

Introduction to Graphic Communications Blueprint

The PrintED/SkillsUSA Graphic Communications competencies encompass the knowledge and skill set a student should master to exhibit proficiency in graphics communications. The PrintED/SkillsUSA Graphic Communications Career Essentials Assessment test questions align with the PrintED/SkillsUSA Graphic Communications competencies.

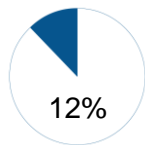
This Blueprint contains the subject matter content for the Career Essentials - Assessment.

Note: To fully prepare for the [Graphic Communications](#) SkillsUSA Championships contest, refer to the current year's SkillsUSA Championships Technical Standard, now included with your SkillsUSA Professional Membership. If you need help in accessing this benefit, contact the SkillsUSA Customer Care Team at 844-875-4557 or customercare@skillsusa.org

Standards and Competencies

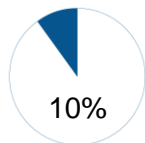
Competencies are weighted throughout the assessment. The percent shown is the weight of the competency. There are 50 questions per assessment.

Industry Overview (A)



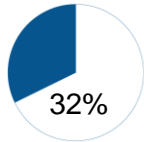
- Describe the purpose of local and national graphic communications associations
- Describe the common printing processes, flexography, gravure, letterpress, offset lithography, screen printing, digital
- Identify samples of each printing process
- Discuss the advantages and disadvantages of each printing process
- Define counterfeiting, copyright, and intellectual property infringement
- Discuss emerging technologies related to printing
- Describe the function and use of basic production equipment used in a commercial printing plant, computer workstation, scanner, proofing device, plate setter, offset lithographic press, digital press, paper cutter, folder, saddle stitcher, perfect binder, paper padding press, paper drill
- Locate production information on a job ticket
- List, in order, a typical technical production flow from idea to finished product
- Identify the types of businesses and organizations that comprise the industry
- Describe the markets that use printing direct mail, books, magazines, stationary, packaging
- Compare the role of print to other communication mediums, Television, Radio, Internet, Social Media
- Review the common steps in a typical print workflow

Safety and Health (B)



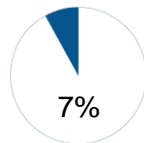
- Review applicable national and local government safety regulations
- Explain the use and locations of safety interlocks on machinery
- Identify safety regulations in place at the school graphics lab as they relate to proper paper movement
- Explain the proper procedures to clean up any spills at school graphics lab
- Describe a Safety Data Sheet (SDS)
- Explain the use of Safety Data Sheet (SDS)
- Evaluate Safety Data Sheets (SDS) in place in the school lab

File Creation to Output (C)



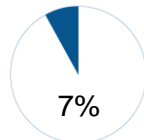
- Identify common components of pages: a. text; b. illustrations, photographs
- Define terms page layout, image editing and illustration
- Review professional software applications: a. page layout i.e. Adobe InDesign, QuarkXPress; b. Image Editing i.e. Adobe Photoshop; c. illustration i.e. Adobe Illustrator
- Create a page that includes fonts, styles, margins, indents, tabs and photographs and illustrations using a professional layout software
- Compare the differences between supplying PDF files versus native files for print
- Define RGB and CMYK color reproduction
- Discuss the Pantone color process
- Contrast color reproduction viewed on digital display (monitor, TV, tablet, smartphone) versus print
- Identify different types of graphics: a. line art; b. continuous tone; c. raster; d. vector
- Describe pixel per inch resolution
- Cite examples of various file formats and their extensions: .doc; .pdf; .tif; .eps; .jpg; .bmp; .indd; .ai; .xls; .ePub
- Review minimum resolution requirements for different reproduction devices: a. screen display b. print
- Compare use of scanner versus lens based image capture (digital camera)
- Describe preflighting
- List common file issues found during preflight
- Define imposition
- Define trapping
- Define bleed
- Compare hard and soft proofs
- Review how content may be published digitally: A. publishing to the web; b. social media; c. mobile devices
- Compare the advantages/disadvantages of e-publishing/e-books versus traditional books

Offset Press (D)



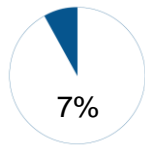
- Discuss the imaging process of an offset press
- Review the components of an offset press.
- Compare feeding system of a sheet fed press (roll, sheet fed)
- Describe the use of color bars

Digital Press (E)



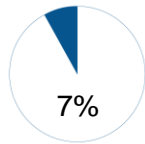
- Discuss the imaging process of a digital press
- Review components of digital presses

Substrates (F)



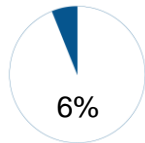
- Discuss the impact that substrates have on a printed project
- Identify wood pulp based paper substrates
- Review common paper types, weights, grades and classifications commonly used in the printing industry
- List common page and sheet sizes used in the United States and Europe
- Describe parent sheet
- Identify non-traditional specialty substrates
- Gather examples of pulp, plastic and metal based substrates
- Discuss sustainability/recyclability of pulp based substrates
- Discuss sustainability of print versus digital media

Binding, Finishing and Distribution (G)



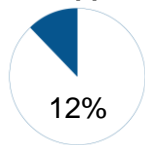
- Determine grain direction of paper
- Explain the importance of grain direction
- Describe a folded signature
- Describe binding and finishing options: a. loose leaf; b. saddle stitch; c. perfect bind; d. case binding; e. lay flat binding; f. die cutting; g. embossing/debossing; h. foil stamping
- Contrast use and benefits of each binding option
- Create 16-page saddle stitch booklet
- Describe in-line, near line and off-line finishing
- Identify commonly used finishing and binding equipment and supplies: a. padding; b. stapling; c. stitching; d. punching/drilling; e. folding; f. collating

Math and Measurement (H)



- Identify die cut products; embossing and foil stamping products; and procedures/equipment used for each
- Describe English and Metric measurement system
- Define Points and Picas
- Demonstrate the measurement of type in points and line length in picas
- Calculate reduction or enlargement percentage of original photograph to final size
- Determine optimum layout for minimizing waste when cutting smaller sheets out of larger sized sheet of paper

Job Application and Interpersonal Skills (I)



- Locate job listing through a variety of sources
- Gather job postings for positions in the graphic communications industry
- Write a personal résumé that highlights the candidate's experience, skills, and talents and include references
- Write a cover letter for a specific job that differentiates the candidate from other job seekers
- Demonstrate how to customize a résumé and cover letter to match a job listing and employer
- Complete an employment application form
- Discuss and demonstrate ways to prepare for a successful job interview
- Prepare responses to common interview questions



- Develop appropriate questions to ask prospective employers during interviews
- Conduct a mock job interview conducted by a teacher, parent or another student
- Prepare a letter or email to follow-up a job interview
- Evaluate an employment benefits package
- Review roles and responsibilities of employment positions in the graphic communications industry
- Describe work ethic skills that should be exhibited by employees in the graphic communications industry
- Describe the positive and negative impact of social media on personal brand

SkillsUSA is of the understanding that students who take the PrintED/SkillsUSA Graphic Communications Career Essentials Assessment have been enrolled in a graphic communications training program with the following competencies embedded within the curriculum.

Identified Academic Skills

Math Skills

- Use fractions to solve practical problems
- Simplify numerical expressions
- Solve practical problems involving percents
- Solve single variable algebraic expressions

Language Arts Skills

- Provide information in conversations and in group discussions
- Provide information in oral presentations
- Demonstrate use of nonverbal communication skills: eye contact, posture and gestures using interviewing techniques to gain information
- Demonstrate knowledge of appropriate reference materials

Connections to National Standards

State-level academic curriculum specialists identified the following connections to national academic standards.

Math Standards

- Geometry
- Measurement
- Problem solving
- Communication
- Connections
- Representation

Source: NCTM Principles and Standards for School Mathematics. To view high school standards, visit: standards.nctm.org/document/chapter7/index.htm. Select "Standards" from menu.

Science Standards

- Understands the structure and properties of matter
- Understands the sources and properties of energy



- Understands forces and motion
- Understands the nature of scientific inquiry

Source: McREL compendium of national science standards. To view and search the compendium, visit:
www.mcrel.org/standards-benchmarks/.

Language Arts Standards

- Students read a wide range of print and nonprint texts to build an understanding of texts, of themselves, and of the cultures of the United States and the world; to acquire new information; to respond to the needs and demands of society and the workplace; and for personal fulfillment. Among these texts are fiction and nonfiction, classic and contemporary works.
- Students apply a wide range of strategies to comprehend, interpret, evaluate and appreciate texts. They draw on their prior experience, their interactions with other readers and writers, their knowledge of word meaning and of other texts, their word identification strategies and their understanding of textual features (e.g., sound-letter correspondence, sentence structure, context, and graphics).
- Students adjust their use of spoken, written and visual language (e.g., conventions, style, and vocabulary) to communicate effectively with a variety of audiences and for different purposes.
- Students use a variety of technological and information resources (e.g., libraries, databases, computer networks and video) to gather and synthesize information and to create and communicate knowledge.
- Students use spoken, written and visual language to accomplish their own purposes (e.g., for learning, enjoyment, persuasion and the exchange of information).

Source: IRA/NCTE Standards for the English Language Arts. To view the standards, visit:
www.readwritethink.org/standards/index.html.