

Technology Education Grade 12 AP Photography

Dr. Mark Toback, Superintendent

This curriculum may be modified through varying techniques, strategies, and materials as per an individual student's Individualized Educational Plan (IEP)

Content Area/ Grade	Technology Education		
Level/ Course:	12/Photography IV (AP Photo)		
Unit Plan Title:	Unit I: Review of Photo III		
Time Frame	4 Weeks		

Anchor Standards/Domain* *i.e.: ELA: reading, writing i.e.: Math: Number and Operations in Base 10

- The 12 Career Ready Practices
- These practices outline the skills that all individuals need to have to truly be adaptable, reflective, and proactive in life and careers. These are researched practices that are essential to career readiness.
- **8.1 Educational Technology**: All students will use digital tools to access, manage, evaluate, and synthesize information in order to solve problems individually and collaborate and to create and communicate knowledge.
- 8.2 Technology Education, Engineering, Design, and Computational Thinking Programming: All students will develop
 an understanding of the nature and impact of technology, engineering, technological design, computational thinking and the
 designed world as they relate to the individual, global society, and the environment.
- 9.2 Career Awareness, Exploration, and Preparation: This standard outlines the importance of being knowledgeable about
 one's interests and talents, and being well informed about postsecondary and career options, career planning, and career
 requirements.
- 9.3 Career & Technical Education (CTE) Content Area: 21st Century Life and Careers: ARTS, A/V TECHNOLOGY & COMMUNICATIONS CAREER CLUSTER

- A. Pre Processing (Ideation: Designing the shoot)
 - 1. Identifying good photographs
 - 2. Photo shoot development
 - 3. The Design Process
 - a. Identify the problem (What are the requirements of the shoot? Content topic?)
 - b. Research the problem (What has been done in the past?)
 - c. Define limitations and set goals (What do you want to accomplish? What is your end result?)
 - d. Generate alternative solutions (Come up with ideas for the shoot using Past Experience, Insight, Trial and Error, and Brainstorming)
 - e. Determine the best solution for the shoot and why?
 - i. List Procedures/Processes necessary to achieve the goal (Make a list or create a storyboard)
 - ii. Design specifications (Determine what tools and equipment are necessary?)
 - f. Implement the solution by completing the shoot
 - g. Analysis and Critique (Did the end result in the form of the final photos match the desired result?)
- B. Processing (Photographing)
 - 1. The camera systems
 - a. Aperture
 - b. Shutter speed
 - c. ISO
 - d. Lenses
 - e. Filters
 - f. Flash
 - g. Film vs digital
 - 2. Situational Awareness and Semiotics
 - 3. Composition
 - a. Rule of thirds
 - b. Leading lines
 - c. Framing
 - d. Perspective angles

- e. Foreground/mid-ground/ background
- 4. Safety
- C. Post Processing (Photo Manipulation) with Adobe CC
 - 1. Lightroom
 - 2. Photoshop
 - 3. Digital portfolio management system
 - 4. Illustrator
 - 5. InDesign
 - 6. File Management

Standard Number(s)

- CRP1. Act as a responsible and contributing citizen and employee.
- CRP2. Apply appropriate academic and technical skills.
- CRP4. Communicate clearly and effectively and with reason.
- CRP6. Demonstrate creativity and innovation.
- CRP8. Utilize critical thinking to make sense of problems and persevere in solving them.
- CRP11. Use technology to enhance productivity.
- CRP12. Work productively in teams while using cultural global competence.
- 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.
- 8.1.12.D.1 Demonstrate appropriate application of copyright, fair use and/or Creative Commons to an original work.
- 8.1.12.D.5 Analyze the capabilities and limitations of current and emerging technology resources and assess their potential to address personal, social, lifelong learning, and career needs
- 8.2.12.A.2 Analyze a current technology and the resources used, to identify the trade-offs in terms of availability, cost, desirability and waste
- 8.2.12.E.2 Analyze the relationships between internal and external computer components.
- 9.2.12.C.1 Review career goals and determine steps necessary for attainment.
- 9.2.12.C.2 Modify Personalized Student Learning Plans to support declared career goals.
- 9.2.12.C.3 Identify transferable career skills and design alternate career plans.
- 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.
- 9.3.12.AR.1 Analyze the interdependence of the technical and artistic elements of various careers within the Arts, A/V Technology & Communications Career Cluster.
- 9.3.12.AR.6 Evaluate technological advancements and tools that are essential to occupations within the Arts, A/V Technology & Communications Career Cluster.
- 9.3.12.AR-PRT.1 Manage the printing process, including customer service and sales, scheduling, production and quality control.
- 9.3.12.AR-PRT.2 Demonstrate the production of various print, multimedia or digital media products.
- 9.3.12.AR-PRT.3 Perform finishing and distribution operations related to the printing process.
- 9.3.12.AR-VIS.2 Analyze how the application of visual arts elements and principles of design communicate and express ideas.
- 9.3.12.AR-VIS.3 Analyze and create two and three-dimensional visual art forms using various media.
- 9.3.MK.9 Communicate information about products, services, images and/or ideas to achieve a desired outcome.
- 9.3.ST.1 Apply engineering skills in a project that requires project management, process control and quality assurance.
- 9.3.ST.2 Use technology to acquire, manipulate, analyze and report data.
- 9.3.ST-ET.4 Apply the elements of the design process.

RST and WHST: New Jersey Student Learning Standards for English Language Arts Companion Standard: Science and Technology

Essential Question(s)

- How does ideation differ across the various categories of Photography?
- How does the use of efficient processing and accurate use of the camera systems affect the outcome of images?
- How does post processing change the final outcome of images? What can, and cannot be accomplished via post production? (Adobe CC)

Enduring Understandings

- Students need to understand that there are many classifications of photography and each requires a unique perspective and creative development process to ensure successful images.
- A photographer's precise use of their equipment ensures images that are accurate to their vision and are produced with their goals achieved.
- Post production, photo manipulation allows for creative control beyond the camera's eye. There are limits to what can be digitally altered and what images will need to return to the processing stage for a re-shoot.

In this unit	In this unit plan, the following 21 st Century themes and skills are addressed.					
Check all that apply. 21 st Century Themes		Indicate whether these skills are E -Encouraged, T- Taught, or A -Assessed in this unit by marking E, T, A on the line before the appropriate skill. 21 st Century Skills				
	Global Awareness		E, T, A	Creativity and Innovation		
	Environmental Literacy		E, T, A	Critical Thinking and Problem Solving		
	Health Literacy		E, T, A	Communication		
	Civic Literacy		E, T, A	Collaboration		
Х	Financial, Economic, Business, and					
	Entrepreneurial Literacy					

Student Learning Targets/Objectives (Students will know/Students will understand)

- Understand the design and ideation process from pre-processing through post- processing.
- Explain and identify good photographs
- Recognize the requirements of the photo shoot, with emphasis on the topic.
- Research successful outcomes of professional photographers.
- Define limitations and set goals for each shoot.
- Generate ideas for the shoot using Past Experience, Insight, Trial and Error, and Brainstorming.
- List Procedures/Processes necessary to achieve the goal using written and visual communication (list and storyboard).
- Determine the tools and equipment necessary for each shoot.
- Implement the solution by the specified deadline.
- Analysis and Critique the resulting photos.
- Label and define the camera systems of both digital and film cameras.
- Be actively aware of the surroundings in a photo, whether staged or candid.
- Explain and execute the Fundamentals of Composition
- Create a procedure for safety when on assignment outside the studio.
- Effectively use Adobe CC for workflow.
- Show proficiency in the use of Adobe Photoshop, including Tools, Filters, and Windows.
- Effectively manage files stored digitally on both internal, external and portable devices, as well as the Cloud.

Assessments (Pre, Formative, Summative, Other)

Denote required common assessments with an *

Learning experiences will be design and inquiry based. Both extended task activities, as well as shorter, more focused resource tasks/practical tasks will be utilized to maximize learning. Each learning experience will reinforce the following elements for students:

A. The Ideation Design Process (real-world design & problem solving)

- open-ended problems with constraints & specifications
- visualize, design, and implement their creative vision
- B. Team Building Skills (working on a design team)
 - group dynamics

- social and leadership skills
- delegating and accepting responsibility
- 3 R's (respect, responsibility and results)

C. Technical Writing

- providing a context for written communication
- producing shoot lists, proposals, critiques, etc.
- documenting learning in a design portfolio

D. Public Speaking

- preparing an oral presentation
- developing poise and self confidence
- improving oral communications skills

E. Design Brief

- A real life situation forms the context of the activity
- Define the problem to be solved
- Determine design criteria: specifications and constraints

F. Develop Solutions

- Form design teams/cooperative learning groups
- Investigate possible solutions
- Generate alternative solutions
- Test solutions
- Optimize solutions
- Test and evaluate final design solution

G. Summative Assessments

- Performance of final design solution relative to constraints and specifications
- Student design portfolios
- Multimedia and oral presentation of design solutions
- Standardized authentic assessment instruments

Teaching and Learning Activities					
Activities	Define and explain technical terminology. Begin researching professional photographers. Prepare a visual analysis of their work, their design process used to produce them, and their effect on the photographic industry and global society. Begin preparing a portfolio of work which may be used in the future for academic or career interviews.				
	Begin reviewing advanced techniques and tools in Adobe CC, including terminology, industry standard execution of processes and procedures.				
Differentiation Strategies	 Individual and collaborative research, design and problem solving Student interest and skill level assessment Individual, small group, and large group instruction Differentiated checklists and rubrics 				
	 Level of independence Differentiation Strategies for Special Education Students Differentiation Strategies for Gifted and Talented Students Differentiation Strategies for ELL Students Differentiation Strategies for At Risk Students 				

- http://www.state.ni.us/education/cccs/
- http://www.corestandards.org/ELA-Literacy
- http://www.nextgenscience.org/hsets-ed-engineering-design
- http://phlearn.com/
- http://www.adobe.com
- https://www.behance.net/

Content Area/ Grade Level/ Course:	Technology Education 12/Photography IV
Unit Plan Title	Unit II: Overview of the AP Process
Time Frame	2 Weeks

Anchor Standards/Domain* *i.e.: ELA: reading, writing i.e.: Math: Number and Operations in Base 10

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- A. Quality Works:
 - 1. Understanding of Design Issues
 - i. Principles of Design
 - ii. Elements of Art
 - iii. Fundamentals of Composition
 - 2. Reflect concepts/skills from Photo I/II/III
- B. Concentration Works:
 - 1. In-depth exploration of a theme
 - 2. Documenting the design process
 - 3. Reflect concepts/skills from Photo I/II/III
 - 4. Within the context of/adherence to Design Issues
- C. Breadth of Works:
 - 1. In-depth exploration of Photographic Vocational Genres including:
 - i. Advertising
 - ii. Fashion
 - iii. Corporate
 - iv. Architectural
 - v. Event
 - vi. Journalism
 - vii. Food
 - viii. Biomedical
 - ix. Astronomy
 - x. Travel
 - xi. Industrial
 - xii. Landscape
 - xiii. Archival
 - 2. Reflect concepts/skills from Photo I/II/III

3. Within the context of/adherence to Design Issues

Standard Number(s)

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Essential Question(s)

- How does implementing the elements of art, principles of design, and fundamentals of composition make photographic work stronger?
- How do you use the elements of art, principles of design, and fundamentals of composition to create a sophisticated body of work?
- What are the types of photographic concentrations and how do these concentrations allow of an in-depth exploration of a specific topic?
- How do you create a theme, develop it, and integrate it into a body of work?

Enduring Understandings

- Students will implement each of the elements of art, principles of design, and fundamentals of composition in a sophisticated manner to produce high quality images worthy of review by the AP Boards.
- Students will learn about theme exploration and development to create a diversified portfolio.
- Students will learn how to create a concentrated body of work via the design and problem solving model.
- Students will utilize the AP requirements to create a theme and integrate it into their work.

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Health Literacy		Α	Communication	
Civic Literacy		E	Collaboration	
χ Financial, Economic, Business, and Entrepreneurial Literacy				

Student Learning Targets/Objectives (Students will know/Students will understand)

- Learn how to utilize both traditional and digital portfolios to present work to the AP boards in a professional manner.
- Know and utilize the elements of art, principles of design and fundamentals of composition in all works.
- Understand the technical aspects of photography to create a "Quality Body of Work" as defined by the AP boards.
- Learn how to ideate in order to implement a theme through a "Concentration of Work" as defined by the AP boards.
- Explain how different industries use photography and create a works from each of the sectors to be complied into the AP standards for "Breadth of Work"
- Define the different imaging requirements needed for each market sector.
- Execute appropriate images per each commercial application.

Assessments (Pre, Formative, Summative, Other)

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E. Design Brief

- A real life situation forms the context of the activity
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F. Develop Solutions

- Form design teams/cooperative learning groups
- Investigate possible solutions
- Generate alternative solutions
- Test solutions

- Optimize solutions
- Test and evaluate final design solution
- G. Summative Assessments
 - Performance of final design solution relative to constraints and specifications
 - Student design portfolios
 - Multimedia and oral presentation of design solutions
 - Standardized authentic assessment instruments

Teaching and Learning Activities					
Activities	Define and explain technical terminology. Continue researching professional photographers with an emphasis on commercial photography. Prepare a visual analysis of their work, the design process used to produce them, and their effect on the photographic industry and global society. Continue preparing a portfolio of work. Continue reviewing advanced techniques and tools in Adobe CC, utilizing Adobe and Phlearn				
	tutorials.				
Differentiation Strategies	 Individual and collaborative research, design and problem solving Student interest and skill level assessment 				
	Individual, small group, and large group instruction				
	Differentiated checklists and rubrics				
	Level of independence				
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Content Area/ Grade Level/ Course:	Technology Education 12/Photography IV
Unit Plan Title:	Unit III: Portfolio Development
Time Frame	6 Weeks

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- A. Portfolio Development
 - 1. Digital Portfolio
 - i. Adobe CC
 - ii. Behance.net
 - 2. Traditional Portfolio
 - i. Dry Mounting
 - ii. Matting
 - iii. Matt Cutting
 - 3. Uses for Portfolios
 - i. AP submission
 - ii. College interviews
 - iii. Job interviews
 - iv. Artistic self-promotion
- B. AP Submission Requirements
 - 1. Originality and Consequences
 - 2. Planning your Portfolio
 - i. Sustained Investigation (Concentration): What is the central idea of your concentration?
 - ii. Range of Approaches (Breadth): How does your work show a range of concepts and techniques?
 - iii. Selected Works (Quality): How does your work show an understanding of concept, composition, and execution?
 - iv. Sources and References: Record resources, references and sources of inspiration.
 - 3. Tangible Presentation
 - i. Backed and Mounted
 - ii. $8 \times 10 18 \times 24$
 - iii. Neutral Matting
 - 4. Conceptual Presentation
 - i. Quality (5) works demonstrating in-depth understanding of photographic design issues.

- ii. Concentration (12) works demonstrating a unified/underlying idea with visual/conceptual coherence and written commentary describing the central idea and how the work demonstrates intent and exploration of ideas.
- iii. Breadth (12) works in which elements and principles of design are the primary focus; demonstrate metacognition and visual organization of ideas (journaling); exploration, inventiveness, expressive manipulation of form; knowledge of compositional organization.
- 5. AP Portfolio Assessment Focus on Habits of Mind
 - i. Critical analysis
 - ii. Evidence-based decision-making
 - iii. Innovative thinking
 - iv. Articulation of design elements and principles
 - v. Systematic investigation of formal and conceptual aspects of art making
 - vi. Technical competence with materials and processes to communicate ideas
 - vii. Incorporation of expressive qualities in art making
 - viii. Demonstration of artistic intention
 - ix. Creation of a body of work unified by a visual or conceptual theme.
- 6. AP Portfolio format of assessment
 - i. Quality: Demonstrate mastery of design in concept, composition, and execution: 33%
 - ii. Concentration: Describe an in-depth explanation of a particular design concern: 33%
 - iii. Breadth: Demonstrate understanding of design issues: 33%

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Essential Question(s)

- What is a portfolio used for?
- How do you develop a portfolio?
- What are the different types of portfolios?
- How can a career in photography be lucrative?
- What are the different types of occupations within photography?
- Where are the best places to pursue a post-secondary education in photography?

Enduring Understandings

- A portfolio is used to showcase an array of completed work that showcases a photographer's ability.
- Developing a portfolio takes time to create the work needed to be showcased, and display the work in impeccable condition.
- Portfolios can be digital, print, or a combination of both the traditional and digital form. Student will work to generate a college and career ready portfolio to showcase their body of work.
- Many colleges offer photography and visual arts programs that will prepare students for a career in industry.
- Being a photographer, is just one of many job opportunities in the digital imaging field. Students may find that they rather be in an industry tandem to photography incorporating advertising, marketing, and journalism.
- Students will spend time researching requirements for post-secondary education in the field and being to prepare to ensure a successful transition.

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	Х	Financial, Economic, Business, and Entrepreneurial Literacy			-	

Student Learning Targets/Objectives (Students will know/Students will understand)

- Generate a digital portfolio
- Generate a printed portfolio
- Understand the importance of a professional portfolio
- Understand the ethics of a professional photographer
- Research different careers in the imaging industry
- Develop a career plan to succeed in the photographic industry
- Explore the requirements for owning a photographic side business.
- Follow specific requirements provided by the AP boards.

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G. Summative Assessments

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- Student design portfolios
- Multimedia and oral presentation of design solutions
- Standardized authentic assessment instruments

Standardized authentic assessment instruments				
Teaching and Learning Activities				
Activities	Explore an ethical issue in Photography. Use class gained knowledge to state your viewpoint. Support this viewpoint with addition research gathered from current events. Continue preparing a portfolio of work. List and defend the pros and cons of digital vs. traditional portfolios. Continue creating a glossary of Photoshop terminology.			
Differentiation Strategies	 Individual and collaborative research, design and problem solving Student interest and skill level assessment Individual, small group, and large group instruction Differentiated checklists and rubrics Level of independence Differentiation Strategies for Special Education Students Differentiation Strategies for Gifted and Talented Students Differentiation Strategies for ELL Students Differentiation Strategies for At Risk Students 			

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- http://www.nextgenscience.org/hsets-ed-engineering-design
- http://phlearn.com/
- http://www.adobe.com
- www.behance.net
- www.apcentral.collegeboard.org

Technology Education			
12/Photography IV			
Unit IV: Quality Works			
8 Weeks			

Anchor Standards/Domain*

*i.e.: ELA: reading, writing i.e.: Math: Number and Operations in Base 10

- The 12 Career Ready Practices
- These practices outline the skills that all individuals need to have to truly be adaptable, reflective, and proactive in life and careers. These are researched practices that are essential to career readiness.
- **8.1 Educational Technology**: All students will use digital tools to access, manage, evaluate, and synthesize information in order to solve problems individually and collaborate and to create and communicate knowledge.
- 8.2 Technology Education, Engineering, Design, and Computational Thinking Programming: All students will develop
 an understanding of the nature and impact of technology, engineering, technological design, computational thinking and the
 designed world as they relate to the individual, global society, and the environment.
- 9.2 Career Awareness, Exploration, and Preparation: This standard outlines the importance of being knowledgeable about
 one's interests and talents, and being well informed about postsecondary and career options, career planning, and career
 requirements.
- 9.3 Career & Technical Education (CTE) Content Area: 21st Century Life and Careers: ARTS, A/V TECHNOLOGY & COMMUNICATIONS CAREER CLUSTER

- A. Quality Works:
 - 1. Understanding of Design Issues that should be apparent in the concept, composition, and execution of the works.
 - a. Principles of Design
 - a. Balance
 - b. Contrast
 - c. Emphasis
 - d. Movement
 - e. Pattern
 - f. Rhythm
 - g. Unity
 - b. Elements of Art
 - a. Line
 - b. Shape
 - c. Color
 - d. Value
 - e. Form
 - f. Texture
 - g. Space
 - c. Fundamentals of Composition
 - a. Rule of Thirds
 - b. Leading Lines
 - c. Perspective Angles
 - d. Framing
 - e. Frame within a Frame
 - 2. Implement concepts/skills from Photo I/II/III
 - a. Pre Processing (Ideation: Designing the shoot)

- b. Processing (Photographing)
- c. Post Processing (Photo Manipulation)
- d.Critiquing
- B. Establishing portfolio for concentration of works as it relates to the AP standards.

Standard Number(s)

- CRP1. Act as a responsible and contributing citizen and employee.
- CRP2. Apply appropriate academic and technical skills.
- CRP4. Communicate clearly and effectively and with reason.
- CRP6. Demonstrate creativity and innovation.
- CRP8. Utilize critical thinking to make sense of problems and persevere in solving them.
- CRP11. Use technology to enhance productivity.
- CRP12. Work productively in teams while using cultural global competence.
- 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.
- 8.1.12.D.1 Demonstrate appropriate application of copyright, fair use and/or Creative Commons to an original work.
- 8.1.12.D.5 Analyze the capabilities and limitations of current and emerging technology resources and assess their potential to address personal, social, lifelong learning, and career needs
- 8.2.12.A.2 Analyze a current technology and the resources used, to identify the trade-offs in terms of availability, cost, desirability and waste
- 8.2.12.E.2 Analyze the relationships between internal and external computer components.
- 9.2.12.C.1 Review career goals and determine steps necessary for attainment.
- 9.2.12.C.2 Modify Personalized Student Learning Plans to support declared career goals.
- 9.2.12.C.3 Identify transferable career skills and design alternate career plans.
- 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.
- 9.3.12.AR.1 Analyze the interdependence of the technical and artistic elements of various careers within the Arts, A/V Technology & Communications Career Cluster.
- 9.3.12.AR.6 Evaluate technological advancements and tools that are essential to occupations within the Arts, A/V Technology & Communications Career Cluster.
- 9.3.12.AR-PRT.1 Manage the printing process, including customer service and sales, scheduling, production and quality control.
- 9.3.12.AR-PRT.2 Demonstrate the production of various print, multimedia or digital media products.
- 9.3.12.AR-PRT.3 Perform finishing and distribution operations related to the printing process.
- 9.3.12.AR-VIS.2 Analyze how the application of visual arts elements and principles of design communicate and express ideas.
- 9.3.12.AR-VIS.3 Analyze and create two and three-dimensional visual art forms using various media.
- 9.3.MK.9 Communicate information about products, services, images and/or ideas to achieve a desired outcome.
- 9.3.ST.1 Apply engineering skills in a project that requires project management, process control and quality assurance.
- 9.3.ST.2 Use technology to acquire, manipulate, analyze and report data.
- 9.3.ST-ET.4 Apply the elements of the design process.

Essential Question(s)

- What are the elements of art, principles of design, and fundamentals of composition?
- What are the technical attributes of an image that ensures it is a quality piece of work?
- How can you use them in the execution of your photographic works?

Enduring Understandings

- Students will not only know, but actively execute the (14) Elements of Art, and principles of design as well as the (5) fundamentals of composition in creating a quality body of work as it relates to the AP standards.
- Technically sound work that is of quality, utilizes a precise selection of aperture, ISO and shutter speed to create an accurate exposure as well as an accurate selection of focus points.
- Students will follow the critiquing guidelines in the execution of quality work.

In this unit plan, the following 21st Century themes and skills are addressed.				
Check all that apply. 21 st Century Themes	Indicate whether these skills are E -Encouraged, T -Taught, or A -Assessed in this unit by marking E , T , A on the line before the appropriate skill. 21 st Century Skills			
Global Awareness		E, T, A	Creativity and Innovation	
Environmental Literacy		E, T, A	Critical Thinking and Problem Solving	
Health Literacy		Α	Communication	
Civic Literacy		E	Collaboration	
χ Financial, Economic, Business, and Entrepreneurial Literacy				

Student Learning Targets/Objectives (Students will know/Students will understand)

- Actively execute the (14) Elements of Art, and principles of design as well as the (5) fundamentals of composition in creating a quality body of work as it relates to the AP standards.
- Create technically sound, quality work that utilizes a precise selection of aperture, ISO and shutter speed to create an accurate exposure as well as an accurate selection of focus points.
- Follow the critiquing guidelines in the execution of quality work.
- Use Adobe CC appropriately for file management, image creation and manipulation.
- Manipulate images with emphasis on industry standard procedures.
- Modify images with advanced proficiency.

Assessments (Pre, Formative, Summative, Other)

Denote required common assessments with an *

Learning experiences will be design and inquiry based. Both extended task activities, as well as shorter, more focused resource tasks/practical tasks will be utilized to maximize learning. Each learning experience will reinforce the following elements for students:

- A. The Ideation Design Process (real-world design & problem solving)
 - open-ended problems with constraints & specifications
- visualize, design, and implement their creative vision B. Team Building Skills (working on a design team)
- - group dynamics
 - social and leadership skills
 - delegating and accepting responsibility
 - 3 R's (respect, responsibility and results)

C. Technical Writing

- providing a context for written communication
- producing shoot lists, proposals, critiques, etc.
- documenting learning in a design portfolio

D. Public Speaking

- preparing an oral presentation
- developing poise and self confidence
- improving oral communications skills

E. Design Brief

- A real life situation forms the context of the activity
- Define the problem to be solved
- Determine design criteria: specifications and constraints

F. Develop Solutions

- Form design teams/cooperative learning groups
- Investigate possible solutions
- Generate alternative solutions
- Test solutions
- Optimize solutions

- Test and evaluate final design solution
- G. Summative Assessments
 - Performance of final design solution relative to constraints and specifications
 - Student design portfolios
 - Multimedia and oral presentation of design solutions
 - Standardized authentic assessment instruments

Teaching and Learning Activities					
Activities	Compare and contrast the different software options for the most effective use. Research professional Adobe CC experts for the latest on software techniques and shortcuts. Prepare a tutorial to use with first year students. Continue preparing a portfolio of work. Continue creating a glossary of Photoshop terminology.				
Differentiation Strategies	 Individual and collaborative research, design and problem solving Student interest and skill level assessment Individual, small group, and large group instruction Differentiated checklists and rubrics Level of independence Differentiation Strategies for Special Education Students Differentiation Strategies for Gifted and Talented Students Differentiation Strategies for ELL Students Differentiation Strategies for At Risk Students 				

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- http://www.adobe.com
- https://www.behance.net/

Content Area/ Grade Level/ Course:	Technology Education 12/Photography IV	
Unit Plan Title:	Unit V: Concentration Works	
Time Frame	8 Weeks	

Anchor Standards/Domain* *i.e.: ELA: reading, writing i.e.: Math: Number and Operations in Base 10

- The 12 Career Ready Practices
- These practices outline the skills that all individuals need to have to truly be adaptable, reflective, and proactive in life and careers. These are researched practices that are essential to career readiness.
- **8.1 Educational Technology**: All students will use digital tools to access, manage, evaluate, and synthesize information in order to solve problems individually and collaborate and to create and communicate knowledge.
- **8.2 Technology Education, Engineering, Design, and Computational Thinking** Programming: All students will develop an understanding of the nature and impact of technology, engineering, technological design, computational thinking and the designed world as they relate to the individual, global society, and the environment.
- 9.2 Career Awareness, Exploration, and Preparation: This standard outlines the importance of being knowledgeable about
 one's interests and talents, and being well informed about postsecondary and career options, career planning, and career
 requirements.
- 9.3 Career & Technical Education (CTE) Content Area: 21st Century Life and Careers: ARTS, A/V TECHNOLOGY & COMMUNICATIONS CAREER CLUSTER

Unit Summary

- A. Concentration Works:
 - 1. In-depth exploration of a theme
 - 2. Documenting the design process
 - a. Identify the problem (What are the requirements of the shoot? Content topic?)
 - b. Research the problem (What has been done in the past?)
 - c. Define limitations and set goals (What do you want to accomplish? What is your end result?)
 - d. Generate alternative solutions (Come up with ideas for the shoot using Past Experience, Insight, Trial and Error, and Brainstorming)
 - e. Determine the best solution for the shoot and why?
 - i. List Procedures/Processes necessary to achieve the goal (Make a list or create a storyboard)
 - ii. Design specifications (Determine what tools and equipment are necessary?)
 - f. Implement the solution by completing the shoot
 - g. Analysis and Critique (Did the end result in the form of the final photos match the desired result?)
 - 3. Implementing concepts/skills from Photo I/II/III
 - a. Principles of Design
 - b. Elements of Art
 - c. Fundamentals of Composition
 - d. Pre Processing (Ideation: Designing the shoot)
 - e. Processing (Photographing)
 - f. Post Processing (Photo Manipulation)
 - g. File Management
 - h. Critiquing
- B. Establishing portfolio for concentration of works as it relates to the AP standards

Standard Number(s)

- CRP1. Act as a responsible and contributing citizen and employee.
- CRP2. Apply appropriate academic and technical skills.
- CRP4. Communicate clearly and effectively and with reason.
- CRP6. Demonstrate creativity and innovation.

- CRP8. Utilize critical thinking to make sense of problems and persevere in solving them.
- CRP11. Use technology to enhance productivity.
- CRP12. Work productively in teams while using cultural global competence.
- 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.
- 8.1.12.D.1 Demonstrate appropriate application of copyright, fair use and/or Creative Commons to an original work.
- 8.1.12.D.5 Analyze the capabilities and limitations of current and emerging technology resources and assess their potential to address personal, social, lifelong learning, and career needs
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- 8.2.12.E.2 Analyze the relationships between internal and external computer components.
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- 9.3.MK.9 Communicate information about products, services, images and/or ideas to achieve a desired outcome.
- 9.3.ST.1 Apply engineering skills in a project that requires project management, process control and quality assurance.
- 9.3.ST.2 Use technology to acquire, manipulate, analyze and report data.
- 9.3.ST-ET.4 Apply the elements of the design process.

Essential Question(s)

- What is a concentration of work?
- How do you document your ideation?
- How can you use the design issues in the execution of your photographic works?
- How do you explain and identify a central theme within your work and share that with an audience?

Enduring Understandings

- A concentration is a group of works that share a concept for example, an in-depth study of a particular visual problem or a variety of way so handling an interesting subject.
- The ideation process can be documented in numerous ways including: journaling, visual evidence, development of work over time and methodology of creation.
- Identify and seek out elements from the specified design issues and include them in your photography.
- Students will clearly and simply state the central idea of their concentration, and explain how the work demonstrates their intent and exploration of the idea.

	Check all that apply. 21 st Century Themes		Indicate whether these skills are E -Encouraged, T- Taught, or A -Assessed in this unit by marking E, T, A on the line before the appropriate skill. 21 st Century Skills		
Х	Global Awareness		E,T,A	Creativity and Innovation	
	Environmental Literacy		E,T,A	Critical Thinking and Problem Solving	
	Health Literacy		E,T,A	Communication	
	Civic Literacy		E,T,A	Collaboration	
Х	Financial, Economic, Business, and Entrepreneurial Literacy			-	

Student Learning Targets/Objectives (Students will know/Students will understand)

- Study in-depth a particular visual problem or a variety of way so handling an interesting subject.
- Document the ideation process in numerous ways including: journaling, visual evidence, development of work over time and methodology of creation.
- Include identified elements from the specified design issues in their photography.
- Explain how the work demonstrates their intent and exploration of the idea.

Assessments (Pre, Formative, Summative, Other)

Denote required common assessments with an *

Learning experiences will be design and inquiry based. Both extended task activities, as well as shorter, more focused resource tasks/practical tasks will be utilized to maximize learning. Each learning experience will reinforce the following elements for students:

- A. The Ideation Design Process (real-world design & problem solving)

 open-ended problems with constraints & specifications
 - visualize, design, and implement their creative vision
- B. Team Building Skills (working on a design team)
 - group dynamics
 - social and leadership skills
 - delegating and accepting responsibility
 - 3 R's (respect, responsibility and results)

C. Technical Writing

- providing a context for written communication
- producing shoot lists, proposals, critiques, etc.
- documenting learning in a design portfolio

D. Public Speaking

- preparing an oral presentation
- developing poise and self confidence
- improving oral communications skills

E. Design Brief

- A real life situation forms the context of the activity
- Define the problem to be solved
- Determine design criteria: specifications and constraints

F. Develop Solutions

- Form design teams/cooperative learning groups
- Investigate possible solutions
- Generate alternative solutions
- Test solutions
- Optimize solutions
- Test and evaluate final design solution

G. Summative Assessments

- Performance of final design solution relative to constraints and specifications
- Student design portfolios
- Multimedia and oral presentation of design solutions
- Standardized authentic assessment instruments

Teaching and Learning Activities
otographic project that is based upon an individual's interest in a

	Continue preparing a portfolio of work.				
	Continue creating a glossary of Photoshop terminology.				
Differentiation Strategies	 Individual and collaborative research, design and problem solving Student interest and skill level assessment Individual, small group, and large group instruction Differentiated checklists and rubrics 				
	Level of independence				
	 <u>Differentiation Strategies for Special Education Students</u> 				
	 <u>Differentiation Strategies for Gifted and Talented Students</u> 				
	<u>Differentiation Strategies for ELL Students</u>				
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Resources

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Wayne School District Curriculum Format

Content Area/ Grade Level/ Course:	Technology Education 12/Photography IV
Unit Plan Title:	Unit VI: Breadth Works
Time Frame	8 Weeks

Anchor Standards/Domain*

*i.e.: ELA: reading, writing i.e.: Math: Number and Operations in Base 10

- The 12 Career Ready Practices
- These practices outline the skills that all individuals need to have to truly be adaptable, reflective, and proactive in life and careers. These are researched practices that are essential to career readiness.
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- 9.2 Career Awareness, Exploration, and Preparation: This standard outlines the importance of being knowledgeable about
 one's interests and talents, and being well informed about postsecondary and career options, career planning, and career
 requirements.
- 9.3 Career & Technical Education (CTE) Content Area: 21st Century Life and Careers: ARTS, A/V TECHNOLOGY & COMMUNICATIONS CAREER CLUSTER

- A. In-depth exploration of Photographic Vocational Genres including:
 - 1. Advertising
 - 2. Fashion
 - 3. Corporate
 - 4. Architectural
 - 5. Event
 - 6. Journalism
 - 7. Food

- 8. Biomedical
- 9. Astronomy
- 10. Travel
- 11. Industrial
- 12. Landscape
- 13. Archival
- B. Implementing concepts/skills from Photo I/II/III
 - 1. Principles of Design
 - 2. Elements of Art
 - 3. Fundamentals of Composition
 - 4. Pre Processing (Ideation: Designing the shoot)
 - 5. Processing (Photographing)
 - 6. Post Processing (Photo Manipulation)
 - 7. File Management
 - 8. Critiquing
 - 9. Career Readiness
 - a. Ethics in photography
 - b. How to get started in a photographic career
 - c. Different career options for photographers
 - d. Requirements for owning a photographic side business
 - e. Trace a commercial photographer How do I get there from here?
- C. Establishing portfolio for breadth of works as it relates to the AP standards

Standard Number(s)

- CRP1. Act as a responsible and contributing citizen and employee.
- CRP2. Apply appropriate academic and technical skills.
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- 9.3.ST.2 Use technology to acquire, manipulate, analyze and report data.
- 9.3.ST-ET.4 Apply the elements of the design process.

Essential Question(s)

- What is a photographic genre?
- What are the photographic requirements of each genre?
- What is the knowledge based required to be a successful photographer in each vocational area?

Enduring Understandings

- A photographic genre is an area of photography delineated by a specific need, skillset, or industry.
- Each genre requires a unique knowledge base as it relates to the need, skillset or industry.
- There are technical, aesthetic, entrepreneurial and situational skills that vary for each genre. For example, a photographer must be comfortable working within the peculiarity of the field.

Check all that apply. 21 st Century Themes		Indicate whether these skills are E -Encouraged, T- Taught, or A -Assessed in this unit by marking E, T, A on the line before the appropriate skill. 21 st Century Skills		
Х	Global Awareness		E,T,A	Creativity and Innovation
	Environmental Literacy		E,T,A	Critical Thinking and Problem Solving
	Health Literacy		E,T,A	Communication
	Civic Literacy		E,T,A	Collaboration
Х	Financial, Economic, Business, and Entrepreneurial Literacy			

Student Learning Targets/Objectives (Students will know/Students will understand)

- Identify the unique genres of photography as delineated by a specific need, skillset, or industry.
- Acquire the unique knowledge base as it relates to the need, skillset or industry.
- Understand the technical, aesthetic, entrepreneurial and situational skills that vary for each genre.
- Review the procedure for career selection and analysis with the use of the BLS documents.

Assessments (Pre, Formative, Summative, Other)

Denote required common assessments with an *

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- D. Public Speaking
 - preparing an oral presentation
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E. Design Brief

- A real life situation forms the context of the activity
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F. Develop Solutions

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- Generate alternative solutions
- Test solutions
- Optimize solutions
- Test and evaluate final design solution

G. Summative Assessments

- Performance of final design solution relative to constraints and specifications
- Student design portfolios
- Multimedia and oral presentation of design solutions
- Standardized authentic assessment instruments

Standardized datheritie assessment instruments				
Teaching and Learning Activities				
Activities	Utilize the internet to determine the photographic genres. Contact / Interview local photographers that specialize in the specific genre. Explore the unique requirements of each field via a series shooting project. Review the use of government documents for career research. Continue preparing a portfolio of work. Continue creating a glossary of Photoshop terminology.			
Differentiation Strategies	 Individual and collaborative research, design and problem solving Student interest and skill level assessment Individual, small group, and large group instruction Differentiated checklists and rubrics Level of independence Differentiation Strategies for Special Education Students Differentiation Strategies for Gifted and Talented Students Differentiation Strategies for ELL Students Differentiation Strategies for At Risk Students 			

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