data.

5 Without _____, no more data will fit on that drive.

6 A(n) _____ can be written again and again.

7 _____ software improves hard drive performance.

4 Check (✓) the sentence that uses the underlined parts correctly.

1 ___ **A** Save the file on the USB flash drive.
___ **B** Arrays are made from a series of floppy disks.

2 ___ **A** SATA drives are used to increase processing speeds.
___ **B** A drive failure means the data disk drive is inaccessible.

3 ___ **A** RAID arrays are made of magnetic tape.
___ **B** Floppy disks are an older technology.

5 Listen and read the suggestion form sent from an employee in the IT department to his manager again. What do GENETech Systems use to back up their main data?

Listening

6 Listen to a conversation between an IT employee and his manager. Mark the following statements as true (T) or false (F).

1 ___ The company will purchase an array.
2 ___ All of the requests were approved.
3 ___ Management thinks a new main data backup device is too expensive.

7 Listen again and complete the conversation.

Manager: Management didn't like hearing about the **1** _____ _____, so we're getting the array.

Employee: Yes, that was pretty bad. What about some of the **2** _____ _____?

Manager: They weren't approved. It just seemed too expensive.

Employee: **3** _____ _____, but I guess you've got to save money somehow. How about the main data backup?

Manager: We're interested in the savings you mentioned. Could you **4** _____ _____ _____ a more **5** _____ _____?

Employee: Absolutely. When would you like that?

Manager: **6** _____ _____ _____ _____.

Speaking

8 With a partner, act out the roles below based on Task 7. Then, switch roles.

USE LANGUAGE SUCH AS:

A few of the requests you sent in ....
What about some of the...?
What about the main data backup?

Student A: You are talking to your manager. Ask Student B about:

- approved requests
- unapproved requests
- writing a proposal

Student B: You are the manager. Answer Student A's questions. Make up a name for your subordinate.

Writing

9 You are an employee in IT. Use the conversation from task 8 to write a memo to your co-workers telling them which types of new equipment were approved for purchase and why.

GENETech Systems

Memorandum

From: _____

To: _____

5 Peripherals



Compumart Blowout Sale Weekend!

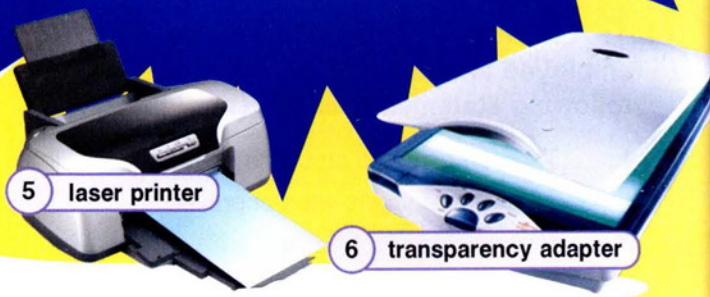
This weekend Compumart is cutting prices on hardware to make room for new models.

We have **digital cameras** for both the casual shooter and the professional. With **CCDs,** our cameras take pictures up to 14 **megapixels**, 30x **optical zoom** and 5x **digital zoom**. All sale cameras feature **flash memory**–you can connect to any computer to print out your best snapshots.

We have low prices on both **inkjet printers** and **laser printers**. Our high-end models have **calibration** settings for professional-grade photo prints. Some of our models are all-in-one packages that include scanning and fax.

We're also selling stand-alone scanners. Scan photos and documents at resolutions of up to 4800 **DPI.** Don't forget a **transparency adapter** for scanning slides. Scanning multiple documents? Pick up an **automatic document feeder** and let the machine do the work for you.

Compumart is staying open late all weekend, just for you. Arrive early to get the hardware you need.



Get ready!

1 Before you read the passage, talk about these questions.

1 How has digital technology changed photography and printing?

2 What types of businesses use scanners, printers and digital cameras?

Reading

2 Read the computer store advertisement. Then, choose the correct answers.

1 What is the advertisement about?

- **A** a new advancement in printer technology
- **B** reduced prices on older hardware models
- **C** Compumart's "going out of business" sale
- **D** accessories for cameras and printers

2 What is NOT true about Compumart's sale?

- **A** They plan to stock up on new models.
- **B** They are cutting prices on software.
- **C** They sell accessories for their scanners.
- **D** They have changed their hours for the sale.

3 What can you infer from the advertisement?

- **A** All new models are on sale.
- **B** Not every digital camera allows flash memory.
- **C** Compumart has scanners that come with auto feeders.
- **D** Some printers cannot create professional grade prints.

Vocabulary

3 Match the words (1-9) with the definitions (A-I).

1 __ DPI
2 __ transparency adapter
3 __ calibration
4 __ automatic document feeder
5 __ inkjet printer
6 __ digital camera
7 __ flash memory
8 __ megapixel
9 __ laser printer

- **A** a device that scans see-through objects
- **B** a device that uses a beam of light to create an image
- **C** a device that uses ink to create an image
- **D** the number of dots used to create an image
- **E** a device used to store pictures on cameras
- **F** a measurement of image size
- **G** the adjustment of devices to correctly display colors
- **H** a device that records images for the computer
- **I** a device that loads papers to be scanned

4 Fill in the blanks with the correct words from the word bank.

WORD BANK

optical zoom CCD digital zoom

1 Using _____ blurs a photo's detail.
2 A thicker lens will increase your camera's _____.
3 Digital cameras need a(n) _____ to capture an image.

5 Listen and read the computer store advertisement again. What do the all-in-one packages for printers incorporate?

Listening

6 Listen to a conversation between a salesman and a photographer. Choose the correct answers.

1 What does the woman want to do?
- **A** return her inkjet printer
- **B** exchange her SuperShot 350
- **C** buy more professional equipment
- **D** research inkjet and a laser printers

2 What can you infer about the woman?
- **A** Her last inkjet printer broke.
- **B** She is buying her first digital camera.
- **C** She plans on selling her old equipment.
- **D** She wants to improve the quality of her work.

7 Listen again and complete the conversation.

S: May I recommend the SuperShot 350? It has 15 times **1** _____ _____ and two times digital zoom.
P: That's pretty much what I have now. I'm looking for something a bit **2** _____ _____.
S: Okay ... how about the SnapPro series? This one has 30 times optical zoom and 5 times digital.
P: How many **3** _____ does it have?
S: Fifteen, which gives you incredible detail.
P: That **4** _____ _____. Now, I'd also like to start printing my own pictures.
S: Well, we have some great deals on inkjet and **5** _____ _____.
P: I'm leaning towards a laser printer. Inkjets just can't print as well.
S: Okay, the PrintBeam EX is a two-in-one laser printer and scanner. It prints at 2400 **6** _____.

Speaking

8 With a partner, act out the roles below based on Task 7. Then, switch roles.

USE LANGUAGE SUCH AS:

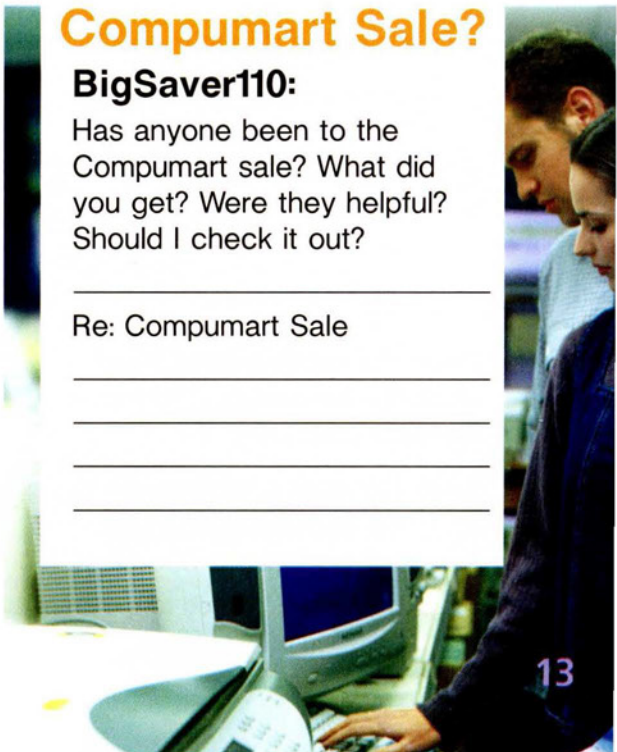
May I recommend the ...
This one has ...
I'd also like to start ...

Student A: You are salesman. Talk to Student B about:
- what he or she needs
- desired specifications

Student B: You are a customer. Choose a product you need and answer Student A's questions.

Writing

9 Use the conversation from Task 8 to fill in the customer's review on a discussion board. Talk about what item you bought, the specifications of the item, and what you will use it for.



Compumart Sale?

BigSaver110:

Has anyone been to the Compumart sale? What did you get? Were they helpful? Should I check it out?

_____

Re: Compumart Sale

_____

_____

_____

_____

6 MP3 Players



Georgia Electronics Announces Immediate Recall of Digital Media Players

Georgia Electronics is recalling its Model X.1 **MP3** players. An error occurs as the players attempt to **decode AAC** files. When **playlists** containing AAC files are opened, the **bitrate** on all files slows down. Players will eventually **freeze** in these situations.

This issue also affects the Model X.2 player, but a recall is not necessary. Georgia Electronics has created a **driver** to correct the problem in Model X.2 players. This driver may be downloaded free of charge from the company's website. It must then be **uploaded** to the MP3 player through the included **dock**. The driver requires less than one **gigabyte** of **capacity** on the MP3 player's hard drive.

Unfortunately, Model X.1 players will not accept new drivers and therefore cannot be fixed. Georgia Electronics will refund the full price that consumers paid for the Model X.1. Visit www.georgiaelec.com for details and downloads.

Get ready!

1 Before you read the passage, talk about these questions.

1 What do you use an MP3 player for?

2 Have you ever had an MP3 player freeze?

Reading

2 Read the recall notice. Then, mark the following statements as true (T) or false (F).

1 ___ The recall is for Model X.1.

2 ___ The driver will take up less than one gigabyte of capacity.

3 ___ The issue is related to the decoding of MP3 files.

Vocabulary

3 Match the words (1-9) with the definitions (A-I).

1	___ digital	4	___ gigabyte	7	___ playlist
2	___ AAC	5	___ decode	8	___ dock
3	___ capacity	6	___ MP3	9	___ bitrate

A a file format that is higher quality than MP3s

B a list of songs chosen by a user

C a device for connecting an MP3 player to a computer

D the amount of room available on a storage device

E a unit of memory

F the standard format for encoding sound files

G a measurement of the amount of data processed per second

H to change a file back to its original form

I storing information in a series of ones and zeros

4 Fill in the blanks with the correct words from the word bank.

WORD BANK

upload freeze driver

1 Did you _____ the file yet?

2 Computers _____ when too many programs are open.

3 You must install a(n) _____ with all new hardware.

5 Listen and read the recall notice again. Why isn't the Model X.2 player being recalled?

Listening

6 Listen to a conversation between a consumer and a company representative. Choose the correct answers.

1 What are the speakers mostly talking about?

A why AAC files are causing problems

B where a consumer can buy a driver

C how to solve a consumer's problem

D which model a consumer owns

2 How did the customer try to fix the MP3 player?

A install a new driver

B restart the player

C upload a new playlist

D remove the AAC files

7 Listen again and complete the conversation.

C: Well, I've **1** _____ _____ _____ with my MP3 player.

R: Yes, we're **2** _____ _____ _____ on some models. Which model do you have?

C: I have the X.2.

R: All right. Tell me about the problem you're having.

C: At first, the sound quality started getting worse. Then it **3** _____ _____ on me. I thought restarting it would fix it, but nothing works.

R: Okay, that's a problem caused by **4** _____ files. Luckily, we have a driver to fix that.

C: Oh good. How do I get it?

R: Just download it from our website and **5** _____ it to your player.

Speaking

8 With a partner, act out the roles below based on Task 7. Then, switch roles.

USE LANGUAGE SUCH AS:

I've got a problem with my ...

Which model do you have?

Tell me about the problem you're having.

Student A: You are a company representative. Talk to Student B about:

- a recall
- model
- problems

Student B: You are calling to get help with your MP3 player. Answer Student A's questions.

Writing

9 You are a customer experiencing problems with your MP3 player. Use the conversation from task 8 to write a letter to the company telling them about your problems. Make up a name for the customer.

Dear Sir or Madam,

_____

_____

_____

_____

_____

_____

_____

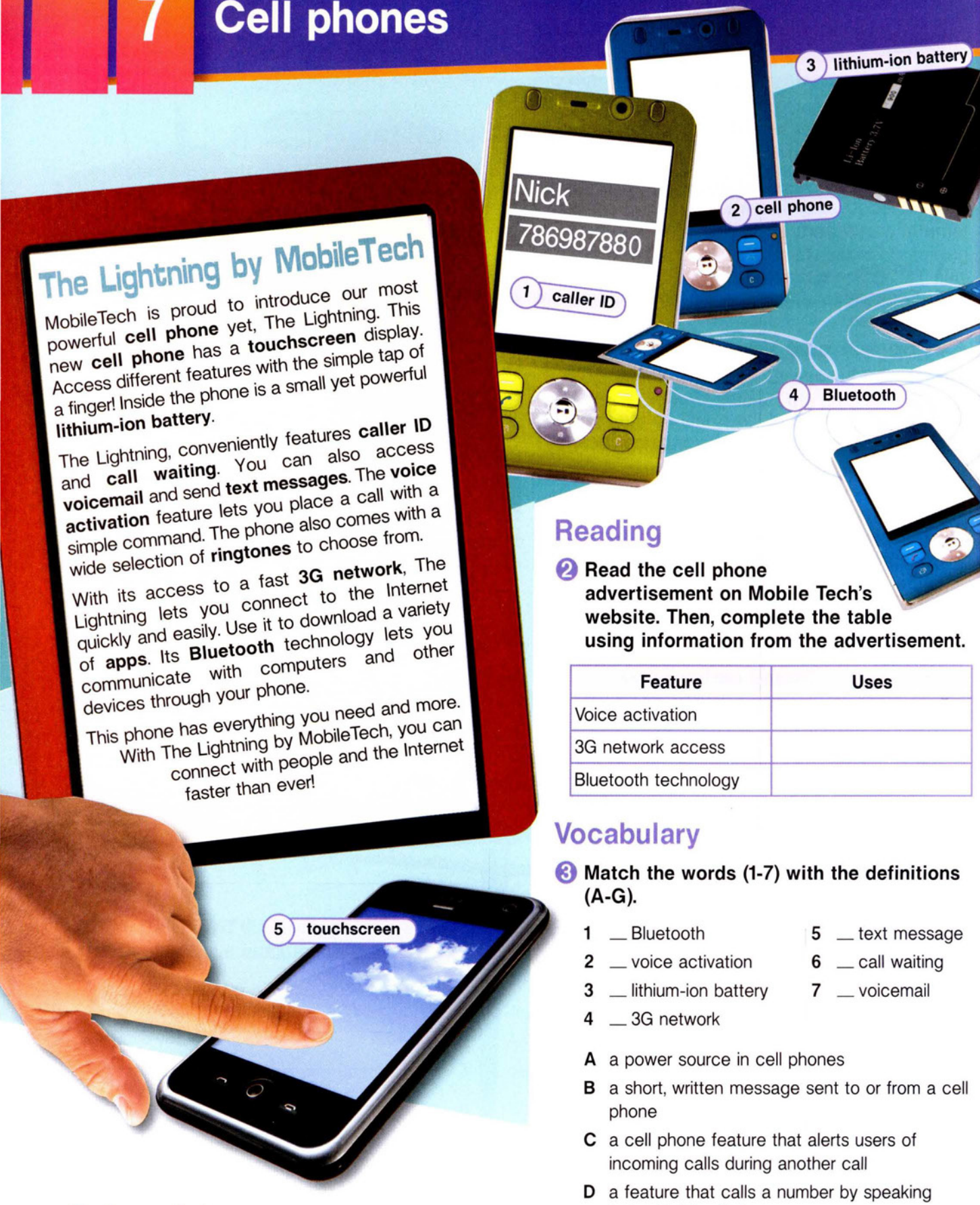
_____

Sincerely,

_____

_____

7 Cell phones



The Lightning by MobileTech

MobileTech is proud to introduce our most powerful **cell phone** yet, The Lightning. This new **cell phone** has a **touchscreen** display. Access different features with the simple tap of a finger! Inside the phone is a small yet powerful **lithium-ion battery**.

The Lightning, conveniently features **caller ID** and **call waiting**. You can also access **voicemail** and send **text messages**. The **voice activation** feature lets you place a call with a simple command. The phone also comes with a wide selection of **ringtones** to choose from.

With its access to a fast **3G network**, The Lightning lets you connect to the Internet quickly and easily. Use it to download a variety of **apps**. Its **Bluetooth** technology lets you communicate with computers and other devices through your phone.

This phone has everything you need and more. With The Lightning by MobileTech, you can connect with people and the Internet faster than ever!

Get ready!

1 Before you read the passage, talk about these questions.

1 How have cell phones changed business?
2 What kind of features do cell phones have?

Reading

2 Read the cell phone advertisement on Mobile Tech's website. Then, complete the table using information from the advertisement.

Feature	Uses
Voice activation	
3G network access	
Bluetooth technology	

Vocabulary

3 Match the words (1-7) with the definitions (A-G).

1 __ Bluetooth
2 __ voice activation
3 __ lithium-ion battery
4 __ 3G network
5 __ text message
6 __ call waiting
7 __ voicemail

A a power source in cell phones
B a short, written message sent to or from a cell phone
C a cell phone feature that alerts users of incoming calls during another call
D a feature that calls a number by speaking instead of by dialing
E a feature that lets you leave or listen to an electronic message
F a wireless network that connects a phone with other devices
G a wireless network that sends and receives data

4 Write a word that is similar in meaning to the underlined part.

1 Tap on the thing that you touch to access its features. t _ _ c _ s _ _ e _ _
2 Listen to this sound or song that signals a call. _ _ n _ t _ _ e
3 I bought a new wireless communication device. c _ l _ _ h _ _ e
4 Check out my new cell phone application. _ p _
5 I have a feature that tells you the name and number of the person calling. c _ _ _ e _ I _

5 Listen and read the cell phone advertisement on MobileTech's website again. How would you access the different features on The Lightning cell phone?

Listening

6 Listen to a conversation between two employees. Mark the following statements as true (T) or false (F).

1 __ The app stores a list of clients in an address book.
2 __ The app does not show clients' purchases.
3 __ The caller ID lets you track a shipment while on the phone.

7 Listen again and complete the conversation.

Employee 1: Hey, Amy. I think I know **1** _____ _____ your tracking problem.
Employee 2: Really? How?
Employee 1: It's a new **2** _____. It helps me keep track of clients and their purchases.
Employee 2: How does it do that?
Employee 1: Well, it lets me keep a list of all my clients in an address book.
Employee 2: How's that different from the **3** _____ on my phone?
Employee 1: This one lets me view any client's **4** _____ _____.
Employee 2: That's helpful. How does it work?
Employee 1: I just tap the name on the **5** _____, and it says that our client Mr. Smith purchased fifty boxes of paper yesterday.

Speaking

8 With a partner, act out the roles below based on Task 7. Then, switch roles.

USE LANGUAGE SUCH AS:

I think I know how to solve your ... problem.
It's a new app.
I just tap the clients name on the touchscreen.

Student A: You have a useful new app. Explain it to Student B. Make up a name for your co-worker.

Student B: Ask Student A questions about:

- what the app does
- how it differs from an address book
- how to use the app

Writing

9 Use the conversation from Task 8 to write a description of a new app.

New App

Description of App:

Potential Uses:

8 Communications

Get ready!

1 Before you read the passage, talk about these questions.

1 How many ways can businesses communicate with each other?

2 What are the benefits of different kinds of electronic communication?



Reading

2 Read the instant message conversation between a client and supplier. Then, choose the correct answers.

ClarkAndrews00: Hello, Sandy. Are you there?
SandyHammond: Hi, Clark. What can I do for you?
ClarkAndrews00: Sorry to contact you with an **instant message**. But **email** doesn't seem to be working right now. I never got a confirmation on the message I sent last week.
SandyHammond: We never received that. Did you send it with an **attachment**?
ClarkAndrews00: Yes, I attached my order receipt.
SandyHammond: It must have ended up in my **spam** folder. I apologize for the confusion.
ClarkAndrews00: It's okay. What is the status of my shipment?
SandyHammond: Unfortunately, we're having technical difficulty **scanning** the product **EPC**s. However, we have **UPC** products ready to ship immediately.
ClarkAndrews00: Those will be fine. We have equipment that can read **barcodes**.
SandyHammond: Do you have a **PDA** or a **smartphone**? We could update you via email.
ClarkAndrews00: I have a cell phone, but my **data plan** doesn't support email. Voicemail or text messages will work.
SandyHammond: I'll **text** you then. What's the number?
ClarkAndrews00: 555-9854. Thanks.

1 What is ClarkAndrews00 sending an instant message about?

- **A** He wants to find the out status of his shipment.
- **B** He received UPC products instead of EPCs.
- **C** He is getting files sent to his spam folder.
- **D** He wants to order equipment that can read barcodes.

2 Why did Clark's email end up in Sandy's spam folder?

- **A** Sandy's email does not work.
- **B** He sent it to her smartphone.
- **C** The email had an attachment.
- **D** He sent it from his cell phone.

3 What can you infer from the conversation?

- **A** Sandy does not like texting clients.
- **B** Clark plans on buying a smartphone.
- **C** Clark is not familiar with technology.
- **D** Sandy has a cell phone that can send texts.

Vocabulary



3 Match the words (1-8) with the definitions (A-H).

1 __ attachment
2 __ scan
3 __ spam
4. __ EPC
5 __ text
6 __ UPC
7 __ smartphone
8 __ instant messaging

- **A** to send a message from a cell phone
- **B** a real-time text conversation
- **C** a code that identifies individual items
- **D** a code that identifies types of items
- **E** to read a barcode
- **F** a device with PDA capabilities
- **G** unwanted email
- **H** a file sent with an email.

4 Fill in the blanks with the correct words from the word bank.

WORD BANK

barcode data plan email PDA

1 All of Joe's contacts are saved on his _____.
2 To track the package you must scan its _____.
3 A(n) _____ allows users to browse the Internet on smartphones.
4 Please send a(n) _____ with the receipt attached.

5 Listen and read the instant messaging conversation between a client and supplier again. How will the supplier update the client?

Listening

6 Listen to a conversation between a service representative and a manager. Mark the following statements as true (T) or false (F).

1 __ The woman was communicating via instant messaging.
2 __ The man insists on taking care of the situation himself.
3 __ The man cannot receive emails with attachments.

7 Listen again and complete the conversation.

Representative: Hi Robert. I just got done talking with Clark Andrews via **1** _____ _____.
Manager: Did you explain the problem scanning the **2** _____?
Representative: Yes. He said it was okay to just send products with UPCs.
Manager: **3** _____ _____ _____. He's an important client.
Representative: I said we'd update him with **4** _____ _____ as things progress.
Manager: Well, I need to talk to people who handle our EPCs. Can you make sure his order gets taken care of?
Representative: Sure. I'll tell shipping to scan it this morning.
Manager: Text him when it's **5** _____ and again when it ships.

Speaking

8 With a partner, act out the roles below based on Task 7. Then, switch roles.

USE LANGUAGE SUCH AS:

I just got done talking via instant messaging.
Update him with text messages as things progress.
Text him when it's scanned.

Student A: You are a service representative. Talk to Student B about:

- communication with a client
- how you can solve the client's problem

Make up names for your client and manager.

Student B: You are a manager. Listen to Student A and offer solutions.

Writing

9 Use the instant messaging conversation and the conversation from Task 8 to fill in the service representative's email to the shipping department.

From: _____

To: Shipping Department

Subject: _____

My manager gave me instructions about:

_____

_____

_____

_____

_____

_____

_____

9 Entertainment and social networking

To: **Employees at Galaxy Advertising**
Subject: **Gaming/Social Networking Markets**

Gaming and **social networking** sites offer exciting markets for advertising the new line of Centro computers. Their popularity ensures that many people will view the ads. When people talk together online, we want them to see and discuss the new Centro.

A **social networking** site lets us create a **profile** and **handle** related to the new computer. We will update people about it in **posts** that appear in our news **feed**. We could also have a **link** to a **blog** with information about the Centro. People will be able to discuss the computer in a **forum** that we set up.

Gaming sites are another market we should use. Most **Massively multiplayer online role-playing games (MMORPG)** feature **virtual worlds**. These worlds allow us to create billboards that advertise our new computers. We can also create **avatars** relating to the Centro that people can interact with.

These sites present unique opportunities for marketing. Please take advantage of them when advertising the new Centro computers.



Get ready!

1 Before you read the passage, talk about these questions.

1 How can social networking sites help businesses?

2 Why do people use social networking or gaming sites?

Reading

2 Read the memo sent to employees at an advertising firm. Then, mark the following statements as true (T) or false (F).

1 __ Updates will appear in posts on the news feed.

2 __ Billboards in a virtual world can feature ads.

3 __ The firm created a link to a gaming site with product information.

Vocabulary

3 Choose the word that is closest in meaning to the underlined part.

1 Jack created an <u>image in a computer game that represents a person</u>.
A MMORPG **B** link **C** avatar

2 Put your email on your <u>webpage with personal or identifying information</u>.
A profile **B** forum **C** link

3 Click on that <u>word or set of words on a website or document</u>.
A feed **B** link **C** virtual world

4 Create a <u>name that a person uses to access an account</u>.
A handle **B** forum **C** blog

5 Ask someone on the <u>website where people can discuss topics</u>.
A virtual world **B** post **C** forum

6 New games create an <u>online environment</u>.
A avatar **B** virtual world **C** link

7 Read this <u>website with posts about personal activities and interests</u>.
A handle **B** blog **C** feed

8 Please leave a <u>message on a website</u>.
A post **B** MMORPG **C** handle

4 **Fill in the blanks with the correct words from the word bank.**

WORD BANK

gaming MMORPG feed social networking

1 Shadow of Doubt is a(n) _____ with many players.
2 This _____ site helps you meet other professionals.
3 I receive updates about products through a news _____ .
4 Sarah enjoys _____ and spends all her money on games.

5 **Listen and read the memo sent to employees at an advertising firm again. Where will bloggers be able to chat about Centro computers?**

Listening

6 **Listen to a conversation between two employees at Galaxy Advertising. Mark the following statements as true (T) or false (F).**

1 __ Angela plans to advertise the computer on a gaming site.
2 __ Angela put up a post informing customers of new software.
3 __ There have been no customer complaints on the forum.

7 **Listen again and complete the conversation.**

Employee 1: 1 _____ _____ the profile?
Employee 2: There's a brief description of the computer and its features. And we'll be **2** _____ _____ regular posts on a **3** _____ _____ .
Employee1: What are the posts for?
Employee 2: They update customers on the latest Centro news. **4** _____ _____, this post informs customers of new software that's available for the computer.
Employee1: Great! Anything else?
Employee 2: We've got a **5** _____ for people to discuss the Centro.
Employee1: What's the feedback from customers been like?
Employee 2: There have been several **6** _____ about the price. But overall the responses are very positive.

Speaking

8 **With a partner, act out the roles below based on Task 7. Then, switch roles.**

USE LANGUAGE SUCH AS:

What kind of information is on the profile?

What are the posts for?

There have been several complaints ...

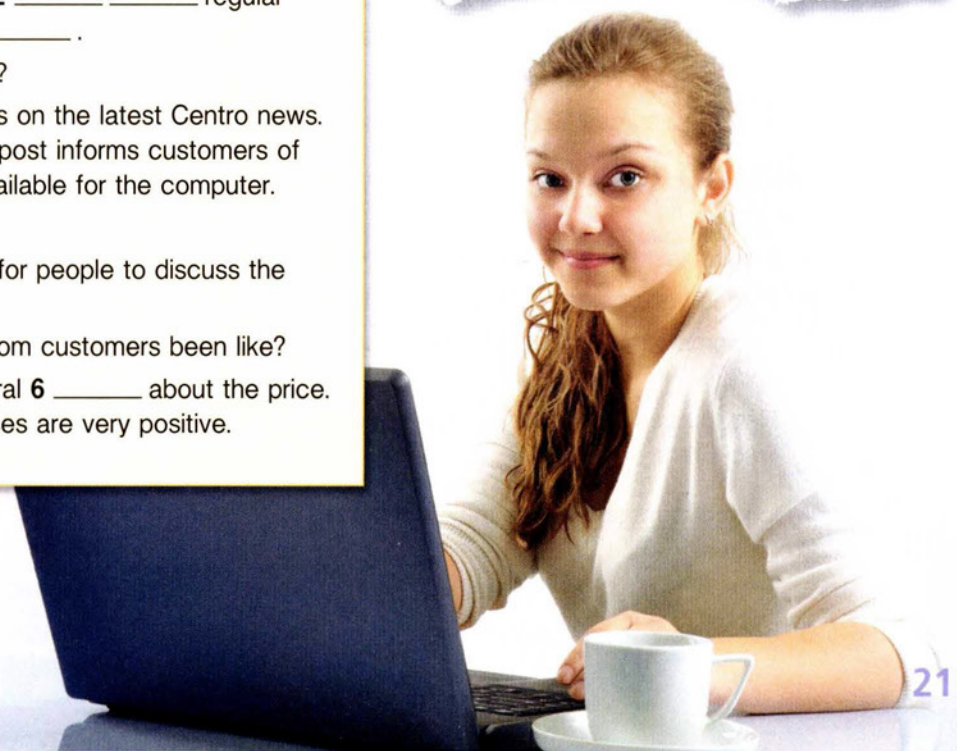
Student A: You want to check on an advertising campaign. Ask Student B about:

- information on the profile
- customer feedback

Student B: You are creating an advertising campaign. Answer Student A's questions.

Writing

9 **ICT** **Collect information about a new computer and create a profile. You can visit this website: *http://www.interviews.co.uk***



10 GPS systems

MapSources offers **GPS** products for all your **navigation** needs. Fast **acquisition time** means you won't wait to find out your **position**. Make your own maps with **cartography** modes.

Our most affordable unit, the MapSources Traveler is designed to meet the needs of every traveler. You'll never get lost in a city again. Save your favorite locations with up to 500 **waypoints**. Know where you are with **latitude** and **longitude** readings. Download new maps for international navigation. Annual updates make sure you have the latest maps.

The MapSources Pro series has the highest **accuracy** and **integrity**. Rescue teams and civilian pilots who need accurate readings in any conditions can depend on MapSources Pro. The Pro series works at almost any elevation.

We don't just help with navigation. Keep track of what's important with the TrackStar series. This product shows the **coordinates** of your goods, your car or even your pets.

MapSources: Get Lost, but Don't Stay Lost.

Get ready!

1 Before you read the passage, talk about these questions.

1 Why do people use GPS?

2 How can GPS aid businesses?



Reading

2 Read the advertisement about GPS products. Then, choose the correct answers.

1 What is the advertisement about?

A how Mapsources GPS products work
B different GPS that MapSources sells
C MapSources' GPS repair program
D why MapSources GPS is easy to use

2 What can you infer about the MapSources Traveler?

A It costs less than the MapSources Pro.
B It does not include a cartography mode.
C Customers must purchase the annual updates.
D MapSources sells more Travelers than TrackStars.

3 Which group most requires the MapSources Pro series?

A pilots
B pet owners
C merchants
D tourists

Vocabulary

3 Match the words (1-7) with the definitions (A-G).

1 __ cartography
2 __ latitude
3 __ integrity
4 __ longitude
5 __ elevation
6 __ coordinates
7 __ accuracy

A location relative to the Equator
B height above sea level
C the ability to measure correctly
D the ability to perform without breaking or er
E location expressed by numbers
F the practice of mapmaking
G location relative to the Prime Meridian

4 Fill in the blanks with the correct words and phrases from the word bank.

WORD BANK

acquisition time waypoints
position GPS navigation

1 Save locations you go to often as GPS _____.
2 The TrackStar Plus gives readings of my dog's _____.
3 GPS provides reliable _____ on a road trip.
4 Jared always uses a(n) _____ to find his way around town.
5 This device's high _____ means we won't wait for a reading.

5 Listen and read the advertisement about GPS products again. What term is used to describe the activity of making maps?

Listening

6 Listen to a conversation between a customer and a Customer Service Rep. Mark the following statements as true (F) or false (F).

1 __ The customer has problems with his company's GPS.
2 __ The customer needs waypoints in his GPS.
3 __ The representative recommends the MapSources Traveler Elite.

7 Listen again and complete the conversation.

Representative: Yes, those are our most powerful products. What kind of company is it?
Customer: It's a cab service. I want to equip my drivers with the best **1** _____ _____.
Representative: The Pro series is actually **2** _____ _____ civilian airplanes and more high-risk situations. It's probably more than you need.
Customer: What product would you recommend, then?
Representative: The MapSources Traveler Elite is our most **3** _____ consumer GPS.
Customer: My drivers have to remember a lot of locations. Does it record **4** _____?
Representative: It does. You can save up to 500 **5** _____.
Customer: Okay, I'll **6** _____ _____ _____. Thanks for your help.

Speaking

8 With a partner, act out the roles below based on Task 7. Then, switch roles.

USE LANGUAGE SUCH AS:

I'm looking into buying GPS devices for my company.
What kind of company is it?
What product would you recommend?

Student A: You are looking for a GPS system. Talk to Student B about:

- products available
- what features you want
- what model is best for you

Student B: You are a Customer Service Representative. Answer Student A's questions.

Writing

9 Use the conversation from Task 8 to fill in the customer's note. Make up a name for the customer.

Sandra,

I called MapSources today about

_____

_____

_____

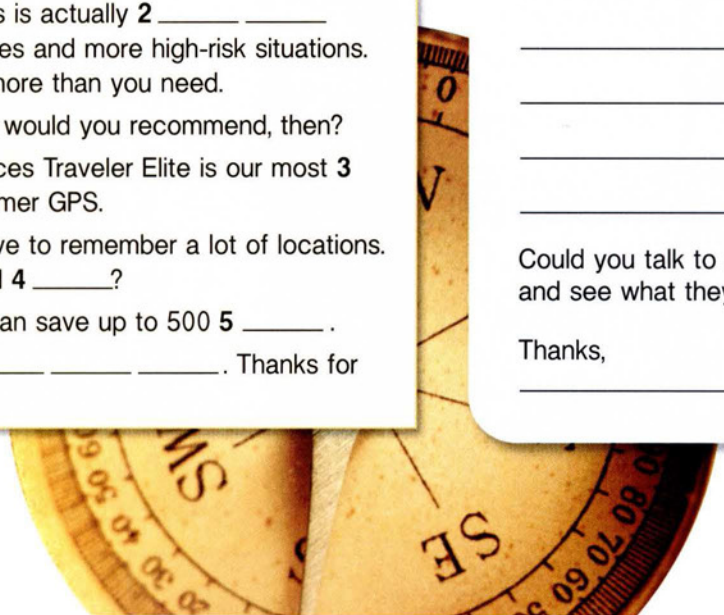
_____

_____

Could you talk to a few of the drivers and see what they think?

Thanks,

_____



11 Banking



Safe Bank
Online Services

At Safe Bank, you can organize your finances from the comfort of home with our **online banking** service. We offer a range of free services to make your life easier.

- Worried about a check clearing? Choose our **electronic statements** to monitor your **account activity**.
- Does a relative need money now? Transfer money with **electronic funds transfer** to other banks.
- Having trouble organizing bills? Enroll in our **bill pay** program and never miss another payment.

As always, your security is our top concern. Safe Bank protects you from **bank fraud** and **identity theft**. Each member gets a unique **PIN** upon opening their account. Our **site key** and **SSL** connection secure every transaction. Automatic **lockouts** occur when thieves try to guess your password. Sign up for **account alerts** to be notified of suspicious activity on your account.

Whether it's at one of our many branches or online, we hope you'll open an account with us.

Get ready!

1 Before you read the passage, talk about these questions.

1 Why is online banking useful?

2 What are the risks of online banking?

Reading

2 Read the description of online banking on a website. Then, choose the correct answers.

1 What is the passage mostly about?

A fraud protection
B how to transfer money
C the features of electronic banking
D different ways to monitor accounts

2 What comes with every Safe Bank account automatically?

A PIN
B bill pay
C site key
D account alerts

3 What can you infer about the online banking service?

A It requires a sign up fee.
B It does not offer savings accounts.
C It lets customers select their services.
D It is the only way to open an account Safe Bank.

Vocabulary

3 Choose the correct word pairs to fill the blanks.

1 Online banking offers _____ to monitor _____.

A PINs, identity theft
B account alerts, bill pay
C electronic statements, account activity

2 Online banks have a(n) _____ and a(n) _____ to secure transactions.

A SSI connection, site key
B PIN, electronic statements
C account alerts, bill pay

3 To protect members from fraud, online banks use _____ and _____.

A site keys, account activity
B lockouts, account alerts
C PINs, electronic funds transfer

4 Match the words (1-5) with the definitions (A-E).

1 __ electronic funds transfer
2 __ PIN
3 __ bill pay
4 __ bank fraud
5 __ online banking

A numbers that identify an account holder
B illegal actions to access money that is not yours
C a service that allows you to manage finances on a computer
D a way to send money to another account
E a service that sends money to people and businesses you owe money to

5 Listen and read the description of online banking on a website again. How can a customer pay their bills online?

Listening

6 Listen to a conversation between a bank teller and an account holder. Mark the following statements as true (T) or false (F).

1 __ The account holder is afraid someone else is using his money.
2 __ Before holding his account, the bank will process the account holder's bills.
3 __ The teller is a representative of the Fraud Prevention department.

7 Listen again and complete the conversation.

Teller: OK, **1** _____ _____ _____. Which withdrawal are we looking at?

Account holder: The one at the ATM in Florida on 1st February. I've never been there.

Teller: I see. I'll **2** _____ _____ _____ _____ on your account. That way no one can use your funds.

Account holder: But, I need it. My **3** _____ _____ – I've got a few payments scheduled.

Teller: No problem sir. I'll process those before placing the hold.

Account holder: **4** _____ _____ that withdrawal?

Teller: Our Fraud Prevention Department can investigate and issue a refund. Should I transfer you?

Account holder: **5** _____ _____ _____, thanks.

Speaking

8 With a partner, act out the roles below based on Task 7. Then, switch roles.

USE LANGUAGE SUCH AS:

I saw a withdrawal I didn't make.
What's your account number?
I'll put a temporary hold on your account.

Student A: Your account has been accessed by someone else. Talk to Student B about:

- refunds
- security
- account information

Student B: You are a bank teller. Answer Student A's questions. Find out about:

- account number
- concerns

Writing

9 Use the conversation from Task 8 to complete the receipt.

Safe Bank
Customer Security Concerns Form

Account number:
_____

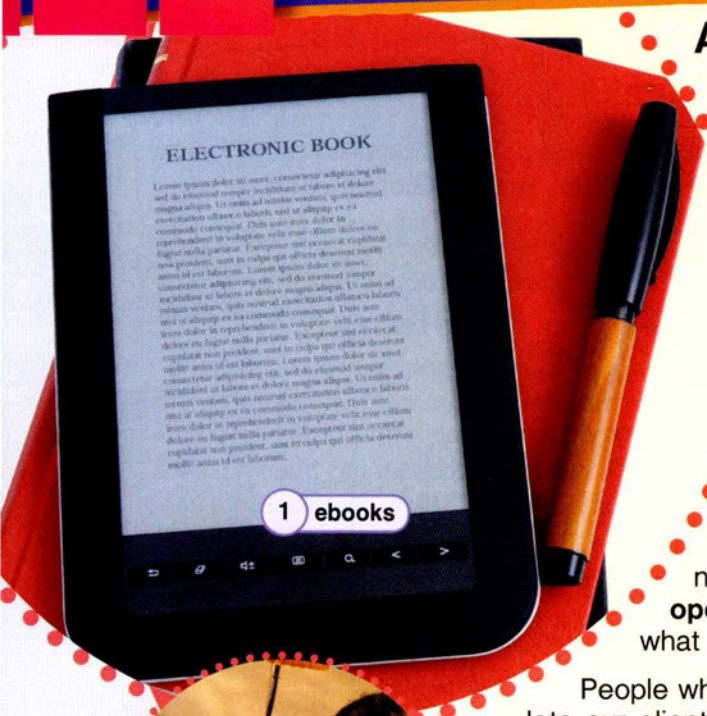
Security concern:
_____
_____

Reason for concern:
_____

Customer questions:
_____

Resolution:
_____
_____

12 Education and research



Announcing the THINK TANK on-line Library

No library holds every single book, periodical and academic journal in the world. The Internet can change that. That's why you need the ThinkTank Online Library. With ThinkTank, your library could access millions of online resources.

Subscription to our service opens your library to a huge **catalog** of content. Browse the easy to use **index** for **ebooks** and **ejournals**. Search for any topic users can think of. Search **media** like images, newspapers, magazines and audio files. Simple **boolean operators** help narrow the search. Users can always find just what they're looking for.

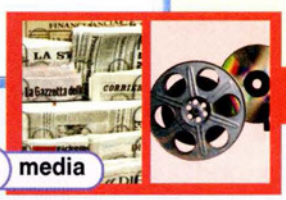
People who visit Libraries can't always get to one. **Remote access** lets our clients use ThinkTank from home. Users with a **site license** access ThinkTank through an **EZproxy** server. The **VPN** encryption secures the connection. All users need is a library card.

Our **license restriction** gives access to copyrighted works. Users won't find these kinds of resources through normal search engines. Use of the service for commercial reasons is prohibited.


2 remote access



3 boolean operators


4 media



5 ejournal


6 index

Get ready!

1 Before you read the passage, talk about these questions.

1 What topics can people research online?

2 How can information technology combine business and education?

Reading

2 Read the advertisement for an online library subscription. Then, mark the following statements as true (T) or false (F).

1 __ ThinkTank features copyrighted work.

2 __ Library members can use the ThinkTank service from home.

3 __ ThinkTank offers separate subscriptions for ebooks and media.

Vocabulary

3 Fill in the blanks with the correct words and phrases from the words bank.

WORD BANK

license restriction ebook VPN EZproxy
boolean operator index site license

1 You can't access that file because of the _____.

2 I downloaded it as a(n) _____.

3 The library uses a(n) _____ connection.

4 You can access the program at home through the _____ server.

5 Type a(n) _____ to refine the search.

6 Check the library's _____ for books on the subject.

7 The library has a(n) _____ to access the service.

4 Choose the word that is closest in meaning to the underlined part.

1 Check the book inventory to see if the book is available.
A ebook **B** media **C** catalog

2 The library subscribes to that online periodical.
A media **B** catalog **C** ejournal

3 The library has a very thorough mass communication section.
A ebook **B** media **C** ejournal

4 Carl bought a paid membership.
A subscription **B** remote access **C** boolean operator

5 Listen and read the advertisement for an online library subscription again. How does a user access ThinkTank from home?

Listening

6 Listen to a conversation between a ThinkTank Online Library representative and a librarian. Choose the correct answers.

1 What do the speakers mostly talk about?
A students having problems with remote access
B the university computers not accessing the service
C canceling the university's ThinkTank subscription
D how to remove the VPN from the service

2 What is the cause of the problem?
A The library's remote access is disabled.
B The students have their own ThinkTank subscriptions.
C The university computers are not capable of using VPN.
D The university computers have new software installed.

7 Listen again and complete the conversation.

R: Are the students using their own computers?
L: Yes, they have **1** _____. It works fine when students use **2** _____ _____.
R: Have you installed anything new on the computers?
L: Actually, yes. We just got new **3** _____ - _____ _____.
R: Ah, that makes sense. The pop-up blockers are preventing the **4** _____ from creating a connection in a new window.
L: How do I fix the problem?
R: Just turn off the pop-up blocker and everything **5** _____ _____ _____.
L: Okay. **6** _____ _____ _____ for your help.

Speaking

8 With a partner, act out the roles below on Task 7. Then, switch roles.

USE LANGUAGE SUCH AS:

We have a problem with our subscription.
Have you installed anything new?
How do I fix the problem?

Student A: Your computers have no access to the online library. Talk to Student B about:
- the problem
- who can and can't use the service
- new software

Student B: You are a representative of an online library. Listen to Student A and suggest a solution.

Writing

9 Use the conversation from Task 8 to fill in an email from the Librarian to the representative. Make up a name for the Librarian.

From: _____
To: "Brighton IT Department" itdepartment@tech.brighton.edu
Subject: ThinkTank problem

Hello,

_____

_____

_____

_____

_____

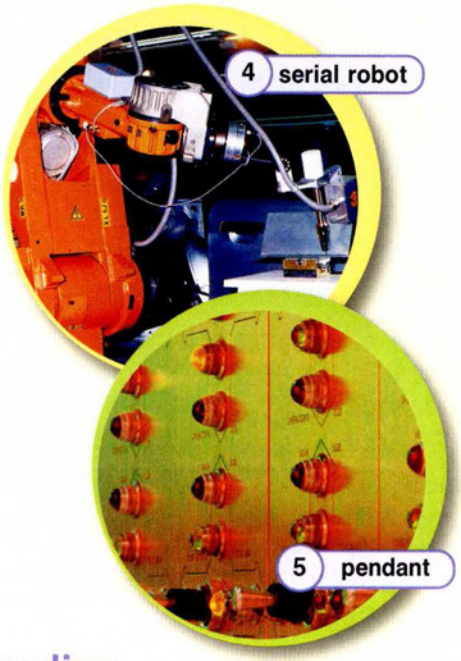
13 Robotics



Get ready!

1 Before you read the passage, talk about these questions.

1 What can people use robots for?
2 How do robots change business?



Reading

2 Read the email from an engineer at Powell Technologies. Then, read the summary of the passage. Fill in the blanks with the correct words and phrases from the word bank.

To: Carl [carl@email.com]
From: Lisa [lisa@powell-technologies.com]
Subject: Technical Problems with New Robot

Carl,

The **robotics** team here at Powell Technologies is currently developing an **autonomous**, **serial robot**. Its main function is to assist in packaging and sealing large boxes at factories. However, we are having some technical problems. I know you've worked on robots before. I'm hoping you have some advice for solving the problem.

The robot consists of a **manipulator** with **joints** and an **end-effector** at the top. This acts like a hand. There is an **enabling device** on the robot that allows it to move. The operator uses a **pendant** to control the robots **actuators**. This creates the **drive power** that makes the robot move. The **enabling device** appears to be working. But we cannot get the **actuators** to respond. I looked over the **dynamic model** and didn't find any errors. Do you think there is a problem with the **equality constraint**? I would greatly appreciate any help.

Thanks,
Lisa

word BANK

dynamic model end-effector
actuators serial robot
enabling device equality

Lisa has a problem with the 1 _____ _____ her team is developing. The robot has a manipulator with a(n) 2 _____ at the top. The robot's 3 _____ _____ is working properly. But the 4 _____ are not responding. Lisa found no errors in the 5 _____ _____. She's wondering if there's a problem with the 6 _____ constraint.

Vocabulary

3 Match the words (1-9) with the definitions (A-I).

1 __ drive power
2 __ robotics
3 __ end-effector
4 __ autonomous
5 __ serial robot
6 __ pendant
7 __ joint
8 __ manipulator
9 __ actuator

A the hand or tool at the end of a robot's manipulator
B the arm of a robot
C a device used to control and guide a robot's movements
D operating without help from humans
E the energy that makes a robot move
F a piece of equipment that makes a robot move
G a robot that consists of a single series of linked joints
H the places where the parts of a robot connect
I the scientific study of robots and their structure and movement

4 **Fill in the blanks with the correct words from the word bank.**

WORD BANK

enabling device equality constraint
dynamic model

1 Without this _____, the robot wouldn't move.
2 If the robot isn't working correctly, check the _____ value.
3 Before building a robot, always construct a(n) _____ first.

5 **Listen and read the email from an engineer at Powell Technologies again. What will be the main role of the autonomous, serial robot?**

Listening

6 **Listen to a telephone conversation between two engineers. Choose the correct answers.**

1 What is the dialogue mostly about?
- **A** fixing a serial robot
- **B** the main uses of serial robots
- **C** designing and building a serial robot
- **D** the main function of an enabling device

2 What is the problem with the robot?
- **A** the pendant is not moving correctly
- **B** the mathematical calculations are incorrect
- **C** the enabling device will not activate
- **D** the actuators aren't working properly

7 **Listen again and complete the conversation.**

E 1: So, Lisa. What's wrong with your **1** _____ _____?
E 2: Its **2** _____ aren't responding. Do you have any advice?
E 1: Well, in my experience, the **3** _____ _____ is often the problem.
E 2: I checked that. The enabling device turns on properly. But the actuators don't respond when you move the pendant.
E 1: Okay. And all your mathematical calculations are correct?
E 2: They are. I checked the **4** _____ _____ twice.
E 1: **5** _____ _____ your equality constraints? What's the value of those?
E 2: I set them to seven.

Speaking

8 **With a partner, act out the roles below based on Task 7. Then, switch roles.**

USE LANGUAGE SUCH AS:

What's wrong with your serial robot?
The enabling device turns on properly.
I checked the dynamic model twice.

Student A: You are an engineer. Talk to Student B about:
- problems with the robot
- calculations
- equality constraint

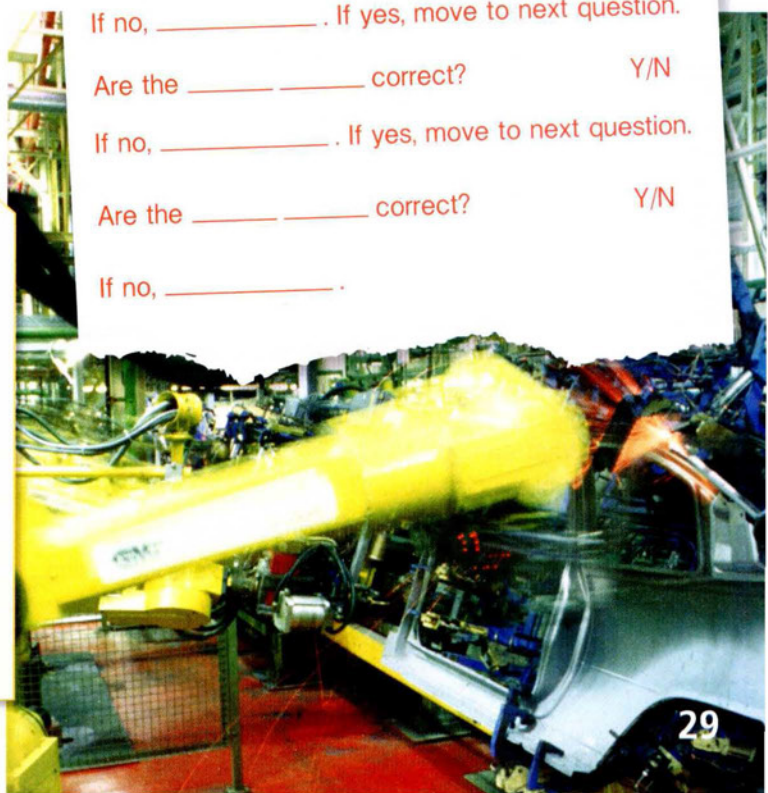
Student B: You are having problems with your robot. Answer Student A's questions.

Writing

9 **Use the conversation from Task 8 to fill in the notes.**

Troubleshooting Checklist
Problem: Actuators not responding

Is the _____ _____ functioning properly? Y/N
If no, _____. If yes, move to next question.
Are the _____ _____ correct? Y/N
If no, _____. If yes, move to next question.
Are the _____ _____ correct? Y/N
If no, _____.



14 Electronic publishing



1 bitmapped graphics



3 reflow

- 1.2 GHz processor
- 128 MB Ram
- 330 MB available hard drive space

4 system requirements





5 active matrix display

2 black and white

word wise PUBLISHING

We are pleased to announce that many of our **publications** are now available for purchase as ebooks! What are the benefits of reading ebooks? They are convenient and instantly available! We **upload** new books daily. Read them online on a web browser, or **download** them and read them **offline**. Ebooks are available:

On our handheld **ergonomic** eReader.
Read your ebook anytime, anywhere!
Zoom and **reflow** features display text at any size needed.
The **active matrix display** and **sub - pixel rendering** provide crisp images in any light.
Black and white photographs and illustrations appear as **bitmapped graphics** for best quality.

On web browsers:
Available in many formats – no need to install new software.
Check our **system requirements** and find a list of supported **PDF readers** in the information section of this website.



6 publications

Get ready!

1 Before you read the passage, talk about these questions.

1 Why do people buy ebooks?
2 How will electronic publishing change the publishing business?

Reading

2 Read the announcement on a publishing company's webpage. Then, choose the correct answers.

1 What is the announcement mostly about?
- A how to download an ebook
- B different systems that support ebooks
- C the qualities and prices of eReaders
- D the availability and quality of the company's ebooks

2 Which of the following does the eReader NOT feature?
- A reflow
- B PDF readers
- C sub-pixel font rendering
- D bitmapped graphics

3 What can you infer about Word Wise Publishing's ebooks?
- A Some feature color illustrations.
- B The number of available books is increasing.
- C They are less expensive than paperback books.
- D Viewing their pictures requires extra software.

Vocabulary

3 Match the words (1-7) with the definitions (A-G).

1 __ upload
2 __ ergonomic
3 __ publications
4 __ PDF readers
5 __ offline
6 __ system requirements
7 __ active matrix display

- A the software or hardware that is needed to run a program
- B a type of screen that can display a very clear image
- C designed to prevent strain or injury
- D books or magazines produced by a publishing company
- E a program that opens text documents
- F to make data available on the Internet
- G being available for use even when not connected to the Internet

4 Write a word that is similar in meaning to the underlined part.

1 The picture is in <u>many shades of gray</u>.
_ _ _ c _ _ _ d w _ _ _ _

2 The image is formatted to <u>fit many different screen sizes</u>.
_ e _ _ _ _

3 The text is clear due to <u>a process that improves clarity</u>.
s _ _-_ _ _ e _ r _ _ _ _ _ _ _ _

4 Did you <u>transfer from the Internet to your computer</u> the files?
_ _ w _ _ _ _ _

5 The images are actually <u>made up of many little points of color</u>.
_ _ t _ _ _ _ _ _ g _ _ _ _ _ _ _

5 Listen and read the announcement on a publishing company's webpage again. Where can you view Ebooks?

Listening

6 Listen to a conversation between a customer and a customer service representative. Mark the following statements as true (T) or false (F).

1 __ The customer is worried about the size of the eReader.
2 __ The eReader accommodates people with bad vision.
3 __ The customer recently purchased an ebook for children.

7 Listen again and complete the conversation.

Customer: Well, first, my eyes aren't **1** _____ _____. Is the print very small?

Representative: Actually, you can **2** _____ _____ to make the text any size you want. Also, our new readers have active matrix display.

Customer: I'm sorry. What's an **3** _____ _____ _____?

Representative: It's the screen. It just means that the picture is very clear.

Customer: Okay. That **4** _____ _____ _____ my first question. Now, do you have children's books available, too?

Representative: Absolutely. The complete list of **5** _____ _____ is on our website.

Customer: Great. Are they illustrated?

Representative: Actually, they are. We've added bitmapped graphics to **6** _____ _____.

Speaking

8 With a partner, act out the roles below based on Task 7. Then, switch roles.

USE LANGUAGE SUCH AS:

I have some questions about your eReader.

You can zoom in to ...

Are children's books available, too?

Student A: You want to buy an eReader. Ask Student B about:

- print size/quality
- ebook selection
- picture clarity

Student B: You are an eReader salesperson. Answer Student A's questions.

Writing

9 Use the conversation from Task 8 to complete the call summary. Make up names for the representative and caller.

word wise PUBLISHING

Representative's Name: _____

Customer's Name: _____

Customer's concerns: _____

_____

_____

_____

_____

15 Artificial intelligence



The Monthly Programmer | January Edition

Artificial Intelligence, the Future of Technology

Will **Heuristics** Lead to **Consciousness**?

By Peter Smith

Computers perform complex calculations that no human could complete. Yet, they remain unable to think for themselves. That's something **cognitive scientists** want to change. Their research focuses on two types of thinking: **case based** and **model based reasoning**. Case based reasoning compares similar problems. Model based reasoning examines cause and effect. But these different approaches have the same problem. Their **algorithms**, like most rules, aren't always right.

That's where heuristics comes in. With heuristics, computers are avoiding that problem. Instead of following rigid guidelines like regular algorithms, heuristics search for acceptable solutions. As these modified algorithms improve, **machine learning** leaps forward. Advanced computer **agents** and **robots** now find solutions independently. **Pattern recognition** has even made **computer vision** possible. The range of what robots and computers can do grows each day. The invention of a self learning computer may soon be possible.

Cause → Effect

5 model based reasoning

Get ready!

1 Before you read the passage, talk about these questions.

1 Do you think robots will ever think like humans?

2 Will artificial intelligence help or hurt business? Why?

Reading

2 Read the magazine article on Artificial Intelligence. Then, mark the following statements as true (T) or false (F).

1 ___ Case and model based reasoning face different complications.

2 ___ Heuristics don't have rigid guidelines like regular algorithms.

3 ___ Computer vision is improving pattern recognition.

Vocabulary

3 Match the words (1-6) with the definitions (A-F).

1 ___ pattern recognition
2 ___ cognitive scientist
3 ___ consciousness
4 ___ robot
5 ___ heuristic
6 ___ algorithm

A a machine capable of independent action

B a set of rules to solve a problem that seeks any solution

C the process of classifying objects by appearance

D a sense of oneself and one's surroundings

E a rule or set of rules to solve a problem with limited solutions

F a person who studies how the mind works

4 Write a word that is similar in meaning to the underlined part.

1 Giving machines the ability to see is improving.
c _ _ _ u _ _ _ _ i _ _ o _

2 Examining previous experiences to make decisions works best.
m _ _ e l b _ _ _ _ _ e _ _ o _ _ n g

3 I use examinations of cause and effect relationships to make decisions.
_ a _ e _ a _ _ _ r _ _ s _ n _ _ _

4 Peter works in the science that attempts to create thinking robots.
_ r _ _ f _ _ i _ _ i _ _ e _ _ i _ _ n _ _

5 This computer that reacts to an environment turns the heat on when it's cold.
_ g _ _ t

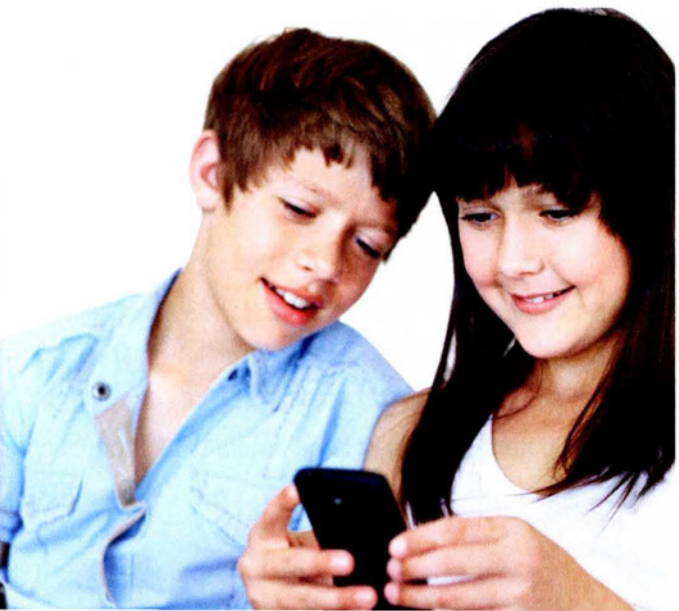
6 The field of creating algorithms that computers can learn from often uses heuristics.
m _ _ _ i _ _ _ _ _ r _ i _ g

5 Listen and read the magazine article on Artificial Intelligence again. What has made computer vision feasible?

Listening

6 Listen to a conversation between two programmers. Mark the statements as true (T) or false (F).

1 __ The woman published an article.
2 __ The man believes that cognitive scientists will harm programming.
3 __ An algorithm needs a perfect solution.



7 Listen again and complete the conversation.

Programmer 1: Jane, did you **1** _____ _____ _____ to read this month's Programmer?

Programmer 2: Yes, I saw your article on AI. So **2** _____ _____ are getting into programming?

Programmer 1: Yes, and I think it'll help. Most programming is too rigid.

Programmer 2: Because of algorithms? I **3** _____ _____ that part.

Programmer 1: Basically, an algorithm needs a **4**_____ answer.

Programmer 2: **5** _____ _____ _____ _____ by, "needs a perfect answer"?

Programmer 1: They have a limited number of solutions. If one of those solutions isn't right, the algorithm doesn't work like a math problem.

Speaking

8 With a partner, act out the roles below based on Task 7. Then, switch roles.

USE LANGUAGE SUCH AS:

Yes, I saw your article on AI.
I didn't get that part.
They have a limited number of solutions.

Student A: You are a programmer. Ask Student B about:

- cognitive scientists
- algorithms

Make up a name for your colleague.

Student B: You are a programmer. Answer Student A's questions.

Writing

9 ICT Collect information about Artificial Intelligence (A.I.). Then, write a paragraph explaining what it is. You can visit this website: *http://www.alanturing.net/turing_archive.*

Glossary

3G network [N-COUNT-U7] A **3G network** is a wireless network that sends and receives data very quickly.

AAC [N-UNCOUNT-U6] **AAC** is a music file format that is of higher quality than MP3.

account activity [N-UNCOUNT-U11] **Account activity** is a withdrawal, deposit or transfer in a bank account.

account alert [N-COUNT-U11] An **account alert** is a service that notifies bank customers of suspicious activity.

accuracy [N-COUNT-U10] **Accuracy** is how correct a GPS's measurement is.

acquisition time [N-UNCOUNT-U10] **Acquisition time** is how long a GPS takes to determine location.

active matrix display [N-COUNT-U14] An **active matrix display** is a type of screen that produces high quality, clear images.

actuator [N-COUNT-U13] An **actuator** is a piece of equipment that uses energy to make a robot move.

agent [N-COUNT-U15] An **agent** is a computer that observes and reacts to the conditions in a certain environment.

algorithm [N-COUNT-U15] An **algorithm** is a rule or set of rules that provides steps to take or questions to ask in order to solve a problem.

antivirus software [N-UNCOUNT-U3] **Antivirus software** is a program that locates and eliminates computer viruses.

app [N-COUNT-U7] An **app** is an application with a specific function that you download onto your phone.

array [N-COUNT-U4] An **array** is a group of disk drives that are connected and used as a single unit.

Artificial Intelligence [N-UNCOUNT-U15] **Artificial Intelligence** is the branch of science that seeks to create computers and robots that can reason, learn and solve problems independently.

Assembler [N-UNCOUNT-U2] **Assembler** is a low level programming language that translates between computer programs.

attachment [N-COUNT-U8] An **attachment** is a file sent as part of an email.

automatic document feeder [N-COUNT-U5] **An automatic document feede**r (ADF) is a device that feeds multiple pages into a scanner.

autonomous [ADJ-U13] A robot that is **autonomous** can operate on its own without help from humans.

avatar [N-COUNT-U9] An **avatar** is an image in a computer game that represents a person.

bank fraud [N-UNCOUNT-U11] **Bank fraud** is a crime in which someone uses bank funds without permission.

barcode [N-COUNT-U8] A **barcode** is an arrangement of lines and spaces that represent data.

BASIC [N-UNCOUNT-U2] **BASIC** is a high level programming language that was invented in the 1960s and is declining in popularity.

bill pay [N-UNCOUNT-U11] **Bill pay** is a service provided by banks that allows customers to automatically pay bills online.

bit [N-COUNT-U1] A **bit** is the smallest unit of computer data.

bit size [N-COUNT-U1] A computer's **bit size** measures the number of bits that the CPU can access at once.

bitmapped graphic [N-COUNT-U14] A **bitmapped graphic** is an image that is made up of many small points.

bitrate [N-UNCOUNT-U6] **Bitrate** is a measurement of the amount of data that is processed.

black and white [ADJ-COUNT-U14] An image or picture that appears only in black, white, and varying shades of gray is **black and white**.

blog [N-COUNT-U9] A **blog** is a website where a person writes posts about his or her feelings, thoughts, activities, etc.

Bluetooth [N-UNCOUNT-U7] **Bluetooth** is a wireless network that connects your phone with other devices, such as a computer.

boolean operator [N-COUNT-U12] A **boolean operator** narrows a database search with words like "and," "or" and "not."

broadband [N-UNCOUNT-U3] **Broadband** is a system that allows computers to transfer large amounts of information.

bus speed [N-COUNT-U1] A computer's **bus speed** measures how many times the CPU can access a group of bits per second. This is measured in MHz.

C [N-UNCOUNT-U15] **C** is a programming language that is used to program operating systems.

C# [N-UNCOUNT-U15] **C#** is a programming language that was invented as an alternative to Java.

C++ [N-UNCOUNT-U15] **C++** is a programming language that adds object-oriented programming capabilities to C.

calibration [N-UNCOUNT-U5] **Calibration** is the act of adjusting printers and scanners to display colors correctly.

call waiting [N-UNCOUNT-U7] **Call waiting** is a feature of some cell phones. It alerts you that someone is calling while you are on the line with someone else.

caller ID [N-UNCOUNT-U7] **Caller ID** is a feature of some cell phones that tells you the name and number of the person calling you.

capacity [N-COUNT-U6] **Capacity** is the amount of space an MP3 player has to store files.

cartography [N-UNCOUNT-U10] **Cartography** is the art of mapmaking.

case based reasoning [N-UNCOUNT-U15] **Case based reasoning** is the process of using information from previous experiences to solve new problems.

catalog [N-COUNT-U12] A **catalog** is an inventory of books in a library.

CCD [N-COUNT-U5] **CCD** (charge-coupled device) is a light-sensitive chip that is used when capturing digital images.

CD-R [N-COUNT-U4] A **CD-R** is a blank CD that can have information written on it only once.

CD-RW [N-COUNT-U4] A **CD-RW** is a blank CD that can have information written on it multiple times.

cell phone [N-COUNT-U7] A **cell phone** is a wireless phone that sends and receives data at a certain frequency of energy.

cognitive scientist [N-COUNT-U15] A **cognitive scientist** is a person who studies the mind and thought processes.

compiler [N-COUNT-U15] A **compiler** changes human-readable source code into machine code that a CPU can understand.

computer language [N-COUNT-U15] A **computer language** (also known as a programming language) is used by computer programmers to create instructions that a computer can understand.

computer vision [N-UNCOUNT-U15] **Computer vision** is the field and technology of making computers that have the ability to see.

consciousness [N-UNCOUNT-U15] **Consciousness** is the state of being aware of oneself and one's actions.

coordinates [N-COUNT-U10] **Coordinates** are groups of numbers that describe location.

CPU [N-UNCOUNT-U15] A **CPU (Central Processing Unit)** is the part of a computer that handles most of the processing of files and data.

data compression [N-UNCOUNT-U4] **Data compression** is the process of storing information using less storage space by reducing the number of bits it takes up.

data plan [N-COUNT-U8] A **data plan** is a contract from a cell phone service provider that states what online services are available on a cell phone and how much that transfer of data will cost.

decode [V-T-U6] To **decode** a file is to return it to its original format.

dial-up [N-UNCOUNT-U3] **Dial-up** is an Internet connection using a modem and regular telephone lines.

digital [ADJ-U6] If a file is **digital**, it is stored electronically as a series of ones and zeros.

digital camera [N-COUNT-U5] A **digital camera** is a device that records images to be looked at on a computer.

digital zoom [N-COUNT-U5] **Digital zoom** is how a digital camera increases the display size of an image subject, reducing image quality.

Glossary

DIMM [N-COUNT-U1] A **DIMM** (Dual Inline Memory Module) is a newer type of memory module. It sends 64 bits of data to the CPU.

dock [N-COUNT-U6] A **dock** is a device that connects an MP3 player to a computer.

download [V-COUNT-U14] To **download** something is to transfer a file or program from the Internet to a personal computer or device.

DPI [N-COUNT-U5] **DPI** (dots per inch) is the number of dots used per inch to create an image.

drive power [N-UNCOUNT-U13] **Drive power** is the energy that makes a robot move.

driver [N-COUNT-6] A **driver** tells a device how it should communicate with a computer.

DSL [N-UNCOUNT-U3] **DSL** (digital subscriber line) is a high-bandwidth connection using normal telephone lines.

dynamic model [N- COUNT-U13] A **dynamic model** is a mathematical model of the forces that allow a robot to move.

ebook [N-COUNT-U12] An **ebook** is a book that is available online.

ejournal [N-COUNT-U12] An **ejournal** is a scholarly publication that is published online.

electronic funds transfer [N-COUNT-U11] An **electronic funds transfer** is the act of moving money from one account to another by using a computer.

electronic statement [N-COUNT-U11] An **electronic statement** is a summary of account activity that is viewable on a computer, but not on paper.

elevation [N-COUNT-U10] **Elevation** is the height of something above sea level.

email [N-COUNT-U8] An **email** is an electronic message sent from one user to another.

enabling device [N-COUNT-U13] An **enabling device** is a device that a person activates to allow a robot to move.

end-effector [N-COUNT-U13] An **end-effector** is the hand or tool at the end of a robot's manipulator. It is the part of the robot that moves or picks up objects.

EPC [N-COUNT-U8] An **EPC** (electronic product code) is a number used to identify specific individual items.

equality constraint [N-COUNT-U13] An **equality constraint** is a value that specifies the end-effector's position and movements.

ergonomic[ADJ-COUNT-U14] Something that is **ergonomic** has been designed to prevent injury from using it repeatedly.

EZproxy [N-COUNT-U12] **EZproxy** is a library server program that allows remote users to access the library's electronic materials.

failure [N-COUNT-U4] A **failure** occurs when a disk drive malfunctions and the data stored on it cannot be accessed.

feed [N-COUNT-U9] A **feed** is a format that lets you easily read updated news about something.

flash memory [N-UNCOUNT-U5] **Flash memory** is a data storage medium that is used with digital cameras.

floppy disk [N-COUNT-U4] A **floppy disk** is a flexible magnetic storage disk encased in a square plastic shell that is used to transfer data.

forum [N-COUNT-U9] A **forum** is a website where people can discuss a certain topic.

freeze [V-I-U6] To **freeze** is to become unresponsive and stop functioning.

gaming [N-UNCOUNT-U9] **Gaming** is the activity of playing games online on a computer.

gigabyte [N-COUNT-U6] A **gigabyte** is a unit of measurement of hard drive capacity.

GPS [N-COUNT-U10] **GPS** (Global Positioning System) is a collection of 24 satellites that give accurate position and navigation data to people all over the Earth.

handle [N-COUNT-U9] A **handle** is a name that a person creates to access an account on a computer or website.

hard drive [N-COUNT-U1] A **hard drive** is a device in a computer that stores all of its information permanently.

heuristic [N-COUNT-U15] A **heuristic** is a type of algorithm designed to find a suitable solution to a problem when no perfect solution or answer is known.

hotspot [N-UNCOUNT-U3] A **hotspot** is a location (like an airport or a cafe) that provides wireless Internet access to users.

identity theft [N-UNCOUNT-U11] **Identity theft** is the crime of using other people's personal information to take their money or buy items in their name.

index [N-COUNT-U12] An **index** is a categorical list of books in a library.

inkjet printer [N-COUNT-U5] An **inkjet printer** is a device that uses ink to produce documents and images on paper.

instant message [N-COUNT-U8] An **instant message** is a text-based conversation in real time.

integrity [N-UNCOUNT-U10] **Integrity** is a device's ability to perform consistently without error.

ISP [N-COUNT-U3] An **ISP** (Internet service provider) is a company that provides Internet access.

Java [N-UNCOUNT-U15] **Java** is an object-oriented programming language.

joint [N-COUNT-U13] **Joints** are the places where the parts of a robot connect. They allow the robot's parts to rotate.

laser printer [N-COUNT-U5] A **laser printer** is a device that produces documents and images on paper with a laser beam.

latitude [N-COUNT-U10] **Latitude** is an object's location north or south of the Equator.

license restriction [N-COUNT-U12] A **license restriction** limits who can use a library's electronic resources.

link [N-COUNT-U9] A **link** is a word or set of words on a website or document. When you click on it, it takes you to a different website.

linker [N-COUNT-U15] A **linker** takes the machine code created by a compiler and makes it into an executable file.

lithium-ion battery [N-COUNT-U7] A **lithium-ion battery** is battery in cell phones that is small, light, and lasts a long time.

lockout [N-COUNT-U11] A **lockout** prevents people from accessing a bank account when the password is entered incorrectly too many times.

longitude [N-COUNT-U10] **Longitude** is an object's location east or west of the Prime Meridian.

machine code [N-UNCOUNT-U2] **Machine code** is made up of the instructions that a CPU can process.

machine learning [N-UNCOUNT-U15] **Machine learning** is a field of study concerned with creating algorithms that computers can use to learn from their experiences.

magnetic tape [N-UNCOUNT-U4] **Magnetic tape** is a long, narrow piece of magnetized plastic that is used for storing information.

manipulator [N-COUNT-U13] The **manipulator** is the arm of a robot. The end-effector sits at the end of it.

MB [N-COUNT-U1] A **MB** (megabyte) is a unit of measurement that measures how much information a computer stores.

media [N-UNCOUNT-U12] **Media** are the forms of mass communication available at the library, including images, films and periodicals.

megapixel [N-COUNT-U5] A **megapixel** is a measurement of image size.

memory storage density [ADJ-U4] **Memory storage density** is the amount of data that can be contained within a given computer storage device.

MHz [N-COUNT-U1] A **MHz** (megahertz) is a unit of measurement that measures the speed of a CPU.

MMORPG [N-COUNT-U9] A **MMORPG** (Massive Multiplayer Online Role-Playing Game) is a type of online computer game in which many people interact with each other in a virtual world.

model based reasoning [N-UNCOUNT-U15] **Model based reasoning** is the process of making conclusions by examining cause and effect relationships.

Glossary

modem [N-COUNT-U3] A **modem** is a device that allows computers to send and receive information over phone lines.

motherboard [N-COUNT-U1] A **motherboard** is the circuit board in a computer. It holds the CPU and all attachments.

MP3 [N-UNCOUNT-U6] **MP3** is the standard format for digital audio files.

multi-thread [V-I-U2] To **multi-thread** is to use a computer to execute several threads of execution simultaneously.

navigation [N-UNCOUNT-U10] **Navigation** is the act of creating a route to a destination.

offline [ADJ-U14] If something is available **offline**, it can be used when an electronic device is not connected to the Internet.

online banking [N-UNCOUNT-U11] **Online banking** is a service that allows people to manage finances on the Internet.

optical zoom [N-COUNT-U5] **Optical zoom** is the use of the camera lens to make an image appear larger, retaining image quality.

paging file [N-COUNT-U1] A **paging file** is the area on the hard drive where the computer stores data that doesn't fit in the RAM.

pattern recognition [N-UNCOUNT-U15] **Pattern recognition** is the process of classifying objects by examining their visual appearance.

PDA [N-COUNT-U8] A **PDA** (personal data assistant) is a small, handheld computer.

PDF reader [N-COUNT-U14] A **PDF** reader is a program that can open and display text or images.

pendant [N-COUNT-U13] A **pendant** is a device that a person uses to control and guide a robot's movements.

PIN [N-COUNT-U11] A **PIN** (Personal Identification Number) is a number assigned to bank account holders that helps banks identify the holder and maintain security.

playlist [N-COUNT-U6] A **playlist** is a list of songs created by an MP3 player user.

position [N-COUNT-U10] A **position** is an object's exact location.

post [N-COUNT-U9] A **post** is a message or news item on a website.

profile [N-COUNT-U9] A **profile** is a webpage on a social networking site with personal or identifying information.

publications [N-COUNT-U14] A **publication** is book or magazine that a publishing company releases to the public.

RAID [N-UNCOUNT-U4] **RAID** is a method for combining multiple disk drives into a single storage unit that can increase computer performance dramatically.

RAM [N-UNCOUNT-U1] **RAM** (Random Access Memory) is a form of computer data storage. It is a physical device that holds data temporarily.

reflow [N-COUNT-U14] **Reflow** is a process that allows images or text to fit screens that are different sizes.

remote access [N-UNCOUNT-U12] **Remote access** is the ability to use online library resources from outside the library.

ringtone [N-COUNT-U7] A **ringtone** is a sound or song that a cell phone plays when someone calls it.

robot [N-COUNT-U15] A **robot** is a moving machine that can complete tasks automatically.

robotics [N-UNCOUNT-U13] **Robotics** is the scientific study of robots and their structure and movement.

SATA [N-UNCOUNT-U4] **SATA** is an interface for connecting storage devices to a computer system.

scan [V-T-U8] To **scan** a product is to use a laser to read bar codes and convert them to electronic signals.

serial robot [N-COUNT-U13] A **serial robot** is a robot that consists of a single series of joints linked together.

SIMM [N-COUNT-U1] A **SIMM** (Single Inline Memory Module) is an older type of memory module. It sends up to 32 bits of data to a CPU.

Site key [N-COUNT-U11] A **site key** is a security system that lets the bank and the account holder verify their identities to one another in online transactions.

site license [N-COUNT-U12] A **site license** allows users to access software regardless of their location.

smartphone [N-COUNT-U8] A **smartphone** is a cellular phone that also functions like a PDA.

social networking [N-UNCOUNT-U9] **Social networking** is the activity of socializing online with other people. This takes place on social networking sites, forums, blogs, etc.

spam [N-UNCOUNT-U8] **Spam** is unwanted email, like advertisements, sent to large groups of people. Some email providers direct spam to special folders so that users do not have to see or open it.

SSL connection [N-COUNT-U11] An **SSL** (Secure Sockets Layer) **connection** is a connection between two servers that encrypts information so that no one else can monitor or access the information exchanged.

sub-pixel rendering [N-UNCOUNT-U14] **Sub-pixel rendering** is a process that increases the clarity of text on certain displays.

subscription [N-COUNT-U12] A **subscription** is the agreement to use something, often requiring a fee.

system requirements [N-COUNT-U14] **System requirements** are the hardware or software needed to run a program.

T-1 [N-UNCOUNT-U3] **T-1** is a type of line used by businesses that connects many users at once to the Internet.

T-3 [N-UNCOUNT-U3] **T-3** is a powerful line made of 28 T-1 lines.

text [V-T-U8] To **text** someone is to send them a text message.

text message [N-COUNT-U7] A **text message** is a short, written message that a person sends to and from a cell phone.

touchscreen [N-COUNT-U7] A **touchscreen** is a display on some cell phones that you tap to access its features and applications.

transparency adapter [N-COUNT-U5] A **transparency adapter** is a device that is used with a scanner to capture see-through documents like slides.

UPC [N-COUNT-U8] A **UPC** (universal product code) is a 12-digit number used to identify consumer items.

upgrade [V-T-U3] To **upgrade** is to improve something, like a computer program or a type of service.

upload [V-T-U6-U14] To **upload** a file is to transfer it from a computer or device to the Internet or to another device, such as an MP3 player.

USB flash drive [N-COUNT-U4] A **USB flash drive** is a portable flash memory system that uses a USB interface to connect to a computer and transfer information.

virtual memory [N-UNCOUNT-U1] **Virtual memory** is a method of computer data storage. The computer stores data on its hard drive instead of in the RAM.

virtual world [N-COUNT-U9] A **virtual world** is an online world where you can meet and interact with other people or computer players.

voice activation [N-UNCOUNT-U7] **Voice activation** is a feature of some cell phones that lets you dial a number by voice instead of by hand.

voicemail [N-UNCOUNT-U7] **Voicemail** is a feature that lets you listen to or leave an electronic spoken message on a cell phone.

VPN [N-COUNT-U12] A **VPN** (virtual private network) is a way to encrypt a connection when you use remote access.

waypoints [N-COUNT-U10] **Waypoints** are locations that you can mark or record in your GPS.

Wi-Fi [N-UNCOUNT-U3] **Wi-Fi** (Wireless Fidelity) is a type of connection using wireless signals instead of a physical connection.

wireless router [N-COUNT-U3] A **wireless router** is a device that forwards data as a wireless signal.

zip drive [N-COUNT-U4] A **zip drive** is a removable disk storage system that is typically used to transfer data.

CAREER PATHS

Information Technology

Book 3

Virginia Evans
Jenny Dooley
Stanley Wright



Express Publishing

Scope and Sequence

Unit	Topic	Reading context	Vocabulary	Function
1	Macs and PCs	Magazine Article	Apple, color matching, Mac, Microsoft, OS X, PC, prepress, processing speed, typography, video subsystem, Windows	Stating a preference
2	Linux	Email	command lines, free software license, interface, Linux, Linux distribution, Microsoft Office, open source, OpenOffice, TCP/IP protocol, terminal, Ubuntu	Listing concerns
3	Connecting to Clients and Employees	Email	anchor, applet, CAD, CBT, DVD, electronic bulletin board, FAQs, media player, MPEG, multimedia, reliability	Giving an opinion
4	Advertising and Marketing	Contract	animated GIF, click-through rate, click tracking, CPM, CPC, above the fold, commission, campaign, geo targeting, frequency capping, hang	Confirming information
5	Automation	Investor Report	automation, CAM, embedded systems, encoder, Ethernet network, fault tolerant, integrated circuits, latency, open system, oscilloscope, priority inversion, redundancy	Asking for suggestions
6	Telecommuting	Letter	Basecamp, centralize, color-coding, gallery, message board, real time, Skype, telecommuting, toggle, tour, web-based	Describing functions
7	Hackers and Viruses	Newspaper Article	anti-antivirus virus, hacker, imbed, infect, log in, overwriting virus, piggybacking, replicate, resident extension, resident virus, virus	Discussing possible consequences
8	Identity Theft	Letter	card scanning, cyber, fraud, harming, identity theft, malware, phishing, pretexting, scanner, spyware, Trojan horse, worm	Discussing suspicions
9	Preventative Measures	Email	attack, audit log, authenticated, backdoor, bug, firewall, intruder, keylogger, popup, protocol, security	Checking certainty
10	Anti–virus Software	Advertisement	anti-virus software, backup, block, cyber criminal, detect, false negative, false positive, rootkit, security software, sweep, virus removal software, webpage analysis	Discussing capabilities
11	Cloud Computing	Newspaper Column	CDN, cloud computing, deployment, elasticity, PaaS, pay as you go, private cloud, public cloud, SaaS, scalability, utility computing	Expressing a positive opinion
12	Improving Health	Magazine Article	ADM, bar coding, CDSS, CPOE, electronic health record, EMM, implanted microchip, interoperability, lab-on-a-chip, micro robotic tweezers, optic scanner, PACS	Giving instructions
13	Creative Design	Website	animated GIF, blog, egress, ingress, interface, keyword, mask, natural language, PCI compliance, redesign, trust logo, web portal	Offering solutions
14	System Administration	Job Posting	configure, cover letter, duty, file archiving, install, performance tuning, purge, résumé, system administrator, technical, troubleshooting, Unix	Talking about qualifications
15	Programming	Job Listings	back end, editor, GUI component, HTML, interactive, PHP, programmer, scripts, user friendly, visual basic, web developer, XML	Discussing degree of difficulty

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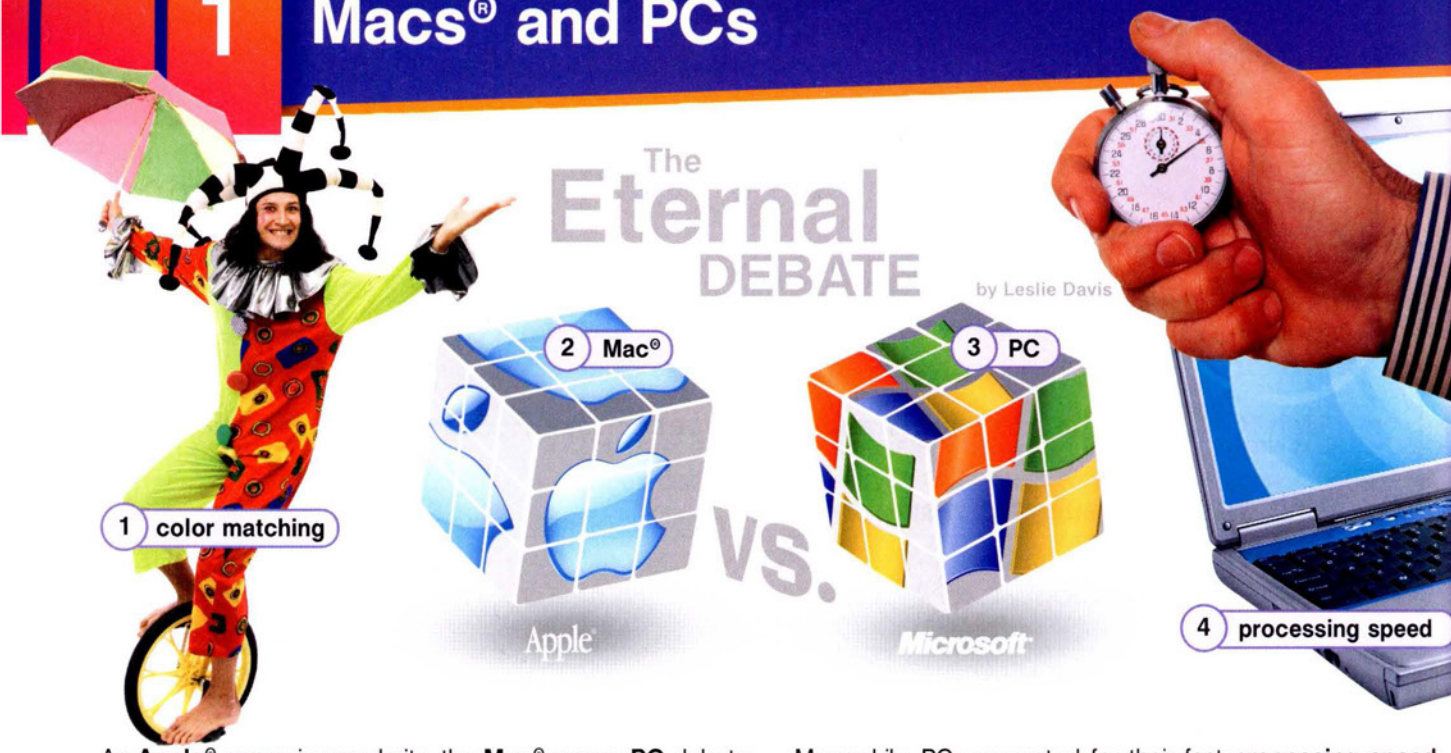
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1 Macs® and PCs



As **Apple**® grows in popularity, the **Mac**® versus **PC** debate continues. Many businesses experience trouble choosing between the two. However, businesses must realize that each computer is suited for different needs.

The two differ most in their operating systems. With a PC you have a variety of OS options from **Microsoft**® and other sources. Macs® come with one of the proprietary Apple® OSes like **OS X**®. You can install **Windows**® on a Mac®, but many users prefer the Mac® OS regardless.

Macs® have proven themselves vital in publishing, particularly the **prepress** process. Mac® has superior **typography** and **color matching**. Once printed, products look exactly as good as they do on the computer screen.

Meanwhile, PCs are noted for their fast **processing speed** and adaptability. Users can **customize** a PC to their needs. Additionally, their **video subsystems** are more powerful. This makes PCs desirable for game designers and others who need advanced graphics.

However, both computers have their limitations. While PCs are cheaper, they are also more susceptible to viruses. Macs® usually cost more but are less susceptible to computer viruses. However, Macs® tend to have fewer third-party software options than PCs. Businesses need to consider such concerns and make the right decision when buying computers for their companies.

Get ready!

1 Before you read the passage, talk about these questions.

1 Why do people prefer one operating system over another?

2 How might one operating system benefit a company more than another?

Reading

2 Read the computer magazine article. Then, mark the statements as true (T) or false (F).

1 __ Macs® are generally more expensive than PCs.

2 __ PCs are better suited to publishing.

3 __ PCs have fewer options from third-party software producers.

Vocabulary

3 Match the words (1-7) with the definitions (A-G).

1 __ Apple®
2 __ Windows®
3 __ customize
4 __ OS X®
5 __ processing speed
6 __ video subsystem
7 __ Microsoft®

A company that creates the most common PC operating system
B part of a computer that creates visuals
C a measurement of how quickly a computer works
D operating system for PCs
E changing a computer for your needs
F operating system for Macs®
G company that creates Macs®

4 Fill in the blanks with the correct words: *Mac®, prepress, color matching, PC, typography*

1 A _____ comes with OS X®.
2 Publishing software is needed for the _____ process.
3 Good _____ means anything printed out looks exactly like what's on screen.
4 I'm getting a _____ because I like the Windows® OS.
5 The _____ on this computer includes hundreds of fonts.

5 Listen and read the computer magazine article again. What makes the PC more popular with game designers?

Listening

6 Listen to a conversation between two employees at a publishing company. Choose the correct answers.

1 What is the conversation mostly about?
A customizing PCs for publishing
B locating third-party software options
C finding publishing programs for Mac®
D the differences between Macs® and PCs

2 What can you infer about the employees?
A They currently use Macs®.
B They are unfamiliar with PCs.
C They plan to request new Macs®.
D They create and publish software.

7 Listen again and complete the conversation.

Employee 1: Mr. Jackson has decided to update our computers. **1** _____ _____ _____ _____!
Employee 2: Really? PCs? I'm glad we're updating, but I'd rather **2** _____ _____ _____.
Employee 1: You would? Not me. You can't customize a Mac®.
Employee 2: Sure, you **3** _____ _____ _____. But Macs® do some things so much better.
Employee 1: What do you mean?
Employee 2: The **4** _____ _____ and typography are more sophisticated on a Mac® than on a PC. We need that in publishing.
Employee 1: Okay, I'll give you that. But Macs® have **5** _____ _____ _____, don't they?
Employee 2: Maybe a little, but that's mostly with video, and we barely use it.

Speaking

8 With a partner, act out the roles below based on Task 7. Then, switch roles.

USE LANGUAGE SUCH AS:

We're switching to PCs.
You can customize PCs.
But Macs® have slower processing speeds.

Student A: Talk to Student B about:

- switching to PCs
- benefits of PCs
- drawbacks of Macs®

Student B: You are an employee. Talk to Student A about the benefits of Macs®.

Writing

9 You are an IT Worker at a company. Use the article and the conversation from Task 8 to write an email to management recommending the company purchase either Macs® or PCs (120-150 words). Talk about:

- *Which type of computer you would choose*
- *Why your company needs this type of computer*
- *The benefits of the type of computer you would choose*
- *The drawbacks of the type of computer you wouldn't choose*



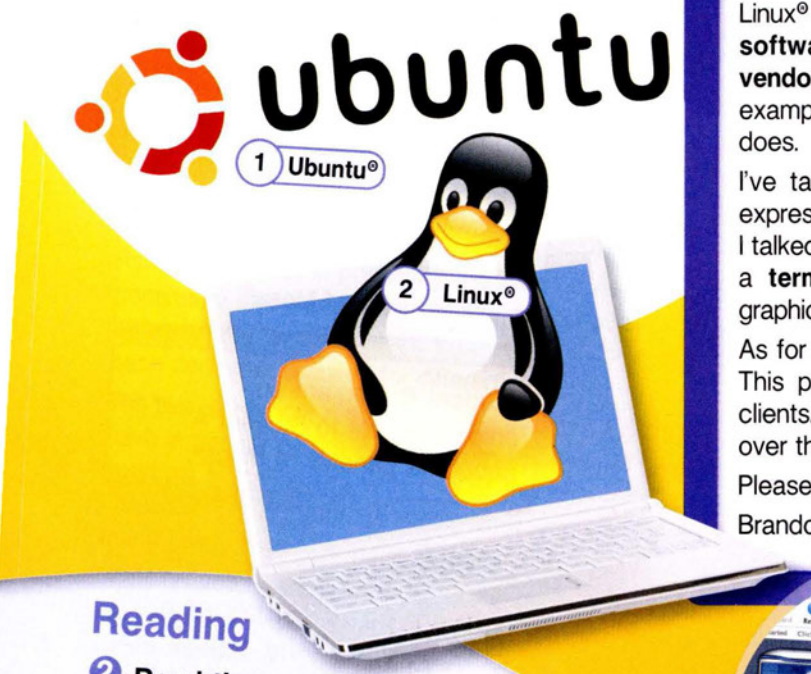
2 Linux®

Get ready!

1 Before you read the passage, talk about these questions.

1 How is Linux® different from other operating systems?

2 Why would a business use Linux®?



From: Brandon Peters
To: Shirley Tomkins
Subject: Switching to Linux

Mrs. Tomkins,

Over in the IT department we've received complaints about the office's computers. The hardware itself is fine. The problem, I believe, is the operating system. The system is rife with communication errors and virus threats. Then, there's the fortune we spend on upgrading our software every year. That's why I'm suggesting we switch to **Linux®** or some other OS related to Unix®. For example, **Ubuntu®** is very popular with users. Linux® works with any hardware including both Macs® and PCs.

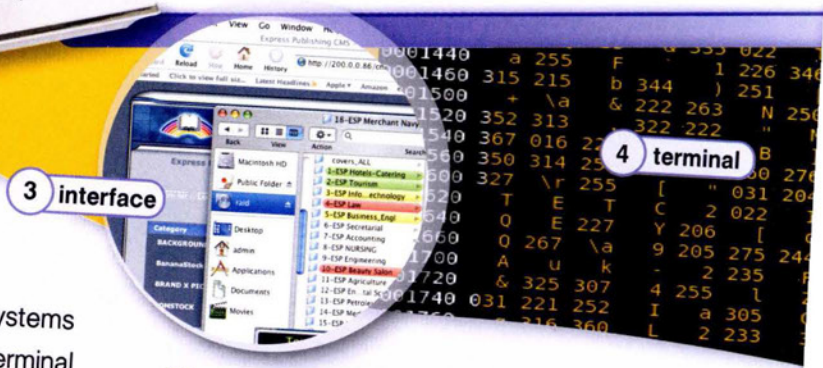
Linux® is free, **open source** and many of its programs have a **free software license**. We can get **Linux® distributions** from **vendors** that have entire software packages that we can use. For example, **OpenOffice®** does everything that **Microsoft Office®** does.

I've talked to many staff members about this already. Some expressed concern with the **interface**. Specifically, most people I talked with thought Linux® required entering **command lines** into a **terminal**. Actually, many Linux® operating systems use a graphical interface just like the average desktop operating system.

As for networking, Linux® comes with a program called **Samba®**. This program allows Linux® to interact with Windows®-based clients. This means we don't have to worry about printer trouble over the network once the **TCP/IP protocol** is reconfigured.

Please let me know if you have any follow up questions.

Brandon Peters



Reading

2 Read the email from an IT employee to a manager. Then, choose the correct answers.

1 What is the email mainly about?

- **A** the benefits of changing operating systems
- **B** how to enter command lines into a terminal
- **C** which Linux® distribution is right for the company
- **D** differences between OpenOffice® and Microsoft Office®

2 What is the benefit of Samba®?

- **A** It creates a graphical interface.
- **B** It improves printers' efficiency.
- **C** It is similar to Microsoft Office®.
- **D** It lets different operating systems interact.

3 What can you infer about Brandon Peters?

- **A** He uses Linux® on his computer.
- **B** He expects Linux® to increase costs.
- **C** He has only mentioned Linux® to Shirley.
- **D** He thinks Linux® has fewer virus threats.

Vocabulary

3 Match the words (1-7) with the definitions (A-G).

1 __ Ubuntu®
2 __ OpenOffice®
3 __ vendor
4 __ terminal
5 __ open source
6 __ Samba®
7 __ interface

- **A** has word processing and spreadsheet programs
- **B** Linux®-based operating system
- **C** how users communicate with a computer
- **D** allows Linux® computers to connect to networks
- **E** able to be modified by the user
- **F** distributes products and software
- **G** used to input command lines

4 Fill in the blanks with the correct words and phrases from the word bank.

WORD BANK

Linux® free software license Linux® distribution
command line Microsoft Office® TCP/IP protocol

1 You have to enter a _____ to make the system do anything.
2 I can't decide which _____ will work best for me.
3 You need to reconfigure the computer's _____ to get online.
4 This program has a _____, so anyone can use it.
5 _____ has an excellent word processing program.
6 I hate my current OS so I'm switching to _____.

5 Listen and read the email from an IT employee to a manager again. What two problems does the employee think the operating systems has?

Listening

6 Listen to a conversation between an IT worker and a manager. Mark the following statements as true (T) or false (F).

1 __ Open source software has an increased threat of viruses.
2 __ Samba® automatically reconfigures TCP/IP protocols.
3 __ The manager does not approve the man's proposal.

7 Listen again and complete the conversation.

Manager: I assume we'd still have to buy antivirus software that **1** _____ _____ Linux®.
IT Worker: **2** _____ _____ _____ – even the security software is free.
Manager: I see. Still, I'm not comfortable **3** _____ _____ _____.
IT Worker: We don't have to. OpenOffice® is **4** _____ _____ with Office® and other programs.
Manager: My other concern is printer trouble. I don't want to install Linux® and have our equipment suddenly stop working.
IT Worker: That's why we'll get **5** _____ _____ _____. The print server will act as if nothing changed.
Manager: That sounds too easy. Surely there's something else to it.
IT Worker: Actually, I'll have to **6** _____ _____ _____ _____, but that's a small task.

Speaking

8 With a partner, act out the roles below based on Task 7. Then, switch roles.

USE LANGUAGE SUCH AS:

I want to talk about that Linux® idea.
Even the security software is free.
OpenOffice® is actually compatible.

Student A: An employee has suggested switching to Linux. Ask Student B questions to find out about:

- antivirus software
- compatible programs
- printing problems

Student B: You are an employee. Answer Student A's questions.

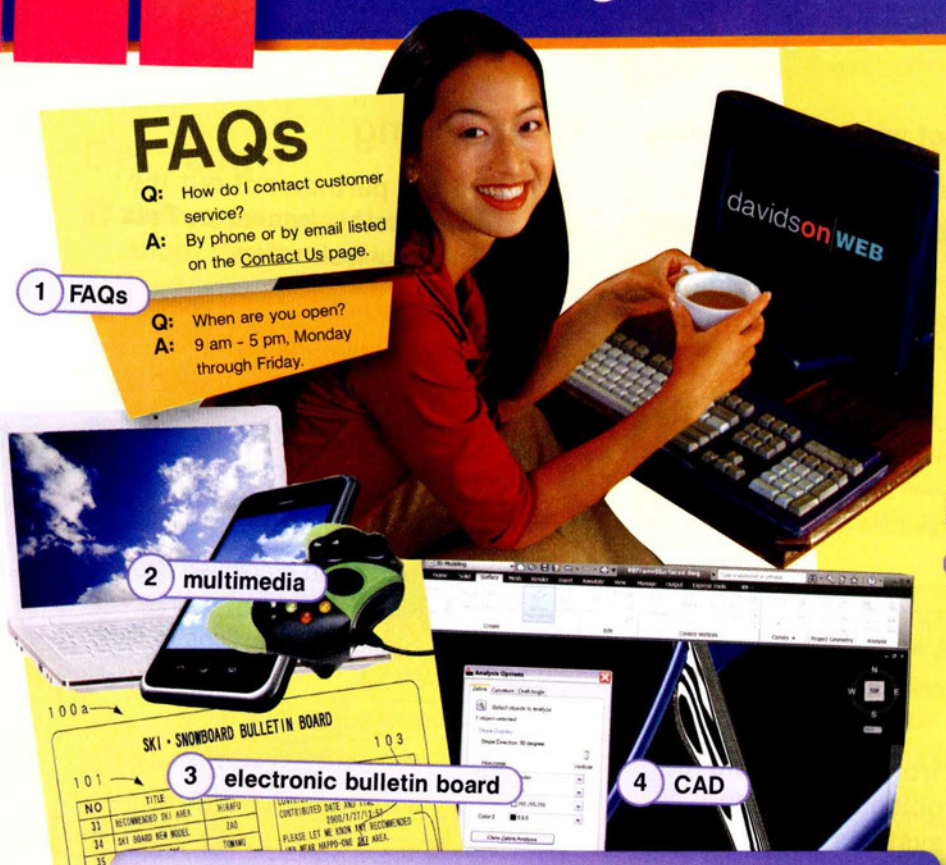
Writing

9 Imagine that you are a manager. You have decided to switch to Linux®. Use the email and the conversation from Task 8 to write an email to the staff of the company that explains your decision (120-150 words). Talk about:

- *The switch to Linux®*
- *The benefits of the switch*
- *Programs that will be replaced*
- *Necessary changes*



3 Connecting to clients and employees



Get ready!

1 Before you read the passage, talk about these questions.

1 What makes a business's website look professional?

2 How can companies use a website to communicate with clients and employees?

Reading

2 Read the email from the owner of a web design company to his employees. Then, choose the right answers.

1 What is the email mostly talking about?

A a dissatisfied new client

B a description of a new project

C what bulletin board to include in a project

D types of media players a client is interested in

2 Which of the following does the new client specialize in?

A CBT **C** multimedia

B CAD **D** applets

3 What can be inferred about a Flash® player?

A It is not very reliable.

B It plays video from DVDs.

C It is easier to use than other media players.

D It has lower quality than other media players.

From: fdavidson@davidsonweb.com
To: staff@davidsonweb.com
Subject: New Client

davidson WEB

All,

The owner of Dartmouth Enterprises signed a contract today to secure our web design services. His company specializes in **CAD** for manufacturing facilities. He'll be sending us the information he wants included in the website soon. In the meantime, he's told us what his requirements are for this project.

First, he stressed a very professional appearance, so that means no **applets**. He doesn't want small applications cluttering up his page. It also means no **anchors**, so all navigation should be done through the menus.

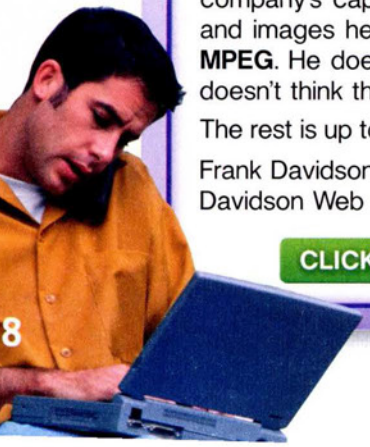
Second, he wants separate sections for employees and clients. For his employees, he'd like an **electronic bulletin board** to streamline communication and a **CBT** section to keep his employees up-to-date with new training requirements. For his clients, all he requires are a helpful **FAQs** section and a **multimedia** section with a **media player** showcasing his company's capabilities. He'll send us a **DVD** with the footage and images he wants included. We'll need to convert it to an **MPEG**. He doesn't want us using a Flash® player because he doesn't think the quality is good enough.

The rest is up to you, but remember our emphasis on **reliability**.

Frank Davidson
Davidson Web Design

CLICK HERE FOR MORE INFORMATION

5 anchor





Vocabulary

3 Match the words (1-9) with the definitions (A-I).

1 __ CAD
2 __ FAQ
3 __ DVD
4 __ CBT
5 __ multimedia
6 __ Flash®
7 __ anchor
8 __ media player
9 __ electronic bulletin board

A a word, phrase, or image that is used as a link
B using a computer to design products
C a media format used to add videos and other media to a website
D using a computer to train employees
E a shared file that can be used to spread information
F a storage device used for videos
G a list of common questions and their answers
H a device used to display videos
I any type of media used on a webpage, including images and videos

4 Fill in the blanks with the correct words: *applet*, *reliability*, *MPEG*.

1 Add a(n) _____ to make the page more interesting.
2 This product will work correctly for a long time. It has good _____.
3 Can you convert this old movie to a(n) _____ format?

5 Listen and read the email from the owner of a web design company to his employees again. Why will a CBT section be useful?

Listening

6 Listen to a conversation between a client and a web design company employee. Mark the following statements as true (T) or false (F).

1 __ The multimedia section is not finished.
2 __ The client decides to use Flash® player.
3 __ The client wants the site to go online today.

7 Listen again and complete the conversation.

C: I see. And how is that **1** _____ _____?
E: Actually, we're having a little trouble with it.
C: Why's that?
E: Well, the **2** _____ _____ you requested won't work on all computers. I'd suggest using **3** _____ player instead.
C: I just don't think Flash® player has a **4** _____ _____ _____. I want my potential clients to be able to see everything clearly.
E: I understand, but using Flash® player will **5** _____ _____ _____ _____ the media you've given us.
C: I'll think about it, but everything else is finished?
E: Yes. Actually, the rest of the site could **6** _____ _____ today.

Speaking

8 With a partner, act out the roles below based on Task 7. Then, switch roles.

USE LANGUAGE SUCH AS:

So, are you close to finishing then?
I'd suggest using Flash® player instead.
But everything else is finished?

Student A: You are talking to a web design company employee. Ask Student B about:

- progress on the project
- problems
- solutions

Student B: You are a web design company employee. Answer Student A's questions.

Writing

9 You are a new client of a web design company. Use the email and the conversation from Task 8 to write out your requirements for your new website (120-150 words). Talk about:

- *Who you will communicate with on the website*
- *Sections you'd like included in the website*
- *What to avoid using when setting up the website*
- *How you'll get the web design company the information it needs*

4 Advertising and marketing



DONOVAN on_line advertising

CONTRACT FOR SERVICES

AD PRODUCTS

We offer two general types of banners: traditional banners and **animated GIF** banners. Animated GIF banners are more expensive, but they elicit a higher **click-through rate** according to our **click tracking** studies.

___ Traditional Banner ___ Animated GIF Banner

PRICING

There are two billing options for Donovan campaigns:

CPM Billing Option
The CPM, or cost per 1,000 impressions, option requires you to pay the agreed-upon rate for every 1,000 people who view your advertisement. This is our most popular option.

CPC Billing Option
The CPC, or cost per click-through, option requires that you pay the agreed-upon rate for each person who clicks your advertisement.

___ CPM Billing ___ CPC Billing

ADDITIONAL COSTS:

Please note that premium locations **above the fold** as well as any **commissions** charged to us by the website that is hosting your advertisement will affect the rate.

GUARANTEES

Donovan Online Advertising guarantees the following for every advertising **campaign**:

- »the use of **geo targeting** to display advertisements to appropriate audiences
- »the use of **frequency capping** to prevent overexposure of your advertisements
- »that our products will never **hang** pages, preventing them from loading and tarnishing your reputation



Get ready!

1 Before you read the passage, talk about these questions.

1 Why is online advertising popular?
2 How often do you click on online advertisements?

Reading

2 Read the online advertising company contract. Then, mark the following statements as True (T) or False (F).

1 ___ Donovan Online Advertising offers two types of banners.
2 ___ Most clients prefer the CPM billing option.
3 ___ Geo targeting prevents overexposure to advertisements.

Vocabulary

3 Write a word that is similar in meaning to the underlined part.

1 Geoff chose <u>pricing determined by how many people are able to view the ad</u>.
_ P _

2 This company offers many <u>advertising opportunities</u>.
_ _ p _ _ d _ _ _ _

3 It's important to use <u>a process of ensuring that visitors don't see the same ad repeatedly</u>.
_ _ _ _ _ e _ c _ _ a _ _ _ _ g

4 <u>A process of ensuring that ads are shown in relevant areas</u> avoids wasting money.
_ e _ t _ _ _ _ t _ _ _

5 <u>Pricing determined by how many people click on the ad</u> can be expensive.
_ P _

6 That banner got a low <u>ratio of ads clicked on ads viewed</u>.
_ _ _ c _ - _ _ r _ _ g _ r _ _ _

7 The firm does <u>a process of counting the number of clicks an ad receives</u> weekly.
_ l _ _ k _ _ _ c k _ _ _

8 <u>Multiple GIF files in advertisements that create animation</u> always get a better response.
_ _ _ m _ _ _ d G _ _ s

9 Some ads <u>prevent a website from loading all the way</u>.
_ _ n _

4 **Fill in the blanks with the correct words:** *commission*, *above the fold*, *campaign*.

1 The website is asking for a high _____ to host ads.

2 Ads that are _____ are more expensive, but more visible.

3 The last _____ increased sales.

5 🎧 **Listen and read the online advertising company contract again. Why would an advertiser consider using geo targeting?**

Listening

6 🎧 **Listen to a conversation between a caller and an online advertising company employee. Choose the correct answers.**

1 What is the caller asking about?

A which banner is most popular

B why the commission is so high

C how rates and pricing are decided

D how to change an advertisement's location

2 What can be inferred about the caller?

A He has not selected a pricing option.

B He thinks Donovan's rates are too high.

C He will choose the CPM billing option.

D He wants to host advertisements on his website.

7 🎧 **Listen again and complete the conversation.**

Employee: Well, **1** _____ _____ _____ _____ _____, meaning you pay a certain rate for every 1,000 people who view the banner.

Caller: And that's the most **2** _____ - _____ option?

Employee: Yes, that's correct.

Caller: I see. So how do you determine **3** _____ _____ _____ is going to be?

Employee: There are actually two things that affect that. The **4** _____ _____ the banner is one of them.

Caller: Okay. Could you explain that?

Employee: Sure. Banners that are above the fold are more expensive. That's just because people don't have to **5** _____ _____ _____ _____ _____.

Caller: I see. The contract also mentions something about **6** _____.

Speaking

8 **With a partner, act out the roles below based on Task 7. Then, switch roles.**

USE LANGUAGE SUCH AS:

I have some questions about ...

So how do you determine ...?

Could you explain that?

Student A: You are calling an online advertising company. Ask Student B about:

- billing options
- the most popular option
- how location affects the rate

Student B: You are an advertising company employee. Answer Student A's questions.

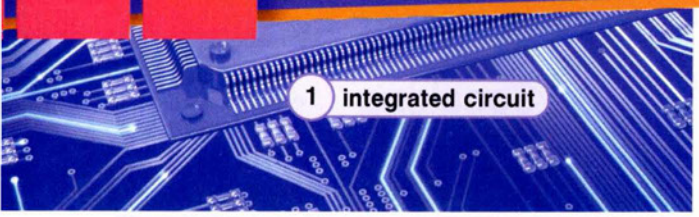
Writing

9 **You are an online advertising company employee. Use the contract and the conversation from Task 8 to write about how advertising with your company works (120-150 words). Talk about:**

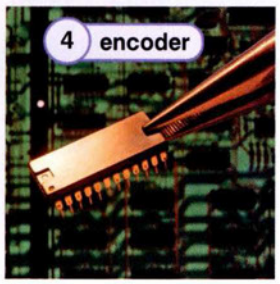
- *The banner options*
- *The billing options*
- *How the rate is determined*
- *What your company guarantees*



5 Automation


1 integrated circuit


3 oscilloscope


4 encoder


2 embedded system

Get ready!

1 Before you read the passage, talk about these questions.

1 Why do companies use automation?

2 How has automation advanced recently?

Reading

2 Read the investor report on World Industries. Then, choose the correct answers.

1 What is the main idea of the report?

- **A** why World Industries has slowed production
- **B** how World Industries has improved its automation
- **C** why World Industries should invest in automation
- **D** where World Industries is building a new automation system

2 What does NOT protect the efficiency of an automation system?

- **A** low latency
- **B** high redundancy
- **C** high fault tolerant
- **D** low network speeds

3 What can you infer about a machine with low redundancy?

- **A** It is difficult to replace.
- **B** It is in a closed system.
- **C** Its oscilloscope is broken.
- **D** Its latency time is too low.

WORLD Industries

INVESTOR REPORT

In today's business world, investors are looking for companies that can compete. That's why World Industries is proud to announce an upgraded **automation** system that will increase production and efficiency. As you consider investing in our company, see what this new system will do.

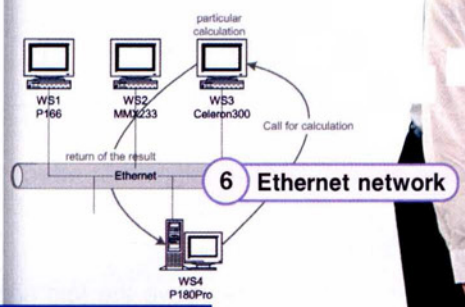
World Industries' system uses **CAM** (Computer Aided Manufacturing) programs. Our integrated system of hardware and software allows for complete computer integrated manufacturing.

The new production line employs **embedded systems** and **integrated circuits**, allowing the hardware to work together. These devices are connected through a high-speed **Ethernet network**. **Encoders** in each device send mechanical information to the network through device drivers.

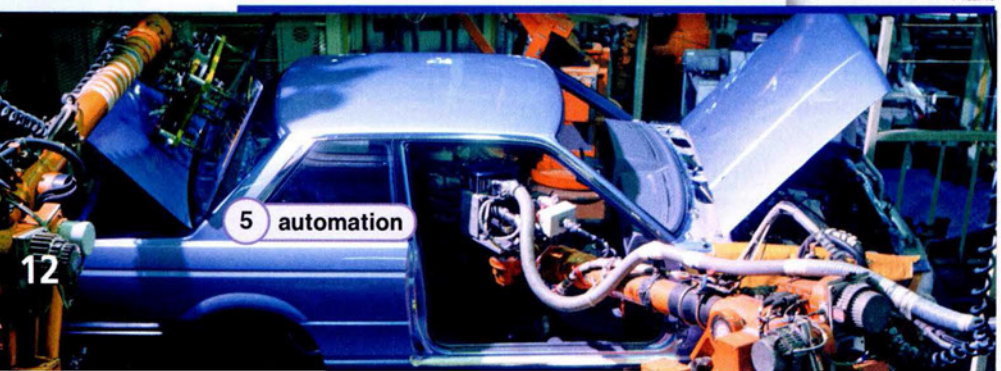
We have an **open system** that allows us to use any type of equipment. Our devices have a high **redundancy** for simple replacement.

Equipment at World Industries is designed to work fast and hard. All of our machines have the lowest possible **latency** time and a high **fault tolerant.** Our software is protected from **priority inversions** that could lower production. **Oscilloscopes** monitor all of our hardware to ensure that any problem will be repaired immediately by our trained engineers.

Our investments in automation have rewarded us with success. An investment in World Industries will do the same for you.



6 Ethernet network


5 automation



Vocabulary

3 Match the words (1-7) with the definitions (A-G).

1 __ Ethernet network
2 __ fault tolerant
3 __ priority inversion
4 __ encoder
5 __ automation
6 __ open system
7 __ computer aided manufacturing

A a device that relays mechanical data to a network
B the ability to continue functioning after an error
C this links computers together at high speeds
D the use of machines to perform tasks without human assistance
E a system that can use many different types of machines
F the use of programs to control machines that manufacture products
G a software problem that can lower production

4 Fill in the blanks with the correct words: *oscilloscope, integrated circuit, latency time, redundancy, embedded system.*

1 Check the _____ to see if this machine is working correctly.
2 A(n) _____ is very small but has several devices attached to it.
3 If the _____ on the machine is too long, it might need a new processor.
4 This factory has low _____, so it doesn't replace machines quickly.
5 The _____ uses the newest software and hardware.

5 Listen and read the investor report on World Industries again. What do World Industries claim about their software?

Listening

6 Listen to the conversation about solving an automation problem. Check (✓) the items the engineers investigate.

1 ❑ priority inversions
2 ❑ Ethernet network connections
3 ❑ fault tolerant
4 ❑ latency

7 Listen again and complete the conversation.

Engineer 1: Let's **1** _____ _____ _____. Take a look at that conveyor belt moving the soda bottles forward. **2** _____ _____?
Engineer 2: Yeah, it looks a little jerky.
Engineer 1: Let's **3** _____ _____ _____ at the oscilloscope pattern.
Engineer 2: Yeah, something is definitely wrong.
Engineer 1: Very good. **4** _____ _____ on how to fix it?
Engineer 2: How about checking the **5** _____ _____. Maybe the computer can't communicate.
Engineer 1: Good idea. Let's check it out. Does this computer log look normal to you?
Engineer 2: Well, the Ethernet connection is fine, but **6** _____ _____ _____.

Speaking

8 With a partner, act out the roles below based on Task 7. Then, switch roles.

USE LANGUAGE SUCH AS:

It looks a little jerky.
Do you have any ideas on how to fix it?
Does this computer log look normal to you?

Student A: You are an engineer. Help Student B identify a problem. Ask about:
- what the problem is
- possible solutions

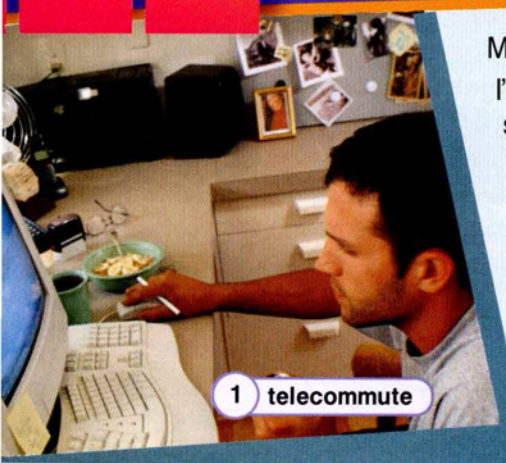
Student B: You are an engineer. Answer Student A's questions.

Writing

9 You are going to invest in a company that uses automation. Use the report and conversation from Task 8 to write a letter to a friend explaining why it is a good investment (120-150 words). Make up a name for your friend. Talk about:

- *What automated systems the company has*
- *How automation improves the business*
- *How the company protects and repairs the system*

6 Telecommuting



1 telecommute



2 gallery

Mr. Tobin,

I'm writing to you today on behalf of several employees with a request to start a **telecommuting** program here at Zone Solutions. To do so will require changes, but they would ultimately benefit our company.

I suggest that we invest in **Basecamp**©. It's a **web-based** software package. Regardless of where we're working, it will increase productivity. Basically, we would **centralize** all projects, communication and updates.

Basecamp© opens in any browser, so employees can use it from home or the office. And it's easy to navigate, so there's no training required. **Color-coding** identifies different projects. The **dashboard** displays recently accessed files, so we can all see what is being worked on. The project **gallery** allows everyone to **toggle** quickly between files. And a **message board** is updated in **real time** to facilitate rapid exchanges.

In addition to Basecamp©, free **Skype**™ software can be downloaded for any communications that require speaking person to person. We can have conference calls with clients around the world without even needing a phone. Should you require specific details, I would be happy to discuss the issue with you. Additionally, both Backpack© and Skype™ offer **tours** with detailed information about their products.

I look forward to your response.

Sincerely,

Erica Robin

Erica Robin



6 message board



3 Skype™



4 Basecamp©



5 color coding

Get ready!

1 Before you read the passage, talk about these questions.

1 What are the benefits of telecommuting?

2 What are the challenges of telecommuting, for workers and management?

Reading

2 Read the letter from an employee to a business owner. Then, choose the right answers.

1 What is the employee doing in the letter?

A requesting that the company reorganize projects

B proposing an expansion of the telecommuting program

C suggesting that the company create web-based software

D explaining how employees could work from home

2 According to the letter, the dashboard...

A identifies projects by color.

B helps users toggle between files.

C shows what is being worked on.

D allows communication without a phone.

3 What can be inferred about Skype™?

A It is a part of the Basecamp© software package.

B It requires users to pay a monthly subscription.

C It provides better sound quality than phones.

D It allows users talk to each other on computers.

Vocabulary

3 Match the words (1-6) with the definitions (A-F).

1 __ toggle
2 __ dashboard
3 __ real time
4 __ web-based
5 __ telecommute
6 __ message board

A being updated as new information arrives
B to switch from one file to another
C a display that shows recently used files
D available on the Internet
E a series of pages that offer information about a product
F to work away from an office using technology

4 Place the words from the word bank under the correct heading.

WORD BANK

Basecamp© centralize tour gallery Skype™ color-code

Programs	Actions	Website Features

5 Listen and read the letter from an employee to a business owner again. How will employees be able to check on which files are being accessed?

Listening

6 Listen to a conversation between an employee and manager. Mark the following statements as true (T) or false (F).

1 __ Basecamp© allows users to monitor production.
2 __ The message board must be updated by users.
3 __ Employees who telecommute will need high speed connections.

7 Listen again and complete the conversation.

O: Well, I can understand the employees' **1** _____ _____ _____. However, I have some questions.
E: I would expect so. Is there **2** _____ _____ _____?
O: Let's start with production. I'd need a way to check that people are getting work done at home.
E: Absolutely. The Basecamp© program would take care of that.
O: Really? I **3** _____ _____ the tour, but I didn't see anything about monitoring production.
E: It's on the dashboard. It shows all the files being worked on, and who's working on them.
O: Okay, **4** _____ _____ _____. Now, what about communication?
E: Well, there's the **5** _____ _____.

Speaking

8 With a partner, act out the roles below based on Task 7. Then, switch roles.

USE LANGUAGE SUCH AS:

I'm glad you're considering my proposal.
The Basecamp© program would take care of that.
What about communication?

Student A: You are talking to an employee. Ask Student B about:

- monitoring production
- communication

Student B: You are talking to an owner. Answer student A's questions.

Writing

9 You are a manager and you are starting a telecommuting program. Use the letter and the conversation from Task 8 to explain the program in a memo to members of staff. (120-150 words). Talk about:

- *What programs you will use*
- *How projects will be organized*
- *Ways you will communicate*

7 Hackers and viruses



Wilmington Daily Pos

LINCOLNSHIRE BANK

LOCAL MAN ARRESTED ON Hacking Charges

(Wilmington) - Donald Greene has been arrested by Interpol on computer hacking charges. Interpol claims that Greene, a computer **hacker**, planted **viruses** on unwitting **host** computers. It is thought that Greene used a method called "**piggybacking**" to gain access to computers when their owners **logged in**. This gave him access to the computer's protective firewall and allowed him to disable it.

Interpol says that Greene has done over $50 million in damage. Most of this damage was done when he used **overwriting viruses** to overwrite and destroy files on government computer systems. But Greene targeted home computers, too. For these, anti-virus software was unable to stop Greene's viruses because he included **anti-antivirus viruses** with them. These viruses essentially shut down anti-virus software. Greene is also alleged to have used **resident viruses**. These viruses **imbed** themselves in a file or disk drive. When **resident extensions** are included with them, they become a part of the computer's operating system. This makes them nearly impossible to get rid of. As with all viruses, Greene's viruses are said to have **replicated** themselves quickly to **infect** multiple computers.

Get ready!

1 Before you read the passage, talk about these questions.

1 How do computer viruses impact business?

2 What should people do when their computers are infected?

Reading

2 Read the newspaper article. Then, choose the right answers.

1 What is the article mainly about?

A new types of computer virus
B a man who is investigating viruses
C the capture of a man who used viruses
D a way to protect computers from viruses

2 Which type of virus was the most harmful?

A overwriting viruses
B anti-antivirus viruses
C resident extensions
D resident viruses

3 What can be inferred about resident viruses?

A They can disable firewalls.
B They aid hackers with piggybacking.
C They do less damage than anti-antivirus viruses.
D They do not always include resident extensions.

Vocabulary

3 Match the words (1-7) with the definitions (A-G).

1 __ piggyback
2 __ hacker
3 __ host
4 __ overwriting virus
5 __ anti-antivirus virus
6 __ resident extension
7 __ virus

A a virus that attacks anti-virus software
B a program file that installs itself without permission
C an add-on that makes a computer virus part of the host computer's operating system
D a virus that copies its code over and destroys the files of the original data
E to gain unauthorized access to a computer system by using the owner's connection
F a computer system that has a virus attached to it
G a person who illegally exploits computer hardware and software

4 Write a word that is similar in meaning to the underlined part.

1 Email is used to <u>contaminate</u> computers with viruses.
i _ _ _ c _

2 <u>Enter identification that allows one to use a computer</u> first.
l _ _ _ n

3 Some viruses can <u>make copies of themselves</u>. r _ _ _ i _ _ t _

4 If the virus <u>becomes a part of something else</u>, it will be hard to delete. _ m _ _ _ s

5 <u>Viruses that become part of files but do nothing until activated</u> can go unnoticed for months.
r _ _ _ d _ _ t _ _ r _ s _ _

5 Listen and read the newspaper article again. How did Greene gain unauthorized access to other people's computers?

Listening

6 Listen to a conversation between an employee and his manager. Mark the following statements as true (T) or false (F).

1 __ The manager read the newspaper article.
2 __ Overwriting viruses destroyed the manager's files.
3 __ The manager decides to purchase new anti-virus software.

7 Listen again and complete the conversation.

Employee: Have you seen this article in today's paper? The one about the **1** _____?
Manager: Yes, I have. What about it?
Employee: Well, I think the IT department needs to **2** _____ _____ _____.
Manager: Do you think our company is vulnerable to these types of attacks?
Employee: Definitely. The overwriting viruses he used could do incredible damage.
Manager: I see. How much damage are we talking about?
Employee: Greene did millions of dollars' worth of damage by **3** _____ _____. That could happen to us.
Manager: Something like that would **4** _____ _____ _____.
Employee: Exactly. I think these **5** _____ _____ and resident extensions are a problem, too.
Manager: Why's that?
Employee: Well, these types of viruses **6** _____ _____ in files and disk drives.

Speaking

8 With a partner, act out the roles below based on Task 7. Then, switch roles.

USE LANGUAGE SUCH AS:

Have you seen this article in today's paper?

How much damage are we talking about?

Something like that would ruin the company.

Student A: You are talking to a concerned employee. Ask Student B about:

- viruses
- potential damage

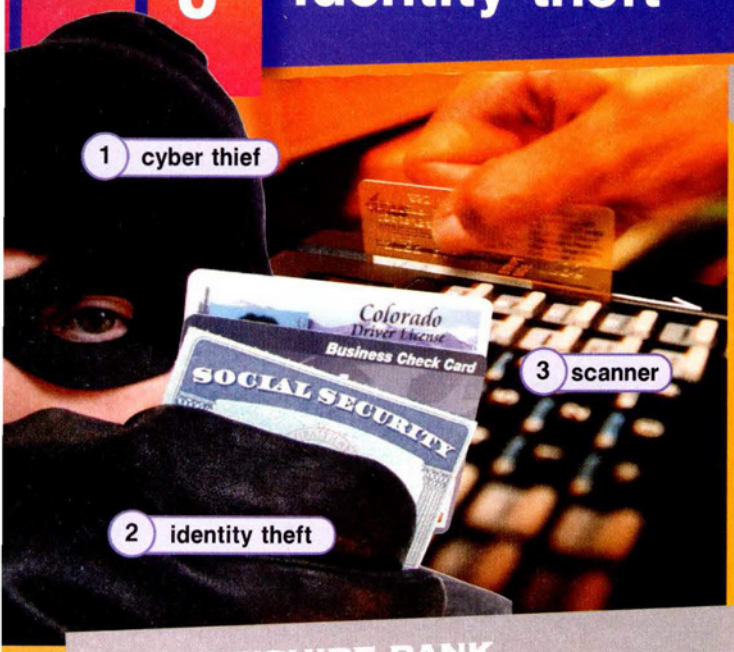
Student B: You are a concerned employee. Answer Student A's questions.

Writing

9 You are worried about computer security at work. Use the article and the conversation from Task 8 to write an email to your manager about (120-150 words). Talk about:

- *Why you are concerned about computer viruses*
- *Which types of computer viruses are most dangerous*
- *How computer viruses could harm the company*

8 Identity theft





LINCOLNSHIRE BANK
12345 Walker Avenue Albuquerque, NM 87444
505.555.8765

Dear Valued Customer,

Recently, a series of **identity thefts** has affected our customers. Unfortunately, this led to several instances of **fraud** occurring at our bank. The best way to avoid these events is to be informed. Please take a moment to familiarize yourself with some common ways that criminals steal personal information.

Card scanning is one simple form of identity theft. This is when someone uses a card **scanner** to record the information stored on credit or debit cards. Card scanning can be used to collect passport information as well.

Email also presents opportunities for **cyber** thieves. Spam, or unsolicited emails, can contain **malware**. This malicious software includes **spyware**, **Trojan horses**, and **worms** that can infect one's computer and steal information. **Phishing** is also conducted over email. This occurs when thieves trick people into giving them information by pretending to represent a legitimate business.

Pretexting is similar to phishing but is often done over the phone. **Pharming** occurs when a hacker redirects someone to a site operated by them. The site looks legitimate and tricks people into giving away personal information.

If you believe you may be the victim of identity theft, contact us immediately. We will take steps to ensure that your assets are safe.





Get ready!

1 Before you read the passage, talk about these questions.

1 How does identity theft affect businesses?
2 How can people avoid falling for phishing schemes?

Reading

2 Read the letter from a bank to its customers. Then, mark the following statements as true (T) or false (F).

1 __ Pretexting occurs on telephones.
2 __ Pharming relies on the use of card scanners.
3 __ Trojan horses are spread by pharming sites.

Vocabulary

3 Write a word that is similar in meaning to the underlined part.

1 I had a lot of <u>malicious software</u> on my old computer.
_ _ l _ _ r _

2 You have a <u>malicious virus that seems beneficial</u>.
_ _ _ _ an _ _ r _ _

3 <u>Tricking people into giving information through email</u> is a serious crime.
p _ _ _ h _ _ g

4 <u>Stealing another's personal information</u> is on the rise.
i _ _ _ _ i _ _ _ h _ f _

5 It's a <u>program that gathers personal information</u>.
_ p _ _ _ _ e

6 <u>Capturing information stored on cards</u> is a new form of stealing.
_ _ _ d _ c _ _ _ _ n _

7 <u>Using a legitimate-looking website to trick people</u> fools many people.
p _ _ _ m _ _ _

4 Fill in the blanks with the correct words from the word bank.

WORD BANK

fraud pretexting cyber worm scanner

1 The man on the phone was part of a _____ scam.
2 I got a _____ in my email and now my computer won't work.
3 The criminal used a _____ to steal the information on her card.
4 The man was arrested and went to jail for committing _____ .
5 Avoid _____ crime by being safe on your computer.

5 Listen and read the letter from a bank to its customers again. Why is Lincolnshire Bank contacting its customers?

Listening

6 Listen to a conversation between a customer and a bank employee. Choose the correct answers

1 What is the customer calling about?
- **A** closing her bank account
- **B** reporting a phishing scam
- **C** flagging her account activity
- **D** changing her account information

2 What can be inferred about the woman?
- **A** She receives phishing scams often.
- **B** She has already contacted the police.
- **C** She must call the bank to get money.
- **D** She lost the money in her bank account in the scam.

7 Listen again and complete the conversation.

Employee: Oh! Did it ask you to give away any **1** _____ _____?
Customer: Yeah. It said that the bank **2** _____ _____ _____ my account details.
Employee: Did you email them that information?
Customer: No, I thought I should call the bank first. It seemed **3** _____ .
Employee: Yes, Lincolnshire Bank would never ask for your account details via email.
Customer: That's what I thought, but the email **4** _____ _____ because it had the bank logo. It even linked to a site that looked official.
Employee: Well, some of these criminals are **5** _____ _____ .

Speaking

8 With a partner, act out the roles below based on Task 7. Then, switch roles.

USE LANGUAGE SUCH AS:

I think I received a phishing scam.

Did you email them that information?

It even linked to a site that looked official.

Student A: You are talking to a bank employee. Ask Student B about:
- phishing scams
- what to do next
- your money's safety

Student B: You are a bank employee. Answer Student A's questions.

Writing

9 You are a bank employee. Use the letter and the conversation from Task 8 to write about identity theft (120-150 words). Talk about:

- *How criminals steal personal information*
- *How customers can protect their assets*



9 Preventative measures



From: **jared.greene@harper.com**
To: **allstaff@harper.com**

Dear Harper Company Staff,

By now, you are all aware of the recent **security** breach. The IT department has traced it to a **bug** in our browsers. This bug created an unwanted **backdoor** in the network, allowing **intruders** in. They installed **keyloggers** that track our passwords.

The IT department removed the keyloggers, and the software supplier is releasing a **patch** that will fix this error. We will inform you when this patch becomes available.

However, this provides a good opportunity to remind you of the measures we must take to make our network safer.

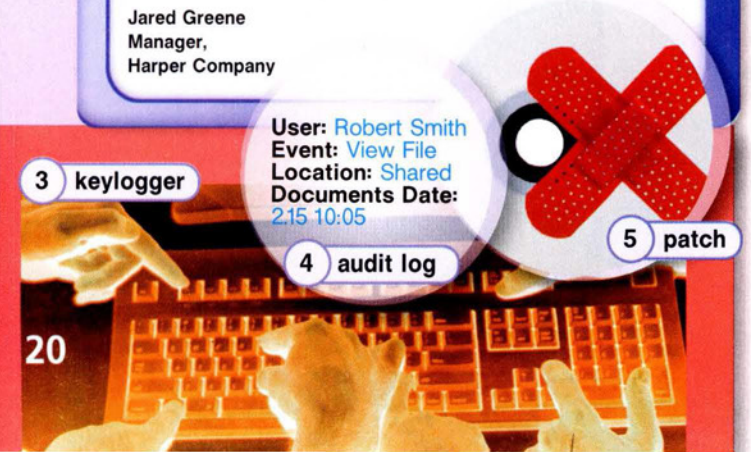
Remember, you must keep the **firewall** settings as strict as possible on your computer. This prevents **attacks** from hackers and keeps certain types of malware out of the system.

Be cautious when downloading files. Perform a virus scan on every email attachment. Also, enable your browsers to block **popups**. Otherwise, spyware can get on to your computer.

Only download company-approved programs to your computer. Unauthorized programs may contain Trojans that can do irreversible damage to our system. Please consult the IT department for a list of **authenticated** programs.

In addition, we will review our **audit logs** from now on. This is to make sure no one violates security **protocol**. Employees violating protocol will receive disciplinary action.

Jared Greene
Manager,
Harper Company



Get ready!

1 Before you read the passage, talk about these questions.

1 How do people keep their computers safe?
2 Why would a company worry about security?

Reading

2 Read the email about safety measures. Then, choose the correct answers.

1 What is the email mainly about?
- **A** improving security at the company
- **B** detecting keylogger programs
- **C** installing a patch on a web browser
- **D** punishing employees for violating security protocol

2 The company will monitor employees by ...
- **A** installing spyware.
- **B** performing virus scans.
- **C** reviewing the audit logs.
- **D** looking for authenticated programs.

3 What can you infer about Harper Company?
- **A** They have authenticated the patch.
- **B** They already have a virus scan program.
- **C** They allow many authenticated programs.
- **D** This is their first security breach.

Vocabulary

3 Match the words (1-8) with the definitions (A-H).

1 __ popup
2 __ bug
3 __ security
4 __ audit log
5 __ backdoor
6 __ patch
7 __ protocol
8 __ intruder

- **A** set of rules
- **B** error in a program
- **C** unwanted advertisements on a web browser
- **D** someone who accesses a system without permission
- **E** safety of a computer system and its data
- **F** part of a program giving undesired access
- **G** record of who has used a computer and what they've used it for
- **H** code to fix errors in a program

4 Fill in the blanks with the correct words from the word bank.

WORD BANK

authenticate keylogger attack firewall patch

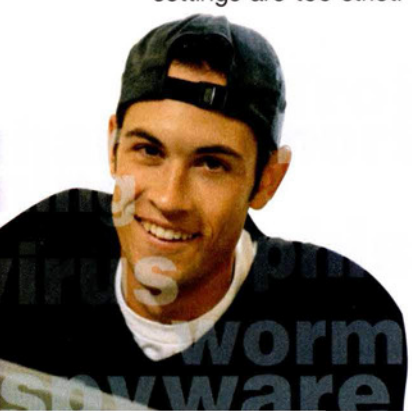
1 Management has to _____ the program before you download it.
2 A(n) _____ will record your password.
3 Without antivirus software, computers are open to a(n) _____.
4 Put up a(n) _____ to keep hackers out of your computer.
5 Download the _____ to make the program work correctly.

5 Listen and read the email about safety measures again. What should users do when popups appear on a web browser?

Listening

6 Listen to a conversation between two employees at Harper Company. Mark the following statements as true (T) or false (F).

1 __ The antivirus software is causing the employee's problems.
2 __ The browser cannot access any online information.
3 __ The employee's firewall settings are too strict.



7 Listen again and complete the conversation.

Employee 1: None of my programs have online access.
Employee 2: What about **1** _____ _____?
Employee 1: The browser opens, but I can't access any websites. Most importantly, I can't use the email client.
Employee 2: That's a big problem.
Employee 1: I know. I think **2** _____ _____ _____ _____.
Employee 2: Are you sure? The company's **3** _____ _____ _____ is pretty powerful.
Employee 1: I know, and **4** _____ _____ _____ _____ _____.
Employee 2: Oh, the firewall. How high are your settings?
Employee 1: **5** _____ _____ _____ _____.
Employee 2: **6** _____ _____ _____. You need to lower the level if you want your programs to work.

Speaking

8 With a partner, act out the roles below based on Task 7. Then, switch roles.

USE LANGUAGE SUCH AS:

What about your browser?
How high are your settings?
You need to lower the level if you want your programs to work.

Student A: Your computer cannot access the Internet. Talk to Student B about:

- the problem
- what works on the computer
- firewall settings

Student B: You are Student A's coworker. Answer his or her questions.

Writing

9 You work in an IT department. Using the email and conversation from Task 8, write an email to your co-workers about security (120-150 words). Talk about:

- *What security measures there are*
- *What threats there are to computers*
- *How the company plans to monitor its employees on the Internet*

10 Anti-virus software



FRANKLIN & JONES
security products

Web Advisor

People who want to protect their children from the dangers of the Internet use *WebAdvisor*. This software **blocks** the types of websites that you decide are unsafe. It also provides instant **web page analysis,** helping you avoid phishing and pharming scams.

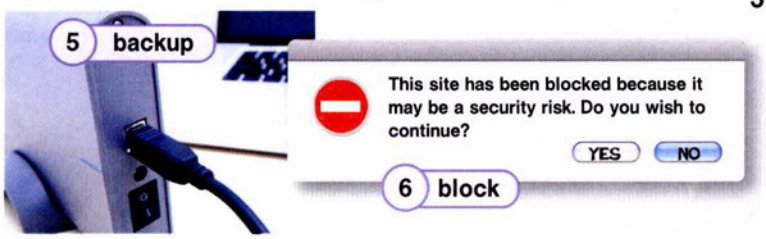
Anti-Virus Plus with RapidClean

Anti-Virus Plus is an update of our first product, *Anti-Virus*. This **anti-virus software sweeps** your computer system to **detect** viruses. All viruses are then **quarantined** so they cannot harm your computer. It's the most reliable software on the market, providing fewer **false positives** and **false negatives** than any other software.

RapidClean is a **virus removal software** that destroys the malicious software discovered by *Anti-Virus Plus*. This includes **rootkit** viruses. These viruses are designed to disguise themselves as a part of your computer's operating system. This makes them very difficult to get rid of. Most security software won't destroy rootkits but, with *RapidClean,* you can.

Defender

Defender is the ultimate **security software**. A combination of both of our software packages, *Defender* keeps your computer completely safe from **cyber criminals**. *Defender* also comes with our computer **backup** service. This means that the data on your computer's hard drive will be backed up on our company's servers. With *Defender*, you cannot lose your files.



Get ready!

1 Before you read the passage, talk about these questions.

1 What anti-virus software should a user consider buying?

2 Are there any problems with anti-virus software?

Reading

2 Read the anti-virus software advertisement. Then, choose the right answers.

1 What is the advertisement mostly about?

A damage that rootkits can cause
B kinds of web page analysis
C types of security software
D how to prevent false negatives

2 Which of the following is intended to block unsafe Internet pages?

A *Anti-Virus*
B *RapidClean*
C *WebAdvisor*
D *Anti-Virus Plus*

3 What can be inferred about false negatives and false positives?

A They aid virus detection.
B They disrupt web page analysis.
C They mark the presence of a virus.
D They occur in most anti-virus programs.

Vocabulary

3 Match the words (1-9) with the definitions (A-I).

1 __ backup
2 __ rootkit
3 __ block
4 __ sweep
5 __ quarantine
6 __ false positive
7 __ false negative
8 __ cyber criminal
9 __ web page analysis

A a person who commits illegal acts online
B to stop a file from being downloaded
C to isolate a file
D to save all information on a system
E labeling a safe file as dangerous
F labeling a dangerous file as safe
G a service that checks websites for safety
H a virus that hides itself as part of an OS
I to search a system for viruses

4 Check (✓) the sentence that uses the underlined parts correctly.

1 __ A Security software protects computers.
__ B Virus removal software infects email.
2 __ A Anti-virus software detects viruses.
__ B Phishing is malicious software.
3 __ A A rootkit notifies users of scams.
__ B Virus removal software keeps computers clean.
4 __ A It is wise to use anti-virus software.
__ B Web page analysis detects false positives.

5 Listen and read the anti-virus software advertisement again. What happens to viruses when anti-virus software sweeps the computer system?

Listening

6 Listen to a conversation between a caller and an employee. Mark the statements as true (T) or false (F).

1 __ The caller lost money in a scam.
2 __ The woman recommends software that provides web page analysis.
3 __ The Anti-Virus Plus program comes with a backup service.

7 Listen again and complete the conversation.

Caller: Well, I almost fell for a **1** _____ scam last week, so I'm worried about that.
Employee: Our WebAdvisor software can help you there. It performs **2** _____ _____ _____ for all the websites you visit.
Caller: Okay. Will it **3** _____ _____ _____ from viruses, too?
Employee: No, it won't. You'd need Anti-Virus Plus with RapidClean for that.
Caller: So I have to buy **4** _____ _____ _____?
Employee: Actually, our Defender software combines those **5** _____ _____ _____ _____.

Speaking

8 With a partner, act out the roles below based on Task 8. Then, switch roles.

USE LANGUAGE SUCH AS:

What do you think you might need?
I almost fell for a pharming scam last week.
Will it protect my computer from viruses, too?

Student A: You are talking to an anti-virus software company employee. Ask Student B about:

- software options
- software costs
- software functions

Student B: You are an anti-virus software company employee. Answer Student A's questions.

Writing

9 You are an anti-virus software company employee. Use the advertisement and the conversation from Task 8 to write out suggestions for a potential customer (120-150 words). Talk about:

- *Which types of software are available*
- *Which software you would recommend*
- *Why that particular type of software would be helpful*

11 Cloud computing



1 cloud computing

What does it Mean? "Cloud Computing"

by Allison Rule

Cloud computing provides many businesses with affordable and customizable services. Yet many avoid this technological resource because they don't understand it. This week's column should explain the concept.

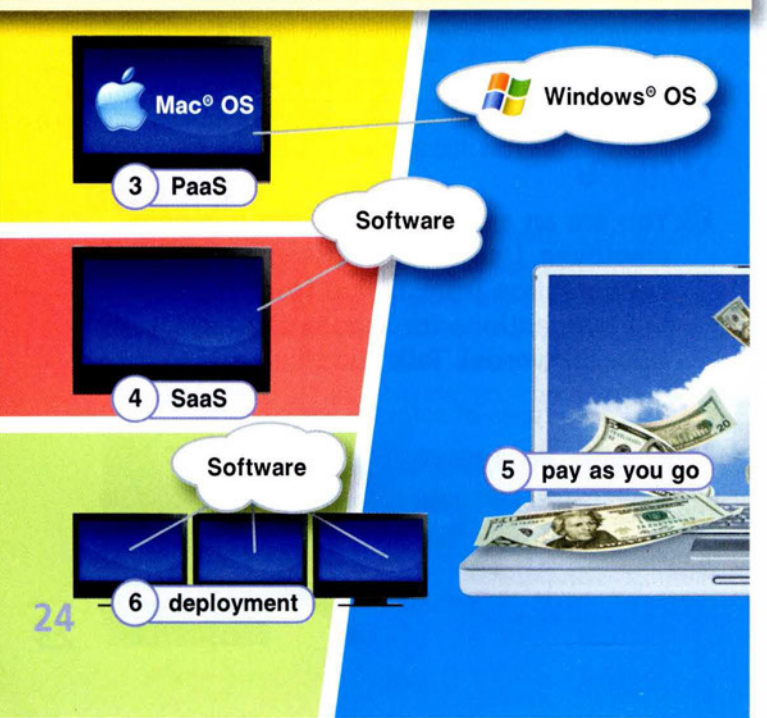
Cloud computing is a lot like **utility computing**. However, cloud computing focuses on using the Internet for software and other resources.

Cloud computing offers more **elasticity** and **scalability** than normal computing. Businesses have access to many resources from both the **private** and **public clouds**. Computers can easily switch to a new OS with **PaaS** (platform as a service). They can also switch to a new server with **IaaS** (infrastructure as a service).

Businesses benefit from the **pay as you go** pricing of cloud computing. And with **SaaS** (software as a service), the **deployment** of new software is almost automatic. It eliminates the need to buy software and install it on every single computer. Furthermore, businesses can monitor their usage and cancel services anytime.

Installing a **CDN** (content delivery network) is a local form of cloud computing that will increase bandwidth. A CDN designates computers on a network for storage. Instead of all computers clogging one server to retrieve data, each user accesses data on a nearby CDN storage computer.

With cloud computing, businesses get inexpensive solutions to their individual needs.





2 elasticity

Get ready!

1 Before you read the passage, talk about these questions.

1 How can installing new software be difficult?
2 How can a business benefit from online services?

Reading

2 Read the newspaper column about technology. Then, choose the correct answers.

1 What is the advice column about?
- **A** how to set up a CDN
- **B** ways to deploy and cancel SaaS
- **C** the benefits of cloud computing
- **D** differences between cloud and utility computing

2 What is the benefit of SaaS?
- **A** It makes a CDN work faster.
- **B** It eliminates elasticity and scalability.
- **C** It increases a server's available bandwidth.
- **D** It reduces the time and money lost installing software.

3 What can you infer about the column?
- **A** Its author uses cloud computing.
- **B** It is only available online.
- **C** The last entry was on utility computing.
- **D** It helps people understand computer terms.

Vocabulary

3 Match the words (1-7) with the definitions (A-G).

1 __ public cloud
2 __ cloud computing
3 __ utility computing
4 __ scalability
5 __ PaaS
6 __ private cloud
7 __ IaaS

- **A** Internet services available for a fee
- **B** Internet services available to everyone
- **C** receiving server functions over the Internet
- **D** receiving operating systems over the Internet
- **E** use of the Internet for software and other services
- **F** potential for a system to change size
- **G** computing as a metered service

4 Fill in the blanks with the correct words and phrases from the word bank.

WORD BANK

deployment SaaS pay as you go elasticity CDN

1 Thanks to _____ pricing, we're only billed when we use it.
2 Set up a _____ to increase the available bandwidth.
3 Cloud computing increases the _____ of our computer systems.
4 Use _____ to avoid installing new programs on each computer.
5 Cloud computing makes _____ of new software much easier.

5 Listen and read the newspaper column about technology again. What does the term 'cloud computing' mean?

Listening

6 Listen to a conversation between an IT worker and a manager. Mark the following statements as true (T) or false (F).

1 __ The company is having software compatibility problems.
2 __ The IT worker thinks cloud computing will help the company.
3 __ The manager asks the IT worker to set up a CDN first.

7 Listen again and complete the conversation.

Manager: I'm not sure I **1** _____ _____ _____ _____. How exactly would it help us?

IT Worker: Remember when we installed all that software a few years back? The ones that had so many **2** _____ _____?

Manager: Yeah, that was a real waste of money.

IT Worker: Well, with cloud computing we can **3** _____ _____ _____ _____ online. Then we pay for how much we use it.

Manager: So, it's a pay as you go type of service? What if the software is bad?

IT Worker: We can just cancel the service and switch to something better. **4** _____ is really easy.

Manager: I like the sound of that. How can we set it up?

IT Worker: I'd **5** _____ _____ _____ _____. It's a set of computers that just store data.

Speaking

8 With a partner, act out the roles below based on Task 7. Then, switch roles.

USE LANGUAGE SUCH AS:

I was reading this column on cloud computing.
How exactly would it help?
I'd start with a CDN.

Student A: You are talking to an employee about cloud computing. Ask Student B about:

- a possible problem
- benefits
- setting it up

Student B: You work with Student A. Answer his or her questions.

Writing

9 You are an IT worker. Use the newspaper column and the conversation from Task 8 to write a proposal for using cloud computing at your business (120-150 words). Talk about:

- *What cloud computing can do*
- *How it can reduce costs*
- *How to set it up*

12 Improving health

1 bar coding

9 7 8 1 8 4 6 7 9 4 7 0

HEALTHCARE 2.0 *New Advances in Medical Technology*

Health technology is a rapidly growing field. New advances aim to improve care and reduce costs.

The **EHR** (Electronic Health Record) is one technology already in place. EHRs let doctors access patient data easily and efficiently. They also enable **CDSS** (Clinical Decision Support System) functions. These alert doctors to harmful drug interactions. EHRs can also store data from **PACS** (Picture Archiving and Communications System). **Interoperability** is a key aspect of EHRs. It lets physicians in different clinics easily share records.

Other technology has also become popular. Many doctors use **CPOE** (Computerized Provider Order Entry) systems. These reduce handwriting and communication errors. **Bar coding** is another common practice. Here, doctors use **optic scanners** to match patients to their medicines. They often use **ADMs** (Automated Dispensing Machines). These dispense drug dosages, which can reduce dosage errors. Many hospitals use **EMM** (Electronic Materials Management) systems. These keep track of drugs and other medical supplies.

Some technology is still in development. With the **lab-on-a-chip**, doctors will not have to send cultures to labs for analysis. **Micro robotic tweezers** will let doctors operate in very small areas. **Implanted microchips** will measure and release drug dosages precisely.



This technology will improve healthcare greatly. Such measures will hopefully save both money and lives.

Get ready!

1 Before you read the passage, talk about these questions.

1 How can technology benefit doctors and hospitals?

2 What kind of medical technology do you know about?

Reading

2 Read the article from Health and Science Digest. Then, mark the following statements as true (T) or false (F).

1 __ CPOE systems help to reduce mistakes related to handwriting.

2 __ Doctors use optic scanners to measure and release precise doses.

3 __ The lab-on-a-chip has saved money and lives.

Vocabulary

3 Match the words (1-7) with the definitions (A-G).

1 __ implanted microchip
2 __ PACS
3 __ EHR
4 __ lab-on-a-chip
5 __ interoperability
6 __ bar coding
7 __ micro robotic tweezers

A a computerized version of a patient's health record

B a device that holds cells and fluid that a doctor can analyze easily

C a system in which doctors scan medicines and match them to patients

D very tiny tools that let a doctor operate in v small areas

E a tiny device in a person's body that releas medicine

F the ability to send electronic health data between systems

G a system that stores medical images fro different sources

4 Place a (✓) next to the response that answers the question.

1 Have you used **CPOE** before?
- **A** __ Yes, I've used it to share records with doctors.
- **B** __ Yes, I've used it to fill out a prescription.

2 Why is **CDSS** helpful?
- **A** __ It helps doctors diagnose and treat patients.
- **B** __ It allows doctors to access patient data easily.

3 What is this **optic scanner** for?
- **A** __ You can use it to read and record information on medicine labels.
- **B** __ You can use it to measure out specific amounts of a drug.

4 Are you familiar with **ADMs**?
- **A** __ Yes, I've used them to operate in very small areas.
- **B** __ Yes, I've used them to measure out medications.

5 Does this hospital use **EMM**?
- **A** __ Yes, we use it to analyze cells and fluid easily.
- **B** __ Yes, we use it to keep track of medicines and supplies.

5 Listen and read the article from Health and Science Digest again. Why have CPOE systems become popular?

Listening

6 Listen to a conversation between an IT worker and a doctor. Mark the following statements as true (T) or false (F).

1 __ CPOE reduces medication mix-ups.
2 __ The doctor has not used the CPOE system.
3 __ The optic scanner records the ID number of a drug.

7 Listen again and complete the conversation.

IT worker: Hello Dr. Samson. I got your message about the new electronic systems.

Doctor: Yes, I could **1** _____ _____ _____ understanding them.

IT worker: Well, we just installed a **2** _____ system and a **3** _____ _____ system.

Doctor: What's the CPOE system for?

IT worker: It's kind of like an **4** _____ _____ form. It lets you fill out prescription orders.

Doctor: **5** _____ _____ do I use it?

IT worker: Well, in this box, you type in the patient's **6** _____ _____ _____. Then just click send.

Doctor: Okay. That sounds **7** _____ _____.

Speaking

8 With a partner, act out the roles below based on Task 8. Then, switch roles.

USE LANGUAGE SUCH AS:

I could use some help understanding them.

What's the ... for?

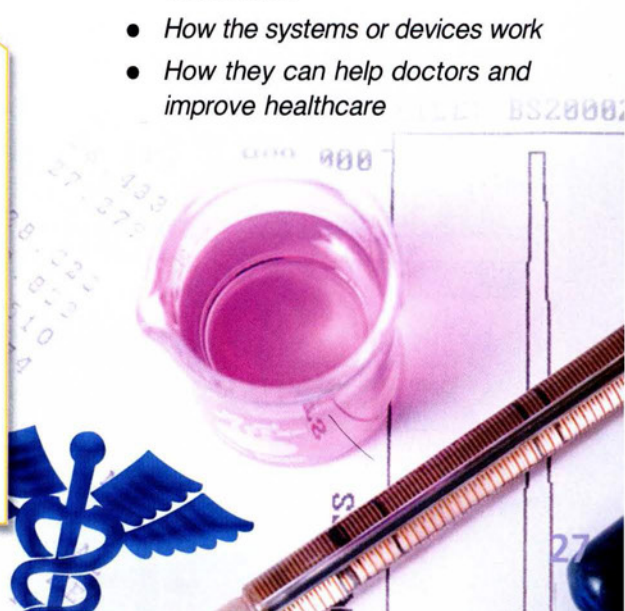
How exactly do I use it?

Student A: You want to learn about the hospital's new electronic systems. Ask Student B about:
- what the new system is for
- how to use it

Student B: You are an IT worker at the hospital. Answer Student A's questions. Make up a name for your colleague.

Writing

9 You are a scientist developing new health technology. Use the article and the conversation from Task 8 to write a short speech about this new technology (120-150 words). Talk about:
- *What the new systems or devices are*
- *How the systems or devices work*
- *How they can help doctors and improve healthcare*



13 Creative design

Get ready!

1 Before you read the passage, talk about these questions.

1 How can people get involved in web design?
2 How do you know that you can trust a website with personal information?



Creating a website can seem like a daunting task. Where do you start? Whether you're building a site for business or creating a **blog** for friends and family to enjoy, we can help you!

For Businesses

We can create a **web portal** for employees or customers to log in to. We build and maintain **root directories.**

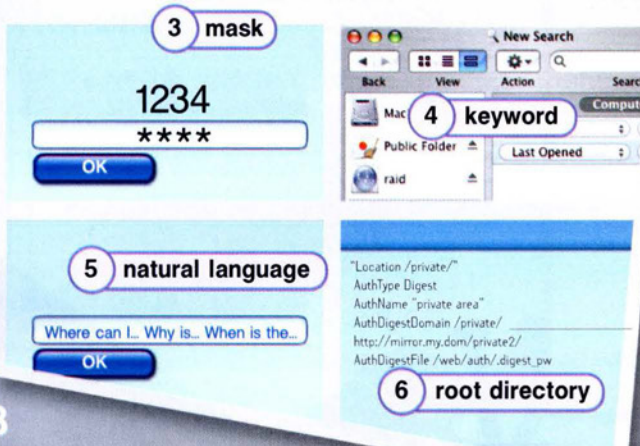
We assure that you are in **PCI compliance**, and can place a **trust logo** on your site so your customers know it!

For Personal Sites

Create **keywords** so that your site shows up on multiple search engines. We **mask** credit card numbers and customer information to ensure secure **interface**. We allow customers to use **natural language** to navigate and search your site.

We install **egress** and **ingress** filters to prevent spamming and scamming. We create fun and whimsical **animated GIFs** that add an interactive element to your site.

Already have a website? We can **redesign** your current website to improve the number of hits it receives!





Reading

2 Read the introduction from a website designer's home page. Then, choose the correct answers.

1 What is this webpage mostly about?
- **A** the difficulties of designing a web page
- **B** the importance of securing a website
- **C** what a company can provide to clients
- **D** steps to designing a personal webpage

2 Which is NOT a service the company provides?
- **A** redesigning websites
- **B** installing egress filters
- **C** creating a domain name
- **D** masking personal information

3 What can you infer about ingress and egress filters?
- **A** They increase security.
- **B** They are expensive to install.
- **C** They are interactive features.
- **D** They increase search engine results.

Vocabulary

3 Match the words (1-7) with the definitions (A-G).

1 __ animated GIF
2 __ PCI compliance
3 __ web portal
4 __ interface
5 __ root directory
6 __ natural language
7 __ blog

- **A** the main directory of a file system
- **B** a webpage that displays information from several sources
- **C** the use of full phrases in searches
- **D** a personal website
- **E** a moving picture posted on a website
- **F** communication between computers or networks
- **G** upholding certain security standards when accepting credit cards

4 **Fill in the blanks with the correct words and phrases from the word bank.**

WORD BANK

redesign ingress filter egress filter
keyword trust logo mask

1 A(n) _____ prevents people from sending malicious software to you.
2 A(n) _____ shows that information is safe on a page.
3 _____ the website so that it's more interesting.
4 Our site shows up when people search the _____ "hardware".
5 A(n) _____ prevents malicious software from leaving a network.
6 This program will _____ people's personal information.

5 **Listen and read the introduction from a website designer's home page again. When customers use natural language to navigate a site, what does it mean?**

Listening

6 **Listen to a conversation between a business owner and a web page designer. Mark the following statements as true (T) or false (F).**

1 __ The business website is not secure.
2 __ The woman did not design the business's webpage.
3 __ The man recommends redesigning the ingress filter.

7 **Listen again and complete the conversation.**

Designer: Mmm. Do you know if you're in **1** _____ _____?
Owner: Yes, and we mask customers' information when they enter it.
Designer: And you have **2** _____ _____ _____ _____?
Owner: We do. I remember the first designer mentioning that.
Designer: Well, that's pretty secure then.
Owner: That's **3** _____ _____ _____, but for some reason, customers don't feel that way.
Designer: I have two suggestions. First, get a **4** _____ _____.
Owner: I've thought about that. But I never knew exactly what to do.
Designer: It's an easy process, really. You pay an annual fee to a company that verifies your PCI compliance. They allow you to use their seal on your site.
Owner: Okay, that sounds good. **5** _____ _____ _____ _____?

Speaking

8 **With a partner, act out the roles below based on Task 7. Then, switch roles.**

USE LANGUAGE SUCH AS:

I'd like to improve my business's website.
We mask customers' information when they enter it.
I have two suggestions.

Student A: Your client wants help improving a website. Ask Student B about:

- secure appearances
- trust logos
- redesign

Student B: You are a business owner. Answer Student A's questions.

Writing

9 **You are a web designer doing a presentation for a client. Using the reading passage and the conversation from Task 8, write a proposal for the improvement of the client's website (120-150 words). Talk about:**

- *What you can do to increase security on their website*
- *What you can do to make their website appear more interesting*
- *What you can do to make it easier for clients to login/search their website*



14 System administration



BELL TOWER INDUSTRIES

New Job Posting: System Administrator

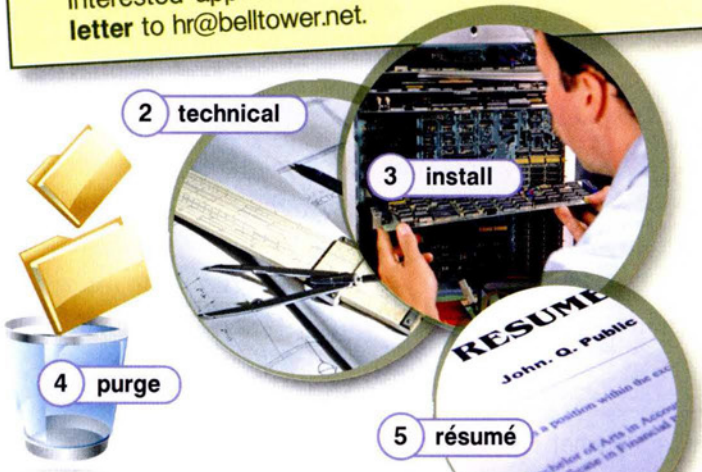
Bell Tower Industries is seeking a full-time **system administrator** to join our growing company. The system administrator will be responsible for setting up and maintaining Bell Tower's computer system. Main job **duties** will involve:

- **Installing** and maintaining system servers
- **Configuring** and repairing computer hardware and peripherals
- Regular **performance tuning** of networks

This position involves several other duties as well. When it is necessary, the administrator will install patches for our operating systems and software. He or she will also perform weekly backups. These backups prevent critical files and data from becoming lost or damaged. The administrator will also be responsible for regular **file archiving**. In addition, the administrator will regularly **purge** old data to protect client information.

The ideal candidate for this job will be able to think and act quickly. He or she will have experience offering **troubleshooting** help. Candidates must have a degree in a **technical** field. Candidates must also have experience working with **Unix®**. Experience working with additional operating systems is a plus.

Interested applicants can send a **résumé** and **cover letter** to hr@belltower.net.



Get ready!

1 Before you read the passage, talk about these questions.

1 What businesses need a system administrator?
2 What kind of problems can a system administrator fix?

Reading

2 Read the job posting from Bell Tower Industries. Then, choose the correct answers.

1 What are the main responsibilities of the advertised position?
- **A** configuring and purging file archives
- **B** organizing and maintaining computer systems
- **C** troubleshooting and backing up damaged files
- **D** researching and improving computer hardware and peripherals

2 Why is information deleted from the system?
- **A** to make room for new data
- **B** to protect clients' data
- **C** to organize system logs
- **D** to repair system servers

3 What is NOT needed to get the job?
- **A** familiarity with a Unix® operating system
- **B** holding a degree in a technical area
- **C** experience offering troubleshooting help
- **D** experience working as a system administrator

Vocabulary

3 Match the words (1-6) with the definitions (A-F).

1 __ technical
2 __ purge
3 __ Unix®
4 __ configure
5 __ troubleshooting
6 __ cover letter

- **A** to modify or arrange something
- **B** involving science and industry
- **C** a computer operating system
- **D** to delete files or data from a computer
- **E** the process of identifying and fixing technical problems
- **F** a document that explains why a person wants, and is qualified for, a job

4 Write a word that is similar in meaning to the underlined part.

1 With some <u>adjustment to increase efficiency</u>, our network would be faster.
_ e _ _ _ r _ a _ _ _ t _ _ i _ _

2 List all previous jobs on your <u>document showing qualifications</u>.
r _ _ _ m _

3 Lucy is a <u>person who manages a computer system</u>.
s _ _ t e _ _ d _ _ n _ _ t r _ _ o _

4 Get the new software and <u>add it</u> to the system.
_ n _ _ a _ _

5 <u>Organizing computer files in an orderly way</u> is important.
f _ _ e a _ _ h _ v _ _ g

6 Fixing the network is the manager's <u>task to complete</u>.
_ _ t _

5 Listen and read the job posting from Bell Tower Industries again. What will the administrator be expected to do with past information in files?

Listening

6 Listen to a conversation between two employees at Bell Tower Industries. Mark the following statements as true (T) or false (F).

1 __ The company is hiring for two positions.
2 __ The former IT employee has a lot of experience with Unix®.
3 __ The man wants to hire the recent graduate.

7 Listen again and complete the conversation.

Employee 1: Mary, how many applicants did we get for the 1 _____ _____ position?
Employee 2: Quite a few, but two candidates 2 _____ _____ _____.
Employee 1: Who are they?
Employee 2: A former IT employee and a recent engineering grad.
Employee 1: What are 3 _____ _____ _____ qualifications?
Employee 2: He's very familiar with managing servers and 4 _____. He has almost ten years of IT work experience.
Employee 1: He sounds 5 _____ _____. Does he have any weaknesses?
Employee 2: Only one. He hasn't 6 _____ _____ Unix® at all.

Speaking

8 With a partner, act out the roles below based on Task 7. Then, switch roles.

USE LANGUAGE SUCH AS:

Two candidates really stand out.

What are the IT employee's qualifications?

Does he have any weaknesses?

Student A: You are an employee deciding who to hire for a position. Ask Student B about:

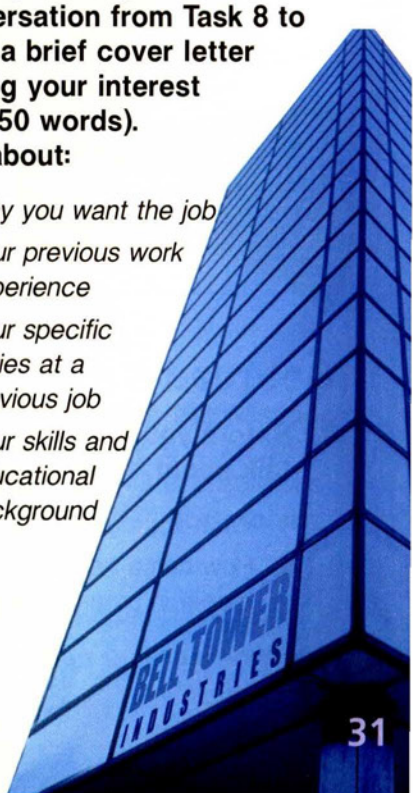
- candidate
- qualifications
- drawbacks

Student B: Discuss with Student A about a candidate for the position. Answer Student A's questions.

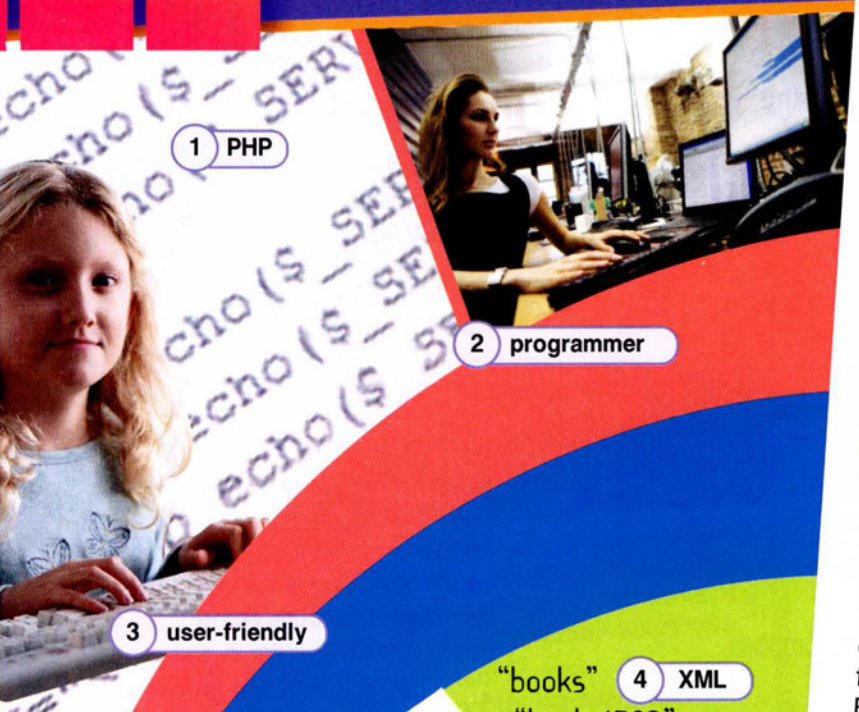
Writing

9 You are applying for a system administrator job. Use the reading passage and conversation from Task 8 to write a brief cover letter stating your interest (120-150 words). Talk about:

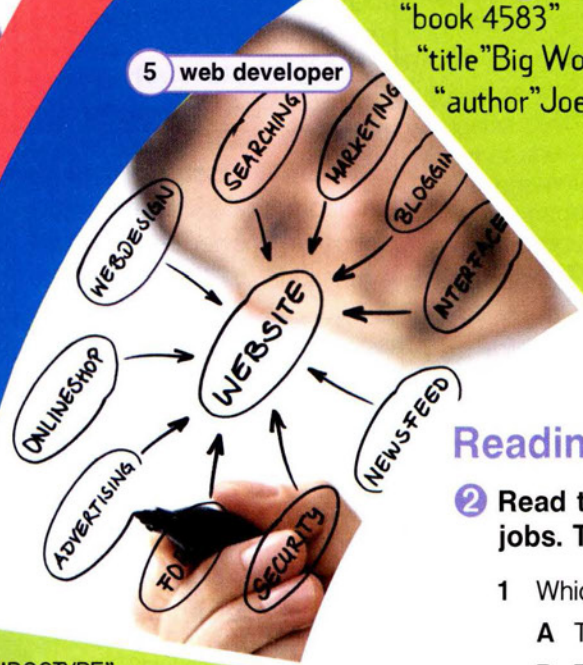
- *Why you want the job*
- *Your previous work experience*
- *Your specific duties at a previous job*
- *Your skills and educational background*



15 Programming



"books" 4 XML
"book 4583"
"title"Big Wolf
"author"Joe Baker



"!DOCTYPE"
"HTML"
"TITLE"
"LINK"
6 HTML

http://www.programmerJobs.com Freelance Programming

Freelance Opportunities for PROGRAMMERS

Wanted: WEB DEVELOPER

I am seeking a talented **web developer** to help me build an **interactive** website for my company. Must be well-versed in languages like **PHP** and Java and have the ability to create **scripts** for web pages. I'm already familiar with **HTML** and am learning **XML**, so I'll handle the text portions of the website. Please send your résumé's to janed@commonrealty.com.

Wanted: EXPERIENCED PROGRAMMER

I need a programmer who is knowledgeable in C programming and C++ to help me with the application I'm working on. My current **programmer** left and I have no idea what he was doing. I need you to help me use the **editor**, decipher the code and eventually finish the project.
Email gregmattis@websurf.com and help me make sense of this project.

Wanted: VISUAL BASIC EXPERT

Are you a master of **visual basic**? Then, I need you to work on the **GUI component** of the software I'm developing. It will be a **user-friendly** program for people looking for help budgeting and managing their money. I am still in the process of looking for investors. Thus, payment will be on the **back end** unless I secure funding earlier.
Email me at geraldfaust@easybudget.com for more information.

Get ready!

1 Before you read the passage, talk about these questions.

1 What is programming used for?
2 How can a person prepare for a career in programming?

Reading

2 Read the advertisements for programming jobs. Then, choose the correct answers.

1 Which is NOT true about the Web Developer advertisement?
- A The advertiser needs help with HTML.
- B The advertiser wants Java components on her website.
- C The advertiser will work on the site's content.
- D The position requires knowing multiple programming languages.

2 What can you infer from the second advertisement?
- A The project does not pay well.
- B The original programmer was fired.
- C The advertiser has little programming knowledge.
- D The application is for money management software.

3 What does the third advertiser want?
- A to learn how to use visual basic
- B help securing investors and funding
- C information about creating user-friendly software
- D a programmer to create the software's visual element

Vocabulary

3 Match the words (1-7) with the definitions (A-G).

1 __ interactive
2 __ user-friendly
3 __ editor
4 __ script
5 __ component
6 __ back end
7 __ GUI

A after the end of a project
B visual element
C part of a website or program
D responsive to a user
E group of automatic commands
F easily accessible
G creates and changes files

4 Place the words from the word bank under the correct heading.

word BANK

XML visual basic PHP
programmer web developer HTML

Programming Languages	Occupations

5 Listen and read the advertisements for programming jobs again. Which job advertisement is asking for someone who is extremely skilled?

Listening

6 Listen to a conversation between two freelance Programmers. Mark the following statements as true (T) or false (F).

1 __ The web developer job includes creating content.
2 __ The woman believes that she can finish the programming project.
3 __ The woman wants to be paid before starting a project.

7 Listen again and complete the conversation.

Programmer 1: There's one asking for a **1** _____ _____ for a realty company.
Programmer 2: **2** _____ _____ _____. Would I have to create content, too?
Programmer 1: No, the ad said that the client would **3** _____ _____ _____.
Programmer 2: **4** _____ _____ _____ _____ when you get the chance. I'll check it out.
Programmer 1: **5** _____ _____. I've got a couple of potential jobs, too.
Programmer 2: Oh yeah? What are they?
Programmer 1: There's one client looking to decipher **6** _____ _____ _____ _____. He can't tell if it's C or C++.
Programmer 2: That shouldn't be too hard. You just have to read the code in the editor.

Speaking

8 With a partner, act out the roles below based on Task 7. Then, switch roles.

USE LANGUAGE SUCH AS:

Have you seen the latest job postings?
I've got a couple potential jobs, too.
You just have to read the code.

Student A: You are a programmer. Talk to Student B about:

- a job posting
- a job Student B is interested in

Student B: You are a programmer. Answer Student A's questions.

Writing

9 You are a programmer. Using the passage and conversation from Task 8, write an email responding to one of the freelance job postings (120-150 words). Talk about:

- *Why you want the job*
- *What programming languages you know*
- *Similar projects you have worked on before*

Glossary

above the fold [ADJ-U4] If something on a website is **above the fold**, it is visible without scrolling down after the page has loaded.

ad product [N-COUNT-U4] An **ad product** is an advertising opportunity such as a banner that is located on a website.

ADM [N-COUNT-U12] An **ADM** (Automated Dispensing Machine) is a hospital machine that measures out specific amounts of medication into containers.

anchor [N-COUNT-U3] An **anchor is** a word, phrase, or image that includes a hyperlink and can be used for navigation.

animated GIF [N-COUNT-U4] An **animated GIF** is the combination of multiple GIF files in one advertisement to create animation.

anti-antivirus virus [N-COUNT-U7] An **anti-antivirus virus** is a computer virus that attacks and often disables anti-virus software.

anti-virus software [N-UNCOUNT-U10] **Anti-virus software** searches a computer system for computer viruses.

Apple® [N-UNCOUNT-U1] **Apple®** is the company that produces Macs® and other computing products.

applet [N-COUNT-U3] An **applet** is a small application that is embedded in a webpage.

attack [N-COUNT-U9] An **attack** is an attempt to get through computer security.

audit log [N-COUNT-U9] An **audit log** is a record of who has accessed a computer system and what actions they took.

authenticate [V-TRANS-U9] To **authenticate** something is to make sure that it is legitimate.

Automation [NOUN-UNCOUNT-U5] **Automation** is the use of programmed machines to perform tasks without human assistance.

back end [ADJ-U15] If something is **back end**, it occurs at the end of a project or job.

backdoor [N-COUNT-U9] A **backdoor** is a hidden way to get by security in computers and programs, sometimes intentionally created.

backup [V-T-U10] To **backup** is to create a duplicate copy of data that is stored on a separate hard drive or computer system to prevent the loss of the data.

bar coding [N-UNCOUNT-U12] **Bar coding** is a system in which doctors scan medicines and match them to patients.

Basecamp® [N-UNCOUNT-U6] **Basecamp®** is a program offered by the company 37 signals that organizes projects and can be accessed by multiple users simultaneously.

block [V-T-U10] To **block** something is to prevent access to it.

blog [N-U13] A **blog** is a personal website that is maintained by an individual.

bug [N-COUNT-U9] A **bug** is a flaw in a computer program.

CAD [N-UNCOUNT-U3] **CAD** (Computer-Aided Design) is the use of a computer to design things such as machines or buildings.

campaign [N-COUNT-U4] A **campaign** is an agreement between an advertising company and a client that outlines which types of advertisements are to be used, where they are to be placed, and how long they will appear.

card scanning [N-UNCOUNT-U8] **Card scanning** is the practice of capturing the personal information stored on credit cards, debit cards, or passports.

CBT [N-UNCOUNT-U3] **CBT** (Computer-Based Training) is the use of a computer to train employees.

CDN [N-COUNT-U11] A **CDN** (content delivery network) is a system of computers on a network containing copies of data that nearby users can access.

CDSS [N-UNCOUNT-U12] **CDSS** (Clinical Decision Support System) is a system that helps doctors diagnose problems. It also suggests treatment options.

centralize [V-T-U6] To **centralize** things is to bring from multiple places and make them available in one location.

click tracking [N-UNCOUNT-U4] **Click tracking** is the process of counting and keeping track of the number of clicks an advertisement receives.

click-through rate [N-COUNT-U4] The **click-through rate** is the ratio of clicked advertisements to the number of advertisements that are viewed.

cloud computing [N-UNCOUNT-U11] **Cloud computing** is use of the Internet for software and other resources.

color matching [N-UNCOUNT-U1] **Color matching** is the ability to create colors as you see them on the screen.

color-coding [N-UNCOUNT-U6] **Color-coding** is the practice of labeling things with different colors in order to tell them apart.

command line [N-COUNT-U10] A **command line** is a word or phrase that makes a computer perform an operation.

commission [N-COUNT-U4] A **commission** is the amount of money charged by a website for hosting advertisements.

component [N-COUNT-U15] A **component** is a part of something bigger.

Computer Aided Manufacturing [NOUN-UNCOUNT-U5] **Computer Aided Manufacturing** is the use of computers to control production equipment.

configure [V-T-U14] To **configure** something is to modify or arrange it so that it works in a certain way.

cover letter [N-COUNT-U14] A **cover letter** is a document that explains why a person is applying for a job and why that person believes he or she is qualified for that job.

CPC [N-UNCOUNT-U4] **CPC** (cost per click-through) is a pricing model wherein rates are charged according to how many clicks an advertisement receives.

CPM [N-UNCOUNT-U4] **CPM** (cost per 1,000 impressions) is a pricing model wherein rates are charged according to how many thousands of people view the advertisement.

CPOE [N-UNCOUNT-U12] **CPOE** (Computerized Provider Order Entry) is a system that lets a doctor fill out electronic orders.

customize [V-TRANS-U1] To **customize** something is to change it to meet your individual needs and purposes.

cyber [ADJ-U8] If something is **cyber**, it is related to computers or the Internet.

cyber criminal [N-COUNT-U10] A **cyber criminal** is a person who uses computers and the Internet to commit crimes such as identity theft and fraud.

dashboard [N-COUNT-U6] A **dashboard** is a display on a computer that shows commonly or recently used files and programs.

deployment [N-UNCOUNT-U11] **Deployment** is introducing new software into a group of hardware.

detect [V-T-U10] To **detect** something is to discover it.

duty [N-COUNT-U14] A **duty** is a task that someone is responsible for completing at a job.

DVD [N-COUNT-U3] A **DVD** (Digital Video Disc) is a storage disc that is read by a laser and can store media files such as videos and images.

editor [N-COUNT-U15] An **editor** is a program that is used to create and change files.

egress filter [N-COUNT-U13] An **egress filter** prevents harmful software from leaving a network.

EHR [N-COUNT-U12] An **EHR** (Electronic Health Record) is a computerized version of a patient's health record.

elasticity [N-COUNT-U11] **Elasticity** is a computer system's ability to gain or lose computer resources as a user sees fit.

electronic bulletin board [N-COUNT-U3] An **electronic bulletin board** is a shared file that can be used to spread information.

Embedded system [N-COUNT-U5] An **embedded system** is a combination of hardware and software designed to perform a specific task.

Glossary

EMM [N-UNCOUNT-U12] **EMM** (Electronic Materials Management) is a system that helps hospitals keep track of medications and medical supplies.

Encoder [NOUN-COUNT-U5] **Encoders** are devices that convert mechanical information into electronic signals.

Ethernet network [NOUN-COUNT-U5] An **Ethernet network** is a high-speed network that links computers together.

false negative [N-COUNT-U10] A **false negative** is when anti-virus software incorrectly indicates that an infected file is clean.

false positive [N-COUNT-U10] A **false positive** is when anti-virus software incorrectly indicates that a clean file has been infected with a computer virus.

FAQ [N-COUNT-U3] A **FAQs** (Frequently Asked Questions) section is a list of common questions with their answers.

fault tolerant [NOUN-UNCOUNT-U5] **Fault tolerant** is the ability to continue functioning even though an error has occurred.

file archiving [N-UNCOUNT-U14] **File archiving** is the process of organizing computer files in an orderly way. This lets you retrieve them easily.

firewall [N-COUNT-U9] A **firewall** is a program that restricts access on a network.

flash [N-UNCOUNT-U3] **Flash** is a media format that can be used to add videos, animations, and other media to a website.

fraud [N-UNCOUNT-U8] **Fraud** is an action that results in the loss of another person's property.

free software license [N-COUNT-U10] A **free software license** allows users to change and distribute programs.

frequency capping [N-UNCOUNT-U4] **Frequency capping** is the process of ensuring that a specific website visitor does not see the same advertisement an excessive number of times.

gallery [N-COUNT-U6] A **gallery** is a collection of icons or pictures that have been organized in a file or page.

geo targeting [N-UNCOUNT-U4] **Geo targeting** is the process of showing advertisements in geographical areas where they are relevant.

GUI [N-UNCOUNT-U15] A **GUI** (graphical user interface) is how a user interacts with a computer using images and text.

hacker [N-COUNT-U7] A **hacker** is a person who exploits computer hardware and software for their own purposes.

hang [V-T-U4] To **hang** a website is to prevent it from loading all the way.

host [N-COUNT-U7] A **host** is a computer system that has a computer virus attached to it.

HTML [N-UNCOUNT-U15] **HTML** (hypertext markup language) is a way to alter the look of text on web pages.

IaaS [N-UNCOUNT-U11] **IaaS** (infrastructure as a service) delivers such elements as servers and software over the Internet.

identity theft [N-UNCOUNT-U8] **Identity theft** is the process of stealing another person's personal information and using it for personal gain.

imbed [V-T-U7] To **imbed** is to become a part of something.

implanted microchip [N-COUNT-U12] An **implanted microchip** is a tiny device in a person's body that releases specific amounts of medicine.

infect [V-T-U7] To **infect** a computer is to contaminate it with a computer virus.

ingress filter [N-COUNT-U13] An **ingress filter** prevents harmful software from entering a network.

install [V-T-U14] To **install** something is to add a new component or program to a computer or system.

integrated circuit [N-COUNT-U5] An **integrated circuit** is a small chip that has several electronic devices attached to it.

interactive [ADJ-U15] If something is **interactive**, it will respond to a user's commands.

interface [N-COUNT-U10] An **interface** provides a way for a user to interact with a computer.

interoperability [N-UNCOUNT-U12] **Interoperability** is the ability to easily send or combine electronic health data from one system into another.

intruder [N-COUNT-U9] An **intruder** is a person or program that attempts to access a network or computer without permission.

keylogger [N-COUNT-U9] A **keylogger** is type of trojan virus that tracks what keystrokes are entered into a computer.

keyword [N-UNCOUNT-U13] A **keyword** is a term or phrase that is created to describe a webpage, so that it can be found in a search engine.

lab-on-a-chip [N-COUNT-U12] A **lab-on-a-chip** is a tiny device that holds cells and fluid that a doctor can analyze easily.

Latency [NOUN-UNCOUNT-U5] **Latency** is the time between the end of one computer communication and the start of another.

Linux® [N-UNCOUNT-U10] **Linux®** is a computer operating system.

Linux® distribution [N-COUNT-U10] A **Linux® distribution** is a collection of software for Linux®.

log in [V-I-U7] To **log in** is to provide a computer security system with the proper identification to use the computer.

Mac® [N-COUNT-U1] A **Mac®** (Macintosh) is a type of computer from Apple®.

malware [N-UNCOUNT-U8] **Malware** is any type of malicious, harmful software.

mask [V-COUNT-U13] To **mask** information is to block it from being viewed.

media player [N-COUNT-U3] A **media player** is used to play media such as videos and animations and can be embedded in a web page.

message board [N-COUNT-U6] A **message board** is an online application that displays and organizes messages from users.

microrobotic tweezers [N-COUNT-U12] **Microrobotic tweezers** are very tiny tweezers that allow a doctor to operate in extremely small or delicate areas.

Microsoft Office® [N-UNCOUNT-U10] **Microsoft Office®** is a software package that offers word processing and spreadsheet programs.

Microsoft® [N-UNCOUNT-U1] **Microsoft®** is the company that produces the Windows® operating system among other products.

MPEG [N-UNCOUNT-U3] **MPEG** is a video format that is used to compress videos into smaller files.

multimedia [N-UNCOUNT-U3] **Multimedia** is any type of media used on a webpage, including images, animations, and videos.

natural language [N-UNCOUNT-U13] **Natural language** is the use of phrases from normal speech in search engines.

open source [ADJ-U10] If software is **open source**, it can be distributed with the same basic source code.

open system [NOUN-COUNT-U5] An **open system** is a system that can use many different types of machines.

OpenOffice® [N-COUNT-U10] **OpenOffice®** is an open source software package similar to Microsoft Office®.

optic scanner [N-COUNT-U12] An **optic scanner** is a device that reads and records identification labels on medications.

OS X® [N-UNCOUNT-U1] **OS X®** is an operating system from Apple® for Mac® computers.

oscilloscope [NOUN-COUNT-U5] An **oscilloscope** is a device that allows the user to view the electrical voltage of a machine.

overwriting virus [N-COUNT-U7] An **overwriting virus** is a computer virus that copies its code over and destroys the files of the original data.

PaaS [N-UNCOUNT-U11] **PaaS** (platform as a service) is a service where users receive a computing operating system and related components over the Internet.

Glossary

PACS [N-UNCOUNT-U12] **PACS** (Picture Archiving and Communications System) is a system that captures and stores medical images from different sources.

patch [N-COUNT-U9] A **patch** is a piece of code that is used to fix a flaw in a computer program.

pay as you go [N-UNCOUNT-U11] **Pay as you go** is a model for payment where customers pay according to how much they use a resource.

PC [N-COUNT-U1] A **PC** (personal computer) refers to a computer that runs a Windows® operating system.

PCI compliance [N-U13] **PCI** (payment card industry) **compliance** is upholding certain security standards for accepting credit and other payment cards.

performance tuning [N-UNCOUNT-U14] **Performance tuning** is the act of adjusting a network or system so that it works as efficiently as possible.

pharming [N-UNCOUNT-U8] **Pharming** is a process wherein thieves reroute people to a fake website that appears to be legitimate in order to trick them into giving away their personal information.

phishing [N-UNCOUNT-U8] **Phishing** is a process wherein thieves trick people into giving away their personal information through email.

PHP [N-UNCOUNT-U15] **PHP** is a scripting language that is used to create dynamic web pages.

piggyback [V-I-U7] To **piggyback** is to gain unauthorized access to a computer system by taking advantage of the owner's legitimate connection.

popup [N-COUNT-U9] A **popup** is an advertisement that suddenly appears in a new window in an Internet browser.

prepress [N-COUNT-U1] **Prepress** is the process of preparing a document, magazine or book to be printed on a large scale.

pretexting [N-UNCOUNT-U8] **Pretexting** is a process wherein thieves trick people into giving away their personal information over the phone.

priority inversion [NOUN-COUNT-U5] A **priority inversion** is a delay that occurs in a computer system when a low-priority task is dealt with before a high-priority task.

private cloud [N-COUNT-U11] A **private cloud** is a service offered to specific users who have purchased it and is not available publicly.

processing speed [N-COUNT-U1] **Processing speed** is a measurement of how quickly a computer can perform tasks.

programmer [N-COUNT-U15] A **programmer** is someone who writes computer programs.

protocol [N-COUNT-U9] **Protocol** is a set of rules that must be followed for the sake of security.

public cloud [N-COUNT-U11] A **public cloud** is a service offered for any users on the Internet.

purge [V-T-U14] To **purge** is to delete files or data from a computer.

quarantine [V-T-U10] To **quarantine** something is to place it in complete isolation where it cannot access or infect anything else.

real time [ADJ-U6] If information is updated or shown in **real time**, it is updated or shown at the same time as new information is received.

redesign [V-COUNT-U13] To **redesign** a website is to change, add, or delete certain elements, but keep others.

redundancy [NOUN-UNCOUNT-U5] **Redundancy** is the inclusion of duplicate components in a system to maintain production when one component fails.

reliability [N-UNCOUNT-U3] **Reliability** is the probability that something will function properly and without any failures.

replicate [V-T-U7] To **replicate** is to make copies of oneself.

resident extension [N-COUNT-U7] A **resident extension** is an add-on to a computer virus that causes it to become a part of the host computer's operating system.

resident virus [N-COUNT-U7] A **resident virus** is a computer virus that becomes part of a file or disk drive but does nothing until activated by a trigger event.

résumé [N-COUNT-U14] A **résumé** is a document that shows a person's education, work history and qualifications and is used when applying for jobs.

root directory [N-COUNT-U13] The **root directory** is the main directory of a file system and is where all other branches of the system come from.

rootkit [N-COUNT-U10] A **rootkit** is a type of computer virus that is created to gain total control over a computer system by overwriting parts of its operating system.

SaaS [N-UNCOUNT-U11] **SaaS** (software as a service) is a service where users receive applications over the Internet instead of buying and installing them.

Samba® [N-UNCOUNT-U10] **Samba®** is a Linux® program that allows Linux® to act as a client on a Windows®-based network.

scalability [N-COUNT-U11] **Scalability** is a system's ability to change size as needed in a given situation.

scanner [N-COUNT-U8] A **scanner** is a device used to capture the personal information stored on credit cards, debit cards, and passports.

script [N-COUNT-U15] A **script** is a group of commands to be carried out automatically.

security [N-UNCOUNT-U9] **Security** is a the state of being safe from attack.

security software [N-UNCOUNT-U10] **Security software** is software that keeps a computer safe from threats such as computer viruses and cyber crimes.

Skype™ [N-UNCOUNT-U6] **Skype™** is software than enables people to call one another using computers rather than telephones.

spyware [N-UNCOUNT-U8] **Spyware** is a type of computer program that gathers someone's personal information without their knowledge.

sweep [V-T-U10] To **sweep** a computer system is to search it for computer viruses.

system administrator [N-COUNT-U14] A **system administrator** is a person whose job is to manage and maintain a computer system.

TCP/IP protocol [N-COUNT-U10] A **TCP/IP protocol** is a set of rules that determine how a computer connects to a network or the Internet.

technical [ADJ-U14] Something that is **technical** involves information from the areas of science and industry.

telecommute [V-I-U6] To **telecommute** is to work at a location away from a main office by using technology.

terminal [N-COUNT-U3] A **terminal** is a computer that allows users to input command lines.

toggle [V-I-U6] To **toggle** is to move from one file or setting to another.

tour [N-COUNT-U6] A **tour** is a series of web pages that offer information about a product or site.

Trojan horse [N-COUNT-U8] A **Trojan horse** is a computer program that appears to be beneficial but is actually malicious.

troubleshooting [N-UNCOUNT-U14] **Troubleshooting** refers to the process of identifying and fixing technical problems.

trust logo [N-COUNT-U13] A **trust logo** is a seal that appears on a web page and means that the security of information on that page is assured by an accredited company.

typography [N-COUNT-U1] **Typography** is a computer's use of typefaces.

Ubuntu® [N-UNCOUNT-U10] **Ubuntu®** is an operating system based on Linux.

Unix® [N-UNCOUNT-U14] **Unix®** is a specific type of computer operating system. Servers often use this operating system.

user-friendly [ADJ-U15] If something is **user-friendly**, it is easy to access and use.

Glossary

utility computing [N-UNCOUNT-U11] **Utility computing** is a way of selling computer use as a metered service like water and electricity.

vendor [N-COUNT-U10] A **vendor** is someone who distributes programs and utilities.

video subsystem [N-COUNT-U1] The **video subsystem** is the part of the computer that presents the visuals on the screen.

virus [N-COUNT-U7] A **virus** is a harmful computer program file that takes up residence in a computer without the owner's knowledge or permission.

virus removal software [N-UNCOUNT-U10] **Virus removal software** destroys computer viruses, removing them from the files they have infected.

visual basic [N-UNCOUNT-U15] **Visual basic** is a simple programming language with a graphical component.

web developer [N-COUNT-U15] A **web developer** is someone who builds a website.

web page analysis [N-UNCOUNT-U10] **Web page analysis** is a process wherein the security of a website is determined in order to help computer users know whether or not the website is safe.

web portal [N-COUNT-U13] A **web portal** is a webpage that displays information gathered from several different places.

web-based [AD-U6] If something is **web-based**, it is available on the Internet instead of on a disk.

Windows® [N-UNCOUNT-U1] **Windows®** is the operating system created by Microsoft® that is used on many PCs.

worm [N-COUNT-U8] A **worm** is a type of malicious software that replicates itself through emails.

XML [N-COUNT-U15] **XML** (extensive markup language) is a programming language that is used to encode web pages.

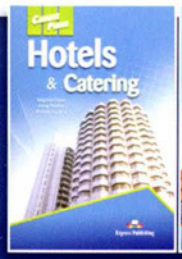
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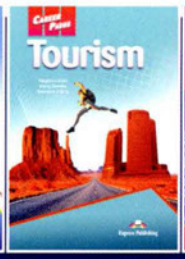
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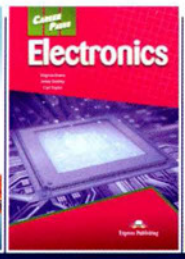
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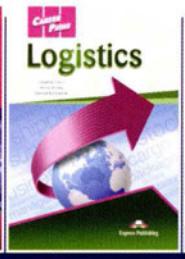


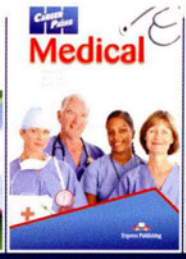
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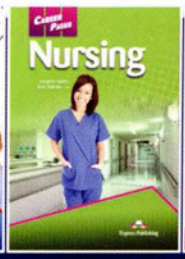








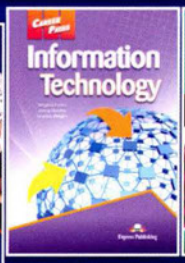




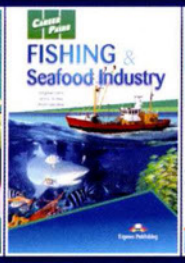




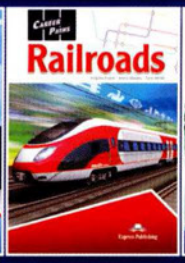


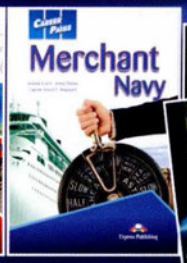


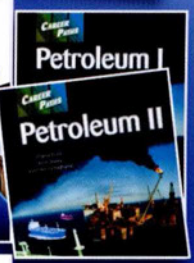


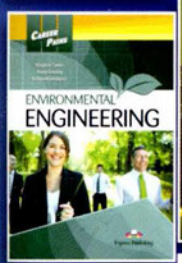




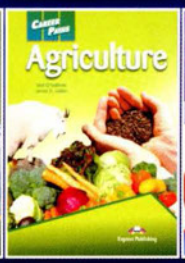


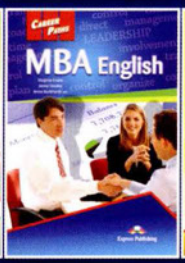


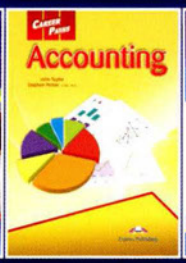




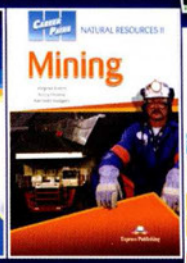


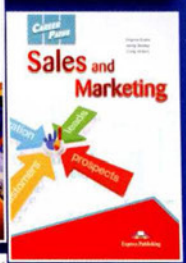


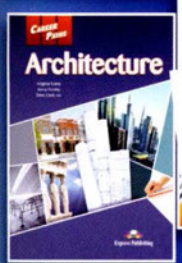


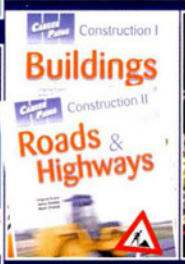


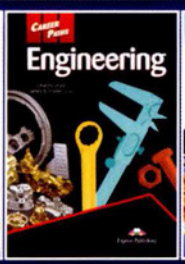


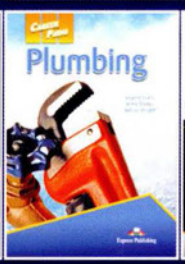


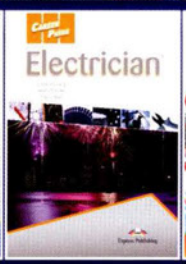


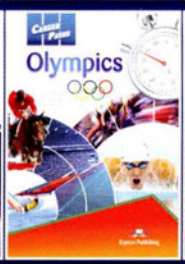


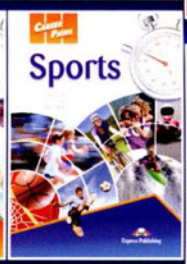


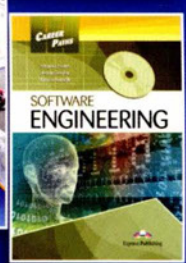




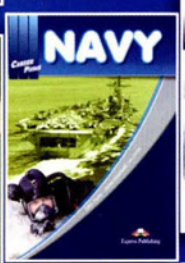




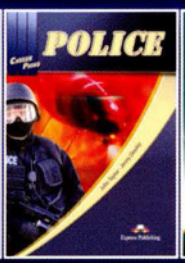


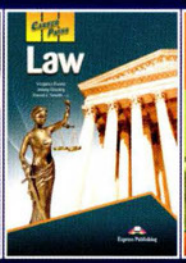




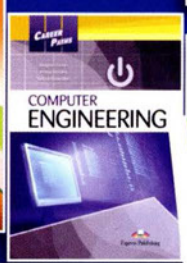












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