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| ***Vector Graphic Design******Unit 2: Drawing and Painting******Timeline: Weeks 4-14*** |
| **Targeted Standards** (Write the overall NJSLS standards that are most applicable to this unit.).Throughout history the arts have provided essential means for individuals and communities to express their ideas, experiences, feelings, and deepest beliefs. Each discipline shares common goals but approaches them through distinct approaches and techniques. Understanding works of art provides insights into an individual’s own culture and society, as well as those of others, while also providing opportunities to access, express and integrate meaning across a variety of content areas.***New Jersey Student Learning Standards - Visual and Performing Arts: 1.5 Visual Arts Standards*****Standard 3:** Proficient 1.5.12prof.Cr3a: Apply relevant criteria from traditional and contemporary cultural contexts to examine, reflect on and plan revisions for works of art and design in progress.Accomplished-1.5.12acc.Cr3a: Engage in constructive critique with peers, then reflect on, re- engage, revise, and refine works of art and design in response to personal artistic vision.**Standard 4**: Proficient 1.5.12prof.Pr4a: Analyze, select and curate artifacts and/or artworks for presentation and preservation.Accomplished-1.5.12acc.Pr4a: Analyze, select and critique personal artwork for a collection or portfolio Presentation.**Standard 8:** Proficient 1.5.12prof.Re8a: Interpret an artwork or collection of works, supported by relevant and sufficient evidence found in the work and its various contexts. **Standard 9:** Proficient-1.5.12prof.Re9a: Establish relevant criteria in order to evaluate a work of art or collection of works.**Standard 10:** Proficient-1.5.12prof.Cn10a: Document the process of developing ideas from early stages to fully elaborated ideas.***New Jersey Student Learning Standards - Visual and Performing Arts: 1.2 Media Arts Standards*****Standard 1:** Proficient 1.2.12prof.Cr1a: Formulate multiple ideas using generative methods to develop artistic goals and solve problems in media arts creation processes.**Standard 2:** Proficient 1.2.12prof.Cr2a: Organize and design artistic ideas for media arts productions.**Standard 3:** Proficient 1.2.12prof.Cr3a: Understand the deliberate choices in organizing and integrating content, stylistic conventions, and media arts principles such as emphasis and tone.Proficient 1.2.12prof.Cr3b: Refine and modify media artworks, emphasizing aesthetic quality and intentionally accentuating stylistic elements to reflect an understanding of personal goals and preferences. **Standard 5:** Proficient 1.2.12prof.Pr5b: Develop and refine creativity and adaptability, such as design thinking and risk taking, in addressing identified challenges and constraints within and through media arts productions.**Standard 9:** Proficient 1.2.12prof.Re9a: Evaluate media art works and production processes at decisive stages, using identified criteria and considering context and artistic goals**Standard 10:** Proficient 1.2.12prof.Cn10a: Access, evaluate and integrate personal and external resources to inform the creation of original media artworks, such as experiences, interests and cultural experiences. |
| **Rationale and Transfer Goals** : This course covers the basics of vector graphic design. Vector graphics are a computer image format where Graphic designers create graphics that need to be scaled. Vector graphics can be used to design anything from logos and icons to posters, t-shirts, and complex illustrations. Students will have an opportunity to draw shapes and design logos, flyers, posters, banners, business cards or any other vector graphics for print or web. In addition, the related topic of typography and working with text, which is vector based, will be covered as will. Students will learn the fundamental skills to creatively and effectively use vector image software such as Adobe Illustrator and Sketchup. Students who take this course will have taken one of the three introductory art courses which cover the basics of the Elements of Art and the Principles of Design.   |
| **Enduring Understandings:** What are the most essential conclusions that students should be guided towards throughout this unit?* Illustrator is a graphic design application. Graphic designers use Illustrator to create vector graphics. Vector images and graphics are made of points, lines, shapes, and curves based on mathematical formulas rather than a set amount of pixels, and therefore can be scaled up or down while maintaining image quality.
* Vector graphics are digital art that is rendered by a computer using a mathematical formula. Raster images are made up of tiny pixels, making them resolution dependent and best used for creating photos.
* There are many reasons to use vectorized images.
	+ Vector images are smaller files which is advantageous in certain uses for graphic design.
	+ Vector images can be scaled without loss of crispness.
	+ Vectors can be animated using CSS, which can make for some unique effects.
* Illustrator’s digital drawing tools are used for creating vector-based illustrations, icons, typography, logos, and other artwork.
* In the Illustrator Tools panel, the Pen tool serves an important purpose—to draw paths precisely, especially smooth curves. The Pen tool does this much more effectively than more natural drawing tools such as the Pencil tool. In fact, proficiency with the Pen tool and the Bezier curve editing techniques associated with it are key career skills for digital artists.
	+ There are alternatives to the Pen tool, including the Pencil tool (which allows artists to create straight and curved lines), as well as the Curvature tool for drawing with more precision.
* The Paintbrush tool lets artists draw a path with a brush stroke applied so that they can create expressive freeform drawings whose shape and appearance are easy to adjust.
	+ In Illustrator, a brush leaves behind a set of vector paths; that set of paths follows a path drawn by the Brush or another drawing tool.
	+ There are 5 types of brushes: Calligraphic, Bristle, Scatter, Art, and Pattern.
	+ Pencil and Brush Tool working mode is similar as they all place anchor points after artists draw for best presentation of your freeform line. The main difference are that brushes can be different type. Also with pencil tool artists can close some open path between any anchors point.
* The Gradient tool lets you create a gradual blend between colors using Linear, Radial, or Freeform gradients. The Mesh tool lets you blend colors and create contours on the surfaces of objects to provide depth and color transition.
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| **Essential Questions**: What are the questions that will guide critical thinking about the content of this unit? Essential questions should, in part, be thought-starters toward the enduring understandings.* How is Adobe Illustrator utilized to create computer graphic designs?
* What is the difference between raster and vector based images?
* Why is it important for an image to be vectorized?
* How is the Pen Tool used to create and edit shapes and artwork in Illustrator? Why is the Pen Tool important?
* What is the Paintbrush tool and how is it used in Illustrator? What are the similarities and differences of the Paintbrush tool with the Pen tool?
* How are Gradients and Mesh used in Illustrator?
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|  **Content/Objectives** | **Instructional Actions** |
| **Content*****What students will know*** | **Skills*****What students will be able to do*** | **Activities/Strategies*****How we teach content and skills*** | **Evidence (Assessments)*****How we know students have learned*** |
| \* Difference between raster and vector based computer designs.\* How to use shapes and symbols to convey a message\* Apply knowledge of Adobe Illustrator tools to produce an original work of art/design.\* Transform ideas into computer generated vector images.\* Students will communicate specific vocabulary comprehension through creation in computer programs.\* Students will be able to understand aspects of elements of art and principles of design through various mediums used by graphic designers. | \* Transform ideas into computer generated vector images.\*Learn and use the drawing and painting tools in Adobe Illustrator to create vector artwork.\*Edit and modify vector drawings and illustrations.\*Use advanced vector coloring and painting techniques to create and modify vector artwork.\*Learn and use 3-D features of Adobe Illustrator. | **Activity 1:** Students will be introduced to Adobe Illustrator by overviewing the workspace and comparing it to Adobe Photoshop. Discussion of when to use Photoshop and when to use Illustrator will be discussed.**Activity 2:** Students will create a basic vector drawing in Adobe Illustrator to learn how to use the drawing tools.**Activity 3:** Students will create a more complex vector drawing in Adobe Illustrator to learn how to use the pen tools and to edit them.**Activity 4:** Students will create a logo and overview the basics of logo design. The logo design may be applied to various items using a vinyl cutting machine, depending on availability.**Activity 5**: Students will create artwork using more advanced painting techniques using the mesh tool and shape builder. | \*Observation of student progress.\*Projects and activities\*Quizzes and tests\*Benchmark checkpoints towards final student summative portfolio.\*Formative: Visual Arts ProjectStudent Portfolio kept digitally as well as actual portfolio (if applicable).[Assessments](https://drive.google.com/drive/folders/1p68LtBdRCbm3CmvYgeIIvVv4wK0Q-ouT?usp=share_link) |
| **Spiraling for Mastery** **Where does this unit spiral back to other units from this or previous years in order to ensure that students retain mastery of what they’ve learned?** |
| **Content or Skill for this Unit** | **Spiral Focus from Previous Unit** | **Instructional Activity** |
| \*Students will be able to know when and for what tasks to use vector editing software.\*Students will be able to create and modify artwork and images made up of vector graphics which are made up of paths and anchor points.\*Students will use the elements of art and principles of design to evaluate and modify work throughout the course. | \*Students will be using the design aspects of the visual arts through the elements of art and principles of design in all projects in this unit. \*Students will also use the same elements of art and principles of design to evaluate and critique their own projects, teacher example projects, and their peer’s work. | \*Students will gain introductory and/or additional knowledge of a vector graphics program (Adobe Illustrator) to both create original artwork and graphic designs.\*Students will create Illustrations and artwork in a vector graphics computer application--Adobe Illustrator.\*Students will create vector artwork which could be used in other computer applications such as page layout and web design. |
| **Career Readiness, Life Literacies & Key Skills**• 9.4.12.DC.1: Explain the beneficial and harmful effects that intellectual property laws can have onthe creation and sharing of content (e.g., 6.1.12.CivicsPR.16.a).• 9.4.12.DC.2: Compare and contrast international differences in copyright laws and ethics.• 9.4.12.DC.3: Evaluate the social and economic implications of privacy in the context of safety, law, or ethics (e.g., 6.3.12.HistoryCA.1). • 9.4.12.DC.4: Explain the privacy concerns related to the collection of data (e.g., cookies) and generation of data through automated processes that may not be evident to users (e.g., 8.1.12.NI.3). • 9.4.12.DC.5: Debate laws and regulations that impact the development and use of software. |
| **Key resources:** \*Professional organizations: AIGA-The American Institute of Graphic Arts, NAEA-National Art Education Association, AENJ-Art Educators of New Jersey, ISTE-International Society for Technology in Education, PSA-Photographic Society of America, etc.\*Online: Adobe Education Exchange, Creative Live, ICP-International Center of Photography, Aperture Foundation, Study.com, Kahoot.com, Edpuzzle.com, Quizizz.com, Quizlet.com, Virtual Instructor.com, The Art of Education, Scholasticarts.com, etc.\*Museum resources from national, regional and local museums \*Teacher-generated resources. |
| **Intersections of History:** **Black:**  Use of Black artists, designers and makers to foster experiences in American and world history through the visual arts and design.**Hispanic:** Use of Hispanic artists, designers and makers to foster experiences in American and world history through the visual arts and design.**Women:** Use of Women artists, designers and makers to foster experiences in American and world history through the visual arts and design.**LGBTQ:** Use of LGBTQ artists, designers and makers to foster experiences in American and world history through the visual arts and design.In addition, all the above may be used to influence personal choices for creating relevant Art & Graphic Design projects which deal with these topics. |
| **Important Vocabulary:** Previous Vocabulary: Elements of art (Line, Shape, form, Space, color, texture, and value) Principles of Art (contrast, Unity, Harmony, Pattern, balance, emphasis, movement) Fine art, Functional Art, Graphic Design, Gestalt Principles of Design (Proximity, Alignment, Contrast, Repetition, Similarity, Hierarchy)\*New vocabulary: Pixel, Bitmap/Raster Graphics, Color Mode, Photoshop, Workspace, Tool Options Bar, Panels, Selections, Layers, Layer Mask, Healing Tools, Drawing and Painting tools, Eraser tools, Photo-retouching tools, Text tool, Shape Tools, Hand tool, Zoom tool, Foreground color, Background color, Saturation, file formats. |
| **Interdisciplinary Connections:** ELA:NJSLSA.W8. Gather relevant information from multiple print and digital sources, assess the credibility and accuracy of each source, and integrate the information while avoiding plagiarism. NJSLSA.W9. Draw evidence from literary or informational texts to support analysis, reflection, and research.NJSLSA.W10. Write routinely over extended time frames (time for research, reflection, and revision) and shorter time frames (a single sitting or a day or two) for a range of tasks, purposes, and audiences.Computer Science and Design Thinking:8.2.8.ED.2: Identify the steps in the design process that could be used to solve a problem. 8.2.8.ITH.2: Compare how technologies have influenced society over time.Mathematics: Math A-CED.A.1: Create equations and inequalities in one variable and use them to solve problems.Math 6.RP.A.1: Understand the concept of a ratio and use ratio language to describe a ratio relationship between two quantities |