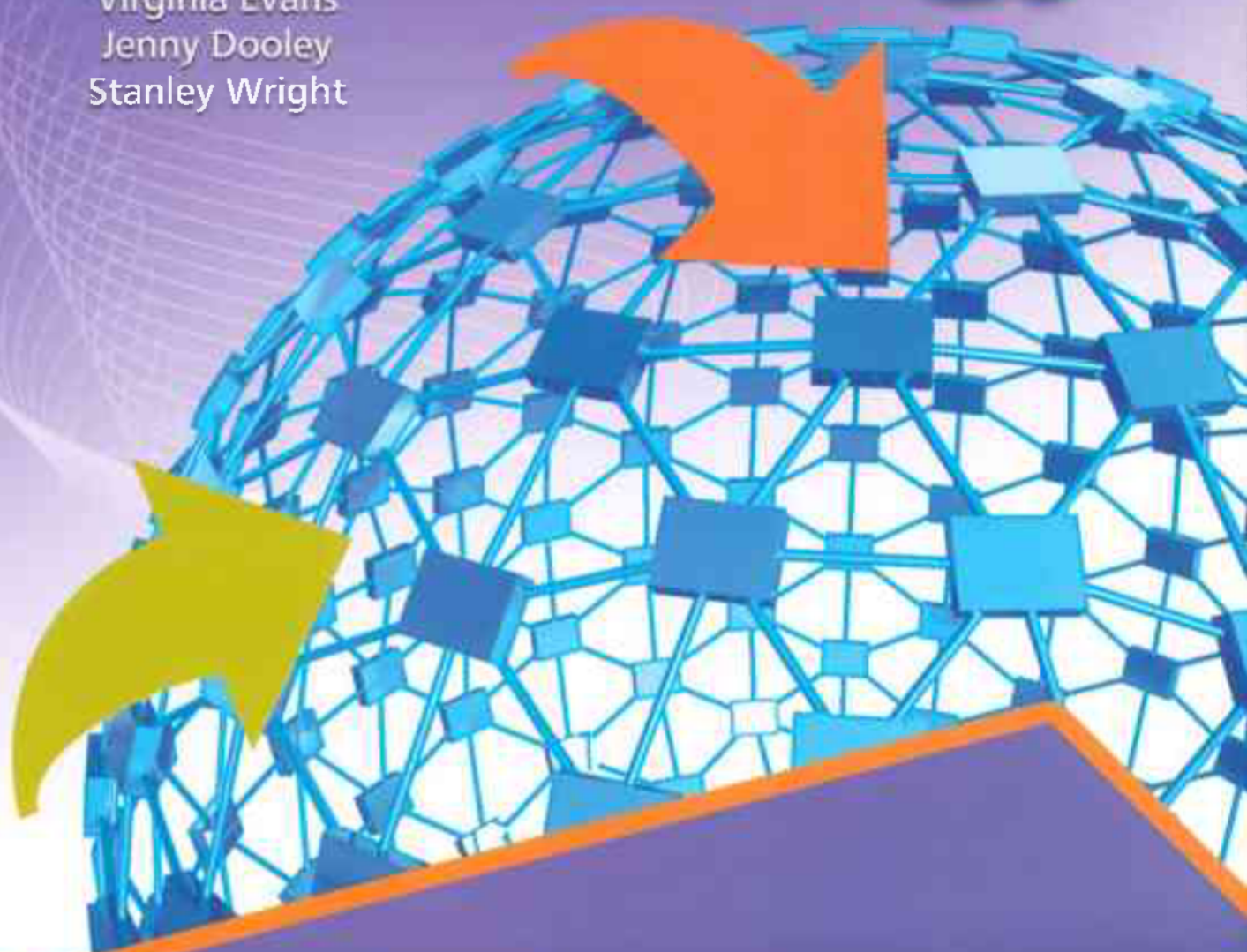


**CAREER  
PATHS**

# Information Technology

Virginia Evans  
Jenny Dooley  
Stanley Wright



Express Publishing

**Published by Express Publishing**

**Liberty House, Greenham Business Park, Newbury,  
Berkshire RG19 6HW, United Kingdom**

**Tel.: (0044) 1635 817 363**

**Fax: (0044) 1635 817 463**

**email: [inquiries@expresspublishing.co.uk](mailto:inquiries@expresspublishing.co.uk)**

**[www.expresspublishing.co.uk](http://www.expresspublishing.co.uk)**

© Express Publishing, 2011

Design and Illustration © Express Publishing, 2011

First published 2011

Sixth impression 2016

Made in EU

All rights reserved. No part of this publication may be reproduced, stored in a retrieval system, or transmitted in any form, or by any means, electronic, photocopying, or otherwise, without the prior written permission of the publishers.

This book is not meant to be changed in any way.

ISBN 978-0-85777-640-2

## **Acknowledgements**

### **Authors' Acknowledgements**

We would like to thank all the staff at Express Publishing who have contributed their skills to producing this book. Thanks for their support and patience are due in particular to: Mary Palmer (Editor in Chief); Sean Todd (senior editor); Steve Miller (editorial assistant); Richard White (senior production controller); the Express design team; Sweetspot (recording producers). We would also like to thank those institutions and teachers who piloted the manuscript, and whose comments and feedback were invaluable in the production of the book.

**Every effort has been made to trace all the copyright holders. If any have been inadvertently overlooked, the publishers will be pleased to make the necessary arrangements at the first opportunity.**

**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	computer, desktop computer, laptop, mainframe, PDA, server, smartphone, supercomputer, tablet, 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, maximize, 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

# Table of Contents

<b>Unit 1 – Information Technology</b> .....	4
<b>Unit 2 – Introduction to Computing Systems</b> .....	6
<b>Unit 3 – Inside the Computer</b> .....	8
<b>Unit 4 – Computing Devices</b> .....	10
<b>Unit 5 – Networking</b> .....	12
<b>Unit 6 – The User Interface</b> .....	14
<b>Unit 7 – Word Processing</b> .....	16
<b>Unit 8 – Email</b> .....	18
<b>Unit 9 – Web Browsing</b> .....	20
<b>Unit 10 – Images and Graphic Design</b> .....	22
<b>Unit 11 – Databases vs. Spreadsheets</b> .....	24
<b>Unit 12 – Web design vs. Development</b> .....	26
<b>Unit 13 – Desktop Publishing</b> .....	28
<b>Unit 14 – Videoconferencing</b> .....	30
<b>Unit 15 – E-commerce</b> .....	32
<b>Glossary</b> .....	34

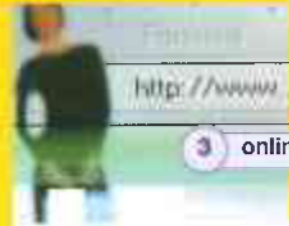
# IT Department Restructuring



1 data processing



2 information security



3 online

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.



4 technical support



5 hardware



6 software

## 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 <input type="checkbox"/> software             | 6 <input type="checkbox"/> online            |
| 2 <input type="checkbox"/> code                 | 7 <input type="checkbox"/> technical support |
| 3 <input type="checkbox"/> hardware             | 8 <input type="checkbox"/> data              |
| 4 <input type="checkbox"/> data processing      | 9 <input type="checkbox"/> quality assurance |
| 5 <input type="checkbox"/> information security | 10 <input type="checkbox"/> 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**

- Enter the \_\_\_\_\_ into the computer.
  - The company uses \_\_\_\_\_ to protect information.
  - \_\_\_\_\_ 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.
- What is the dialogue mainly about?
    - A asking for a raise
    - B requesting a transfer
    - C assuring product quality
    - D improving hardware
  - 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 1 \_\_\_\_\_ 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 about their:

- 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 **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 **tablet**. However, employees only use them on business trips. Most employees just answer email with their **smartphones**. 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 smartphones.
  - 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 (**tablet / 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 / tablet**) is smaller than a laptop, but still has a keyboard.
- 6 Connect to the (**server / laptop**) to use that printer.
- 7 A (**supercomputer / tablet**) is the most powerful machine in the world.



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

- 1      workstation                      3      smartphone  
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 and can connect to the Internet.

**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:** Ok, 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.



2 case

1 motherboard

## Get ready!

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

- Which components make up a typical desktop computer?
- What do you call a person who repairs computers?

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.

## Reading

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

- What is the guide mostly about?
  - putting together a computer
  - problems with computer parts
  - uses of expansion cards
  - repairing a broken computer
- When should the hard drive be installed?
 

A Step #1	C Step #5
B Step #3	D Step#6
- According to the guide, what is NOT an assembly step?
  - collecting parts
  - opening the case
  - connecting the drives
  - installing the RAM card

## Vocabulary

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

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

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

