Wayne
Township Public Schools

**Technology Education
10-12
Photography II
April 30, 2018
Pam Stomel/Eric Dederding**

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 Level/ Course:	Applied Technology Grades 10 - 12 Photography II
Unit Plan Title:	UNIT 1: Review of Photo I
Time Frame	2 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 Overview

1. History of Photography
2. Camera Parts
    a. Aperture (f/stop)
    b. Shutter (Shutter Speed)
    c. ISO
3. Basic Photoshop Skills
    a. Toolbar
        i. Clone Stamp
        ii. Healing Brush
        iii. Selection Tools
    b. Non-destructive Editing
    c. Straightening
    d. Adjustment Layers
        i. Levels
        ii. Hue and Saturation
        iii. Color Balance
    e. Layer Properties
    f. Cropping
        i. Interpolation
        ii. Resolution

iii.   Image quality
4. Composition
   a. Elements of Art
      i.   form, shape, line, color, value, space and texture
   b. Principles of Design
      i.   emphasis, unity, balance, rhythm, balance, movement, pattern
   c. Fundamentals of Composition
      i.   rule of thirds, leading lines, perspective angles, framing
5. Metadata
   a. encapsulated information along with the image to reveal how the photograph was taken
6. Printing Basics
   a. Laser v. Inkjet
   b. Image size
   c. Page Layout
7. Design and Problem Solving Process
8. Basic Lighting Principles
9. Appropriate Critique Etiquette

Standard Number(s)   * i.e: Math: 3.NBT.1   i.e.: RL 8.1

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.

CRP7. Employ valid and reliable research strategies.

CRP8. Utilize critical thinking to make sense of problems and persevere in solving them.

CRP9. Model integrity, ethical leadership and effective management.

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.C.1 Develop an innovative solution to a real world problem or issue in collaboration with peers and experts, and present ideas for feedback through social media or in an online community.

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.B.3 Analyze ethical and unethical practices around intellectual property rights as influenced by human wants and/or needs.

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.

9.2.12.C.7 Examine the professional, legal, and ethical responsibilities for both employers and employees in the global workplace.

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.4 Analyze the legal and ethical responsibilities required in the arts, audio/visual technology and communications workplace.

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.1 Describe the history and evolution of the visual arts and its role in and impact on society.

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

Intended Outcomes - {Essential Questions}

- Why is photo history important is this current time?
- What are the main parts of a camera that control exposure?
- What is exposure?
- How does aperture, shutter speed, and iso affect an images visual outcome (creativity as well as technically)
- What are the Elements of Art (EoA) and Principles of Design (PoD)?
- How do the EoA and PoD affect the outcome of a photograph?
- Why do we use metadata, how is it recorded, and how is it accessed?
- What is the value of the design and problem solving process?
- Why is understanding of lighting important?
- Why are critiques important?

Enduring Understandings

- How photo history plays a part in editing tools and technique in taking photos.
- Aperture, shutter, and ISO are needed to control exposure
- How photoshop is used to perform basic editing
- That the elements of art and principles of design are used while composing a photograph
- Metadata is recorded and useful for reflecting on the outcome of a photograph
- Printing profiles, color mapping, and correct image quality settings are needed to create higher quality work
- The design and problem solving process is an effective method for creating a roadmap in any situation, including photography.
- Weekly critiques help make better photos.
- Lighting can be set up inside and outside of the studio to produce professional shots.

In this unit plan, the following 21st Century themes and skills are addressed.

Check all that apply. 21st 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. 21st Century Skills

	Global Awareness	ETA	Creativity and Innovation
	Environmental Literacy	ETA	Critical Thinking and Problem Solving
	Health Literacy	ETA	Communication
	Civic Literacy	ETA	Collaboration
x	Financial, Economic, Business, and Entrepreneurial Literacy		

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

- SWBAT recall importance of photo history
- SWBAT define and accurately use aperture, shutter, and ISO to control exposure
- SWBAT open an image in Adobe Photoshop and perform basic editing
- SWBAT utilize the elements of art and principles of design while composing a photograph
- SWBAT understand how metadata is recorded and use the data to reflect on their shooting choices
- SWBAT print using profiles, color mapping, and correct image quality settings to produce final artwork
- SWBAT use the design and problem solving process in all facets of the photography process
- SWBAT recall knowledge of lighting to apply to more advanced studio work
- SWBAT understand the importance of weekly critiques

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. Assessment
- Performance of final design solution relative to constraints and specifications
- Student design portfolios
- Multimedia and oral presentation of design solution
- Standardized authentic assessment instrument

Teaching and Learning Activities

Activities	Define and explain technical terminology. Begin researching professional photographers. Prepare a visual analysis of their work, the design process used to produce them, and their effect on the photographic industry and global society. Shooting Assignment to prove understanding Photography I
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](#)
Windows	

Resources

- **http://www.state.nj.us/education/cccs/**
- **http://www.corestandards.org/ELA-Literacy**
- **http://www.nextgenscience.org/hsets-ed-engineering-design**
- **http://www.adobe.com**
- **http://www.phlearn.com**

Wayne School District
Curriculum Format

Content Area/ Grade Level/ Course:	Applied Technology Grades 10 - 12 Photography II
Unit Plan Title:	UNIT II: Camera Processing
Time Frame	12 weeks

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

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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

Unit Overview

1. Capture Emotion
   a. Mindful use of negative space
   b. Introduce text in photograph as an element of art
   c. Use for advertising, motivation, and emotional appeal
2. Framing
   a. Continued mindfulness using space (Foreground/Midground/Background)
   b. Frame within a frame
   c. Sophisticated use of composition
3. Action/Motion
   a. Fast shutter speed
      i. Sports
      ii. Stop action
   b. Slow shutter speed
      i. Blur motion
      ii. Painting with light
4. DoF (Depth of Field)
   a. Bokeh
      i. Shallow Depth of field
      ii. Aperture
      iii. Focal length
      iv. Distance from the subject and background
   b. Macro
      i. Lens filters and Macro Stand
      ii. Extra shallow DoF
5. Artificial Lighting
   a. Light safety, set up, and closing
      i. Speedlights
      ii. Studio Lighting
   b. Use of light modifiers
   c. Backdrops
      i. Canvas
      ii. Muslin
      iii. Seamless Rolls
   d. Modeling
      i. Posing Direction
      ii. Interactions
   e. Projection
      i. Projected light in photos
      ii. Different angles

Standard Number(s)   * i.e: Math: 3.NBT.1   i.e.: RL 8.1

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- 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.
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- 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.

Intended Outcomes - {Essential Questions}

- Why is emotion important in photography?
- How do we make photographs stronger and more interesting?
- How and when do we stop or blur motion?
- What settings and techniques do you use to create a desired DoF?
- How do you make professional shots within a school setting?

Enduring Understandings

- Emotion used in photographs to show appeal in a subject.
- Framing makes photographs stronger and more interesting

- Shutter speed can be used to stop or blur motion.
- Aperture openings along with focal length help create your desired shallow or long DoF shots by choosing the appropriate camera settings for a proper exposure and visual outcome.
- Studios and artificial lighting are used to create professional outcomes

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	Global Awareness	ETA	**Creativity and Innovation**
	Environmental Literacy	ETA	**Critical Thinking and Problem Solving**
	Health Literacy	ETA	**Communication**
	Civic Literacy	ETA	**Collaboration**
x	**Financial, Economic, Business, and Entrepreneurial Literacy**		

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

- SWBAT capture appropriate emotion in photographs with skills and techniques
- SWBAT use framing to make photographs stronger and more interesting
- SWBAT stop or blur motion by choosing the appropriate camera settings regarding shutter speed
- SWBAT create shallow or long DoF images by choosing the appropriate camera settings
- SWBAT set up studio with lights for each session with models and break it down safely

Assessments (Pre, Formative, Summative, Other)   *Denote required common assessments with an ***

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D. Public Speaking
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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. Assessment
- Performance of final design solution relative to constraints and specifications
- Student design portfolios
- Multimedia and oral presentation of design solution
- Standardized authentic assessment instrument

Teaching and Learning Activities

Activities	Define and explain technical terminology. Guided in class shooting assignments Competition for speedlights Complete independent shooting assignments for individual assessment
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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Wayne School District
Curriculum Format

Content Area/ Grade Level/ Course:	Applied Technology Grades 10 - 12 Photography II
Unit Plan Title:	UNIT III: Post Production
Time Frame	12 weeks
Anchor Standards/Domain*	***i.e: ELA: reading, writing i.e.: Math: Number and Operations in Base 10**

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9.3 Career & Technical Education (CTE) Content Area: 21st Century Life and Careers: ARTS, A/V TECHNOLOGY & COMMUNICATIONS CAREER CLUSTER

Unit Overview

1. Adobe Photoshop
    a. Destructive editing
        i. Duplicate background to ensure destructive edits don't destroy original image
        ii. Burn and Dodge
        iii. Clone stamp and Healing brush
        iv. Blending modes and opacity for compositing images
    b. Non Destructive editing
        i. Smart objects
            1. Convert to smart objects to become smart filters or removable edits.
        ii. Layer masks
        iii. Adjustment layers
        iv. Effects (FX)
    c. High pass
        i. Sharpen photos
        ii. Contrast
        iii. Editing Styles (Lee Jeffries)
    d. Blur Gallery
        i. Path Blur Tool, Radial Blur, and Gaussian Blur
            1. Soft blurred movement
            2. Emphasize subject
            3. Creates artificial DoF
2. Adobe InDesign and Adobe Illustrator
    a. Typography
        i. Editing for advertising
        ii. Understanding how images need negative space for advertising
        iii. Integrating text and photos

Standard Number(s)   * i.e: Math: 3.NBT.1   i.e.: RL 8.1

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Intended Outcomes - {Essential Questions}

- What is the difference between destructive and nondestructive editing?
- How can you use traditionally destructive edits non destructively?
- Why is it important to edit non destructively?
- What do we need to think about when adding type to photographs?
- What are specific ways to enhance photos with frozen or blurred motion as well as different Dof?
- What are layer masks used for and why are they important?
- What tools do we need to use to enhance post process image?

Enduring Understandings

- Destructive editing may be used on copies of layers to work with specific tools
- Non destructive editing preserves your original and should be use for majority edits
- Some destructive edits can be done in a non destructive way.
- Adding type to a photograph requires thoughtfulness to design around a photograph and achieve outcome desired.
- High pass helps enhance the sharpness of photographs
- Blur gallery helps enhance photos
- Layer masks allow you to hide portions of the image without removing it destructively
- All non destructive edits and destructive edits should be used together to properly post process each image.

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	Environmental Literacy		ETA	Critical Thinking and Problem Solving
	Health Literacy		ETA	Communication
	Civic Literacy		ETA	Collaboration
x	Financial, Economic, Business, and Entrepreneurial Literacy			

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

- SWBAT understand what destructive editing is and when it is appropriate to use
- SWBAT distinguish why NON destructive editing is important and when to use it
- SWBAT incorporate type and compose proper layout when included
- SWBAT sharpen images properly for emphasis and action shots
- SWBAT understand when it is appropriate to use blur gallery and for movement and emphasis
- SWBAT combine all methods within outline to enhance photographs and not just use one editing tool.

Assessments (Pre, Formative, Summative, Other)   *Denote required common assessments with an ***

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G. Assessment
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- Multimedia and oral presentation of design solution
- Standardized authentic assessment instrument

Teaching and Learning Activities

Activities	Define and explain technical terminology. Guided demos Post production Team Building Post produce independent shooting assignments for individual assessment

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
Windows	

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Content Area/ Grade Level/ Course:	Applied Technology Grades 10 - 12 Photography II
Unit Plan Title:	UNIT IV: Career Readiness
Time Frame	3 Weeks

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

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Unit Overview

1. Communication with professionals
    a. Meet and greet and Q&A with industry professionals
    b. Lectures from industry

   c. Project examples
2. Client expectations
   a. Problem solving and research
   b. Create own ideas to meet needs of clients
   c. Communication
   d. Develop scope of work documents
3. Self Direction
   a. Learn how to manage time along with client expectation
   b. Independence
   c. Deadlines
4. Professionalism
   a. Communicate problems and solutions
   b. Correspondence and rapport with industry professionals, other classes, and real life clients
5. Career Opportunities
   a. Research careers within the Visual Arts career cluster
   b. Synthesize information from Bureau of Labor and Statistics

Standard Number(s) * i.e: Math: 3.NBT.1 i.e.: RL 8.1

- 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.
- CRP7. Employ valid and reliable research strategies.
- CRP8. Utilize critical thinking to make sense of problems and persevere in solving them.
- CRP9. Model integrity, ethical leadership and effective management.
- CRP11. Use technology to enhance productivity.
- CRP12. Work productively in teams while using cultural global competence.
- 8.1.12.C.1 Develop an innovative solution to a real world problem or issue in collaboration with peers and experts, and present ideas for feedback through social media or in an online community.
- 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.B.3 Analyze ethical and unethical practices around intellectual property rights as influenced by human wants and/or needs.
- 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.
- 9.2.12.C.7 Examine the professional, legal, and ethical responsibilities for both employers and employees in the global workplace.
- 9.3.12.AR.4 Analyze the legal and ethical responsibilities required in the arts, audio/visual technology and communications workplace.
- 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.ST-ET.4 Apply the elements of the design process.

Intended Outcomes - {Essential Questions}

- What is the industry like for a professional photographer?
- How do we deal with clients?
- Why is it important to manage your own time?
- Why is communication important?

Enduring Understandings

- Corresponding with industry professionals occurs across all fields in most careers.
- Client expectations need to be managed and require critical thinking
- Along with managing others, you must manage your own time to solve problems and stay on task with deadlines.
- Problems will occur. Communication is key to solving any issue within a project that may arise to stay on task.

Check all that apply. **21st 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.* **21st Century Skills**	
	Global Awareness	ETA	**Creativity and Innovation**
	Environmental Literacy	ETA	**Critical Thinking and Problem Solving**
	Health Literacy	ETA	**Communication**
	Civic Literacy	ETA	**Collaboration**
x	Financial, Economic, Business, and Entrepreneurial Literacy		

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

- SWBAT communicate with industry professionals and get insight to real world career experiences.
- SWBAT build professional rapport with clients .
- SWBAT manage own time independently while manage workflow and client expectations.
- SWBAT problem solve with critical thinking out in the real world.
- SWBAT research and develop an understanding of career opportunities within the visual arts career cluster

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. Assessment
- Performance of final design solution relative to constraints and specifications
- Student design portfolios
- Multimedia and oral presentation of design solution
- Standardized authentic assessment instrument

Teaching and Learning Activities

Activities	Define and explain technical terminology. Begin researching professional photographers. Guided in class shooting assignments for each Unit followed by independent shooting assign
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
Windows	

Resources

- **http://www.state.nj.us/education/cccs/**
- **http://www.corestandards.org/ELA-Literacy**
- **http://www.nextgenscience.org/hsets-ed-engineering-design**
- **http://www.adobe.com**
- **http://www.phlearn.com**

Content Area/ Grade Level/ Course:	Applied Technology Grades 10 - 12 Photography II
Unit Plan Title:	UNIT V: Display work
Time Frame	3 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 Overview

1. Gallery Standards
    a. Spacing
    b. Visual Balance
    c. Hanging Techniques
        i. Matting
        ii. Mounting
2. Printing
    a. Manage edits with printer capability
    b. Color Mapping + Profiles
    c. Paper selections
    d. Discuss monitor calibration with printer calibration
    e. Electronic display with projected light vs. reflective viewing on prints
        i. RGB vs CMYK
        ii. Color Spaces + Gamut

Standard Number(s)   * i.e: Math: 3.NBT.1   i.e.: RL 8.1

- 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.
- 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.
- 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-ET.4 Apply the elements of the design process.

Intended Outcomes - {Essential Questions}

- What are standards for displaying work?
- Why do we care how our work is displayed?
- Why do my prints look different than my screen and how do I fix it?
- What is RGB and why is it important?
- What is CMYK and why is it important?

Enduring Understandings

- Displaying your work should be done in a professional manner to earn respect and attention of viewers.
- Displaying work should be done with pride and integrity for the photographs' and clients' sake.
- Printing images in classroom and real life often won't match unless properly calibrated.
- RGB is a larger color gamut represented as projected light that you view on your monitor
- CMYK is a smaller color gamut represented in printing that we view as reflective light.

Check all that apply. **21ˢᵗ 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. **21ˢᵗ Century Skills**	
	Global Awareness	ETA	Creativity and Innovation
	Environmental Literacy	ETA	Critical Thinking and Problem Solving
	Health Literacy	ETA	Communication
	Civic Literacy	ETA	Collaboration
x	Financial, Economic, Business, and Entrepreneurial Literacy		

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

- SWBAT assess a gallery of work and understand how to create a display of their own to industry standards
- SWBAT build professional looking displays for public and school population to see
- SWBAT understand how to manage edits for proper color representation from screen to prints
- SWBAT understand the difference between RGB and CMYK
- SWBAT determine what prints don't often match their view on screen.

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:

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

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- 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. Assessment
- Performance of final design solution relative to constraints and specifications
- Student design portfolios
- Multimedia and oral presentation of design solution
- Standardized authentic assessment instrument

Teaching and Learning Activities

Activities	Define and explain technical terminology. Create a series of displays of our work.
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
Windows	

Resources

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Content Area/ Grade Level/ Course:	Applied Technology Grades 10 - 12 Photography II
Unit Plan Title:	UNIT VI: Ethics
Time Frame	1 week
Anchor Standards/Domain*	***i.e: ELA: reading, writing i.e.: Math: Number and Operations in Base 10**

The 12 Career Ready Practices

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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.

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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

Unit Overview

1. Ethics in Photography
   a. Copyright
      i. Photographer laws
      ii. Work for hire
      iii. Academic Dishonesty
      iv. Appropriate citation
   b. Deceit to public
   c. Reuters Policy
   d. Journalism
   e. Photoshops Effect on This
2. Ethics v. Aesthetics
   a. When is editing appropriate?
   b. What industries can edit without deceit?

Standard Number(s)   * i.e: Math: 3.NBT.1   i.e.: RL 8.1

- CRP1. Act as a responsible and contributing citizen and employee.
- CRP4. Communicate clearly and effectively and with reason.
- CRP7. Employ valid and reliable research strategies.
- CRP9. Model integrity, ethical leadership and effective management.
- 8.1.12.D.1 Demonstrate appropriate application of copyright, fair use and/or Creative Commons to an original work.
- 8.2.12.B.3 Analyze ethical and unethical practices around intellectual property rights as influenced by human wants and/or needs.
- 9.2.12.C.7 Examine the professional, legal, and ethical responsibilities for both employers and employees in the global workplace.
- 9.3.12.AR.4 Analyze the legal and ethical responsibilities required in the arts, audio/visual technology and communications workplace.

Intended Outcomes - {Essential Questions}

- Is photo manipulation and editing always ethical?
- How do we know what is ethical and what is not?
- Is there anything that helps protects photographers and artists against theft?

Enduring Understandings

- Determine the difference between right and wrong regarding ethics in photography and editing
- Different industries allow for different limitations on editing and manipulation of photographs

- Not all rights and wrongs are clear cut.
- Laws are in place to protect photographers

	Check all that apply. **21st 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. **21st Century Skills**	
	Global Awareness	ETA	Creativity and Innovation
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	Health Literacy	ETA	Communication
	Civic Literacy	ETA	Collaboration
x	Financial, Economic, Business, and Entrepreneurial Literacy		

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

- SWBAT analyse a situation and decided if the outcome was ethical
- SWBAT understand the laws regarding copyright and the ramifications of infringement
- SWBAT to synthesize content and discern if the edits are appropriate for a specific industry

Assessments (Pre, Formative, Summative, Other)   *Denote required common assessments with an ***

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Teaching and Learning Activities	
Activities	Define and explain technical terminology. Review past ethical situations and discuss Provide an image allow students to evaluate the situation and synthesis their opinion
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[1]
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