



Correlation of

Exploring Science for South Carolina,
by Cengage Learning, © 2018,
ISBN: 9780357039038

to

**South Carolina's Career and Technology Education
Information Technology
Activity/Course Codes:
Fundamentals of Computing - 5023**

**CORRELATION TO SOUTH CAROLINA'S CAREER AND TECHNOLOGY EDUCATION – INFORMATION TECHNOLOGY
ACTIVITY/COURSE CODES: FUNDAMENTALS OF COMPUTING - 5023
EXPLORING COMPUTER SCIENCE FOR SOUTH CAROLINA,
BY CENGAGE LEARNING, © 2018,
ISBN: 9780357039038
NATIONAL GEOGRAPHIC LEARNING | CENGAGE**

COMPETENCY/OBJECTIVE	PAGE REFERENCES
COURSE DESCRIPTION: Fundamentals of Computing is designed to introduce students to the field of computer science through an exploration of engaging and accessible topics. Through creativity and innovation, students will use critical thinking and problem solving skills to implement projects that are relevant to students' lives. They will create a variety of computing artifacts while collaborating in teams. Students will gain a fundamental understanding of the history and operation of computers, programming, and web design. Students will also be introduced to computing careers and will examine societal and ethical issues of computing.	DC - Discovering Computers 2018: Digital Technology, Data, and Devices, by Misty E. Vermaat/ Susan L. Sebok/ Steven M. Freund, © 2018, ISBN: 9781337285100 S2 - Scratch 2.0 Programming for Teens, 2/E, by Jerry Lee Ford Jr., © 2015, ISBN: 9781305075191 BR - Basic Robotics, by Keith Dinwiddie, © 2016, ISBN: 9781133950196
A. SAFETY	
Effective professionals know the academic subject matter, including safety as required for proficiency within their area. They will use this knowledge as needed in their role. The following accountability criteria are considered essential for students in any program of study.	
1. Review school safety policies and procedures.	This objective is not directly addressed in this edition of Exploring Science for South Carolina.
2. Review classroom safety rules and procedures.	This objective is not directly addressed in this edition of Exploring Science for South Carolina.
3. Review safety procedures for using equipment in the classroom.	This objective is not directly addressed in this edition of Exploring Science for South Carolina.
4. Identify major causes of work-related accidents in office environments.	This objective is not directly addressed in this edition of Exploring Science for South Carolina.
5. Demonstrate safety skills in an office/work environment.	This objective is not directly addressed in this edition of Exploring Science for South Carolina.
B. STUDENT ORGANIZATIONS	
Effective professionals know the academic subject matter, including professional development, required for proficiency within their area. They will use this knowledge as needed in their role. The following accountability criteria are considered essential for students in any program of study.	
1. Identify the purpose and goals of a Career and Technology Student Organization (CTSO).	This objective is not directly addressed in this edition of Exploring Science for South Carolina.
2. Explain how CTSOs are integral parts of specific clusters, majors, and/or courses.	This objective is not directly addressed in this edition of Exploring Science for South Carolina.

**CORRELATION TO SOUTH CAROLINA'S CAREER AND TECHNOLOGY EDUCATION – INFORMATION TECHNOLOGY
ACTIVITY/COURSE CODES: FUNDAMENTALS OF COMPUTING - 5023
EXPLORING COMPUTER SCIENCE FOR SOUTH CAROLINA,
BY CENGAGE LEARNING, © 2018,
ISBN: 9780357039038
NATIONAL GEOGRAPHIC LEARNING | CENGAGE**

COMPETENCY/OBJECTIVE	PAGE REFERENCES
3. Explain the benefits and responsibilities of being a member of a CTSO.	This objective is not directly addressed in this edition of Exploring Science for South Carolina.
4. List leadership opportunities that are available to students through participation in CTSO conferences, competitions, community service, philanthropy, and other activities.	This objective is not directly addressed in this edition of Exploring Science for South Carolina.
5. Explain how participation in CTSOs can promote lifelong benefits in other professional and civic organizations.	This objective is not directly addressed in this edition of Exploring Science for South Carolina.
C. TECHNOLOGY KNOWLEDGE	
Effective professionals know the academic subject matter, including the ethical use of technology as needed in their role. The following accountability criteria are considered essential for students in any program of study.	
1. Demonstrate proficiency and skills associated with the use of technologies that are common to a specific occupation (e.g., keying speed).	This objective is not directly addressed in this edition of Exploring Science for South Carolina.
2. Identify proper netiquette when using e-mail, social media, and other technologies for communication purposes.	DC: 2-38 to 2-39
3. Identify potential abuse and unethical uses of laptops, tablets, computers, and/or networks.	DC: 4-8 <i>Ethics & Issues</i> , 5-15 to 5-16, 5-25, 5-27, 5-33, 8-6, 12-21, 12-13 <i>Secure IT</i>
4. Explain the consequences of social, illegal, and unethical uses of technology (e.g., cyberbullying, piracy; illegal downloading; licensing infringement; inappropriate uses of software, hardware, and mobile devices in the work environment).	DC: 5-25 to 5-35
5. Discuss legal issues and the terms of use related to copyright laws, fair use laws, and ethics pertaining to downloading of images, photographs, documents, video, sounds, music, trademarks, and other elements for personal use.	DC: 1-34 <i>Consider This</i> , 2-21 <i>Consider This</i> , 4-4 to 4-6, 4-10 to 4-11, 5-16, 5-21, 5-27, 9-21 <i>Consider This</i> , 12-13 <i>Secure IT</i> 12-2
6. Describe ethical and legal practices of safeguarding the confidentiality of business-and personal-related information.	DC: 5-19 <i>Tech Feature</i> 5-1, 10-6 <i>Ethics & Issues</i> 2-3
7. Describe possible threats to a laptop, tablet, computer, and/or network and methods of avoiding attacks.	DC: 5-3 to 5-8, 8-22 <i>Ethics & Issues</i> , 12-13 <i>Secure IT</i>
8. Evaluate various solutions to common hardware and software problems.	DC: 3-14 to 3-15, 3-32 to 3-34

CORRELATION TO SOUTH CAROLINA'S CAREER AND TECHNOLOGY EDUCATION – INFORMATION TECHNOLOGY
ACTIVITY/COURSE CODES: FUNDAMENTALS OF COMPUTING - 5023
EXPLORING COMPUTER SCIENCE FOR SOUTH CAROLINA,
BY CENGAGE LEARNING, © 2018,
ISBN: 9780357039038
NATIONAL GEOGRAPHIC LEARNING | CENGAGE

COMPETENCY/OBJECTIVE	PAGE REFERENCES
D. PERSONAL QUALITIES AND EMPLOYABILITY SKILLS	
Effective professionals know the academic subject matter, including positive work practices and interpersonal skills, as needed in their role. The following accountability criteria are considered essential for students in any program of study.	
1. Demonstrate punctuality.	This objective is not directly addressed in this edition of Exploring Science for South Carolina.
2. Demonstrate self-representation.	DC: Students can demonstrate self-representation in many of the "How TO: Your Turn" exercises. Ex: FO-39 Create a website for an online resume.
3. Demonstrate work ethic.	This objective is not directly addressed in this edition of Exploring Science for South Carolina.
4. Demonstrate respect.	This objective is not directly addressed in this edition of Exploring Science for South Carolina.
5. Demonstrate time management.	This objective is not directly addressed in this edition of Exploring Science for South Carolina.
6. Demonstrate integrity.	Students can demonstrate integrity by completing "Ethics & Issues" activities in each chapter. Ex: 5-12 "Ethics & Issues" 5-1
7. Demonstrate leadership.	DC: Students can demonstrate leadership through the "Critical Thinking Case Study" activities at the end of each module. Ex: 12-34.
8. Demonstrate teamwork and collaboration.	<p>DC: Students can demonstrate teamwork and collaboration skills by completing end of chapter feature <i>Problem Solving</i>. Examples include: 1-43, 2-43, 5-39, 8-33, 10-37, 12-29</p> <p>Students can demonstrate teamwork and collaboration skills by completing end of chapter feature <i>Critical Thinking</i>. Examples include: 1-48, 2-47, 5-44, 8-38, 10-40, 12-34</p> <p>S2: This objective is demonstrated by completing the programming exercises throughout the text. Examples include: 87-108, 150-158, 201-210, 271-282, 316-326, 344-354</p>
9. Demonstrate conflict resolution.	This objective is not directly addressed in this edition of Exploring Science for South Carolina.

CORRELATION TO SOUTH CAROLINA'S CAREER AND TECHNOLOGY EDUCATION – INFORMATION TECHNOLOGY
ACTIVITY/COURSE CODES: FUNDAMENTALS OF COMPUTING - 5023
EXPLORING COMPUTER SCIENCE FOR SOUTH CAROLINA,
BY CENGAGE LEARNING, © 2018,
ISBN: 9780357039038
NATIONAL GEOGRAPHIC LEARNING | CENGAGE

COMPETENCY/OBJECTIVE	PAGE REFERENCES
10. Demonstrate perseverance.	This objective is not directly addressed in this edition of Exploring Science for South Carolina.
11. Demonstrate commitment.	This objective is not directly addressed in this edition of Exploring Science for South Carolina.
12. Demonstrate a healthy view of competition.	This objective is not directly addressed in this edition of Exploring Science for South Carolina.
13. Demonstrate a global perspective.	DC: 11-17 <i>Ethics and Issues</i>
14. Demonstrate health and fitness.	DC: 7-44
15. Demonstrate self-direction.	DC: Students can demonstrate self-direction by completing Critical Thinking Activities at the end of Module 12: Working in the Enterprise. Examples include: 12-32, 12-33, 12-34
16. Demonstrate lifelong learning.	DC: 12-19-22 Technology Certifications
E. PROFESSIONAL KNOWLEDGE	
Effective professionals know the academic subject matter, including positive work practices and interpersonal skills, as needed in their role. The following accountability criteria are considered essential for students in any program of study.	
1. Demonstrate effective speaking and listening skills.	DC: Students can demonstrate effective speaking and listening skills by completing the "Record and Edit a Video" exercise on page 7-42
2. Demonstrate effective reading and writing skills.	DC: Students can demonstrate effective reading and writing skills by completing the Internet Research activities at the end of each chapter. Ex: 4-46, 7-44,
3. Demonstrate mathematical reasoning.	S2: Students can demonstrate this skill in chapters 5-13 as they perform math and conditional and repetitive logic. Ex. 187-210.
4. Demonstrate job-specific mathematics skills.	S2: Students can demonstrate math skills associated with programming in chapters 5-13 as they perform math and conditional and repetitive logic. Ex. 187-210.

CORRELATION TO SOUTH CAROLINA'S CAREER AND TECHNOLOGY EDUCATION – INFORMATION TECHNOLOGY
ACTIVITY/COURSE CODES: FUNDAMENTALS OF COMPUTING - 5023
EXPLORING COMPUTER SCIENCE FOR SOUTH CAROLINA,
BY CENGAGE LEARNING, © 2018,
ISBN: 9780357039038
NATIONAL GEOGRAPHIC LEARNING | CENGAGE

COMPETENCY/OBJECTIVE	PAGE REFERENCES
5. Demonstrate critical-thinking and problem-solving skills.	<p>DC: Students can demonstrate problem-solving skills by completing end of chapter feature <i>Problem Solving</i>. Examples include: 1-43, 2-43, 5-39, 8-33, 10-37, 12-29</p> <p>Students can demonstrate critical-thinking skills by completing end of chapter feature <i>Critical Thinking</i>. Examples include: 1-48, 2-47, 5-44, 8-38, 10-40, 12-34</p> <p>S2: This objective is demonstrated by completing the programming exercises throughout the text. Examples include: 87-108, 150-158, 201-210, 271-282, 316-326, 344-354</p>
6. Demonstrate creativity and resourcefulness.	<p>DC: Students can demonstrate creativity and resourcefulness skills by completing end of chapter feature <i>Problem Solving</i>. Examples include: 1-43, 2-43, 5-39, 8-33, 10-37, 12-29</p> <p>Students can demonstrate creativity and resourcefulness skills by completing end of chapter feature <i>Critical Thinking</i>. Examples include: 1-48, 2-47, 5-44, 8-38, 10-40, 12-34</p> <p>S2: This objective is demonstrated by completing the programming exercises throughout the text. Examples include: 87-108, 150-158, 201-210, 271-282, 316-326, 344-354</p>
7. Demonstrate an understanding of business ethics.	DC: 5-25 to 5-35
8. Demonstrate confidentiality.	DC: 5-19 <i>Tech Feature 5-1</i> , 5-20 <i>Ethics & Issues 5-1</i>
9. Demonstrate an understanding of workplace structures, organizations, systems, and climates.	DC: This objective can be achieved in Module 12: Working in the Enterprise. Ex: 12-3.
10. Demonstrate diversity awareness.	This objective is not directly addressed in this edition of Exploring Science for South Carolina.
11. Demonstrate job acquisition and advancement skills.	DC: 12-24 to 12-25, 12-29, 12-31 to 12-34

CORRELATION TO SOUTH CAROLINA'S CAREER AND TECHNOLOGY EDUCATION – INFORMATION TECHNOLOGY
ACTIVITY/COURSE CODES: FUNDAMENTALS OF COMPUTING - 5023
EXPLORING COMPUTER SCIENCE FOR SOUTH CAROLINA,
BY CENGAGE LEARNING, © 2018,
ISBN: 9780357039038
NATIONAL GEOGRAPHIC LEARNING | CENGAGE

COMPETENCY/OBJECTIVE	PAGE REFERENCES
12. Demonstrate task management skills.	<p>DC: This objective is addressed by completing the end-of-chapter activities throughout the text.</p> <p>S2: This objective is demonstrated by completing the programming exercises throughout the text.</p> <p>BR: This objective is addressed by completing the chapter activities throughout the text.</p>
13. Demonstrate customer-service skills	DC: 12-3 to 12-4
F. EVOLUTION OF COMPUTING	
Effective professionals demonstrate knowledge of computing, as needed in their role. The following accountability criteria are considered essential for students in any program of study.	
1. Define key computing terms (e.g. hardware, software, data, etc.).	<p>DC: This objective is addressed by the end-of-chapter feature <i>Key Terms</i>. Examples include: 1-41, 3-39, 6-28, 8-31, 10-35, 12-27</p> <p>S2: This objective is addressed by the italicized words within the chapters.</p> <p>BR: This objective is addressed by the end-of-chapter feature <i>Key Terms</i>. Examples include: 38, 86, 143, 185, 236, 317</p>
2. Identify key individuals and their impact on the field of computing.	<p>DC: TT-1 to TT-14</p> <p>BR: 2 - 38</p>
3. Discuss the progression of computing and explain its impact on society (e.g. hardware, programming languages, applications, Internet, emerging technologies, etc.).	<p>DC: TT-1 to TT-14</p> <p>BR: 2 - 38</p>
4. Explain Moore's Law.	This objective is not directly addressed in this edition of Exploring Science for South Carolina.

CORRELATION TO SOUTH CAROLINA'S CAREER AND TECHNOLOGY EDUCATION – INFORMATION TECHNOLOGY
ACTIVITY/COURSE CODES: FUNDAMENTALS OF COMPUTING - 5023
EXPLORING COMPUTER SCIENCE FOR SOUTH CAROLINA,
BY CENGAGE LEARNING, © 2018,
ISBN: 9780357039038
NATIONAL GEOGRAPHIC LEARNING | CENGAGE

COMPETENCY/OBJECTIVE	PAGE REFERENCES
G. COMPUTING SYSTEMS	
Effective professionals demonstrate knowledge of computing systems, as needed in their role. The following accountability criteria are considered essential for students in any program of study.	
1. Identify and define the key functional components (input devices, output devices, processor, operating system, software applications, memory, storage, etc.).	DC: 4-2 to 4-39, 4-40 to 4-48, 6-2 to 6-9, 6-14 to 6-20, 7-2 to 7-21, 7-22 to 7-37, 7-38 to 7-46, 8-2 to 8-29, 8-30 to 8-38, 9-2 to 9-27, 9-28 to 9-36
2. Understand the terms and units that are used to describe major hardware components (RAM, ROM, Peta-, Tera-, Giga-, Mega- Kilo-, Hz, Bit, Byte, Binary, etc.).	DC: 6-13 to 6-20, 8-3 to 8-4
3. Describe how software and hardware interact.	DC: 9-3 to 9-27, 9-30 to 9-36
4. Discuss how and why binary is used to represent data in a computer.	DC: 6-13 to 6-14, 8-6, 8-19 BR: 158, 181, 244-245 <i>Food for Thought</i>
5. Describe how a picture, sound/song, and video are digitized and represented in a computer.	DC: 7-11 to 7-15, 7-16 to 7-20
6. Compare and contrast operating systems (e.g., Mac, Windows, Linux, Chrome OS, iOS, Android).	DC: 1-24, 4-2, 9-2 to 9-27, 9-28 to 9-36 SR: 3-4
7. Evaluate hardware and software configuration to meet situational and budgetary requirements (e.g. gaming, Internet browsing, student, graphic designer, etc.).	DC: 1-1 to 1-39, 1-40 to 1-48
8. Make hardware and software recommendations to improve a computer system.	DC: 1-48; 6-35, items 2, 4; 7-46 item 3
H. PROBLEM SOLVING AND COMPUTATIONAL THINKING (TO BE)	

**CORRELATION TO SOUTH CAROLINA'S CAREER AND TECHNOLOGY EDUCATION – INFORMATION TECHNOLOGY
ACTIVITY/COURSE CODES: FUNDAMENTALS OF COMPUTING - 5023
EXPLORING COMPUTER SCIENCE FOR SOUTH CAROLINA,
BY CENGAGE LEARNING, © 2018,
ISBN: 9780357039038
NATIONAL GEOGRAPHIC LEARNING | CENGAGE**

COMPETENCY/OBJECTIVE	PAGE REFERENCES
IMPLEMENTED THROUGHOUT THE COURSE)	
Effective professionals demonstrate effective problem solving and computational thinking skills, as needed in their role. The following accountability criteria are considered essential for students in any program of study.	
1. Describe how computer programs and apps can be used to solve various problems (e.g., desktop, mobile, enterprise).	DC: 4-2 to 4-39, 4-40 to 4-48
2. Solve a problem by applying appropriate problem solving techniques (understand the problem, plan the solution, carry out the plan, review and discuss).	DC: This objective can be met by completing all end-of module <i>Problem Solving</i> feature items: examples include 1-43, 5-39, 9-31, 11-44, 12-29; <i>Appendix B</i> S2: This objective is demonstrated by completing the programming exercises throughout the text. Examples include: 87-108, 150-158, 201-210, 271-282, 316-326, 344-354 BR: 239-274
3. Define algorithm (a set of clearly defined, logical steps to solve a problem).	BR: 239-274
4. Demonstrate an understanding of algorithms and their practical applications.	DC: This objective can be met by completing all end-of module <i>Problem Solving</i> feature items: examples include 1-43, 5-39, 9-31, 11-44, 12-29; <i>Appendix B</i> S2: This objective is demonstrated by completing the programming exercises throughout the text. Examples include: 87-108, 150-158, 201-210, 271-282, 316-326, 344-354 BR: 239-274

CORRELATION TO SOUTH CAROLINA'S CAREER AND TECHNOLOGY EDUCATION – INFORMATION TECHNOLOGY
ACTIVITY/COURSE CODES: FUNDAMENTALS OF COMPUTING - 5023
EXPLORING COMPUTER SCIENCE FOR SOUTH CAROLINA,
BY CENGAGE LEARNING, © 2018,
ISBN: 9780357039038
NATIONAL GEOGRAPHIC LEARNING | CENGAGE

COMPETENCY/OBJECTIVE	PAGE REFERENCES
5. Create, evaluate, and adjust algorithms to solve a variety of problems.	<p>DC: This objective can be met by completing all end-of module <i>Problem Solving</i> feature items: examples include 1-43, 5-39, 9-31, 11-44, 12-29; <i>Appendix B</i></p> <p>S2: This objective is demonstrated by completing the programming exercises throughout the text. Examples include: 87-108, 150-158, 201-210, 271-282, 316-326, 344-354</p> <p>BR: 239-274</p>
I. FUNDAMENTALS OF PROGRAMMING	
Effective professionals demonstrate skills in fundamental programming, as needed in their role. The following accountability criteria are considered essential for students in any program of study.	
1. Express the design of a program using representations such as flowcharts and pseudocode.	S2: 8-15, 57-86, 305-315
2. Analyze and explain how a particular program functions.	<p>S2: 109-123, 132-149, 159-174, 187-200, 211-227, 240-252, 261-270, 283-295, 305-315, 327-343</p> <p>BR: 217-228</p>
3. Solve problems of increasing complexity using visual block-based programming individually and collaboratively.	S2: 87-108, 124-130, 150-158, 175-186, 201-210, 228-238, 252-260, 271-282, 296-304, 316-326, 344-354
4. Write code that uses variables, events, functions, operators (i.e. arithmetic, relational, logical), conditional control structures (e.g., if, if-else) and repetition/iteration control structures (e.g., while, for).	<p>S2: 57-86</p> <p>BR: 223-224</p>
5. Differentiate between text and numerical data.	This objective is not directly addressed in this edition of Exploring Science for South Carolina.
6. Edit, compile/run, test, and debug a program.	<p>S2: 109-123, 132-149, 159-174, 187-200, 211-227, 240-252, 261-270, 283-295, 305-315, 327-343, <i>Appendix A</i></p> <p>BR: 217-232</p>

CORRELATION TO SOUTH CAROLINA'S CAREER AND TECHNOLOGY EDUCATION – INFORMATION TECHNOLOGY
ACTIVITY/COURSE CODES: FUNDAMENTALS OF COMPUTING - 5023
EXPLORING COMPUTER SCIENCE FOR SOUTH CAROLINA,
BY CENGAGE LEARNING, © 2018,
ISBN: 9780357039038
NATIONAL GEOGRAPHIC LEARNING | CENGAGE

COMPETENCY/OBJECTIVE	PAGE REFERENCES
J. FUNDAMENTALS OF WEB DESIGN	
Effective professionals demonstrate skills in fundamental webpage design, as needed in their role. The following accountability criteria are considered essential for students in any program of study.	
1. Evaluate the results of Internet searches and the reliability of information found on Web sites.	DC: 2-13 <i>Tech Feature</i> 2-1, 2-18 <i>Consider This</i> , 2-30 <i>Consider This</i>
2. Describe how Web sites are used to communicate and exchange data.	DC: FO-1 to FO 4
3. Plan a web page considering subject, devices, audience, layout, color, links and graphics.	DC: FO-38 to FO-39
4. Create a web page that contains a variety of HTML elements (e.g., hyperlinks, ordered and unordered lists, images, headings, paragraph) and CSS styles.	DC: FO-4 to FO-37
K. ETHICAL, LEGAL & SOCIAL ISSUES OF COMPUTING	
Effective professionals demonstrate knowledge in ethical, legal, and social issues in computing, as needed in their role. The following accountability criteria are considered essential for students in any program of study.	
1. Examine the consequences resulting from issues involving ethics around security, privacy, copyright, fair use, intellectual property, social media and licensing.	DC: 5-25 to 5-35
2. Explain the importance of Acceptable Use Policies.	DC: 2-48, item 2; 5-9; 5-39, item 8
3. Explain the importance of data security and physical security.	DC: 2-20, 3-26, 5-2 to 5-25
4. Explain the concepts of confidentiality, integrity, and availability (CIA).	DC: 5-19 <i>Tech Feature</i> 5-1, 10-6 <i>Ethics & Issues</i> 10-1, 11-2 <i>Tech Feature</i> 11-2, 11-6 to 11-7, 11-10, 11-14, 11-44 item 7, 12-21 <i>Secure IT</i> 12-2
5. Identify computing threats (e.g., spyware, adware, malware, viruses, ransomware, phishing, hacking, software piracy, identity theft, etc.) and their potential impacts on society.	DC: 5-3 to 5-8, 5-25 to 5-35, 8-22 <i>Ethics & Issues</i> , 12-13 <i>Secure IT</i>
6. Explain the concept of encryption and how it is used on a daily basis.	DC: 5-11 <i>Secure IT</i> 5-3; 5-17 to 5-18; 5-23 <i>How To</i> 5-2; 5-43; 8-12 <i>Secure IT</i> 8-1; 9-16 <i>Consider This</i> ; 12-23 <i>Secure IT</i> 12-3

**CORRELATION TO SOUTH CAROLINA'S CAREER AND TECHNOLOGY EDUCATION – INFORMATION TECHNOLOGY
ACTIVITY/COURSE CODES: FUNDAMENTALS OF COMPUTING - 5023
EXPLORING COMPUTER SCIENCE FOR SOUTH CAROLINA,
BY CENGAGE LEARNING, © 2018,
ISBN: 9780357039038
NATIONAL GEOGRAPHIC LEARNING | CENGAGE**

COMPETENCY/OBJECTIVE	PAGE REFERENCES
L. COMPUTING CAREERS	
Effective professionals demonstrate knowledge of computing careers found throughout various discipline, as needed in their role. The following accountability criteria are considered essential for students in any program of study.	
1. Compare and contrast the five disciplines of computing: computer science, software engineering, information technology, information systems, and computer engineering.	DC: 12-10 to 12-18
2. Compare and contrast careers in computing along with their education, training requirements, industry certifications and salary ranges.	DC: 12-19 to 12-22
3. Identify gender, diversity and geographic related issues in computing.	DC: 1-31 to 1-38, 4-2 to 4-35
4. Describe how computing enhances other career fields.	DC: 12-2 to 12-10

"National Geographic," "National Geographic Society" and the "Yellow Border Design" are registered trademarks of the National Geographic Society® Marcas Registradas.