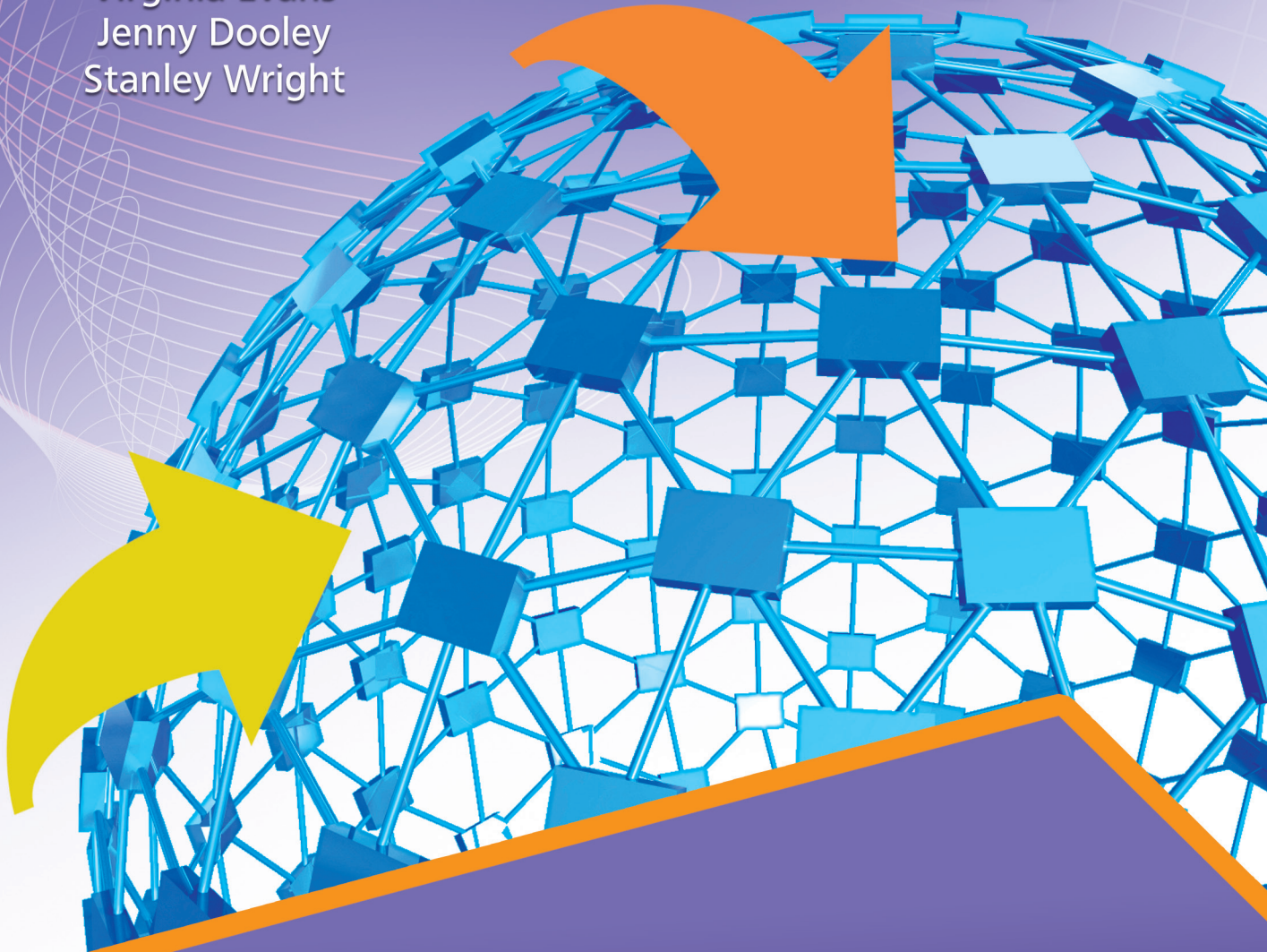


**CAREER
PATHS**

SECOND
EDITION

Information Technology

Virginia Evans
Jenny Dooley
Stanley Wright



Express Publishing

**CAREER
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SECOND
EDITION

Information Technology

Book

1

Virginia Evans
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Scope and Sequence

Unit	Topic	Reading context	Vocabulary	Function
1	Information Technology	Statement	code, data, data processing, encode, hardware, information security, online, quality assurance, software, technical support	Getting someone's attention
2	Introduction to Computing Systems	Email	desktop computer, laptop, mainframe, server, smartphone, supercomputer, tablet, workstation	Giving instructions
3	Inside the Computer	Product guide	case, disk drive, expansion card, fan, hard drive, heat sink, motherboard, power supply, processor, RAM	Indicating a course of action
4	Computing Devices	Catalog	input device, keyboard, LCD, microphone, monitor, mouse, peripheral, printer, scanner, scroll wheel, touchscreen, USB	Making a suggestion
5	Networking	Magazine article	CAT-5 cable, configuration, DHCP, Internet, IP address, LAN, network, power cycle, router, WLAN	Describing options
6	The User Interface	Manual	desktop, drag, folder, Graphical User interface (GUI), icon, maximize, menu, minimize, OS, pointer, shortcut, window	Asking for assistance
7	Word Processing	Advertisement	compatibility, document, font, format, formatting, layout, macro, spell check, template, word processing program	Identifying a problem
8	Email	Handbook	attachment, domain name, email address, email client, ISP, password, POP3, SMTP, username, webmail	Checking for errors
9	Web Browsing	Email	HTML, http, hyperlink, meta tag, search engine, URL, web browser, web host, website, www	Expressing confusion
10	Images 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, database field, formula, function, operator, query, sort, spreadsheet, table, worksheet	Asking for help
12	Web Design vs. Web Development	Brochure	appearance, coding, content, CSS, functionality, navigation, usability, visibility, web design, web development	Asking about purpose
13	Desktop Publishing	Job listing	clip art, comprehensive layout, desktop publishing software, desktop publishing, electronic page, electronic paper, electrostatic printing, graphic communications, offset lithography, page layout	Talking about experience
14	Videoconferencing	Email	bandwidth, codec, dedicated system, document sharing, echo-cancellation, multipoint videoconference, video bridge, videoconferencing, webcam	Explaining differences
15	E-commerce	Email	affiliate, banner, brick and mortar, certificate authority, digital certificate, e-commerce, FAQs, page view, shopping cart, traffic	Asking for clarifications

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Scope and Sequence

Unit	Topic	Reading context	Vocabulary	Function
1	Computer Memory	Guide	bit, bit size, bus speed, DIMM, MB, MHz, paging file, RAM, SIMM, virtual memory	Describing minimum requirements
2	Programming Languages	Letter	C, C#, C++, compiler, computer language, CPU, Java, JavaScript, linker, machine code, multi-thread, Python, Swift	Expressing a concern
3	ISPs and Internet Access	Notification	antivirus software, broadband, DSL, hotspot, ISP, T-1, T-3, upgrade, Wi-Fi®, WPS	Describing benefits
4	Storage Devices	Suggestion form	array, cloud computing, failure, HDD, hybrid array, RAID, SATA, SSD, USB flash 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	Notification	AAC, bitrate, capacity, decode, dock, driver, freeze, GB, MP3, playlist, upload	Troubleshooting a problem
7	Cell Phones	Advertisement	5G network, app, Bluetooth®, call waiting, caller ID, cell phone, lithium-ion battery, ringtone, text message, touchscreen, voice activation, voicemail	Asking for additional information
8	Communications	Instant messages	barcode, data plan, email, EPC, instant message, scan, spam, text, UPC	Assigning a task
9	Entertainment and Social Networking	Memo	avatar, blog, forum, gaming, handle, link, MMORPG, news feed, post, profile, social networking, virtual world	Making a generalization
10	Geographic Information System	Chapter introduction	cartographic, correlated, data capture, GIS, latitude, layer, location, longitude, metadata, raster, remote sensing, spatial pattern, vector	Describing differences
11	Banking	Website	account activity, account alert, bank fraud, bill pay, electronic funds transfer, electronic statement, identity theft, lockout, online banking, PIN, site key, SSL connection	Reporting a problem
12	Education and Research	Advertisement	Boolean operator, catalog, ebook, ejournal, EZproxy, index, license restriction, media, remote access, site license, subscription, VPN	Describing a problem
13	Robotics	Email	actuator, autonomous, drive power, dynamic model, enabling device, end-effector, equality constraint, joint, manipulator, pendant, robotics, serial robot	Giving advice
14	Electronic Publishing	Announcement	active matrix display, bitmapped graphic, black and white, download, ergonomic, offline, PDF reader, publication, reflow, sub-pixel rendering, system requirements	Expressing lack of knowledge
15	Artificial Intelligence	Magazine article	agent, algorithm, artificial intelligence, case-based reasoning, cognitive scientist, computer vision, consciousness, heuristics, machine learning, model-based reasoning, pattern recognition, robot	Expressing lack of understanding

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3

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Express Publishing

Scope and Sequence

Unit	Topic	Reading context	Vocabulary	Function
1	Mac [®] s and PCs	Magazine article	Apple [®] , color matching, customize, Mac [®] , Microsoft [®] , OS X [®] , PC, prepress, processing speed, typography, video subsystem, Windows [®]	Stating a preference
2	Linux [®]	Email	command line, free software license, Linux [®] , Linux [®] distribution, Microsoft Office [®] , open source, OpenOffice [®] , Samba [®] , TCP/IP protocol, terminal, Ubuntu [®] , vendor	Expressing doubt
3	Connecting to Clients and Employees	Email	anchor, applet, CAD, CBT, electronic bulletin board, FAQs, Flash [®] , media player, MPEG, multimedia, reliability	Giving an opinion
4	Advertising and Marketing	Contract	above the fold, ad product, animated GIF, campaign, click-through rate, click tracking, commission, CPC, CPM, frequency capping, geo targeting, hang	Confirming information
5	Automation	Investor report	automation, CAM, embedded system, encoder, Ethernet network, fault tolerant, integrated circuit, latency, open system, oscilloscope, priority inversion, redundancy	Asking for suggestions
6	Telecommuting	Letter	Basecamp [®] , centralize, color-coding, dashboard, gallery, in real time, message board, Microsoft Teams [®] , Skype [™] , telecommuting, toggle, tour, web-based, Zoom [®]	Describing features
7	Hackers and Viruses	Newspaper article	anti-antivirus virus, hacker, host computer, imbed, infect, log in, overwriting virus, piggybacking, replicate, resident extension, resident virus, virus	Discussing possible consequences
8	Identity Theft	Letter	card scanning, cyber, malware, pharming, phishing, pretexting, scanner, spyware, Trojan horse, worm	Discussing suspicions
9	Preventative Measures	Email	attack, audit log, authenticated, backdoor, bug, firewall, intruder, keylogger, patch, pop-up, protocol, security breach	Expressing necessity
10	Antivirus Software	Advertisement	backup, block, cyber criminal, detect, false negative, false positive, quarantine, rootkit, security software, sweep, virus removal software, webpage analysis	Correcting a false impression
11	Cloud Computing	Newspaper column	CDN, deployment, elasticity, IaaS, PaaS, pay-as-you-go, private cloud, public cloud, SaaS, scalability, utility computing	Giving positive feedback
12	Improving Health	Magazine article	ADM, bar coding, CDSS, CPOE, EHR, EMM, implanted microchip, interoperability, lab-on-a-chip, microrobotic tweezers, optic scanner, PACS	Giving instructions
13	Creative Design	Website	egress filter, ingress filter, keyword, mask, natural language, PCI compliance, redesign, root directory, trust logo, web portal	Discussing options
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 postings	back end, component, editor, interactive, PHP, programmer, script, user-friendly, Visual Basic, web developer, XML	Discussing degree of difficulty

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The Eternal DEBATE

by Leslie Davis



vs.



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. Mac[®]s 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.

Mac[®]s have proven themselves vital in publishing, particularly the **prepress** process. Mac[®]s have 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. Mac[®]s usually cost more but are less susceptible to computer viruses. However, Mac[®]s 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 following statements as true (T) or false (F).

- 1 ___ Mac[®]s 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 or phrases (1-7) with the definitions (A-G).


- | | |
|----------------------------|------------------------------|
| 1 ___ Apple [®] | 5 ___ processing speed |
| 2 ___ Windows [®] | 6 ___ video subsystem |
| 3 ___ customize | 7 ___ Microsoft [®] |
| 4 ___ OS X [®] | |

- A company that creates the most common PC operating system
- part of a computer that creates visuals
- a measurement of how quickly a computer works
- operating system for PCs
- changing a computer for your needs
- operating system for Mac[®]s
- company that creates Mac[®]s


4 Fill in the blanks with the correct words or phrases:

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 to 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 Mac®s and PCs
- 2 What can you infer about the employees?
A They currently use Mac®s.
B They are unfamiliar with PCs.
C They plan to request new Mac®s.
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 Mac®s 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 Mac®s 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.

I'd rather get ...

But Mac®s have slower processing speeds.

Student A: You are an employee. Talk to Student B about:

- switching to PCs
- benefits of PCs
- drawbacks of Mac®s

Student B: You are an employee. Talk to Student A about the benefits of Mac®s.

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 Mac®s 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



Glossary

- above the fold** [ADJ-U4] If content 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** [ABBREV-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 antivirus software.
- Apple®** [N-UNCOUNT-U1] **Apple®** is the company that produces Mac®s and other computing products.
- applet** [N-COUNT-U3] An **applet** is a small application that is embedded in another web application often as a plug-in.
- 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.
- authenticated** [ADJ-U9] If software or a program, process etc. is **authenticated**, it is legitimate or genuine.
- automation** [N-UNCOUNT-U5] **Automation** is the use of electronically controlled systems 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. They are usually built into software.
- backup** [N-UNCOUNT-U10] A **backup** is the creation of 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 web-based project management tool offered by the company 37 signals and that can be accessed by multiple users simultaneously.
- block** [V-T-U10] To **block** something is to prevent access to it.
- bug** [N-COUNT-U9] A **bug** is a flaw or error in software or hardware.
- CAD** [ABBREV-U3] **CAD** (Computer-Aided Design) is the use of a computer to design things such as machines or buildings.
- CAM** [ABBREV-U5] **CAM** (Computer Aided Manufacturing) is the use of computers to control production equipment.
- 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** [ABBREV-U3] **CBT** (Computer-Based Training) is a type of training or education in which students practice working on programs using a computer.
- CDN** [ABBREV-U11] A **CDN** (Content Delivery Network) is a system of computers on a network containing copies of data that nearby users can access.
- CDSS** [ABBREV-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 them from multiple places and make them available in one location.
- click-through rate** [N-COUNT-U4] The **click-through rate** is the ratio of clicked advertisements to the number of advertisements that are viewed.
- click tracking** [N-UNCOUNT-U4] **Click tracking** is the process of counting and keeping track of the number of clicks an advertisement receives.



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Career Paths: Information Technology 2nd Edition is a new educational resource for information technology professionals who want to improve their English communication skills in a work environment. Incorporating career-specific vocabulary and contexts, each unit offers step-by-step instruction that immerses students in the four key language components: reading, listening, speaking, and writing. **Career Paths: Information Technology 2nd Edition** addresses topics including computer components, accessories, software, Internet security, web design, and the future of the industry.

The series is organized into three levels of difficulty and offers over 400 vocabulary terms and phrases. Every unit includes a test of reading comprehension, vocabulary, and listening skills, and leads students through written and oral production.

Included Features:

- A variety of realistic reading passages
- Career-specific dialogues
- 45 reading and listening comprehension checks
- Over 400 vocabulary terms and phrases
- Guided speaking and writing exercises
- Complete glossary of terms and phrases

The **Teacher's Guide** contains detailed lesson plans, a full answer key and audio scripts.

The **audio CDs** (downloadable) contain all recorded material.



The **Digital** version of the book contains subject specific videos, instant feedback on all tasks and progress monitoring reports.



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