Unit 4: Photoshop

Content Area: **Computer Science**
Course(s):
Time Period: **Marking Period 2**
Length: **7 Days**
Status: **Published**

Summary

Photoshop is a powerful image editing tool. In this class, students will learn some basic Photoshop skills including the paint brush, including text, changing image size, merging images from different files, and applying filters. Students will also learn how Photoshop works in layers. Lastly, students will learn how to save a Photoshop file for both future Photoshop editing, and for use on the web in various file formats. Programs such as Photoshop can be useful if you need to create an image for your site, and if you would like to do so from scratch. It can also be used to edit existing photos, if copyright allows.

Revised Date: July 2025

1	Make sense of problems and persevere in solving them
L.SS.11–12.1	Demonstrate command of the system and structure of the English language when writing or speaking.
P.5	Utilize critical thinking to make sense of problems and persevere in solving them.
L.KL.11–12.2	Apply knowledge of language to understand how language functions in different contexts, to make effective choices for meaning or style, and to comprehend more fully when reading or listening.
P.6	Model integrity, ethical leadership and effective management.
P.8	Use technology to enhance productivity increase collaboration and communicate effectively.
1.2.12prof.Cr3	Refining and completing products.
1.2.12prof.Pr6	Conveying meaning through art.
	Complex programs are designed as systems of interacting modules, each with a specific role, coordinating for a common overall purpose. Modules allow for better management of complex tasks.
	Complex programs are developed, tested, and analyzed by teams drawing on the members' diverse strengths using a variety of resources, libraries, and tools.
	Engineering design is a complex process in which creativity, content knowledge, research, and analysis are used to address local and global problems. Decisions on trade-offs involve systematic comparisons of all costs and benefits, and final steps that may involve redesigning for optimization.
	Engineering design evaluation, a process for determining how well a solution meets requirements, involves systematic comparisons between requirements, specifications, and constraints.
1.2.12prof.Re9	Applying criteria to evaluate products.

Essential Questions/Enduring Understandings

Essential Questions:

- How does image file format effect the finished product?

Enduring Understandings:

- The format in which you save your finished product can effect the image size and quality. Photoshop offers a previewing tool to see how your image would look using different settings. When saving an image for use on a website, you should find a balance between file size and image quality. Large files will cause your site to take a longer time to load, and poor image quality will detract from your site's appearance.

Objectives

Students Will Know:

- where to look in Photoshop to find some of the basic editing tools.

Students Will be Skilled at:

- using Photoshop's tools to customize an existing image to suit their needs (if copyright allows).

Learning Plan

- Explain to students the general purpose of Photoshop, and its overall capabilities.
- Explain to students that those students who have taken Graphics are likely already familiar with this content, and that they should be assisting peers around them who are having difficulty.
- Students should be made aware that Photoshop has many tools and shortcuts to perform tasks, and they should feel free to explore the program during the time provided.
- Teach students how to:
    - open a new project and choose initial settings.
    - incorporate an existing image into their new project.
    - use the paintbrush.
    - use the customization options available for each tool.
    - make color selection.
    - type text.
    - edit both paint and text.
    - use layers to their advantage.
    - apply gradients & filters.
    - cut some or all of an image to then include that piece in a different image.
    - change image size.
    - apply filters with different image parts.

Assessment

- Assessments

    - Formative: Daily assessments using examples from class notes and CodeHS.com, AP Classroom/Albert Checks for Understanding
    - Summative: Teacher-created assessments/projects and CodeHS Computer Science Projects, AP Classroom/Albert Unit Assessments
    - Benchmark: Check for understanding benchmark assessments on CodeHS, AP Classroom/Albert/Khan Academy Diagnostics
    - Alternative Assessments: Student-centered activities such as a doorbell coding project, game design projects, and other activities involving real world applications shown below:
        - Students will create a new image or modify an existing image for use on their About Me projects. In additon to the picture, students should include a written description of how Photoshop helped them to complete this project, mentioning specific tools in the program.

Materials

- Core instructional materials: Core Book List
- Supplemental materials:
    - CodeHS (for remediation and differentiation as deemed appropriate)
    - Internet
    - Computers
    - Projection system for lecture
    - w3schools
    - Photoshop software installed on teacher and student devices