Project 2
Logos

Timing: 4 to 7 hours

Project overview

Logos can evoke immediate associations with companies or specific products. Organizations and corporations use logos to identify themselves and set up brands. A logo should be unique, functional, and versatile. In this project, students view sample logos and discuss color theory and design principles used in the logos. Students 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.

Note: Portions of the Logos project align to the Adobe Certified Associate, Visual Communication objectives. Within the instruction steps and technical guides, the specific learning objectives for the exam are referenced with the following format: [1.1]

Project objectives

At the completion of the project, students will have developed the following skills:

Project management skills

- Planning and creating a logo
- Managing and organizing graphics elements and illustrations

Design skills

- Understanding and employing design principles
- Understanding and employing color theory
- Identifying the difference in color modes
- Understanding color management
- Sketching
- Creating and editing graphical elements and illustrations
- Designing for a specific audience and purpose

Research and communication skills

- Investigating logos
- Critiquing designs
- Communicating purpose and goal
- Communicating and presenting design decisions
- Giving feedback on a project

Technical skills

Photoshop

- Using guides and rulers
- Understanding vector and bitmap graphics
- Using swatches
- Painting
- Drawing lines
- Drawing and modifying shapes
- Creating vector masks
- Using selection tools
- Adding text to images
- Outputting for web
- Outputting for print
- Outputting for video

Illustrator

- Understanding the Adobe Illustrator workspace

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- Creating vector artwork
- Using Image Trace to convert photos to vector artwork
- Drawing lines
- Painting
- Drawing and modifying shapes
- Using gradients

Project materials

- Adobe Photoshop CS6 installed on all machines
- Adobe Illustrator CS6 installed on all machines
- Presentation: Introduction to graphic design
- Worksheet: Design principles
- Guide: How to understand color management
- Worksheet: Review and redesign of logos
- Illustrator guide: Overview of Adobe Illustrator CS6 workspace
- Photoshop guide: How to create a new document
- Photoshop guide: How to use painting tools
- Photoshop guide: How to use drawing tools
- Illustrator guide: How to draw in Illustrator
- Illustrator guide: How to create vector artwork
- 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 Standard for Students
- Adobe Certified Associate, Visual Communication objectives

Project steps

Color theory and design

(Suggested time: 50-75 minutes)

1. Tell students they will be creating a logo they can use as an identifying element for themselves, for a fictional organization, or for a school group. Explain the goals of this project:
   - Explore color theory and design principles
   - Investigate selection, drawing, and painting tools in Photoshop and Illustrator
   - Understand and incorporate image-optimization strategies and file formats
   - Identify aspects of redesign and its importance in the design process

2. Show students examples of print-, web-, and video-based logos and discuss with students the types of design principles used in these logos. Ask students to use the design principles worksheet to define design principles. As you introduce each principle, allow students time to fill in their worksheets. At the conclusion of the discussion, select a few students to share their documents and explain why the logo they chose represents a particular design principle. Some principles to cover include:
   - Emphasis/contrast (focal point)

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- Proximity/groupings
- Balance
- Alignment
- Harmony/proportion
- White space
- Repetition
- Color

Presentation: Introduction to graphic design [2.2]

Worksheet: Design principles [2.2]

Note: You might want to gather logos in a presentation to lead students through this exercise.

3. Show students examples of print-, web-, and video-based logos and ask them to identify visual cues and design principles that help the logos stick in their minds. Discuss how these logos are appropriate for the organizations they represent. Discuss how the designs reach the organization's target audience and meet the goals of the company or individual.[1.1, 2.1]

4. As students begin to think about their logos, explain that they will select the colors, layout, and elements that will bring their logos to life. Some principles to cover include:[2.2, 2.4]

- Brightness: The quantity of light reaching the viewer's eye
- Contrast and the color wheel
- Using color in design
- The differences between RGB and CMYK
- Color management: Ensuring that viewers see the same color across different devices

5. To help students understand the importance of color management, explain why color variations occur between devices.[2.1] Describe solutions to help them create consistency across devices. Some things to discuss include:

- Causes of color variation
- Monitor profiles
- Input device profiles
- Output device profiles
- Manage color by using color settings
- Soft-proof to prevent color variation from screen to print
- Manage color when printing

Photoshop guide: How to understand color management [2.4, 3.5]

6. Instruct students to select the person, group, or organization they will create their logo for and brainstorm a set of words and goals that best describe that person, group, or organization. Ask students to determine design principles they can use to evoke descriptive words as they sketch concepts for this logo on paper. Explain that they can incorporate any images from Project 1. Ask students to record their initial goals in the review and redesign worksheet.

Worksheet: Review and redesign of logos [1.1, 1.3]

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Constructing the logo

(Suggested time: 100-150 minuites)

7. Discuss possible canvas sizes for logos. Typical sizes are 79 x 51 pixels (very small), 150 x 25 pixels, 125 x 144 pixels, and 243 x 103 pixels. Students can use either Photoshop or Adobe Illustrator to create their logo. Adobe Illustrator is commonly used to create vector artwork like that in logos. If you choose to use Illustrator, introduce your students to the interface, terminology, and basic panels in Illustrator. Introduce how to create a new document in Photoshop or Illustrator and explain the options they can alter,[2.1, 2.4, 2.6] including:
   - Document size
   - Resolution
   - Color mode (CMYK, RGB, grayscale, and so on)
   - Background color

   Illustrator guide: Overview of the Adobe Illustrator CS6 workspace

   Photoshop guide: How to create a new document [2.1]

   Note: If students are preparing to take the Visual Communication certification exam, they should use Photoshop to create their logo in order to learn the applicable objectives for the certification exam.

8. Introduce how to use guides and rulers in Photoshop or Illustrator, including how to change the measurement unit on rulers and how to change guide properties.[4.2]

9. Introduce painting, drawing, and image-editing tools in Photoshop, such as the Paint, Line, Shape, and Eraser tools. In Illustrator, introduce the drawing and shape building tools and the Image Trace tool for converting an image to vector artwork. Discuss the differences between vector and bitmap graphics.

   Photoshop guide: How to use painting tools [4.6]

   Photoshop guide: How to use drawing tools [4.6]

   Illustrator guide: How to draw in Illustrator

   Illustrator guide: How to create vector artwork

   Guide: Bitmap and vector images [2.6]

   Note: If students are preparing to take the Visual Communication certification exam, introduce the concept of color blending and using the Mixer Brush to define multiple colors on a single tip and mix and blend them into the underlying colors on the canvas, or use a dry brush to blend the colors into your photo to create a beautiful painting.[4.6]

10. Introduce using vector masks as a useful tool for hiding selected parts of an image.

    Photoshop guide: How to use selection tools [3.2]

11. Discuss how typography may or may not add to the visual impact of the logo. If students wish to add text to their logos, demonstrate how to add text to images. Introduce text-effect tools such as Bevel and Emboss.

    Photoshop guide: How to add text to images [2.2, 2.3, 4.7]

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12. Allow students time to build their logos.

Review and redesign

(Suggested time: 20-30 minutes)

13. Through a class discussion, define *review* and *redesign*. Explore what redesign means for student work and why it might be a useful step in the overall design process. Develop class definitions and discuss possible steps or questions that will help in redesigning a product. Some possible categories for review[1.1] include:

- Meeting initial focus, purpose, and audience
- Changing focus, purpose, or audience
- Applying good design principles

14. Ask students to individually review their own logos against their initial goals and intended design principles.

Worksheet: Review and redesign of logos [1.1, 1.3]

15. After the review, allow students time to redesign their logos if needed.

Optimizing and finalizing images

(Suggested time: 50-100 minutes)

16. Explain to students that they need to prepare multiple versions of their logos for use in color and in black-and-white printed documents, as well as for use on the web and in videos.[4.4] Discuss image optimization and the importance of file formats. Discussion topics [2.1] might include:

- The difference between printed and on-screen images (inches versus pixels, size variation, scaling versus resampling, and ink dots versus RGB values)
- File formats (such as GIF, JPEG, TIFF, EPS, and PDF)
- Image resolution (such as pixels versus inches; ppi and dpi for printing, pixels for the web, and line screen frequency for commercial printing)
- Preserving image quality when manipulating images
- Broadcast standards for video (such as NTSC and HDTV) to help select the appropriate TV image preset
- Avoiding thin lines (thinner than 2 pixels) because interlacing can create flicker when the image is displayed in video
- Using the NTSC Colors filter when working with color for video use because saturated or bright colors can cause bleeding when displayed in video

Note: In discussing file formats, it may be helpful to identify the best file formats for the web (JPG, GIF, PNG), for photos (PSD, TIFF, JPG, PDF, DICOM, large document format), for commercial printing (TIFF, EPS, PDF, PSD, DCS), for video (PSD, TGA, PICT), and for PowerPoint/Word (PNG).

Photoshop guide: How to generate different file formats [2.1, 3.3, 5.1]

17. Allow students time to prepare their logos for web, print, and video then save their settings as presets [3.4] for future use.

Presenting their work

(Suggested time: 50-100 minutes)

18. Explain that each student will present three logos to the class [1.4] and include the following in their presentation:

- Their design decisions in creating each logo and their rationale for preparing the images for each medium (web, print, video), including the file type, size, and resolution for each version and situation.
- Explanations of any changes they made during the review and redesign stage.
- What they learned in the project and what they want to learn next.

Extension activities

You can extend the project in the following ways:

- *Design activity:* Ask students to explore the color schemes posted on Kuler: http://kuler.adobe.com. Ask students to, 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. Ask students to vote on the versions to select the one with the best quality and the smallest file size.

Assessment

- Project rubric

Background preparation resources

- Review the student step-by-step guides referenced in this project.
- To view video tutorials aligned with the skills required to complete this project, visit the Visual Design CS6 show on Adobe TV: http://tv.adobe.com/show/visual-design-cs6/
- For more teaching and learning resources on logos and other topics in this project, search for resources from the community on the Adobe Education Exchange: http://edexchange.adobe.com
- For an overview of the user interface and for more information on the technical aspects of Photoshop, see Photoshop Help.
- For an overview of the user interface and for more information on the technical aspects of Illustrator, see Illustrator Help.
- You might supplement this project with the following design book:
  - Lawler, B. (2009). *The Official Adobe Print Publishing Guide, Third Edition*. Berkeley: Adobe Press.

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Logos

- You might want to download and prepare sample logos from the following kinds of organizations:
  - Nonprofit organizations
  - Large businesses
  - Small local businesses
  - Sports teams
  - Media organizations
  - Web-based companies
- A short article on making logo designs: www.webdesignfromscratch.com/web-design/logos/
- Types of logos and their construction: www.grantasticdesigns.com/logos1.html

Graphic design

- Review the *Introduction to graphic design* presentation.
- An article on design principles: http://www.digital-web.com/articles/principles_of_design
- Before-and-after formats illustrating design principles: http://desktoppub.about.com/od/designprinciples/l/aa_pod2.htm
- A short introduction to graphic design theory, explaining the aspects of design to consider when composing a piece of fine art or producing a graphic layout: http://www.usask.ca/education/coursework/skaalid/theory/cgdt/designtheory.htm
- A brief discussion of the main principles of design: http://char.txa.cornell.edu/language/principl/principl.htm
- Definitions and examples of elements and principles of design: http://www.johnlovett.com/test.htm
- Definitions for graphic design principles: http://www.msu.edu/~glazered/tc801/graphic.html

Color theory

- An overview of color theory and the color wheel: www.colormatters.com/colortheory.html
- A color theory tutorial: www.worqx.com/color/
- A site to spur discussion and terminology of color selection: http://kuler.adobe.com

Design process

- This article from design-lib.com design libraries discusses the design process: http://www.design-lib.com/guidelines-to-graphic-design-process-gd.php

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Key terms

- alignment
- balance
- bitmap
- brightness
- chroma
- CMYK
- color gamut
- color management
- color profiles
- color wheel
- file format
- harmony/proportion
- hue
- Image Trace
- Logo
- optimize
- pixels
- proximity/groupings
- redesign
- repetition
- resolution
- review
- RGB
- saturation
- shade
- tint
- tone
- vector
- white space

ISTE NETS*S Standard for Students

This project is aligned to the ISTE NETS*S Technology Standards. Depending on the subject and content area the student selects you may research your own state content standards to see how this project aligns to your state requirements.

ISTE NETS*S: Curriculum and Content Area Standards – NETS for Students

1. Creativity and Innovation

   Students demonstrate creative thinking, construct knowledge, and develop innovative products and processes using technology. Students:

   a. apply existing knowledge to generate new ideas, products, or processes.

   b. create original works as a means of personal or group expression.

2. Communication and Collaboration

   Students use digital media and environments to communicate and work collaboratively, including at a distance, to support individual learning and contribute to the learning of others. Students:

   b. communicate information and ideas effectively to multiple audiences using a variety of media and formats.

3. Research and Information Retrieval

   Students apply digital tools to gather, evaluate, and use information. Students:

   c. evaluate and select information sources and digital tools based on the appropriateness to specific tasks.

4. Critical Thinking and Problem Solving

   Students use critical thinking skills to plan and conduct research, manage projects, solve problems and make informed decisions using appropriate digital tools and resources. Students:

   b. plan and manage activities to develop a solution or complete a project.

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5. Digital Citizenship

   Students understand human, cultural, and societal issues related to technology and practice legal and ethical behavior. Students:

   c. demonstrate personal responsibility for lifelong learning..

6. Technology Operations and Concepts

   Students demonstrate a sound understanding of technology concepts, systems, and operations. Students:

   a. understand and use technology systems.

   b. select and use applications effectively and productively.

Adobe Certified Associate, Visual Communication objectives

1.1 Identify the purpose, audience, and audience needs for preparing image(s).

1.3 Demonstrate knowledge of project management tasks and responsibilities.

1.4 Communicate with others (such as peers and clients) about design plans.

2.1 Demonstrate knowledge of image resolution, image size, and image file format for web, video, and print.

2.2 Demonstrate knowledge of design principles, elements, and image composition.

2.3 Demonstrate knowledge of typography.

2.4 Demonstrate knowledge of color correction using Photoshop CS6.

2.5 Demonstrate knowledge of image-generating devices, their resulting image types, and how to access resulting images in Photoshop.

2.6 Understanding key terminology of digital images.

3.2 Demonstrate knowledge of layers and masks.

3.3 Demonstrate knowledge of importing, exporting, organizing, and saving.

3.4 Demonstrate knowledge of producing and reusing images.

3.5 Demonstrate an understanding of and select the appropriate features and options required to implement a color management workflow.

4.1 Demonstrate knowledge of working with selections.

4.2 Use Photoshop guides and rulers.

4.4 Adjust or correct the tonal range, color, or distortions of an image.

4.6 Demonstrate knowledge of drawing and painting.

4.7 Demonstrate knowledge of type.

5.1 Demonstrate knowledge of preparing images for web, print, and video.

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Assessment

	0 - Does not meet expectations	3 - Meets expectations	5 - Exceeds expectations
Brainstorm	Absent or incomplete.	Identifies person, group, or organization for which to design logo. Provides descriptive words and sketch of logo with a purpose and goal.	Identifies person, group, or organization for which to design logo. Provides descriptive words and sketch of logo with clear purpose and goal.
Logo - content	Absent or incomplete.	Logo communicates a purpose and goal for person, group, or organization it is designed for.	Logo clearly and effectively communicates a purpose and goal for person, group, or organization it is designed for.
Logo for print - color	Absent or incomplete.	Creates logo in appropriate file format and size for printing in color. Employs appropriate color theory and design principles.	Creates logo with a clear purpose and goal. The logo is in appropriate file format and size for print in color. Clearly and efficiently employs appropriate color theory and design principles.
Logo for print - black & white	Absent or incomplete.	Creates logo in appropriate file format and size for printing in black & white. Employs appropriate color theory and design principles.	Creates logo with a clear purpose and goal. The logo is in appropriate file format and size for print in black & white. Clearly and efficiently employs appropriate color theory and design principles.
Logo for web	Absent or incomplete.	Creates logo in appropriate file format and size for the web. Employs appropriate color theory and design principles.	Creates logo with a clear purpose and goal. The logo is in appropriate file format and size for the web. Clearly and efficiently employs appropriate color theory and design principles.
Logos for video	Absent or incomplete.	Creates logo in appropriate file format and size for video. Employs appropriate color theory and design principles.	Creates logo with a clear purpose and goal. The logo is in appropriate file format and size for video. Clearly and efficiently employs appropriate color theory and design principles.

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	0 - Does not meet expectations	3 - Meets expectations	5 - Exceeds expectations
Presentation	Absent or incomplete.	Presentation includes rationale for the selected file format, size, and resolution for each final product scenario. Presentation explains how the logos communicate a purpose and details changes made in the review and redesign cycle. Presentation reflects on what they learned and what they would like to learn next.	Presentation is clear and compelling. Rationale for the selected file format, size, and resolution for each final product scenario is succinct and logical. Presentation clearly explains how the logos communicate a purpose and details changes made in the review and redesign cycle. Presentation reflects on what students learned and identifies what they want to learn next and why.

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