CENTRAL FLORIDA ASSESSMENT COLLABORATIVE

|  |
| --- |
| Individual Test Item Specifications |
| Introduction to Information Technology |
| 2014 |

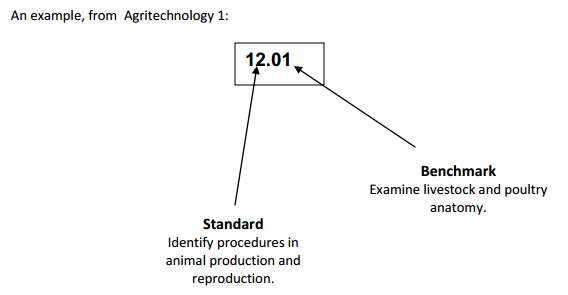
*The contents of this document were developed under a grant from the United States Department of Education. However, the content does not necessarily represent the policy of the United States Department of Education, and you should not assume endorsement by the federal government.*

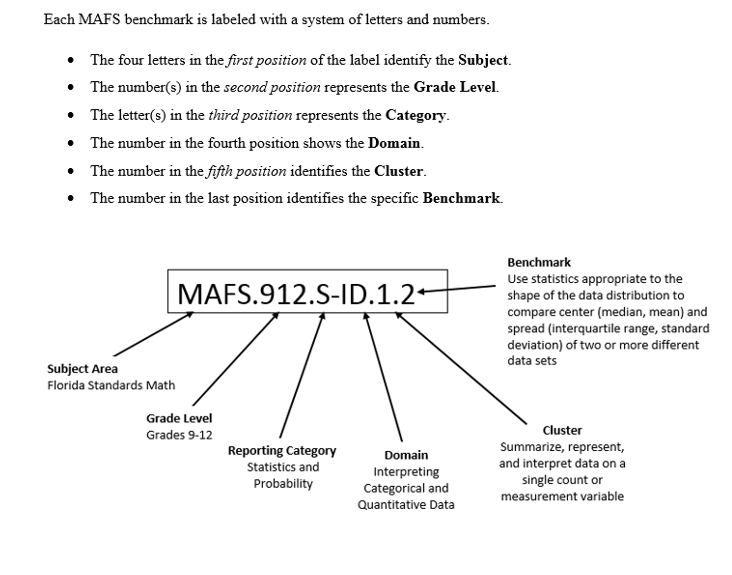
I. Guide to the Individual Benchmark Specifications

Content specific guidelines are given in the *Individual Benchmark Specifications* for each course. The *Specifications* contains specific information about the alignment of items with the Florida Standards. It identifies the manner in which each benchmark is assessed, provides content limits and stimulus attributes for each benchmark, and gives specific information about content, item types, and response attributes.

Benchmark Classification System

 Each Career and Technical Education course has its own set of course standards. The benchmarks are organized numerically, with two numbers separated by a decimal point. The first number is the standard number, and the second number is the benchmark number. You will see these numbers on the Item Specifications for each course.





**Definitions of Benchmark Specifications**

The *Individual Benchmark Specifications* provides standard-specific guidance for assessment item development for CFAC item banks. For each benchmark assessed, the following information is provided:

|  |  |
| --- | --- |
| **Reporting Category** | is a grouping of related benchmarks that can be used to summarize and report achievement. |
| **Standard** | refers to the standard statement presented in the Florida Standards. |
| **Benchmark**  **Also Assesses** | refers to the benchmark statement presented in the Florida Standards. In some cases, two or more related benchmarks are grouped together because the assessment of one benchmark addresses another benchmark. Such groupings are indicated in the Also Assesses statement.  refers to the benchmarks that are closely related to the benchmark (see description above) |
| **Item Types**  **Cognitive**  **Complexity** | are used to assess the benchmark or group of benchmark.  level at which item should be assessed. |
| **Benchmark Clarifications** | explain how achievement of the benchmark will be demonstrated by students. In other words, the clarification statements explain what the student will do when responding to questions. |
| **Content Limits** | define the range of content knowledge and that should be assessed in the items for the benchmark. |
| **Stimulus Attributes** | define the types of stimulus materials that should be used in the items, including the appropriate use of graphic materials and item context or content. |
| **Response Attributes**  **Content Focus** | define the characteristics of the answers that a student must choose or provide.  defines the content measured by each test item. Content focus addresses the broad content and skills associated with the examples found in the standards, benchmarks, or benchmark clarifications. |
| **Sample Items** | are provided for each type of question assessed. The correct answer for all sample items is provided. |

II. Individual Benchmark Specifications

|  |  |
| --- | --- |
| **Reporting Category** | Introduction to Information Technology |
| **Benchmark Number** | 05.04 |
| **Standard** | Demonstrate comprehension and communication skills. |
| **Benchmark** | Identify, define, and discuss professional information technology terminology appropriate for internal and external communications in an information technology environment. |
| **Also Assesses** | Not Applicable |
| **(K)knowledge, (P)erformance, or**  **(B)oth** | Knowledge |
| **Item Types** | Selected Response, Short Answer |
| **Cognitive Complexity Level** | Low, Moderate, High |
| **Benchmark Clarification** | The student will be able to identify and define networking terms, computer and peripheral, and current IT environment. |
| **Content Limits** | Content will be limited to computer hardware, networks, and peripherals only. |
| **Stimulus Attributes** | Stimulus will include graphics and screen shots to identify computer parts.  Stimulus will include item descriptions for matching items or short answers. |
| **Response Attributes** | Responses will include the student being able to label and identify the required information from a graphic or screen shots.  Responses can include short answer and multiple choice. |
| **Content Focus** | Content will focus on internal and external communications for information technology including hardware, networking, and computer peripherals. |

|  |  |
| --- | --- |
| **Sample Item** | What is the part of the computer component pictured here referred to?     1. memory stick 2. motherboard 3. sound card 4. video card   *Picture of a motherboard.*  Correct Answer: B |

|  |  |
| --- | --- |
| **Reporting Category** | Introduction to Information Technology |
| **Benchmark Number** | 05.05 |
| **Standard** | Demonstrate comprehension and communication skills. |
| **Benchmark** | Apply the writing process to the creation of appropriate documents following designated business formats. |
| **Also Assesses** | Not Applicable |
| **(K)knowledge, (P)erformance, or**  **(B)oth** | Both |
| **Item Types** | Selected Response, Short Response, Performance Task. |
| **Cognitive Complexity Level** | Low, Moderate, High |
| **Benchmark Clarification** | The student will be able to create various office memos, business emails, and business vs. personal letters. |
| **Content Limits** | Content will focus on creating documents in a business environment such as letters, memos, and flyers. |
| **Stimulus Attributes** | Stimulus will include graphics and screen shots of various programs supporting word processing, email, and business publications. |
| **Response Attributes** | Identify different communication mediums in business and word processing software programs. |
| **Content Focus** | Content will focus on office memos, business emails, business and personal letters. |
| **Sample Item** | What type of business document would a manager create to inform employees of change in company protocol?   1. email 2. flyer 3. memorandum 4. professional letter   Correct Answer: C |

|  |  |
| --- | --- |
| **Reporting Category** | Introduction to Information Technology |
| **Benchmark Number** | 06.02 |
| **Standard** | Use technology to enhance the effectiveness of communication skills. |
| **Benchmark** | Respond to and utilize information derived from multiple sources (e.g.; written documents, instructions, email, voicemail) to solve business problems and complete business tasks. |
| **Also Assesses** | Not Applicable |
| **(K)knowledge, (P)erformance, or**  **(B)oth** | Both |
| **Item Types** | Short Response, Performance Task |
| **Cognitive Complexity Level** | Moderate, High |
| **Benchmark Clarification** | The student will be able to use various software programs to accomplish business related tasks and resolve problems found in business communications. |
| **Content Limits** | None Specified |
| **Stimulus Attributes** | Stimuli will include data to be included in a spreadsheet to generate business forecasts.  The student will also respond to business emails. |
| **Response Attributes** | The student will create a five year business forecast based on supplied data.  The student will also construct a properly formatted business email. |
| **Content Focus** | Content will focus on various software applications found business. |

|  |  |
| --- | --- |
| **Sample Item** | Clara created a spreadsheet for her boss on employee time cards. Clara wanted to create an email message and attach the spreadsheet to the email. Provide a short response on how Clara will attach the updated spreadsheet to the email and send it to her boss.  **Rubric**  **2 Points:**   * The response indicates that the student has a **complete understanding** of the concept embodied in the task. * The student has provided a response that includes information that is essentially correct and text-based, but the information is too general or too simplistic. * Some of the support and/or examples and requirements of the task may be incomplete or omitted.   **1 Point:**   * The response indicates that the student has a **partial understanding** of the concept embodied in the task. * The response is incomplete, may exhibit many flaws, and may not address all requirements of the task.   **0 Points:**   * The response indicates that the student **does not demonstrate an understanding** of the concept embodied in the task. * The student has provided a response that is inaccurate or contains only irrelevant text-based information. * The response has insufficient amount of information to determine the student’s understanding of the task or the student has failed to respond to the task.   **Sample Response:** |

|  |  |
| --- | --- |
| **Reporting Category** | Introduction to Information Technology |
| **Benchmark Number** | 09.01 |
| **Standard** | Incorporate appropriate leadership and supervision techniques, customer service strategies, and standards of personal ethics to accomplish job objectives and enhance workplace performance. |
| **Benchmark** | Demonstrate awareness of the following workplace essentials: quality customer service, business ethics, confidentiality of information, copyright violations, accepted workplace rules, regulations, policies, procedures processes, workplace safety, and appropriate attire and grooming. |
| **Also Assesses** | Not Applicable |
| **(K)knowledge, (P)erformance, or**  **(B)oth** | Both |
| **Item Types** | Selected Response, Short Response, Performance Task |
| **Cognitive Complexity Level** | Moderate, High |
| **Benchmark Clarification** | The student will be able to identify behaviors and practices necessary to perform workplace ethics and understand job objectives in a business environment. |
| **Content Limits** | Content limit is for student to understand policy and procedures in a workplace environment. |
| **Stimulus Attributes** | For items asking students to identify or summarize concepts, scenarios must be provided. |
| **Response Attributes** | Based upon information provided, students will be able to formulate the correct response to various ethical dilemmas and apply the proposed solution to alternative problems. |
| **Content Focus** | Content will focus on workplace performance, business ethics, and essential business practices. |

|  |  |
| --- | --- |
| **Sample Item** | Your boss has asked you to shred papers while he is under investigation by his superiors. Which one of these would you not do to accommodate his request?   1. follow orders 2. refuse to do so 3. report his request to administration 4. take the files to the authorities   Correct Answer: A |

|  |  |
| --- | --- |
| **Reporting Category** | Introduction to Information Technology |
| **Benchmark Number** | 12.02 |
| **Standard** | Incorporate knowledge gained from individual assessment and job/career exploration to design an individual career plan that reflects the transition from school to work, lifelong learning, and personal and professional goals. |
| **Benchmark** | Describe the variety of occupations and professions within the world of information technology including those where information technology is either in a primary focus or in a supportive role. |
| **Also Assesses** | Not Applicable |
| **(K)knowledge, (P)erformance, or**  **(B)oth** | Knowledge |
| **Item Types** | Selected Response, Short Response |
| **Cognitive Complexity Level** | Moderate, High |
| **Benchmark Clarification** | The student will be able to identify career occupations and career clusters found in business. |
| **Content Limits** | Content is limited to IT career clusters and professional fields. |
| **Stimulus Attributes** | None Specified |
| **Response Attributes** | None Specified |
| **Content Focus** | Content will focus on career exploration and identification of various business related career |
| **Sample Item** | Which one of the following job responsibilities describes a network administer?   1. Running network cable. 2. Installing scanner driver. 3. Ensuring users permissions are set correctly. 4. Responding to a user whose computer is not printing.   Correct Answer : C |

|  |  |
| --- | --- |
| **Reporting Category** | Introduction to Information Technology |
| **Benchmark Number** | 12.06 |
| **Standard** | Incorporate knowledge gained from individual assessment and job/career exploration to design an individual career plan that reflects the transition from school to work, lifelong learning, and personal and professional goals. |
| **Benchmark** | Develop and maintain an electronic career portfolio, to include, but not limited to the resume and letter of application. |
| **Also Assesses** | Not Applicable |
| **(K)knowledge, (P)erformance, or**  **(B)oth** | Performance |
| **Item Types** | Selected Response, Short Response, Performance Task |
| **Cognitive Complexity Level** | Moderate, High |
| **Benchmark Clarification** | The student will be able to save their documents as PDF and use software that will aggregate the PDFs into electronic portfolio.  The student will be able to demonstrate the ability to create effective resume and customize it for each potential employer.  The student will be able to demonstrate the ability to design a cover letter and how to customize the cover letter to each potential employer. |
| **Content Limits** | The student will finalize documents and save in PDF form. |
| **Stimulus Attributes** | None Specified |
| **Response Attributes** | All information will be recorded in their electronic portfolio. |
| **Content Focus** | Content will focus on saving a document to PDF from various word processing, spreadsheet, and publisher programs. |

|  |  |
| --- | --- |
| **Sample Item** | Open Microsoft Word and create a new blank document. Center your name in the center of the document. Change the font to blue, Helvetica, 30 point font size. Go to file and save the file as a PDF. Close and upload the document.  **Rubric**  **4 Points**:   * The response indicates that the student has a **thorough understanding** of the concept embodied in the task. * The student has provided a response that is accurate, complete, and fulfills all the requirements of the task. * Necessary support and/or examples are included, and the information is clearly text-based.   **3 Points:**   * The response indicates that the student has an **understanding** of the concept embodied in the task. * The student response has provided a response that is accurate and fulfills all the requirements of the task. * The required support and/or details are not complete or clearly text-based.   **2 Points:**   * The response indicates that the student has a **partial understanding** of the concept embodied in the task. * The student has provided a response that includes information that is essentially correct and text-based, but the information is too general or too simplistic. * Some of the support and/or examples and requirements of the task may be incomplete or omitted.   **1 Point:**   * The response indicates that the student has a **very limited understanding** of the concept embodied in the task. * The response is incomplete, may exhibit many flaws, and may not address all requirements of the task.   **0 Points:**   * The response indicates that the student **does not demonstrate an understanding** of the concept embodied in the task. * The student has provided a response that is inaccurate or contains only irrelevant text-based information. * The response has insufficient amount of information to determine the student’s understanding of the task or the student has failed to respond to the task. |

|  |  |
| --- | --- |
| **Reporting Category** | Introduction to Information Technology |
| **Benchmark Number** | 15.01 |
| **Standard** | Perform email activities. |
| **Benchmark** | Describe email capabilities and functions. |
| **Also Assesses** | Not Applicable |
| **(K)knowledge, (P)erformance, or**  **(B)oth** | Knowledge |
| **Item Types** | Selected Response, Short Response |
| **Cognitive Complexity Level** | Low, Moderate, High |
| **Benchmark Clarification** | The student will be able to determine the capability of an email and how it is transmitted. |
| **Content Limits** | None Specified |
| **Stimulus Attributes** | None Specified |
| **Response Attributes** | None Specified |
| **Content Focus** | Content will focus on creating an email in business. |

|  |  |
| --- | --- |
| **Sample Item** | Describe how an email message travels from one business associate to another when the associate is located across the country. How does the recipient receive the email in their inbox?  **Rubric:**  **2 Points:**   * The response indicates that the student has a **complete understanding** of the concept embodied in the task. * The student has provided a response that includes information that is essentially correct and text-based, but the information is too general or too simplistic. * Some of the support and/or examples and requirements of the task may be incomplete or omitted.   **1 Point:**   * The response indicates that the student has a **partial understanding** of the concept embodied in the task. * The response is incomplete, may exhibit many flaws, and may not address all requirements of the task.   **0 Points:**   * The response indicates that the student **does not demonstrate an understanding** of the concept embodied in the task. * The student has provided a response that is inaccurate or contains only irrelevant text-based information. * The response has insufficient amount of information to determine the student’s understanding of the task or the student has failed to respond to the task.   **Sample Response:**  The email is initiated from the sender. It then travels through the senders server and is delivered into the recipients inbox via a pop server. |

|  |  |
| --- | --- |
| **Reporting Category** | Introduction to Information Technology |
| **Benchmark Number** | 15.05 |
| **Standard** | Perform email activities. |
| **Benchmark** | Attach a file to an email message. |
| **Also Assesses** | Not Applicable |
| **(K)knowledge, (P)erformance, or**  **(B)oth** | Both |
| **Item Types** | Selected Response, Short Answer, Performance Task |
| **Cognitive Complexity Level** | Moderate, High |
| **Benchmark Clarification** | The student will be able to use email software to attach a file to an email message. |
| **Content Limits** | The student will only send and receive emails form a provided email address. |
| **Stimulus Attributes** | An attachment will be provided. |
| **Response Attributes** | The student will properly attach a document to an outgoing email message. |
| **Content Focus** | email, file, attachment, outgoing, incoming |

|  |  |
| --- | --- |
| **Sample Item** | Your immediate supervisor has forwarded you an email attachment that she wants you to review and send to the office staff. You have completed the review of the email and written a brief message to your staff explaining a need for them to read it immediately.  Explain, in detail, how you would attach the file provided to an email and send it to the email addresses of your staff.  **Rubric:**  **4 Points**:   * The response indicates that the student has a **thorough understanding** of the concept embodied in the task. * The student has provided a response that is accurate, complete, and fulfills all the requirements of the task. * Necessary support and/or examples are included, and the information is clearly text-based.   **3 Points:**   * The response indicates that the student has an **understanding** of the concept embodied in the task. * The student response has provided a response that is accurate and fulfills all the requirements of the task. * The required support and/or details are not complete or clearly text-based.   **2 Points:**   * The response indicates that the student has a **partial understanding** of the concept embodied in the task. * The student has provided a response that includes information that is essentially correct and text-based, but the information is too general or too simplistic. * Some of the support and/or examples and requirements of the task may be incomplete or omitted.   **1 Point:**   * The response indicates that the student has a **very limited understanding** of the concept embodied in the task. * The response is incomplete, may exhibit many flaws, and may not address all requirements of the task.   **0 Points:**   * The response indicates that the student **does not demonstrate an understanding** of the concept embodied in the task. * The student has provided a response that is inaccurate or contains only irrelevant text-based information. * The response has insufficient amount of information to determine the student’s understanding of the task or the student has failed to respond to the task. |

|  |  |
| --- | --- |
| **Reporting Category** | Introduction to Information Technology |
| **Benchmark Number** | 15.10 |
| **Standard** | Perform email activities. |
| **Benchmark** | Identify the appropriate use of email and demonstrate related email etiquette. |
| **Also Assesses** | Not Applicable |
| **(K)knowledge, (P)erformance, or**  **(B)oth** | Knowledge |
| **Item Types** | Selected Response, Short Answer |
| **Cognitive Complexity Level** | Moderate |
| **Benchmark Clarification** | The student will be able to differentiate between business and personal emails and be able to use appropriate verbiage and format in either scenario.  The student will be able to choose the correct language and format as appropriate to the style and purpose of the email. |
| **Content Limits** | Limited to email etiquette. |
| **Stimulus Attributes** | None Specified |
| **Response Attributes** | None Specified |
| **Content Focus** | email, etiquette, email language, formatting, personal vs. business |
| **Sample Item** | Which complimentary closing would be most appropriate when sending professional business email to your boss?   1. Be Well, 2. Professionally Yours, 3. Sincerely, 4. Warm Regards,   Correct Answer: B |

|  |  |
| --- | --- |
| **Reporting Category** | Introduction to Information Technology |
| **Benchmark Number** | 15.12 |
| **Standard** | Perform email activities. |
| **Benchmark** | Identify common problems associated with widespread use of email. |
| **Also Assesses** | Not Applicable |
| **(K)knowledge, (P)erformance, or**  **(B)oth** | Knowledge |
| **Item Types** | Selected Response, Short Answer |
| **Cognitive Complexity Level** | Moderate, High |
| **Benchmark Clarification** | The student will be able to identify problems connected with widespread use of email either from an individual or business.  The student will be able to cite research while summarizing the given article above the common problems associated with widespread use of email entering the public domain. |
| **Content Limits** | Items will be limited to content involving spam and privacy issues. |
| **Stimulus Attributes** | pictures, graphs, news articles |
| **Response Attributes** | None Specified |
| **Content Focus** | spam, email, business, public domain, privacy, filter, trash, draft, read recipient review, compose |
| **Sample Item** | Andrea received an email from her friend Janie. The email had an attachment that Andrea opened and her computer immediately turned off. What type of email problem did Andrea experience?   1. attachment error 2. phishing 3. spam 4. virus   Correct Answer: D |

|  |  |
| --- | --- |
| **Reporting Category** | Introduction to Information Technology |
| **Benchmark Number** | 16.02 |
| **Standard** | Demonstrate knowledge of different operating systems. |
| **Benchmark** | Demonstrate proficiency with file management and structure (e.g., folder creation, file creation, backup, copy, delete, open, save). |
| **Also Assesses** | Not Applicable |
| **(K)knowledge, (P)erformance, or**  **(B)oth** | Both |
| **Item Types** | Selected Response, Short Answer, Performance Task |
| **Cognitive Complexity Level** | Moderate, High |
| **Benchmark Clarification** | The student will be able to create and identify a hierarchical file structure. |
| **Content Limits** | Dependent upon operation systems Mac or PC with individual file extensions. |
| **Stimulus Attributes** | None Specified |
| **Response Attributes** | None Specified |
| **Content Focus** | file storage, naming conventions, extensions such as doc, xls, pdf, creation of folders, desktop |
| **Sample Item** | Which of the following is a logical representation of where you store personal files on a computer?   1. cabinet 2. folder 3. matrix 4. package   Correct Answer: B |

|  |  |
| --- | --- |
| **Reporting Category** | Introduction to Information Technology |
| **Benchmark Number** | 16.03 |
| **Standard** | Demonstrate knowledge of different operating systems. |
| **Benchmark** | Demonstrate a working knowledge of standard file formats. |
| **Also Assesses** | Not Applicable |
| **(K)knowledge, (P)erformance, or**  **(B)oth** | Both |
| **Item Types** | Selected Response, Short Answer, Performance Task |
| **Cognitive Complexity Level** | Moderate |
| **Benchmark Clarification** | The student will be able to differentiate between standard file formats like word processing files, spreadsheet files, presentations files, etc. |
| **Content Limits** | Dependent upon which software platforms that the user has available and the operating systems, such as Adobe, Windows, Mac or PC. |
| **Stimulus Attributes** | None Specified |
| **Response Attributes** | None Specified |
| **Content Focus** | File, save, save as, extension, folders, downloaded documents, temporary storage, desktop, backstage view |
| **Sample Item** | What is the file extension that best identifies a word processing file?   1. .docx 2. .gif 3. .pdf 4. .xlsx   Correct Answer: A |

|  |  |
| --- | --- |
| **Reporting Category** | Introduction to Information Technology |
| **Benchmark Number** | 17.02 |
| **Standard** | Demonstrate proficiency navigating the internet, intranet, and the world wide web. |
| **Benchmark** | Identify and describe web terminology. |
| **Also Assesses** | Not Applicable. |
| **(K)knowledge, (P)erformance, or**  **(B)oth** | Both |
| **Item Types** | Selected Response, Short Answer, Performance Task |
| **Cognitive Complexity Level** | Low, Moderate, High |
| **Benchmark Clarification** | The student will be able to define HTML, browser, interface URL, IP address, etc. |
| **Content Limits** | None Specified |
| **Stimulus Attributes** | None Specified |
| **Response Attributes** | None Specified |
| **Content Focus** | HTML, browser, interface, URL, IP address, SEO, analytics, anchor text, applet, content, directories, DNS, Domain, FTP, heading, Image map, Java script, link, meta tag, page title, pixel, redirect, server, tag, traffic |
| **Sample Item** | [http://www.bso.org/tangle/perfs/index.htm](http://www.bso.org/tangle/perfs/index.html)l  What is the protocol in the figure above?   1. http:// 2. index.html 3. tangle/perfs 4. www.   Correct Answer: A |

|  |  |
| --- | --- |
| **Reporting Category** | Introduction to Information Technology |
| **Benchmark Number** | 17.04 |
| **Standard** | Demonstrate proficiency navigating the internet, intranet, and the world wide web. |
| **Benchmark** | Describe and observe internet/intranet ethics and copyright laws and regulatory practices. |
| **Also Assesses** | Not Applicable |
| **(K)knowledge, (P)erformance, or**  **(B)oth** | Both |
| **Item Types** | Selected Response, Short Answer, Performance Task |
| **Cognitive Complexity Level** | Moderate |
| **Benchmark Clarification** | The student will be able to define and differentiate between ethics, copyright laws, and existing regulatory controls involving the internet, intranet, and world wide web. |
| **Content Limits** | None Specified |
| **Stimulus Attributes** | Scenarios provided for items asking for identifying or summarizing concepts. |
| **Response Attributes** | None Specified |
| **Content Focus** | copyright laws, ethics, internet, intranet, world wide web, URL, computer network, bandwidth, browser, click, cyberspace, download, hyperlink |
| **Sample Item** | Which of the following is not a reason pirating mp3s off the internet is illegal?   1. Songs are intellectual property. 2. Music is copyrighted protected. 3. MP3s are considered public domain. 4. Stealing electronic music is the same as stealing a compact disc.   Correct Answer: C |

|  |  |
| --- | --- |
| **Reporting Category** | Introduction of Information Technology |
| **Benchmark Number** | 17.07 |
| **Standard** | Demonstrate proficiency navigation the internet, intranet, and the world wide web. |
| **Benchmark** | Demonstrate proficiency using various web tools (e.g., downloading files, transfer files, telnet, pdf, etc.). |
| **Also Assesses** | Not Applicable |
| **(K)knowledge, (P)erformance, or**  **(B)oth** | Both |
| **Item Types** | Selected Response, Short Response, Performance Task |
| **Cognitive Complexity Level** | Moderate, High |
| **Benchmark Clarification** | The student will be able to show and explain how to use different web tools involving the internet, world wide web, etc.  The student will be able to learn how to use search tools including GUI and operators, FTP for uploads and downloads.  The student will be able to cite websites used and use tools such as “Who is”. |
| **Content Limits** | Students should have open access to internet and acceptable permissions for downloading and transferring files, as specified by the district’s policies. |
| **Stimulus Attributes** | Students will be provided with specific documents and web locations. |
| **Response Attributes** | Students will successfully download a document to a specific folder.  Student will successfully upload a file to a cloud or computer storage. |
| **Content Focus** | download, file storage, cloud, GUI, FTP, upload, file transfer, icon, ISP, keyword, link, public domain, password |

|  |  |
| --- | --- |
| **Sample Item** | Download the pdf document from the provided website and save it to the “My Documents” folder as a pdf titled “2013 Trade Research”.  **4 Points**:   * The response indicates that the student has a **thorough understanding** of the concept embodied in the task. * The student has provided a response that is accurate, complete, and fulfills all the requirements of the task. * Necessary support and/or examples are included, and the information is clearly text-based.   **3 Points:**   * The response indicates that the student has an **understanding** of the concept embodied in the task. * The student response has provided a response that is accurate and fulfills all the requirements of the task. * The required support and/or details are not complete or clearly text-based.   **2 Points:**   * The response indicates that the student has a **partial understanding** of the concept embodied in the task. * The student has provided a response that includes information that is essentially correct and text-based, but the information is too general or too simplistic. * Some of the support and/or examples and requirements of the task may be incomplete or omitted.   **1 Point:**   * The response indicates that the student has a **very limited understanding** of the concept embodied in the task. * The response is incomplete, may exhibit many flaws, and may not address all requirements of the task.   **0 Points:**   * The response indicates that the student **does not demonstrate an understanding** of the concept embodied in the task. * The student has provided a response that is inaccurate or contains only irrelevant text-based information. * The response has insufficient amount of information to determine the student’s understanding of the task or the student has failed to respond to the task. |

|  |  |
| --- | --- |
| **Reporting Category** | Introduction to Information Technology |
| **Benchmark Number** | 18.01 |
| **Standard** | Demonstrate proficiency using HTML commands. |
| **Benchmark** | Identify elements of a web page. |
| **Also Assesses** | Not Applicable. |
| **(K)knowledge, (P)erformance, or**  **(B)oth** | Both |
| **Item Types** | Selected Response, Short Response, Performance Task |
| **Cognitive Complexity Level** | Low, Moderate, High |
| **Benchmark Clarification** | The student will be able to label web page elements.  The student will be able to recognize elements of a web page (banners, body, text, navigation, hyperlinks, images, rich media content, contact information) and/or design elements for a web page (color, headings, fonts, alignment, tables).  The student will be able to identify four main elements of a website; HTML, text, links, and graphics and/or multimedia. |
| **Content Limits** | Student will be able to create and label items associated with a web page. |
| **Stimulus Attributes** | Items can include screenshot images for identification purposes. |
| **Response Attributes** | None Specified. |
| **Content Focus** | design elements, hyperlinks, web page, banners, body, text, navigation, images, rich media content, contact information, color headings, fonts, alignment, tables |

|  |  |
| --- | --- |
| **Sample Item** | Which of the following is not an element of a web page?   1. html 2. links 3. multimedia 4. telnet   Correct Answer: D |

|  |  |  |
| --- | --- | --- |
| **Reporting Category** | | Introduction of Information Technology |
| **Benchmark Number** | 18.02 | |
| **Standard** | Demonstrate proficiency using html commands. | |
| **Benchmark** | Describe individual web page layouts and content (e.g., writing for the web, web structure). | |
| **Also Assesses** | 18.04 | |
| **(K)knowledge, (P)erformance, or**  **(B)oth** | Both | |
| **Item Types** | Selected Response, Short Response, Performance Task. | |
| **Cognitive Complexity Level** | Moderate, High | |
| **Benchmark Clarification** | The student will be able to compare multiple websites for clarity, ease of use, overall design, and ease of navigation. | |
| **Content Limits** | Questions are limited to the compare and contrast of websites only. | |
| **Stimulus Attributes** | Items may include screenshots, list of websites for comparison, and scenarios. | |
| **Response Attributes** | The student should be able to offer reasoning as to what makes one website better and more appropriate for use than another website. | |
| **Content Focus** | Website, layout, content, compare, contrast, clarity, design, navigation | |

|  |  |
| --- | --- |
| **Sample Item** | In Word create a list of three retail sites that the best considering its ease of use, navigations, and overall design in a webpage.  **Rubric**  **4 Points**:   * The response indicates that the student has a **thorough understanding** of the concept embodied in the task. * The student has provided a response that is accurate, complete, and fulfills all the requirements of the task. * Necessary support and/or examples are included, and the information is clearly text-based.   **3 Points:**   * The response indicates that the student has an **understanding** of the concept embodied in the task. * The student response has provided a response that is accurate and fulfills all the requirements of the task. * The required support and/or details are not complete or clearly text-based.   **2 Points:**   * The response indicates that the student has a **partial understanding** of the concept embodied in the task. * The student has provided a response that includes information that is essentially correct and text-based, but the information is too general or too simplistic. * Some of the support and/or examples and requirements of the task may be incomplete or omitted.   **1 Point:**   * The response indicates that the student has a **very limited understanding** of the concept embodied in the task. * The response is incomplete, may exhibit many flaws, and may not address all requirements of the task.   **0 Points:**   * The response indicates that the student **does not demonstrate an understanding** of the concept embodied in the task. * The student has provided a response that is inaccurate or contains only irrelevant text-based information. * The response has insufficient amount of information to determine the student’s understanding of the task or the student has failed to respond to the task. |

|  |  |
| --- | --- |
| **Reporting Category** | Introduction to Information Technology |
| **Benchmark Number** | 19.01 |
| **Standard** | Demonstrate proficiency in page design applicable to the world wide web. |
| **Benchmark** | Develop an awareness of acceptable web page design, including index pages in relation to the rest of the web site. |
| **Also Assesses** | Not Applicable |
| **(K)knowledge, (P)erformance, or**  **(B)oth** | Both |
| **Item Types** | Selected Response, Short Response, Performance Task |
| **Cognitive Complexity Level** | Moderate, High |
| **Benchmark Clarification** | The student will be able to understand and be able to identify the elements of a well-designed home page or index page. |
| **Content Limits** | None Specified |
| **Stimulus Attributes** | Sample webpages will be provided. |
| **Response Attributes** | None Specified |
| **Content Focus** | Elements, design, websites , layout, content, compare, contrast, clarity, design, navigation |

|  |  |
| --- | --- |
| **Sample Item** | Open Word create a list including two websites identify which site is user friendly, more appealing, and easy to navigate, list the pages that the website has available.  **Rubric**  **4 Points**:   * The response indicates that the student has a **thorough understanding** of the concept embodied in the task. * The student has provided a response that is accurate, complete, and fulfills all the requirements of the task. * Necessary support and/or examples are included, and the information is clearly text-based.   **3 Points:**   * The response indicates that the student has an **understanding** of the concept embodied in the task. * The student response has provided a response that is accurate and fulfills all the requirements of the task. * The required support and/or details are not complete or clearly text-based.   **2 Points:**   * The response indicates that the student has a **partial understanding** of the concept embodied in the task. * The student has provided a response that includes information that is essentially correct and text-based, but the information is too general or too simplistic. * Some of the support and/or examples and requirements of the task may be incomplete or omitted.   **1 Point:**   * The response indicates that the student has a **very limited understanding** of the concept embodied in the task. * The response is incomplete, may exhibit many flaws, and may not address all requirements of the task.   **0 Points:**   * The response indicates that the student **does not demonstrate an understanding** of the concept embodied in the task. * The student has provided a response that is inaccurate or contains only irrelevant text-based information. * The response has insufficient amount of information to determine the student’s understanding of the task or the student has failed to respond to the task. |

|  |  |
| --- | --- |
| **Reporting Category** | Introduction to Information Technology |
| **Benchmark Number** | 21.01 |
| **Standard** | Develop an awareness of the information technology industry. |
| **Benchmark** | Explain how information technology influences the operation and management of business and society. |
| **Also Assesses** | Not Applicable |
| **(K)knowledge, (P)erformance, or**  **(B)oth** | Both |
| **Item Types** | Selected Response, Short Response, Performance Task |
| **Cognitive Complexity Level** | Moderate, High |
| **Benchmark Clarification** | The student will be able to understand the cause and effect relationship between technology and the globalization of business and its impact on the economies of individual countries. |
| **Content Limits** | Technology examples should be from current history. |
| **Stimulus Attributes** | None Specified |
| **Response Attributes** | None Specified |
| **Content Focus** | technology, society, exporting, import, tariffs, economy |

|  |  |
| --- | --- |
| **Sample Item** | Explain how has globalization has affected unemployment in the United States through development of technology in the USA and abroad?  **Rubric**  **2 Points:**   * The response indicates that the student has a **complete understanding** of the concept embodied in the task. * The student has provided a response that includes information that is essentially correct and text-based, but the information is too general or too simplistic. * Some of the support and/or examples and requirements of the task may be incomplete or omitted.   **1 Point:**   * The response indicates that the student has a **partial understanding** of the concept embodied in the task. * The response is incomplete, may exhibit many flaws, and may not address all requirements of the task.   **0 Points:**   * The response indicates that the student **does not demonstrate an understanding** of the concept embodied in the task. * The student has provided a response that is inaccurate or contains only irrelevant text-based information. * The response has insufficient amount of information to determine the student’s understanding of the task or the student has failed to respond to the task.   **Sample Response:**  World-wide globalization and the growth of technology has affected the United States negatively in regards to unemployment. Many jobs are being outsourced to other growing countries that produce the technology for cheaper, in turn leaving Americans without jobs. |

|  |  |
| --- | --- |
| **Reporting Category** | Introduction to Information Technology |
| **Benchmark Number** | 22.05 |
| **Standard** | Develop an awareness of microprocessors and digital computers. |
| **Benchmark** | Explain the need for and use of peripherals. |
| **Also Assesses** | Not Applicable |
| **(K)knowledge, (P)erformance, or**  **(B)oth** | Both |
| **Item Types** | Selected Response, Short Response, Performance Task |
| **Cognitive Complexity Level** | Low, Moderate, High |
| **Benchmark Clarification** | The student will be able to identify computer peripherals and their use (e.g.; printers, scanners, etc.). |
| **Content Limits** | None Specified |
| **Stimulus Attributes** | Stimulus may include picture of computer peripherals. |
| **Response Attributes** | None Specified |
| **Content Focus** | Peripherals, scanner, printer, mouse, keyboard, external device, internal device, speakers |
| **Sample Item** | Which of the following peripheral could be used to upload documents?   1. keyboard 2. MIDI 3. printer 4. scanner   Correct Answer: D |

|  |  |
| --- | --- |
| **Reporting Category** | Introduction to Information Technology |
| **Benchmark Number** | 24.01 |
| **Standard** | Develop an awareness of emerging technologies. |
| **Benchmark** | Compare and contrast various methods of evaluation for emerging technologies. |
| **Also Assesses** | Not Applicable |
| **(K)knowledge, (P)erformance, or**  **(B)oth** | Both |
| **Item Types** | Selected Response, Short Response, Performance Task |
| **Cognitive Complexity Level** | Moderate, High |
| **Benchmark Clarification** | The student will be able to analyze different methods of evaluation emerging technologies and show or graph how they are the same and how they differ.  The student will be able to evaluate emerging technologies in regards to business growth and competiveness. |
| **Content Limits** | Items limited to emerging technologies and current changes in technology. |
| **Stimulus Attributes** | None Specified |
| **Response Attributes** | None Specified |
| **Content Focus** | iPad, cell phone, tablet, laptop |

|  |  |
| --- | --- |
| **Sample Item** | What are the pros and cons of enabling BYOD (bring your own device) in the workplace?  **Rubric**  **2 Points:**   * The response indicates that the student has a **complete understanding** of the concept embodied in the task. * The student has provided a response that includes information that is essentially correct and text-based, but the information is too general or too simplistic. * Some of the support and/or examples and requirements of the task may be incomplete or omitted.   **1 Point:**   * The response indicates that the student has a **partial understanding** of the concept embodied in the task. * The response is incomplete, may exhibit many flaws, and may not address all requirements of the task.   **0 Points:**   * The response indicates that the student **does not demonstrate an understanding** of the concept embodied in the task. * The student has provided a response that is inaccurate or contains only irrelevant text-based information. * The response has insufficient amount of information to determine the student’s understanding of the task or the student has failed to respond to the task.   **Sample Response:**  Pros- Students will have more connected availability. They will be able to use technology to make stronger connections between what they have learned and themselves.  Cons- Internet safety becomes a concern. Students will have more wide use access to social apps and sites while on school property. |

|  |  |
| --- | --- |
| **Reporting Category** | Introduction to Information Technology |
| **Benchmark Number** | 25.02 |
| **Standard** | Demonstrate an understanding of the seven layers of the Open Systems Interface (OSI) model. |
| **Benchmark** | Identify the role of servers and clients on a network. |
| **Also Assesses** | Not Applicable |
| **(K)knowledge, (P)erformance, or**  **(B)oth** | Both |
| **Item Types** | Selected Response, Short Response, Performance Task |
| **Cognitive Complexity Level** | Low, Moderate, High |
| **Benchmark Clarification** | The student will be able to understand the relationship of servers and workstation pc’s in a business environment (e.g. shared resources). |
| **Content Limits** | The content is limited to business servers and networks only. |
| **Stimulus Attributes** | None Specified |
| **Response Attributes** | None Specified |
| **Content Focus** | servers, workstations, business, OSI network, hardware, encoded, transmission protocol, synchronization, switching, routing, flow control, hosts, applications, encrypt, internetworking, |
| **Sample Item** | What is an example of a server and workstation relationship in a business setting?   1. 1 computer connected to the internet 2. 2 computers, both connected to the internet 3. 5 computers and 5 printers, all connect by cable 4. 6 computers, 1 printer, and 1 internet connection   Correct Answer: D |

|  |  |
| --- | --- |
| **Reporting Category** | Introduction to Information Technology |
| **Benchmark Number** | 25.03 |
| **Standard** | Demonstrate an understanding of the seven layers of the Open Systems Interface (OSI) model. |
| **Benchmark** | Identify benefits and risks of networked computing. |
| **Also Assesses** | Not Applicable |
| **(K)knowledge, (P)erformance, or**  **(B)oth** | Both |
| **Item Types** | Selected Response, Short Response, Performance Task |
| **Cognitive Complexity Level** | Low, Moderate, High |
| **Benchmark Clarification** | The student will be able to understand the advantages of sharing resources will simultaneously being aware of the greater risk of being affected by viruses and malware. |
| **Content Limits** | Question content is limited to business environment systems. |
| **Stimulus Attributes** | None Specified |
| **Response Attributes** | None Specified |
| **Content Focus** | viruses, privacy, shared network, malware, OSI, network, hardware, encoded, transmission protocol, synchronization, switching, routing, flow control, hosts, applications, encrypt, internetworking |
| **Sample Item** | Which of the following is **not** a risk associated with sharing resource?   1. network printer capabilities 2. receiving an infected email 3. sending a personal email to a distribution list 4. upper management monitoring your email   Correct Answer: A |

|  |  |
| --- | --- |
| **Reporting Category** | Introduction to Information Technology |
| **Benchmark Number** | 25.05 |
| **Standard** | Demonstrate an understanding of the seven layers of the Open Systems Interface (OSI) model. |
| **Benchmark** | Identify intranets and extranets and how they relate to the internet. |
| **Also Assesses** | Not Applicable |
| **(K)knowledge, (P)erformance, or**  **(B)oth** | Both |
| **Item Types** | Selected Response, Short Response, Performance Task |
| **Cognitive Complexity Level** | Low, Moderate, High |
| **Benchmark Clarification** | The student will be able to understand the difference between using the technological infrastructure for business purposes as opposed to the public domain. |
| **Content Limits** | Items will be limited to business environment interface. |
| **Stimulus Attributes** | None Specified |
| **Response Attributes** | None Specified |
| **Content Focus** | intranet, extranet, OSI, network, hardware, encoded, transmission protocol, synchronization, switching, routing, flow control, hosts, applications, encrypt, internetworking, addressing |
| **Sample Item** | What job duty would an employer us the internet for instead of using the intranet?   1. making a personal purchase 2. payroll/human resources 3. private information 4. training   Correct Answer: A |

|  |  |
| --- | --- |
| **Reporting Category** | Introduction to Information Technology |
| **Benchmark Number** | 26.01 |
| **Standard** | Demonstrate proficiency using common software applications. |
| **Benchmark** | Compare and contrast the appropriate use of various software applications (e.g., word processing, desktop publishing, graphics design, web browser, email, presentation, database, scheduling, financial management, Java, applet, music, etc.). |
| **Also Assesses** | Not Applicable |
| **(K)knowledge, (P)erformance, or**  **(B)oth** | Both |
| **Item Types** | Selected Response, Short Response, Performance Task |
| **Cognitive Complexity Level** | Low, Moderate, High |
| **Benchmark Clarification** | Students will be able to identify the correct software to use in various scenarios. |
| **Content Limits** | Scenarios will be limited to individual school’s software availability. |
| **Stimulus Attributes** | Scenarios will be provided to students. |
| **Response Attributes** | None Specified |
| **Content Focus** | word processing, desktop publishing, graphic design, web browser, email, presentation, database, scheduling, financial management, Java, applet, music applications, MS Office Suite, Word, Excel, PowerPoint, Publisher, Adobe, Premiere Pro, Photoshop, Dreamweaver |
| **Sample Item** | If a large company wanted to store information on their 500 employees, which software would be best for them to use?   1. database 2. pdf reader 3. spreadsheet 4. word processor   Correct Answer: A |