BLOOMFIELD PUBLIC SCHOOLS Bloomfield, New Jersey

Curriculum Guide

Digital Graphics and Webpage Design Grades 10-12

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Introduction

Computer Graphics/Web Design is a yearlong, project-based curriculum that develops career and communication skills in print production and graphic design, using Adobe tools. Visual Design develops four key skill areas:

- Project management and collaboration
- Design
- · Research and communication
- Professional print production using graphic design tools

Students develop these key skills in a spiral—each project adds more challenging skills to foundation proficiencies. Students experience subject areas and skills across careers in graphic design, photography, print and layout design, and production.

This curriculum s based of Adobe Systems collaboration with a community of educators across the US and UK to develop the appropriate depth and breadth of each project. Additionally, Adobe collaborated and co-developed this content with the International Society of Technology Education (ISTE) to create standards-aligned, career-track, course materials that focus on print production and graphic design.

Visual Design addresses each of these areas, using a project-based approach. Each project has phases that follow a design and development process, from project planning and analysis to evaluation and distribution. Students gain experience through real-world projects that help them better understand the roles and processes across a broad range of careers involving visual design. To simulate a professional work environment, students gradually migrate their design work from an individual process to a group process, focused on personal and client work. Design work by its very nature is iterative, so the projects contain activities that require students to evaluate and then redesign and rework their communications. Specific attention has been paid to developing concepts and principles for thorough, effective design.

Each project guideline provides structure for the content and process of a project while allowing flexibility for the instructor to tailor the level of social and technical interaction appropriate for students. For example, you can manage client work within the school or open it up to involve the community at large.

OVERARCHING UNDERSTANDINGS: Computer technologies enable students to solve real world problems, enhance life and extend human capability as they meet the challenges of a dynamic global society.

Materials

Textbook:

Adobe Systems Incorporated <u>Visual Design Foundations of Design and Print Production 2008.</u>

Supplementary Text:

Adobe Photoshop CS4 Classroom in a Book; Adobe Photoshop CS6 Classroom in a Book The Web Collection Revealed

Classroom Computer Setup

Windows

- 1.8GHz or faster processor
- Microsoft® Windows® XP with Service Pack 2 (Service Pack 3 recommended) or Windows Vista™ Home Premium, Business, Ultimate, or Enterprise with Service Pack 1 (certified for 32-bit Windows XP and 32-bit and 64-bit Windows Vista)
- 512 MB of RAM (1 GB recommended)
- 1 GB of available hard-disk space for installation; additional free space required during installation (cannot install on flash-based storage devices)
- 1,024 x 768 display (1,280 x 800 recommended) with 16-bit video card
- Some GPU-accelerated features require graphics support for Shader Model 3.0 and OpenGL 2.0
- · DVD-ROM drive
- QuickTime 7.2 software required for multimedia features
- Broadband Internet connection required for online services

Other Peripherals

- · Digital Scanner
- · Digital Cameras

References

Adobe Systems Incorporated Visual Design Foundations of Design and Print Production 2008.

State of New Jersey, Department of Education. "Core Curriculum Content Standards." <u>Curriculum and Instruction</u>. 2006. State of New Jersey. 8 July 2009 http://www.nj.gov/education/aps/cccs/>.

Sequence of Material

Projects for Marking Period 1 and 2 The first semester of Computer Graphics/Web Design develops skills that lay the foundation for photography and producing print-ready communications: graphic design principles, visual comps, print production development, shared project management skills such as interviewing and project scheduling, peer review, and redesign. Project activities focus on developing effective communications that can be deployed in print, on the web, or in a video. Students develop a variety of graphics, a logo, a business card, and a client advertisement. They produce design documents and visual comps that clients review. Students culminate the semester with a portfolio project during which they reflect on the skills and topics they've covered thus far and begin to explore the career areas that interest them in visual design. The key skills emphasized in this semester are: • Soft skills such as interviewing and responding to feedback • Designing for a variety of audiences and needs • Problem solving that helps support multiple perspectives • The design process and effective communication • Peer teaching and evaluation in a collaborative environment • Technical image manipulation and print publishing skills In the first semester, students use Adobe Photoshop CS4 Extended to develop images. They use Adobe InDesign CS4 to design and build layouts and print materials. They use Adobe Acrobat 9 Professional to review and improve content, produce print-ready materials, and develop a portfolio. Projects for Marking Period 3 and 4 The second semester of *Computer Graphics/Web Design* builds on student design and development skills by focusing on longer print production projects as well as more in-depth content and advanced techniques for graphics and layout development. Students continue to work on teams to produce rich print communications such as brochures, newsletters, and yearbooks. They focus on effective graphic design, project management, design specifications, and iterative development. They develop graphicdesign and print-production skills that solve specific communication challenges to meet client and audience needs. They build technical skills to address project needs and learn to track complex projects. Students culminate this semester with a portfolio redesign that has them project forward on their aspirations, goals, and interests. The key skills emphasized in this semester are: • Project management skills such as task management, client management, milestone tracking, and contingency planning • Illustration and drawing • Communication with peers and team members, using project plans or specifications • Design and redesign • Technical graphic- and print-production skills such as creating vector-based graphics and filters • Design solutions, including multi-page and double-page layouts

In the second semester, students learn Adobe Illustrator CS4 to create vector-based graphics and illustrations to add interest.

UBD COURSE OUTLINE

Big Idea:

The application of the principles of design combine with the digital manipulation of pixels in text and images is one of the most rapidly growing computer fields.

<u>Critical Vocabulary:</u>
Ambient light Image browser Image editor

Archival Image resolution

Aperture Inkjet
ApplicationBuffer ISO speed
Burning JPEG
CCD LCD
CD-R Media

CD-RW Megabyte (MB)
CMOS Memory Stick®

CMOS
CMYK
CompactFlash™
Contrast
Digital camera
Download (downloading)
DPI
EXIF

NiMH
Panning
Pixel
RAW
Red-eye
RGB
Saturation

External flash
File
Fill flash
Fire
FireWire
Grayscale
Highlights
Sensitivity
Serial
Sharpness
Shutter speed
SmartMedia™
Thumbnail
USB

Histogram White balance

Essential Questions:

What computer skills are necessary in our world of constant technology change?

What knowledge about the computer can be transferred to new technology situations and experiences?

What computer skills do I most need to develop computer literacy?

What is important to know in selecting a digital camera and computer for a specific use?

What are the strengths and weaknesses of digital cameras and computers?

How is a digital camera and computer connected to everyday life?

How can a digital camera and computer help expedite workflow and manage tasks in society?

What are the differences in applications, hardware and software? What are the different tools in Adobe Creative Suite used for?

Established Goals: New Jersey Core Curriculum Content Standards

Content Area Standards (Used in this curriculum)

8.1.12.A; 8.1.12.C.1; 8.1.12.D.1; 8.1.12.D.4; 8.1.12.E.2; 8.1.12.F.2;

9.4.12.D.4.1; 9.4.12.D.4.3; 9.4.12.D.4.4; 9.4.12.D.4.9; 9.4.12.D.4.10; 9.4.12.D.10.2

- **8.1 Educational Technology:** All students will use digital tools to access, manage, evaluate, and synthesize information in order to solve problems individually and collaboratively and to create and communicate knowledge.
 - A. Technology Operations and Concepts: The use of technology and digital tools requires knowledge and appropriate use of operations and related applications.
 - C. Communication and Collaboration: <u>Digital tools</u> and environments support the learning process and foster collaboration in solving local or global issues and problems.

 8.1.12.C.1 Develop an innovative solution to a complex, local or global problem or issue in collaboration with peers and experts, and present ideas for feedback in an online community.
 - D. Digital Citizenship: Technological advancements create societal concerns regarding the practice of safe, legal, and ethical behaviors.
 - 8.1.12.D.1 Evaluate policies on unauthorized electronic access (i.e., hacking) and disclosure and on dissemination of personal information.
 - 8.1.12.D.4 Explain the impact of cyber crimes on society.

E. Research and Information Literacy

Effective use of <u>digital tools</u> assists in gathering and managing information.

8.1.12.E.2 Predict the impact on society of unethical use of digital tools, based on research and working with peers and experts in the field.

F. Critical Thinking, Problem Solving, and Decision-Making

Information accessed through the use of digital tools assists in generating solutions and making decisions.

8.1.12.F.2 Analyze the capabilities and limitations of <u>current and emerging technology resources</u> and assess their potential to address educational, career, personal, and social needs.

9.4 21ST Century Career and Technical Education

- 9.4.D Business, Management & Administration Career Cluster
 - 4. Information Technology Applications technology specific to the career cluster to access, manage, integrate, and create information.
 - 9.4.12.D.4.1 Employ technological tools to expedite workflow.
 - 9.4.12.D.4.3 Operate Internet applications to perform workplace tasks.
 - 9.4.12.D.4.4 Operate writing and publishing applications to prepare business communications.
 - 9.4.12.D.4.9 Employ computer operations applications to manage work tasks.
 - 9.4.12.D.4.10 Use computer-based equipment, containing embedded computers or processors, to control devices.
 - **10. Technical Skills** the required technologies to pursue targeted careers for all pathways in the career cluster, including knowledge of design, operation, and maintenance of technological systems critical to the career cluster.
 - 9.4.12.D.10.2 Employ planning and time management skills and tools in the classroom and/or worksite to enhance results and complete work tasks.

Title of Unit	Collages and Photography	Grade Level	10-12		
Curriculum Area	D	Time Frame	10-15 days		
Developed By					
	Desired Res	ults (Stage 1)			
	Establis	hed Goals			
To produce quality images for print, web, and video, students need to understand essential graphic design principles and how digital images are created. Adobe Photoshop CS4 Extended is an image-manipulation tool that can help students analyze, enhance, and edit images. In this project, students learn the basics of photography, image composition, and elements of visual design as they create a collage.					
	Primary Interdisci	plinary Conne	ections		
21st Century Inter	disciplinary Themes:				
Global AwarenessX Financial, economic, business, and entrepreneurial literacy Civic Literacy Health Literacy					
Transfer					
Students will be able to independently use their learning to Take photos and gather images from various sources, identifying elements of visual design that reflect good composition. They use Photoshop to retouch and manipulate these photos and images to build a collage. Through this process, they learn about copyright issues and document their learning by using Adobe Acrobat 9 Professional.					
Student product: Collage					

Meaning				
Understandings	Essential Questions			
Students will understand that	Students will keep considering			
Demonstrate knowledge of standard copyright rules for images and image use. Demonstrate knowledge of image resolution, image size, and image file format for web, video, and print. Demonstrate knowledge of design principles, elements, and image composition. Demonstrate knowledge of color correction using Photoshop CS4. Demonstrate knowledge of image-generating devices, their resulting image types, and how to access resulting images in Photoshop. Understand key terminology of digital images. Identify elements of the Photoshop CS4 user interface and demonstrate knowledge of their functions. Demonstrate knowledge of layers and masks. Demonstrate knowledge of importing, exporting, organizing, and saving. Demonstrate knowledge of working with selections and measurement. Transform images. Adjust the tonal range and correct the color of an image. Demonstrate knowledge of retouching and blending images.	What are the elements of design? What are the principles of design? How does Math and English play a part in graphic design? How does graphic design relate to everyday life?			
Acquis	sition			
Knowledge	Skills			
Students will know	Students will be able to			
Design skills	Project management skills			
Understand image composition	Plan and create a collage			
Understand color correction and effects	Organize and manage images			
 Understand file formats, resolution, and file size 	Manage files and using file-naming conventions			
Understand image source				
 Understand techniques used to create visual hierarchy 	Technical skills			
Research and communication skills How to communicate information clearly, using correct terminology	Use a digital cameraScan images Photoshop			

 Understand copyright How to analyze and cr 	issues and fair-use guidelines ritique photographs	 Understand the Adobe Photoshop CS4 Extended interface Import and work with various file formats Work with layers Retouch photos by using selection tools Adjust brightness and contrast Adjust levels and colors Crop, resize, and straighten images Transforming images Acrobat Create a PDF
	Evi	dence (Stage 2)
Checks for Alignment	Evaluation Criteria Performance is judged in terms of	Assessment Evidence
		Transfer Task(s) Formative Summative

Learning Plan (Stage 3)				
Checks for alignment and best practice	Checks for alignment and best practice Summary of Key Learning Events and Instruction The teaching and learning needed to achieve the unit goals.			
	Required Activities	Required Resources		
	Introducing photography, color, and design (Suggested time: 50–100 minutes)	 Adobe Photoshop CS4 Extended installed on all machines Adobe Acrobat 9 Professional installed on all machines 		
	Constructing the collage (Suggested time: 100–150 minutes)	Digital camerasScannersGuide: Introduction to digital photography		
	Creating and presenting their work (Suggested time: 25–50 minutes)	 Photoshop guide: Overview of Adobe Photoshop CS4 Extended workspace Guide: How to scan images 		
		 Photoshop guide: How to correct color Photoshop guide: How to retouch photos Photoshop guide: How to generate different file formats Photoshop guide: How to resize and crop images Photoshop guide: How to use selection tools Photoshop guide: Combining images in Photoshop Guide: Principles and rules of copyright Acrobat guide: How to use the Acrobat interface and basic navigation Acrobat guide: How to create a PDF Background preparation resources Technical and content information Key terms ISTE NETS*S Standards for Students Adobe Certified Associate, Visual Communication objectives 		
	Suggested Activities	Suggested Resources		
	Composition: Engage students in deeply exploring composition elements by using Camera Raw files or video stills to manipulate the image and its metadata (such as zoom, hand, white balance, cropping, color			

Learning Plan (Stage 3)			
	samplers, Camera Raw workflow options, FilmStrip format, and non-square pixels).		
	Design principles: Have students research design principles as they apply to photography, graphic design, and fine art. Have them distinguish the ways these principles are applied and represented in the different areas and then present their findings.		
	Photographers: Have students research famous photographers and their work to understand the field of photography. Have them present their findings to the class.		
	Community links: Ask professional photographers, graphic designers, and artists to discuss their work and career paths, giving students a real-world view of the areas they are studying.		

Title of Unit	Logo Design	Grade Level	10-12	
Curriculum Area		Time Frame	10-15 days	
Developed By				
	Desired Resu	ults (Stage 1)		
	Establish	ned Goals		
Logos can evoke imme	ediate associations with companies or specific p	products. Organization	ns and corporations use logos to identify	
themselves and set up	brands. A logo should be unique, functional, a	and versatile. In this p	project, students view sample logos and	
discuss color theory ar	nd design principles used in the logos.	•		
	Primary Interdisci	olinary Conne	ections	
21st Century Interdisciplinary Themes: Global AwarenessX Financial, economic, business, and entrepreneurial literacy Civic Literacy Health Literacy				
Transfer				
Students will be able to independently use their learning to Plan, create, and build a logo for use in other publications, such as business cards, menus, or advertisements. Students learn about file formats, resolution, and image size and select appropriate settings for a variety of final product scenarios. Student product: Digital logos optimized for web, print, and video.				

Meaning				
Understandings Essential Questions				
Students will understand that	Students will keep considering			
 Identify the purpose, audience, and audience needs for preparing image(s). Demonstrate knowledge of image resolution, image size, and image file format for web, video, and print. Demonstrate knowledge of design principles, elements, and image composition. Demonstrate knowledge of image-generating devices, their resulting image types, and how to access resulting images in Photoshop. Understanding key terminology of digital images. Demonstrate knowledge of importing, exporting, organizing, and saving. Demonstrate an understanding of and select the appropriate features and options required to implement a color management workflow. Demonstrate knowledge of working with selections and measurement. Use Photoshop guides and rulers. Demonstrate knowledge of drawing and painting. Demonstrate knowledge of type. Demonstrate knowledge of preparing images for web, print, and video. 	What are the elements of design? What are the principles of design? How does Math and English play a part in graphic design? How does graphic design relate to everyday life?			
Acquisitio	n			
Knowledge	Skills			
Students will know	Students will be able to			
Research and communication skills	Project management skills			
Investigating logosCritiquing designs	Planning and creating a logoManaging and organizing graphics elements and			
Communicating purpose and goal	illustrations			
 Communicating and presenting design decisions 	Technical skills			
Giving feedback on a project	Photoshop			
Design skills	 Using guides and rulers 			
 Understanding and employing design principles 	 Understanding vector and bitmap graphics 			
 Understanding and employing color theory 	 Using swatches 			
 Identifying the difference in color modes 	Drawing lines			
Understanding color management	 Drawing and modifying shapes 			

- Sketching
- Creating and editing graphical elements and illustrations
- Designing for a specific audience and purpose

- Creating vector masks
- Adding text to images
- Outputting for web
- Outputting for print
- Outputting for video

Learning Plan (Stage 3)

Checks for alignme	· · · · · · · · · · · · · · · · · · ·				
and best practice	The teaching and learning needed to achieve the unit goals.				
	Required Activities	Required Resources			
	Color theory and design(Suggested time: 50–75 minutes)	Adobe Photoshop CS4 Extended installed on all machines Presentation: Introduction to graphic design Westerbeath Period principles			
	Constructing the logo(Suggested time: 100–150 minutes)	Worksheet: Design principlesGuide: How to understand color management			
	Review and redesign(Suggested time: 20–30 minutes)	Worksheet: Review and redesign of logosPhotoshop guide: How to create a new document			
	Optimizing and finalizing images(Suggested time: 50–100 minutes)	 Photoshop guide: How to use drawing tools Photoshop guide: How to draw shapes 			
	Presenting their work(Suggested time: 50–100 minutes)	 Guide: Bitmap and vector images Photoshop guide: How to use selection tools Photoshop guide: How to add text to images Photoshop guide: How to generate different file formats Background preparation resources Technical and content information Key terms ISTE NETS*S Standards for Students Adobe Certified Associate, Visual Communication objectives 			
	Suggested Activities	Adobe der tilled Associate, visual communication objectives			
	Design activity: Have students explore the color schemes posted on Kuler in Adobe labs: http://kuler.adobe.com . Have students, in small groups, select their favorite color scheme and articulate where they might use such a color scheme and why it is useful for that purpose.				
	Design challenge: Select a student logo that incorporates complex colors and effects. Have the students in the class optimize this logo, trying to achieve a smaller file size than the creator's original web version while maintaining the look and quality of the logo. Have students vote on the versions to select the one with the best quality and the smallest file size.				

Title of Unit	Business Card Design	Grade Level	10-12
Curriculum Area		Time Frame	10-15 days
Developed By			
	Desired Resul	ts (Stage 1)	
	Establishe	ed Goals	
0 0	et and use a business card, especially the first tir	ne. Often, however,	people don't have control over the design
of the card that repres	Primary Interdiscipl	inary Conne	rtions
	Filliary interdiscipi	inal y conne	CHUIS
21st Century Interdi		-:-l	
			usiness, and entrepreneurial literacy
CIV	vic Literacy Health	Literacy	
	Trans	efor	
		SICI	
	ndependently use their learning to		
	create a business card, and in the process, they		
	udience, and purpose impact design decisions, we in a formal review and redesign process to help		
rinally, students engage	e in a formal review and redesign process to help	them improve and	expand their design skills.
Student product: Business cards and PDF slideshow presentation			
	Mean	ina	
Understandings Essential Questions			
	udents will understand that		Students will keep considering
	ge of image resolution, image size, and image file	What are the elemen	
format for web, video		What are the princip	•
	ge of design principles, elements, and image		English play a part in graphic design?
composition.		How does graphic de	sign relate to everyday life?
Demonstrate knowled	ge of typography.		
Transform images.			

- Demonstrate knowledge of type.
- Demonstrate knowledge of filters.
- Demonstrate knowledge of preparing images for web, print, and video.

Acquisition

Knowledge

Students will know...

Research and communication skills

- Evaluating and analyzing business cards
- · Providing insightful critiques and feedback
- Demonstrating personal responsibility by incorporating feedback
- Presenting a design layout to a group
- Planning strategies to guide inquiry
- Communicating business card redesign effectively to peers and instructors

Design skills

- Understanding the impact of typography
- Understanding the relationship between color, typography, layout, and tone
- · Designing for readability
- Redesigning based on feedback
- Understanding different print formats
- Applying principles of print design
- Designing for audience(s)
- Creating an original work

Skills

Students will be able to...

Project management skills

- Planning and managing projects with multiple steps
- Incorporating different types of assets
- Conducting a review workshop
- Identifying audience(s)
- Selecting and using appropriate applications
- Practicing safe, responsible use of copyright information when using outside graphic elements

Technical skills

Photoshop

- Exporting to InDesign
- Applying filters, such as the Lighting Effect or Lens Flare

InDesign

- · Understanding the InDesign interface
- Setting document properties, including dimensions and margins
- Adding and modifying text
- Using alignment tools, ruler, guides, and grid

Acrobat

Creating PDF slideshows

Learning Plan (Stage 3)				
Checks for alignmer and best practice	Checks for alignment Summary of Key Learning Events and Instruction and best practice The teaching and learning needed to achieve the unit goals.			
	Required Activities	Required Resources		
	Planning and designing a business card (Suggested time: 50–100 minutes)	 Adobe Photoshop CS4 Extended installed on all machines Adobe InDesign CS4 installed on all machines Adobe Acrobat 9 Professional installed on all machines 		
	Building business card elements (Suggested time: 50–100 minutes)	 Guide: Understanding typography concepts Presentation: Introduction to typography design Worksheet: Analyzing business cards 		
	Building a business card (Suggested time: 100–150 minutes)	 Worksheet: Review and redesign of business cards Photoshop guide: How to resize and crop images Photoshop guide: How to use filters 		
	Redesigning and presenting a business card (Suggested time: 100–150 minutes)	 InDesign guide: Overview of InDesign CS4 workspace InDesign guide: How to set up a document InDesign guide: How to use text InDesign guide: How to use the ruler, grid, guides, and the Align panel InDesign guide: How to prepare files for print Acrobat guide: How to create a PDF presentation Background preparation resources Technical and content information Key terms ISTE NETS*S Standards for Students Adobe Certified Associate, Visual Communication objectives 		
	Suggested Activities	Suggested Resources		
	Ancillary materials: After students have completed their business cards, have them design and create the other materials they might need for the business, such as envelopes and letterheads for when they apply for jobs and provide their business cards. If they designed the			

Learning Plan (Stage 3)			
	business card for an organization, have them create ancillary materials the organization might need.		
	Real world experiences: Recruit interested local businesses and organizations for which the student groups might create a business card design. Each group could act like its own design firm and create designs for the organization.		
	Reviewing with clients: When working with clients each group could post their work to the web to conduct client reviews by creating PDF documents in Adobe Acrobat 9 Professional or uploading content onto a review website using Adobe Contribute CS4. Use the information from the School Setup Guide to set up and use Contribute: www.adobe.com/education/instruction/adsc/		

	T			1
Title of Unit	Advertisement		Grade Level	10-12
Curriculum Area			Time Frame	10-15 days
Developed By				
	De	esired Result	ts (Stage 1)	
		Establishe	d Goals	
In the design and production business world, students can expect to work with clients. These might be internal clients—another department needing materials designed—or external clients seeking an organization's services. In this project, students are introduced to the process of working with a client through an advertisement project. They work with a client to identify the goals, audience, and purpose of an advertisement. You might choose to limit the scope of these projects by being the client or by selecting a specific client in the school for each student group. Or you might choose to work with local businesses and organizations, depending on the level of your students.				
	Primary	Interdiscipli	inary Conne	ections
21st Century Interdisciplinary Themes: Global AwarenessX Financial, economic, business, and entrepreneurial literacy Civic Literacy Health Literacy				
Transfer				
Students will be able to independently use their learning to Working in small groups, students interview clients and then design and provide multiple comps of their advertisement designs to the client. Students engage in a review and redesign cycle with their clients. They also conduct a focus group to gain feedback on the usability and overall effect of their advertisements. Students engage in the review and redesign process until reaching agreement with clients. Students build their client advertisements for placement in print, web, and video collateral. Finally, students reflect on their overall process and product. Student product: Advertisement				

Meaning			
	Understandings Essential Questions		
	Students will understand that	Students will keep considering	
 Identify the purpose, audience, and audience needs for preparing image(s). Demonstrate knowledge of project management tasks and responsibilities. Communicate with others (such as peers and clients) about design plans. Demonstrate knowledge of layers and masks. Demonstrate knowledge of importing, exporting, organizing, and saving. Demonstrate knowledge of producing and reusing images. Demonstrate knowledge of working with selections and measurement. Demonstrate knowledge of retouching and blending images. Demonstrate knowledge of preparing images for web, print, and video. 		What are the elements of design? What are the principles of design? How does Math and English play a part in graphic design? How does graphic design relate to everyday life?	
	Acqui	sition	
Kn	owledge	Skills	
Stude	ents will know	Students will be able to	
 Research and communication skills Analyzing and evaluating advertisements Planning strategies to guide inquiry Questioning to focus and clarify Presenting designs to a client Demonstrating personal responsibility by incorporating feedback Researching topic for advertisement Interviewing clients Conducting a focus group 		 Project management skills Designing for a client Planning and managing projects with multiple steps Identifying audience(s) Selecting and using appropriate applications Conducting review sessions Writing a summary of client needs Developing a project plan Preparing files for print, web, and video 	
Desi • •	gn skills Designing for audience(s) Creating an original work Balancing graphics and text Sketching advertisements	Technical skills Photoshop	

- Creating designs that meet client requirementsUnderstanding different file formats
- Creating comps

Chacks for alignment

- Designing for emphasis
- Designing for usability
- Designing on a grid

- Using opacity and fill tools
- Saving as PDF

InDesign

- Exporting to different formats
- Formatting text (kerning, tracking, scaling, and so on)
- Combining graphic and text frames to make page layouts
- Using InDesign layers
- Placing objects (images, text, PSD files) on the page
- Placing text over images
- Using graphic frames as masks

Acrobat

Summary of Key Learning Events and Instruction

Creating a PDF

Learning Plan (Stage 3)

and best practice	The teaching and learning needed to achieve the unit goals.	
Required Activities	Required Resources	
Defining client requirements (Suggested time: 150–200 minutes)	 Adobe Photoshop CS4 Extended installed on all machines Adobe InDesign CS4 installed on all machines 	
Planning and designing an advertisement (Suggested time: 100–150 minutes) Building an advertisement (Suggested time: 150–200)	 Adobe Acrobat 9 Professional installed on all machines Digital cameras Scanners Worksheet: Analyzing advertisements Worksheet: Project plan 	
Reviewing and redesigning an advertisement (Suggested time: 250–300 minutes)	 Worksheet: Client interview: Advertisement Photoshop guide: How to create layer comps Worksheet: Review and redesign of advertisement Photoshop guide: How to add a watermark to images InDesign guide: How to work with text frames InDesign guide: How to combine graphics and text frames InDesign guide: How to place images on a page InDesign guide: How to work with graphics frames 	
	Background preparation resources	

	 ISTE NETS*S Standards for Students Adobe Certified Associate, Visual Communication objectives
Suggested Activities	Suggested Resources
Project phases: As the class discusses project phases, you can extend the project in the following ways by pointing out similar phases of work completed by students in previous projects: Define In Projects 2 & 3, students defined purpose, goals, and audience when creating their logos and business cards. In Project 3, students completed redesign reviews for their business cards. Design In Projects 2 & 3, students designed comps. Structure In Projects 2 & 3, students drew sketches for their logos and business cards.	Project management A general introduction to project management on the web: www.managementhelp.org/plan_dec/project.htm.
Focus groups: Have students research focus groups to learn about their use and purpose, exploring effective techniques for leading a focus group.	The basics of conducting focus groups: www.managementhelp.org/evaluatn/focusgrp.htm. Information on running and conducting face-to-face, online, and telephone focus groups: www.mnav.com/qualitative_research.htm. Ten tips for running a successful focus group: www.isixsigma.com/offsite.asp?A=Fr&Url=http://www.groupsplus.com/pages/mn091498.htm.
Interactive advertisements: Have students reconsider their advertisements for the web by exporting their InDesign document to an XFL format and creating an interactive version in Adobe Flash CS4. You can use the Digital Design curriculum to access guides on importing files into	Advertisement layout: Guidelines, templates, and tutorials for advertisement design: http://desktoppub.about.com/od/ads/Advertising_Design.htm . Twenty-four tips for advertisement layout design: http://ezinearticles.com/?24-Tips-On-How-To-Produce-The-Best-Advertisement-Layout&id=103893 .

Flash, creating digital narratives, ar	
incorporating interactivity into an	An archive of print advertisements: www.adflip.com .
advertisement.	Access to over 7,000 advertisements from newspapers:
	http://scriptorium.lib.duke.edu/adaccess.
Blue sky client scenario: Have each	
student group create an exaggerate	ed and
fun organization and product that n	
to be advertised. Have each team p	lace
their idea in a hat, and then have to	eams eams
draw an idea to determine who will	be
their client. Encourage your student	s to be
creative and take advantage of the	
features and effects in Photoshop a	nd
InDesign to create visual interest.	
Teacher-led client scenario: If outsi	de
clients are not available, you can be	e the
client mimicking a local business su	ch as a
restaurant. Have students design a	
advertisement for the restaurant	
highlighting select menu choices an	d d
ethnic theme of the restaurant.	

Title of Unit	Portfolio	Grade Level	10-12
Curriculum Area	1 of trollo	Time Frame	5-10 days
Developed By		Time Trums	10 10 da/s
	Desired Resu	Its (Stage 1)	
	Establish		
Portfolios communica	te accomplishments, works in progress, or perso	nal history. Individua	als use a portfolio to showcase their
	or a job. Traditionally, a portfolio is a large book		·
portfolios, individuals	can share print, design, and interactive work in	a variety of ways: e-	mail, print, and online.
	Primary Interdiscip	linary Conne	ections
	<u> </u>		
21st Century Interd	isciplinary Themes:		
G	lobal AwarenessX Fina	ncial, economic, l	ousiness, and entrepreneurial literacy
Ci	ivic Literacy Healt	h Literacy	· · · · · · · · · · · · · · · · · · ·
Transfer			
	independently use their learning to		
	nts create the elements of a PDF portfolio with A	•	•
	essional. They build a portfolio that features the	work they have com	pleted and explore career opportunities in
Tields such as advertis	sing, PR, photography, and print production.		
Student product: PDF	portfolio		
	Mear	ning	
Understandings Essential Questions			
St	tudents will understand that		Students will keep considering
Demonstrate kno	owledge of preparing images for web, print, and	What are the eleme	nts of design?
video.		What are the princi	a distribution of the contract
			English play a part in graphic design?
		How does graphic of	lesign relate to everyday life?

Acqui	sition	
Knowledge Students will know	Skills Students will be able to	
Research and communication skills Investigating and researching career areas within print production Communicating information to particular audiences Defining the goals and uses of a portfolio Soliciting and providing feedback Design skills Investigating and incorporating layout and color consistently Designing consistent pages Designing for a specific audience and purpose Learning Place	Project management skills Planning and creating a PDF portfolio Organizing and managing content Conducting a review and redesign Creating flowcharts Technical skills Photoshop Creating a Web Photo Gallery InDesign Creating a portfolio Acrobat Packaging multiple documents n (Stage 3)	
· · · · · · · · · · · · · · · · · · ·	earning Events and Instruction earning needed to achieve the unit goals.	
Required Activities	Required Resources	
Planning a portfolio (Suggested time: 50–100 minutes) Constructing a portfolio (Suggested time: 150–200 minutes) Presenting a portfolio (Suggested time: 50–100)	 Adobe Photoshop CS4 Extended installed on all machines Adobe InDesign CS4 installed on all machines Adobe Acrobat 9 Professional installed on all machines Guide: How to create an e-portfolio flowchart Acrobat guide: How to prepare and organize files for a PDF portfolio Acrobat guide: How to create and personalize a PDF portfolio Guide: Peer review 	
	Background preparation resources	

	Adobe Certified Associate, Visual Communication objectives
Suggested Activities	Suggested Resources
Map a PDF portfolio: To help students understand flowcharts, have them create a flowchart for an existing PDF portfolio. Portfolio: Have students plan a portfolio that showcases their best work from all their courses.	
Reflection supplement: Ask students to write up the decisions they made in the planning process for their portfolios. This document will help students reflect on their process and provide a framework for the next time they plan a PDF document. Portfolio design challenge: Ask students to select a second-choice career path and to identify the differences in content and design if they were to tailor their portfolio to that different career.	
ePortfolios: Have students create a web-based portfolio. You can use Unit 2: Electronic portfolios using Adobe Dreamweaver CS4 from the Digital Design Curriculum to teach students web design.	

Title of Unit	Brochure	Grade Level	10-12	
Curriculum Area		Time Frame	10-15 days	
Developed By				
	Desired Result	s (Stage 1)		
	Established	d Goals		
A brochure is a paper col effective.	everywhere, describing tourist destinations, providing ir lateral that informs people about a product, service, or			
21st Century Interd	isciplinary Themes:			
		cial, economic	c, business, and entrepreneurial literacy	
		alth Literacy	,,,	
	Transf	er		
Students will be able to independently use their learning to In working with clients, students will further enhance their design and technical skills by creating a brochure, using advanced image manipulation techniques and page layout design. You might choose to limit the scope of this project by being the client or selecting a client in the school for each student group. You might also choose to work with local businesses and organizations. Student product: Brochure				
	Meani	ng		
	Understandings		Essential Questions	
S	tudents will understand that		Students will keep considering	
 Demonstrate knowled Communicate with oth Demonstrate knowled composition. Demonstrate knowled Identify elements of the knowledge of their fur Demonstrate knowled Demonstrate knowled 	audience, and audience needs for preparing image(s). ge of project management tasks and responsibilities. ners (such as peers and clients) about design plans. ge of design principles, elements, and image ge of color correction using Photoshop CS4. ne Photoshop CS4 interface and demonstrate nctions. ge of layers and masks. ge of working with selections and measurement. e and correct the color of an image.	What are the prin	ments of design? nciples of design? and English play a part in graphic design? c design relate to everyday life?	

Ac	quisition
Knowledge Students will know	Skills Students will be able to
Research and communication skills	Project management skills Designing for a client Conducting review sessions Tracking milestones Managing files and using file-naming conventions Repurposing content Technical skills Photoshop Using color management tools Using filters Using blending tools Transforming images Retouching images Understanding InDesign frames Using placeholder text Designing in columns Using character and paragraph styles Wrapping text around objects (including using anchors) Applying effects to text Placing objects on page Creating shapes and borders Acrobat Using commenting tools
Learning	Plan (Stage 3)

Required Activities	Required Resources
Planning and designing a brochure (Suggested time: 200–300 minutes)	 Adobe Photoshop CS4 Extended installed on all machines Adobe InDesign CS4 installed on all machines
Building a brochure (Suggested time: 300–350 minutes)	 Adobe Acrobat 9 Professional installed on all machines Worksheet: Client interview: Brochure Worksheet: Review and redesign of brochure
Reviewing a brochure (Suggested time: 100–150 minutes)	 Acrobat guide: How to use comment tools Photoshop guide: How to use gradient maps Photoshop guide: How to use advanced color techniques
	 Photoshop guide: How to use the Vanishing Point filter Photoshop guide: How to blend, feather, and smooth InDesign guide: How to work with layers InDesign guide: How to use placeholder text InDesign guide: How to apply effects to text InDesign guide: How to wrap text around objects InDesign guide: How to use character and paragraph styles InDesign guide: How to import files Worksheet: Client debriefing Guide: Peer review (from Project 5)
Suggested Activities	Suggested Resources
Peer teaching: Have students take the Photoshop advanced image-manipulation guides, learn the techniques, and hold a mini-seminar to teach the rest of the class. Their presentation should include the following: • A working example • A short explanation of when and where to use the feature (design challenges it helps to solve) • A step-by-step demonstration of how to create the feature	
Online brochures: Have students examine the difference between building a brochure for print and taking that information online. Have them identify how putting the information online would impact their design, typography, and layout decisions as well as the amount of information they might include. Ask students to propose a small website that would inform in the same way as the brochure and use Adobe Dreamweaver CS4 to build the site. You might use the materials from the Digital Design	

curriculum to teach students the basics of designing and creating web pages.	
Blue sky client scenario: Have each student group create an exaggerated and fun organization and product or service that needs a brochure. Have each team place their idea in a hat, and then have teams draw an idea to determine who will be their client. Encourage your students be creative and take advantage of the features and effects in Photoshop and InDesign to create visual interest and clearly communicate product or service information in the brochure.	
Teacher-led client scenario: If outside clients are not available, you can be the client mimicking a local organization such as a boys and girls club. Have students design a brochure for the boys and girls club highlighting programs, recruitment, and values to the community.	

	Tax and		T
Title of Unit	Newsletter	Grade Level	10-12
Curriculum Area		Time Frame	10-15 days
Developed By			
	Desired Resul	lts (Stage 1)	
	Establishe	ed Goals	
Newsletters are publicat	ions that are distributed on a regular basis (weekly, m	nonthly, yearly, and so	on) to target a particular audience who share
	sletters usually cover a main topic, or theme, with val		
	pmote products or services; to maintain relationships,		·
particular topic; or to of	fer information on a particular organization. Newslette		
	Primary Interdiscip	linary Conne	ections
04st 0 1 1 1	· · · · · · ·		
21st Century Interd	_		
			ousiness, and entrepreneurial literacy
Ci	vic Literacy Health	n Literacy	
	_		
	Trans	sfer	
Students will be able t	o independently use their learning to		
In this project, students v	work in teams to create the theme, purpose, and conto		
with Adobe Photoshop CS	S4 Extended, Adobe InDesign CS4, Adobe Illustrator C	S4, and Adobe Acroba	t 9 Professional.
Student product: Newslet	ter		
Meaning			
Understandings Essential Questions			
	udents will understand that		Students will keep considering
Demonstrate knowled	dge of producing and reusing images.	What are the eleme	nts of design?
	dge of working with selections and measurement.	What are the princip	a a
	-		English play a part in graphic design?
		How does graphic d	esign relate to everyday life?

Acquisition		
Knowledge	Skills	
Students will know	Students will be able to	
Research and communication skills	Project management skills	
Analyzing newsletters	Organizing into print production roles	
Using design tools to communicate between team members	Managing tasks based on roles	
Accessing, evaluating, and synthesizing content from multiple sources	Identifying asset needs	
Reviewing and revising content to match goals	Working with copy	
Collaborating with teammates	Creating and managing a project plan	
Presenting a newsletter	Engaging in full print production process	
Understanding the journalistic code of ethics		
	Technical skills	
Design skills	InDesign	
Designing a nameplate	Creating templates	
Using design to differentiate content	Reusing objects with the Library	
Designing multi-column and multi-page layouts	Putting text on a path	
 Incorporating color and layout consistently (using themes) 	Creating multi-page spreads	
 Integrating imagery and text to express story content 	Transforming objects	
Providing clear navigation	 Managing text flow between frames and columns 	
Using design techniques to provoke interest	Importing text from Microsoft Word	
	Adding page numbers	
	Adding captions	
	Illustrator	
	Adding text and creating a text outline	
	Drawing in Illustrator	
	Comparing vector and bitmapped images	
	Understanding Illustrator filters	
	Creating polygons	
	Smoothing and simplifying paths	
	Selecting stroke and fill	
	Photoshop	
	Using measurement tools	
	Acrobat	
	Packaging a newsletter for distribution	

Learning Plan (Stage 3)		
· · · · · · · · · · · · · · · · · · ·		ing Events and Instruction g needed to achieve the unit goals.
	Required Activities	Required Resources
	Planning a newsletter (Suggested time: 50–100 minutes)	 Adobe Photoshop CS4 Extended installed on all machines Adobe InDesign CS4 installed on all machines Adobe Illustrator CS4 installed on all machines
	Designing a newsletter (Suggested time: 200–250 minutes)	 Adobe flidstrator C54 installed on all machines Adobe Acrobat 9 Professional installed on all machines Worksheet: Project plan
	Building a newsletter shell (Suggested time: 200–250 minutes)	Illustrator guide: Overview of Adobe Illustrator CS4 workspace
	Building a newsletter (Suggested time: 200–250 minutes)	 Illustrator guide: How to draw with Illustrator InDesign guide: How to reuse objects with libraries
	Presenting a newsletter (Suggested time: 50–100 minutes)	 InDesign guide: How to use document templates InDesign Guide: How to transform objects InDesign Guide: How to manage text flow between
		frames InDesign Guide: How to add page numbers InDesign Guide: How to create captions Photoshop guide: How to use measurement and analysis tools InDesign Guide: How to import text from Microsoft Word
	Suggested Activities	Suggested Resources
	Milestones: To help students manage their time during longer projects, you can create milestones that give intermediate deadlines within the larger project. For this activity, you might have a class discussion to identify deadlines for the following: • Write up challenges in the review and redesign cycle • Create a style guide • Research similar newsletters Online newsletters: Have students consider how the	
	design, layout, and typography would change if they were creating an online version. Have students regenerate the	

Learning Plan (Stage 3)		
graphics appropriately for the web and publish the newsletter online. You might use some of the resources from the Digital Design curriculum to cover the basics of designing and creating for the web.		
Client scenarios: Use some of the following scenarios to create client profiles: Science club: The science club wants to distribute a quarterly newsletter with articles on upcoming events, special features on club members and their areas of interest, and to highlight new and important research. Students need to research the science topics (perhaps tied to their science class) for the newsletter contents and make it specific to the science club. Students need to use the measurement and analysis tools in Photoshop and have at least one article about the importance of these tools in the field. Architecture firm: An architecture firm wants to distribute an internal newsletter to employees highlighting company news, events, projects, and shared practices. Students need to research content for the newsletter and use the measurement and analysis tools to showcase images taken at a project site before, during and after projects where an architect can extract data from images rather than having to return to a project site to take a simple measurement.		

Title of Unit	Mini Yearbook	Grade Level	10-12
Curriculum Area		Time Frame	15-20 days
Developed By			
	Desired Resul	Its (Stage 1)	
	Establishe	ed Goals	
	frequently used to record, commemorate, and highlic nizations also publish yearbooks as annual summary r		ost institutions, student teams publish yearbooks.
	Primary Interdiscip	linary Conne	ctions
21st Century Interdi	sciplinary Themes:		
Gl	obal AwarenessX Finar	ncial, economic, b n Literacy	usiness, and entrepreneurial literacy
	Trans	sfer	
Students will be able to independently use their learning to In this project, students form teams to develop and create a yearbook. The students create templates of several double-page layouts and create reusable graphics and illustrations to implement thematic and design consistency throughout the yearbook.			
Student product: Mini-yea	rbook		

Meaning			
Understandings	Essential Questions		
Students will understand that	Students will keep considering		
 Demonstrate knowledge of importing, exporting, organizing, and saving. Demonstrate knowledge of producing and reusing images. 	What are the elements of design? What are the principles of design? How does Math and English play a part in graphic design? How does graphic design relate to everyday life?		
Acquis	ition		
Knowledge Students will know	Skills Students will be able to		
Design Skills Designing and creating double-page layout spreads Bleeding photos across pages Gathering or creating reusable graphics and illustrations Designing and creating reusable page treatments Designing and creating thematically linked pages Designing and creating backdrops for photo pages Research and communication skills Communicating to peers, instructors, and the community Researching and investigating yearbooks Researching and gathering information on school activities Planning and selecting what information is important Planning and conducting focus groups Completing a review and redesign cycle Presenting yearbook and reflection	Project management skills		

Learning Plan (Stage 3)		
Checks for alignment Summary of Key Learning Events and Instruction The teaching and learning needed to achieve the unit goals.		
Required Activities	Required Resources	
Planning a mini-yearbook (Suggested time: 100–150 minutes)	 Adobe Photoshop CS4 Extended installed on all machines Adobe InDesign CS4 installed on all machines 	
Designing a mini-yearbook (Suggested time: 150–200 minutes)	 Adobe Illustrator CS4 installed on all machines Adobe Acrobat 9 Professional installed on all machines Guide: Project plan 	
Building a mini-yearbook (Suggested time: 400–450 minutes)	 InDesign guide: How to reuse objects with libraries (from Project 7) InDesign guide: How to use document templates (from Project 7) 	
Presenting a mini-yearbook (Suggested time: 50–100)	 Guide: Peer review (from Project 5) InDesign guide: How to fill text with an image InDesign guide: How to use master pages InDesign guide: How to use object styles InDesign guide: How to use books Illustrator guide: How to use the symbol sprayer 	
Suggested Activities	Suggested Resources	
Marketing and sales plan: To help students continue to learn about yearbook production, have them take the next steps: planning how to sell advertisements and how to market and sell the yearbook.	Articles and tutorials for planning a yearbook: www.walsworthyearbooks.net/ContentMgr.nsf/0/7CD03F39D1C576FE86256EF4005A5ECE?op endocument.	
Yearbook business: Have students investigate the business of making yearbooks to understand the roles and opportunities available in this field. You might have them research and create a report on the structure of the business and the types of opportunities that exist for individuals.	Suggestions and examples for creating a ladder, a yearbook term for documenting the yearbook's content page by page: www.yearbooks.biz/?event=FAQ.Detail&faq=159.	
Real world experience: Ask your school's yearbook coordinator to speak to the class about the production and costs of	Example of how a theme was used throughout a yearbook: www.yearbooks.biz/?event=FAQ.Detail&faq=161.	

Learning Plan (Stage 3)		
	producing a full-length yearbook. Ask the yearbook coordinator to be a part of the review and redesign cycle of the mini-yearbooks.	A yearbook showcase gallery: www.walsworthyearbooks.net/ContentMgr.nsf/0/766A61E1D34FEFC086256EF4005FC11A?op endocument.
		Examples and design ideas for yearbooks based on categories: www.yearbooks.biz/?event=Showcase.Main.
		Yearbook design tips for layout and photographs: http://expressly-yours.net/yearbook design/how to.php.

	1		
Title of Unit	Final Portfolio	Grade Level	10-12
Curriculum Area		Time Frame	5-10 days
Developed By			
	Desired Resu	lts (Stage 1)	
	Establish	ed Goals	
	design projects, students develop their abilities to pro xperienced multiple roles and taken part in various pa		
	the direction they might wish to pursue as they leave		production process. Students can use these
onportonico to dictorrimito	Primary Interdiscip		ections
	- 1a. ja. a.a.		
21st Century Interdi	isciplinary Themes:		
_		ncial, economic, l	ousiness, and entrepreneurial literacy
Ci		Literacy	, ,
		.	
	Trans	sfer	
Students will be able to independently use their learning to In this project, students improve their portfolios from Project 5 and redesign them to better address their overall design and technical skills and career focus. In creating the PDF portfolio, students focus on design and content to communicate well and optimize employers' perceptions of them.			
Student product: PDF por	tfolio		
	Mear	ning	
l	Understandings		Essential Questions
St	udents will understand that		Students will keep considering
Demonstrate know	wledge of preparing images for web, print, and	What are the eleme	nts of design?
video.		What are the princi	
			l English play a part in graphic design?
How does graphic design relate to everyday life?			
Acquisition			
	-		

Kno	owledge	Skills
	ents will know	Students will be able to
Desig	gn skills Investigating and incorporating layout and color consistently	 Project management skills Planning and creating a PDF portfolio Organizing and managing content
Rese	Designing consistent pages Designing for a specific audience and purpose earch and communication skills	Conducting review and redesignProviding constructive criticism
•	Communicating information to particular audiences Planning and conducting research strategies	Creating flowcharts Tachnical skills
•	Understanding and practicing lifelong career skills: Job research skills Presenting skills	Technical skills InDesign Creating a portfolio
•	Soliciting and providing feedback Taking notes on critique Demonstrating the realization of redesign goals	Acrobat Packaging multiple documents
•	Creating marketing plan	
	Learning	Plan (Stage 3)
	· · · · · · · · · · · · · · · · · · ·	ey Learning Events and Instruction
and b	best practice The teaching Required Activities	and learning needed to achieve the unit goals. Required Resources
	Undating a PDF portfolio	Adohe Photoshon CS4 Extended installed on all machines

and best practice	The teaching and learning needed to achieve the unit goals.		
	Required Activities	Required Resources	
	Updating a PDF portfolio (Suggested time: 250–300 minutes)	 Adobe Photoshop CS4 Extended installed on all machines Adobe InDesign CS4 installed on all machines 	
	Presenting a portfolio (Suggested time: 50–100)	 Adobe Illustrator CS4 installed on all machines Adobe Acrobat 9 Professional installed on all machines Guide: How to create an e-portfolio flowchart (Project 5) Guide: Peer review (Project 5) Guide: How to prepare and organize files for a PDF portfolio Guide: How to create and personalize a PDF Portfolio Background preparation resources	
		 Technical and content information Key terms ISTE NETS*S Standards for Students Adobe Certified Associate, Visual Communication 	
		objectives	

Suggested Activities	Suggested Resources
Career/education planning: Have students create a five- year plan outlining the steps necessary to reach their career goals. This may include education, internships, jobs, and so on. Also have students begin to research and plan resumes appropriate for their desired career field. Reflection supplement: Ask students to write up their	
career goal plans and how those plans impacted the decisions they made in planning their portfolios. This document will help students reflect on their process and provide a framework for continued evolution of their PDF portfolio as they begin to conduct a job search.	
ePortfolios: Have students create a web-based portfolio. You can use the materials from Unit 2: Electronic portfolios using Adobe Dreamweaver CS4 from the Digital Design Curriculum.	