New Paltz Central School District
Technology
Computer Graphics 1 and 2

Time	Essential Questions/Content	Standards/Skills	Assessments
September - October	**Unit 1: Introduction to Graphic Design and New Media** • What is graphic communication and design? • What is new media? • What are current industry standards for graphic software applications? • Where is graphic design and new media prevalent in our society? • How is Photoshop used creatively by graphic designers? • What are the best practices for file management with new media applications? • What are the basic skills required to use Photoshop effectively?	• Recognize and analyze various forms of graphic communication. • Identify a variety of media and techniques used in graphic communications. • Master introductory level Photoshop skills. • Understand and identify varying file formats and saving locations and manage files effectively.	• Digital class portfolio organization • Research, record, and present information about contemporary graphic communications and new media • Photoshop basic skills design quiz • File management
October - November	**Unit 2: Typography in Design and Communication** • What is typography? • What are typefaces, fonts, and letter forms? • How do you manipulate or transform digital typeface? • How can you use typeface as a design element? • How can you use a theme to design an original typeface? • How do you create digital typeface in Photoshop and Illustrator?	• Cite specific textual evidence to support analysis of primary and secondary sources, connecting insights gained from specific details to an understanding of the text as a whole. • 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. • Use technology, including the Internet, to produce, publish, and update individual or shared writing products in response to ongoing feedback, including new arguments or information.	• Composition using only one letter in a variety of fonts, styles, sizes, and placement • Creation of a recognizable image using only typeface • Use of typeface to illustrate the elements and principles of design

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		• Identify basic categories and characteristics of typeface, fonts, and letterforms. • Use typeface as a main element of design in a composition. • Use Photoshop to create and manipulate typeface. • Use Photoshop techniques to apply a variety of special effects to typeface. • Use Illustrator to create an original typeface.	• Composition using an original body of text • Design of an original typeface based on theme • File management • Project rubrics • Written reflective student response • Group or silent critiques
November - December	**Unit 3: Digital Collage and Compositing** • What is composite imaging? What is digital collage? How are they similar and how do they differ? • What intermediate Photoshop skills and techniques are essential for effective digital imaging and compositing? • What is the role of digital imaging and compositing in the field of communications and media? • How is digital collage and compositing used in various forms of graphic communication?	• Identify applications of digital imaging in graphic communication and advertising. • Identify and use tools and processes in Photoshop necessary for basic digital imaging and compositing. • Use selection tools effectively to precisely cut out images. • Work with multiple Photoshop documents at the same time. • Make adjustments in size, placement, and color of collaged objects or images.	• Record of Internet search of digital imaging explanation • Digital collage based on a theme using an assortment of downloaded images • Original cover design for a book, magazine, or other publication • Original design to be used in a public service campaign • Original poster design for an event or happening • File management

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	• How is digital collage and composite imaging applied in cover designs for books, magazines, and other publications? • How is digital collage and composite imaging applied in the design of posters, event mailers, and public service campaigns?		
January - February	**Unit 4: Advertising and Marketing** • What is advertising design? • What is corporate branding and identity? • What various roles do graphic designers play in the world of advertising and marketing? • What is symbolism and what is its role in graphic communication? • What is logo design? • What is product advertising? • What are the basic tools in Adobe Illustrator needed to create and modify unique shapes? • What are vector graphics and how do they differ from bitmap or raster based graphics?	• Identify forms of graphic communication in advertising, marketing, and product identity as present in retail environments, the Internet, television, and printed publications. • Translate abstract concepts into visual graphic designs for advertising. Create a body of artwork for visual branding of a company or product. • Use tools and techniques in Adobe Illustrator to create graphic designs for advertising. • Integrate artwork from Adobe Illustrator into Photoshop for use in a final design.	• Research on careers in advertising and marketing • Adobe Illustrator skills quiz • Redesign of an existing product logo using a contemporary design theme using Adobe Photoshop • Original logo/trademark and body of identity graphics for a business using Adobe Illustrator • Integration of vector artwork with bitmap artwork using Photoshop • File management

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February - March	**Unit 5: Introduction to Animation and Motion Graphics** • What is frame by frame animation? • What are motion graphics? • What software and techniques are commonly used to create frame by frame animation and motion graphics? • What role do rhythm and timing have in animation? • How can a visual theme work to make an animation more effective? • How can elements and principals of art and design be applied in animation and motion graphics?	• Identify applications of animation and motion graphics on the Internet and in television and film. • Use Adobe Flash to create and modify a frame by frame animation. • Use Adobe Premiere in conjunction with Photoshop layers to create motion graphics. • Develop and translate original thoughts and concepts into a variety of visual animations. • Incorporate both traditional and digital media materials and techniques into animation. • Demonstrate effective use of elements and principals of design in an animation.	• Presentation on research and information about animation and motion graphics as they are used in a variety of disciplines • Animation of a shape transforming to a musical sound file using Adobe Flash. • Animated web banner for a business using Adobe Flash • Motion graphic introduction for NPZ's The Morning Show using Adobe Premiere and Photoshop layers • Animated GIF advertisement for an event, product, musical group, or travel destination using Photoshop layers and animation bar • File management

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March - April	**Unit 6: Vector Illustration** • What is illustration? • What are some applications where illustrations are utilized in graphics communications? • What are the benefits of using vector graphics (Adobe Illustrator) to create illustration? • How can Adobe Illustrator be used to create an illustration?	• Effectively use a variety of tools and commands in Illustrator. • Create a vector based artwork which depicts a concept, idea, or storyline. • Use reference images effectively to generate vector artwork. • Integrate and manipulate vector artwork in raster environment (Adobe Photoshop).	• Transformation of a circle in ten unique ways using a variety of tools and effects in Illustrator • Two dimensional composition in Illustrator that is based on a phrase or a word • Vector portrait of a person or object based on a reference photo • Transformation of a vector portrait into a graphic design using Adobe Photoshop • File management
April - May	**Unit 7: Advanced Digital Imaging** • What are special effects in digital imaging? • What is digital fine art and how is that different from commercial art? • How can the Internet be a resource for advanced imaging techniques?	• Effectively use advanced imaging and special effect menus in both Photoshop and Illustrator. • Work independently to find and utilize on-line tutorials for advanced Photoshop and Illustrator techniques. • Integrate advanced imaging techniques into original responses to design assignments.	• Realistic photomontage combining multiple photographs • Digital self-portrait using a variety of digital effects and techniques • Completion of

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			several online intermediate to advanced tutorials for Photoshop and Illustrator • Creation of an original graphic for NPZ's The Morning Show using advanced imaging techniques • File management
May - June	**Unit 8: 3-D Modeling in Graphic Communication** • What is 3-D modeling and what applications does it have in graphic communications? • What software exists for 3-D modeling applications? • What are the basic tools and processes used in creating digital 3-D models in Blender? • How do you use and manipulate cameras in Blender to animate a scene?	• Identify applications of 3-D modeling in fields such as communications, science, medicine, entertainment, industry, engineering, industrial design, and architecture. • Explore and understand the interface of Blender 3-D modeling software. • Follow video based instruction for learning Blender 2.0. • Use tools and processes in Blender 2.0 to create and manipulate basic objects or shapes. • Apply materials, color, and environmental elements to objects or shapes in Blender.	• Research and documentation of applications of 3-D modeling in a variety of fields • Creation and manipulation of several basic shapes in Blender 2.0 • Creation of a unique three-dimensional logo or emblem and application of materials and color for rendering. • Creation of a three dimensional environment and assignment of a variety of materials and textures. • Use of cameras to create an animation within a three dimensional space. • File management