

Unit 2: Adobe Photoshop Copied from: Advanced Computer Graphics/Dig Phot, Copied on: 12/15/21

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Department of Curriculum and Instruction



Belleville Public Schools

Curriculum Guide

Advanced Computer Graphics & Digital Photography

Unit 2: Adobe Photoshop

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Unit Overview

In this unit, students will expand their knowledge of Photoshop techniques.

- Students will research skills required of commercial photographers and select tutorials to target desired skills.
- Explore advanced photo manipulation techniques.
- Stylized text effects.
- Painting and illustration in Photoshop.
- Photoshop's animation capabilities.

Enduring Understanding

- Photoshop is used by professional photographers to enhance and edit photographs.
- Photoshop has many capabilities beyond its primary photo-editing role.
- Photoshop is often used in conjunction with other graphic design applications.
- Used inappropriately, Photoshop can have a negative effect on a photographer's reputation.
- Self-guided learning opportunities for Photoshop skills abound on the internet.
- Photoshop can be used to improve photos in subtle ways that can compensate for less than perfect composition or lighting.
- Photoshop can also be used for dramatic and surreal effects that cannot be achieved with a camera alone.
- An artist or designer can use Photoshop to create original work with or without photographs.

Essential Questions

- Does a photographer need Photoshop?
- Is it ethical for a photographer to use Photoshop?
- Is Photoshop "cheating" for a documentary photographer?
- Why would a portrait photographer use Photoshop?
- How can Photoshop reduce the budget for a commercial assignment?
- What are some of the Photoshop effects that are indistinguishable from a well-taken photograph?
- What are some Photoshop effects that are obvious and desirable?
- How can the use of Photoshop cause trouble for a photographer?
- Can you create animations in Photoshop?
- Can you work with vectors in Photoshop?
- How do you create 3-D effects in Photoshop?
- How can you alter color to set a mood in a photograph?
- How can you intensify one particular range of colors in a photograph?
- Can you change the weather conditions or time of day in a photograph?

Exit Skills

By the end of Advanced Computer Graphics & Digital Photography, Unit 2, the student will be able to

- Correct an under- or overexposed photograph.
- Alter the lighting and shadows in a photograph.
- Correct the horizontal and vertical orientation of architectural elements in a photograph.
- Apply effects to text using Photoshop.
- Composite photos using Photoshop.
- Create a double-exposure effect.
- Work with Photoshop filters.
- Use Curves and the histogram to work with colors selectively in Photoshop.
- Create original artwork using Photoshop.

New Jersey Student Learning Standards (NJSL-S)

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| VPA.1.1.12.D.1 | Distinguish innovative applications of the elements of art and principles of design in visual artworks from diverse cultural perspectives and identify specific cross-cultural themes. |
| VPA.1.1.12.D.CS1 | Common themes exist in artwork from a variety of cultures across time and are communicated through metaphor, symbolism, and allegory. |
| VPA.1.1.12.D.CS2 | Stimuli for the creation of artworks can come from many places, including other arts disciplines. |
| VPA.1.3.12.D.1 | Synthesize the elements of art and principles of design in an original portfolio of two- and three-dimensional artworks that reflects personal style and a high degree of technical proficiency and expressivity. |
| VPA.1.3.12.D.2 | Produce an original body of artwork in one or more art mediums that demonstrates mastery of visual literacy, methods, techniques, and cultural understanding. |
| VPA.1.3.12.D.3 | Organize an exhibit of personal works of visual art that convey a high level of understanding of how the expression of ideas relates to the art media, art mediums, and techniques used. |
| VPA.1.3.12.D.4 | Analyze the syntax and compositional and stylistic principles of two- and three-dimensional artworks in multiple art media (including computer-assisted artwork), and interpret themes and symbols suggested by the artworks. |
| VPA.1.3.12.D.CS2 | Culturally and historically diverse art media, art mediums, techniques, and styles impact originality and interpretation of the artistic statement. |
| VPA.1.3.12.D.CS3 | The artist's understanding of the relationships among art media, methodology, and visual statement allows the artist to use expressionism, abstractionism (nonobjective art), realism/naturalism, impressionism, and other genre styles to convey ideas to an audience. |
| VPA.1.3.12.D.CS4 | Artists interpret/render themes using traditional art media and methodologies as well as new art media and methodologies. |
| VPA.1.3.12.D.CS5 | Two- and three-dimensional artworks can be rendered culturally specific by using the tools, techniques, styles, materials, and methodologies that are germane to a particular cultural style. |
| VPA.1.4.12.A.2 | Speculate on the artist's intent, using discipline-specific arts terminology and citing embedded clues to substantiate the hypothesis. |
| VPA.1.4.12.A.4 | Evaluate how exposure to various cultures influences individual, emotional, intellectual, |

and kinesthetic responses to artwork.

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| VPA.1.4.12.A.CS3 | Artistic styles, trends, movements, and historical responses to various genres of art evolve over time. |
| VPA.1.4.12.A.CS4 | Criteria for assessing the historical significance, craftsmanship, cultural context, and originality of art are often expressed in qualitative, discipline-specific arts terminology. |
| VPA.1.4.12.B.2 | Evaluate how an artist's technical proficiency may affect the creation or presentation of a work of art, as well as how the context in which a work is performed or shown may impact perceptions of its significance/meaning. |
| VPA.1.4.12.B.3 | Determine the role of art and art-making in a global society by analyzing the influence of technology on the visual, performing, and multimedia arts for consumers, creators, and performers around the world. |
| VPA.1.4.12.B.CS2 | The cohesiveness of a work of art and its ability to communicate a theme or narrative can be directly affected by the artist's technical proficiency as well as by the manner and physical context in which it is performed or shown. |
| VPA.1.4.12.B.CS3 | Art and art-making reflect and affect the role of technology in a global society. |

Interdisciplinary Connections

- Mathematics
- ELA
- Social Studies
- Technology

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| LA.RH.11-12.4 | Determine the meaning of words and phrases as they are used in a text, including analyzing how an author uses and refines the meaning of a key term over the course of a text (e.g., how Madison defines faction in Federalist No. 10). |
| LA.RST.11-12.2 | Determine the central ideas, themes, or conclusions of a text; summarize complex concepts, processes, or information presented in a text by paraphrasing them in simpler but still accurate terms. |
| LA.RST.11-12.3 | Follow precisely a complex multistep procedure when carrying out experiments, taking measurements, or performing technical tasks; analyze the specific results based on explanations in the text. |
| LA.RST.11-12.4 | Determine the meaning of symbols, key terms, and other domain-specific words and phrases as they are used in a specific scientific or technical context relevant to grades 11-12 texts and topics. |
| LA.RST.11-12.10 | By the end of grade 12, read and comprehend science/technical texts in the grades 11-CCR text complexity band independently and proficiently. |
| SOC.9-12.1.1.2 | Analyze how change occurs through time due to shifting values and beliefs as well as technological advancements and changes in the political and economic landscape. In real world problems, the answers are usually not numbers but quantities: numbers with units, which involves measurement. In their work in measurement up through Grade 8, students primarily measure commonly used attributes such as length, area, and volume. In high school, students encounter a wider variety of units in modeling, e.g., acceleration, currency conversions, derived quantities such as person-hours and heating degree days, social science rates such as per-capita income, and rates in everyday life such as points |

scored per game or batting averages. They also encounter novel situations in which they themselves must conceive the attributes of interest. For example, to find a good measure of overall highway safety, they might propose measures such as fatalities per year, fatalities per year per driver, or fatalities per vehicle-mile traveled. Such a conceptual process is sometimes called quantification. Quantification is important for science, as when surface area suddenly “stands out” as an important variable in evaporation. Quantification is also important for companies, which must conceptualize relevant attributes and create or choose suitable measures for them.

Learning Objectives

Students will demonstrate the ability to:

- Critique photographs in order to be able to make appropriate corrections.
- Identify digital processes used to create special effects.
- Combine disparate visual elements to create a new, original image.
- Assess online materials for their relevance to learning a specific skill or technique.
- Develop an inventory of Photoshop skills and techniques to define one's own style.
- Transform images using a variety of Photoshop filters and blending tools.
- Produce original artwork using digital media.

| Remember | Understand | Apply | Analyze | Evaluate | Create |
|-----------|---------------|-------------|---------------|-----------|-------------|
| Choose | Classify | Choose | Categorize | Appraise | Combine |
| Describe | Defend | Dramatize | Classify | Judge | Compose |
| Define | Demonstrate | Explain | Compare | Criticize | Construct |
| Label | Distinguish | Generalize | Differentiate | Defend | Design |
| List | Explain | Judge | Distinguish | Compare | Develop |
| Locate | Express | Organize | Identify | Assess | Formulate |
| Match | Extend | Paint | Infer | Conclude | Hypothesize |
| Memorize | Give Examples | Prepare | Point out | Contrast | Invent |
| Name | Illustrate | Produce | Select | Critique | Make |
| Omit | Indicate | Select | Subdivide | Determine | Originate |
| Recite | Interrelate | Show | Survey | Grade | Organize |
| Select | Interpret | Sketch | Arrange | Justify | Plan |
| State | Infer | Solve | Breakdown | Measure | Produce |
| Count | Match | Use | Combine | Rank | Role Play |
| Draw | Paraphrase | Add | Detect | Rate | Drive |
| Outline | Represent | Calculate | Diagram | Support | Devise |
| Point | Restate | Change | Discriminate | Test | Generate |
| Quote | Rewrite | Classify | Illustrate | | Integrate |
| Recall | Select | Complete | Outline | | Prescribe |
| Recognize | Show | Compute | Point out | | Propose |
| Repeat | Summarize | Discover | Separate | | Reconstruct |
| Reproduce | Tell | Divide | | | Revise |
| | Translate | Examine | | | Rewrite |
| | Associate | Graph | | | Transform |
| | Compute | Interpolate | | | |
| | Convert | Manipulate | | | |
| | Discuss | Modify | | | |
| | Estimate | Operate | | | |
| | Extrapolate | Subtract | | | |
| | Generalize | | | | |
| | Predict | | | | |



Suggested Activities & Best Practices

- Work with individual students to develop personal goals.
- Identify skills and techniques needed.
- Students to research appropriate resources
- Students sign up for Photoshop blogs

Targeted skills may include:

- Optical Illusion Project
- Smoke Effect
- Colored Pencil Sketch Effect from composited photographs
- Double Exposure Effect

- Splatter Paint Effect
- 3-D Graffiti Text
- Projects make include:
- Vintage Travel Poster
- Ocean Storm Scene
- Chuck Close style self portrait
- Surrealistic Family Portrait
- Mock Video Game Setting
- Composite Portraits

Assessment Evidence - Checking for Understanding (CFU)

- Student-teacher conferences (formative assessment)
 - Observations of student work (formative assessment)
 - Self-evaluation rubric for photo enhancement (alternative assessment)
 - Journals - skills learned, problems encountered, alignment with student's goals (formative assessment)
 - Poster Rubric (summative assessment)
 - Portrait Rubric (summative assessment)
 - Optical Illusion Rubric (summative assessment)
 - Composite Photo Rubric (summative assessment)
 - Gallery walk of work (formative assessment)
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- Admit Tickets
 - Anticipation Guide
 - Common Benchmarks
 - Compare & Contrast
 - Create a Multimedia Poster
 - DBQ's
 - Define
 - Describe
 - Evaluate
 - Evaluation rubrics
 - Exit Tickets
 - Explaining

- Fist- to-Five or Thumb-Ometer
- Illustration
- Journals
- KWL Chart
- Learning Center Activities
- Multimedia Reports
- Newspaper Headline
- Outline
- Question Stems
- Quickwrite
- Quizzes
- Red Light, Green Light
- Self- assessments
- Socratic Seminar
- Study Guide
- Surveys
- Teacher Observation Checklist
- Think, Pair, Share
- Think, Write, Pair, Share
- Top 10 List
- Unit review/Test prep
- Unit tests
- Web-Based Assessments
- Written Reports

Primary Resources & Materials

- Digital single-lens reflex cameras
- Adobe Photoshop
- battery chargers
- SD cards
- Apple TV
- Internet connection
- Apple computers

Ancillary Resources

-
- PDFs and Webpages linked in Google Classroom
- Photography books and magazines

- Photo lamps
- Photo screen
- Tripods
- Flash drives
- Color printer

Technology Infusion

This unit revolves around digital photography and the Photoshop application.

Websites, blogs and online tutorials that will be utilized include:

- PDFs and Webpages linked in Google Classroom

- Tutsplus
- Creativelive.com blog
- CTE Online
- Adobe Photoshop Blog
- [Scott Kelby's Photoshop Insider](#)
- [PhotoshopCAFE](#)
- [Vandelay Design - Photoshop Tutorials](#)
- [PhotoshopDisasters.com](#) (Blogspot)
- 19 of The Biggest Photoshop Disasters of 2016 (Buzzfeed)

Students will curate and format work for a digital portfolio.

Alignment to 21st Century Skills & Technology

- Creativity and Invention
- Critical Thinking and Problem Solving
- Information Literacy
- Media Literacy
- Life & Career Skills
- Communication and Collaboration

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|-------------------|---|
| CRP.K-12.CRP2 | Apply appropriate academic and technical skills. |
| CRP.K-12.CRP4 | Communicate clearly and effectively and with reason. |
| CRP.K-12.CRP7 | Employ valid and reliable research strategies. |
| CRP.K-12.CRP8 | Utilize critical thinking to make sense of problems and persevere in solving them. |
| CRP.K-12.CRP11 | Use technology to enhance productivity. |
| CAEP.9.2.12.C.1 | Review career goals and determine steps necessary for attainment. |
| CAEP.9.2.12.C.2 | Modify Personalized Student Learning Plans to support declared career goals. |
| CAEP.9.2.12.C.4 | Analyze how economic conditions and societal changes influence employment trends and future education. |
| CAEP.9.2.12.C.6 | Investigate entrepreneurship opportunities as options for career planning and identify the knowledge, skills, abilities, and resources required for owning and managing a business. |
| CAEP.9.2.12.C.7 | Examine the professional, legal, and ethical responsibilities for both employers and employees in the global workplace. |
| TECH.8.1.12.A.1 | Create a personal digital portfolio which reflects personal and academic interests, achievements, and career aspirations by using a variety of digital tools and resources. |
| TECH.8.1.12.A.CS1 | Understand and use technology systems. |
| TECH.8.1.12.B.CS1 | Apply existing knowledge to generate new ideas, products, or processes. |

21st Century Skills/Interdisciplinary Themes

Upon completion of this section, please remove all remaining descriptions, notes, outlines, examples and/or illustrations that are not needed or used.

Please list only the **21st Century/Interdisciplinary Themes** that will be incorporated into this unit.

- Communication and Collaboration
- Creativity and Innovation
- Critical thinking and Problem Solving

- ICT (Information, Communications and Technology) Literacy
- Information Literacy
- Life and Career Skills
- Media Literacy

21st Century Skills

Upon completion of this section, please remove all remaining descriptions, notes, outlines, examples and/or illustrations that are not needed or used.

Please list only the **21st Century Skills** that will be incorporated into this unit.

- Civic Literacy
- Environmental Literacy
- Financial, Economic, Business and Entrepreneurial Literacy
- Global Awareness
- Health Literacy

Differentiation

- Additional time to complete tutorials and assignments
- Independent projects will be tailored to each student
- Check work frequently to ensure understanding

Special Education Learning (IEP's & 504's)

- Additional time for mastery of Photoshop skills and techniques
 - Preview of content, concepts and vocabulary of tutorials to be used
 - Modified assignment format: assignments will be tailored to each student's capabilities
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- printed copy of board work/notes provided
 - additional time for skill mastery
 - assistive technology
 - behavior management plan
 - Center-Based Instruction

- check work frequently for understanding
- computer or electronic device utilizes
- extended time on tests/ quizzes
- have student repeat directions to check for understanding
- highlighted text visual presentation
- modified assignment format
- modified test content
- modified test format
- modified test length
- multi-sensory presentation
- multiple test sessions
- preferential seating
- preview of content, concepts, and vocabulary
- Provide modifications as dictated in the student's IEP/504 plan
- reduced/shortened reading assignments
- Reduced/shortened written assignments
- secure attention before giving instruction/directions
- shortened assignments
- student working with an assigned partner
- teacher initiated weekly assignment sheet
- Use open book, study guides, test prototypes

English Language Learning (ELL)

- Video tutorials will be chosen over written instructions
 - Written handouts will be translated using Google translate when necessary
 - Lengthy reading assignments will be omitted
 - Tests will be performance based.
-
- teaching key aspects of a topic. Eliminate nonessential information
 - using videos, illustrations, pictures, and drawings to explain or clarify
 - allowing products (projects, timelines, demonstrations, models, drawings, dioramas, poster boards, charts, graphs, slide shows, videos, etc.) to demonstrate student's learning;
 - allowing students to correct errors (looking for understanding)
 - allowing the use of note cards or open-book during testing
 - decreasing the amount of work presented or required
 - having peers take notes or providing a copy of the teacher's notes
 - modifying tests to reflect selected objectives
 - providing study guides
 - reducing or omitting lengthy outside reading assignments
 - reducing the number of answer choices on a multiple choice test

- tutoring by peers
- using computer word processing spell check and grammar check features
- using true/false, matching, or fill in the blank tests in lieu of essay tests

At Risk

- Reduced amount of work required
 - Use of videos and pictures to explain techniques
 - Students will be allowed to select projects from a number of options.
-
- allowing students to correct errors (looking for understanding)
 - teaching key aspects of a topic. Eliminate nonessential information
 - allowing products (projects, timelines, demonstrations, models, drawings, dioramas, poster boards, charts, graphs, slide shows, videos, etc.) to demonstrate student's learning
 - allowing students to select from given choices
 - allowing the use of note cards or open-book during testing
 - collaborating (general education teacher and specialist) to modify vocabulary, omit or modify items to reflect objectives for the student, eliminate sections of the test, and determine how the grade will be determined prior to giving the test.
 - decreasing the amount of work presented or required
 - having peers take notes or providing a copy of the teacher's notes
 - marking students' correct and acceptable work, not the mistakes
 - modifying tests to reflect selected objectives
 - providing study guides
 - reducing or omitting lengthy outside reading assignments
 - reducing the number of answer choices on a multiple choice test
 - tutoring by peers
 - using authentic assessments with real-life problem-solving
 - using true/false, matching, or fill in the blank tests in lieu of essay tests
 - using videos, illustrations, pictures, and drawings to explain or clarify

Talented and Gifted Learning (T&G)

- Assignments for gifted and talented students will require advanced problem solving
 - Critical & creative thinking necessary: identifying design problems, finding resources, and applying new skills.
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- Above grade level placement option for qualified students
 - Advanced problem-solving

- Allow students to work at a faster pace
- Cluster grouping
- Complete activities aligned with above grade level text using Benchmark results
- Create a blog or social media page about their unit
- Create a plan to solve an issue presented in the class or in a text
- Debate issues with research to support arguments
- Flexible skill grouping within a class or across grade level for rigor
- Higher order, critical & creative thinking skills, and discovery
- Multi-disciplinary unit and/or project
- Teacher-selected instructional strategies that are focused to provide challenge, engagement, and growth opportunities
- Utilize exploratory connections to higher-grade concepts
- Utilize project-based learning for greater depth of knowledge

Sample Lesson

Using the template below, please develop a **Sample Lesson** for the first unit only.

Unit Name:

NJSLS:

Interdisciplinary Connection:

Statement of Objective:

Anticipatory Set/Do Now:

Learning Activity:

Student Assessment/CFU's:

Materials:

21st Century Themes and Skills:

Differentiation/Modifications:

Integration of Technology:

