Photography Standards



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Office of Career, Technical and Adult Education Nevada Department of Education 755 N. Roop Street, Suite 201 Carson City, NV 89701

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The development of Nevada career and technical standards and assessments is a collaborative effort sponsored by the Office of Career, Technical and Adult Education at the Department of Education and the Career and Technical Education Consortium of States. The Department of Education relies on teachers and industry representatives who have the technical expertise and teaching experience to develop standards and performance indicators that truly measure student skill attainment. Most important, however, is recognition of the time, expertise and great diligence provided by the writing team members in developing the career and technical standards for Photography

STANDARDS DEVELOPMENT MEMBERS

Tara Ferro, Instructor	Brian Reedy, Instructor
Liberty High School, Las Vegas	Carson High School, Carson City
Wendy Felling, Instructor	Randy Becker, Department Chair, Media Technology
Wooster High School, Reno	College of Southern Nevada, Las Vegas
Ashley Stroud, Instructor	Chrissy Pavesich, Instructor
Las Vegas Academy, Las Vegas	West Career and Technical Academy, Las Vegas

Dana Ziegler, Instructor Arbor View High School, Las Vegas

BUSINESS AND INDUSTRY VALIDATION

All CTE standards developed through the Nevada Department of Education are validated by business and industry through one or more of the following processes: (1) the standards are developed by a team consisting of business and industry representatives; or (2) a separate review panel was coordinated with industry experts to ensure the standards include the proper content; or (3) the adoption of nationally-recognized standards endorsed by business and industry.

The Photography standards were validated through a complete review by an industry panel.

PROJECT COORDINATOR

Melissa Scott, Education Programs Professional Information and Media Technologies Office of Career, Technical and Adult Education Nevada Department of Education

INTRODUCTION

The standards in this document are designed to clearly state what the student should know and be able to do upon completion of an advanced high school Photography program. These standards are designed for a three-credit course sequence that prepares the student for a technical assessment directly aligned to the standards.

These exit-level standards are designed for the student to complete all standards through their completion of a program of study. These standards are intended to guide curriculum objectives for a program of study.

The standards are organized as follows:

Content Standards are general statements that identify major areas of knowledge, understanding, and the skills students are expected to learn in key subject and career areas by the end of the program.

Performance Standards follow each content standard. Performance standards identify the more specific components of each content standard and define the expected abilities of students within each content standard.

Performance Indicators are very specific criteria statements for determining whether a student meets the performance standard. Performance indicators may also be used as learning outcomes, which teachers can identify as they plan their program learning objectives.

The crosswalk and alignment section of the document shows where the performance indicators support the English Language Arts and the Mathematics Common Core State Standards, and the Nevada State Science Standards. Where correlation with an academic standard exists, students in the Photography program perform learning activities that support, either directly or indirectly, achievement of one or more Common Core State Standards.

All students are encouraged to participate in the career and technical student organization (CTSO) that relates to their program area. CTSOs are co-curricular national associations that directly enforce learning in the CTE classroom through curriculum resources, competitive events, and leadership development. CTSOs provide students the ability to apply academic and technical knowledge, develop communication and teamwork skills, and cultivate leadership skills to ensure college and career readiness.

The Employability Skills for Career Readiness identify the "soft skills" needed to be successful in all careers, and must be taught as an integrated component of all CTE course sequences. These standards are available in a separate document.

The **Standards Reference Code** is only used to identify or align performance indicators listed in the standards to daily lesson plans, curriculum documents, or national standards.

Program Name	Standards Reference Code
Photography	РНО

Example: PHO.2.3.4

Standards	Content Standard	Performance Standard	Performance Indicator
Photography	2	3	4

CONTENT STANDARD 1.0: UNDERSTAND THE HISTORY, EVOLUTION, AND CURRENT TRENDS OF PHOTOGRAPHY

PERFORMANCE STANDARD 1.1: INVESTIGATE THE ROLE AND DEVELOPMENT OF PHOTOGRAPHY IN PAST AND PRESENT CULTURES AND CURRENT TRENDS

1.1.1	Write a critique of a well-known photograph or photographer
1.1.2	Describe the significance of influential historical photographers
1.1.3	Research significant developments in the evolution of photography
1.1.4	Identify key people and major developments involved in the advancement of digital imaging
	technology
1.1.5	Compare characteristics of photography, within a particular historical period, including the
	following: style, ideas, issues, or themes in the humanities or sciences
1.1.6	Describe recent advances and current trends in digital imaging technology

CONTENT STANDARD 2.0: UNDERSTAND LEGAL AND ETHICAL ISSUES RELATED TO PHOTOGRAPHY

PERFORMANCE STANDARD 2.1: ANALYZE LEGAL AND ETHICAL PHOTOGRAPHIC PRACTICES

- 2.1.1 Describe a photographer's legal rights and responsibilities
- 2.1.2 Explain and practice the proper use of release forms
- 2.1.3 Explain libel, privacy, and copyright laws as they apply to photography
- 2.1.4 Describe ethics related to issues of privacy
- 2.1.5 Practice ethical and legal use of social media and online platforms
- 2.1.6 Debate the concept of censorship
- 2.1.7 Describe ethical issues related to image manipulation
- 2.1.8 Create and practice proper use of a watermark
- 2.1.9 Debate the fair-use law
- 2.1.10 Create accurate captions and manage metadata

CONTENT STANDARD 3.0: IDENTIFY AND USE DIFFERENT TYPES OF CAMERAS AND LENSES

PERFORMANCE STANDARD 3.1: DEMONSTRATE COMPETENCE IN USING VARIOUS TYPES OF CAMERAS

- 3.1.1 Explain various kinds of cameras (e.g., pinhole, view camera, point-and-shoot, single-lens reflex)
- 3.1.2 Compare and contrast the advantages and disadvantages of various camera types
- 3.1.3 Describe camera controls, lenses, accessories, and their function
- 3.1.4 Demonstrate the proper handling of a digital camera
- 3.1.5 Navigate menus of digital cameras

PERFORMANCE STANDARD 3.2: DEMONSTRATE USE OF VARIOUS LENSES AND THEIR APPLICATION

3.2.1	Define focal length and its effect on image composition
3.2.2	Compare and contrast the relationship between focal length and shutter speed for handheld versus
	monopod/tripod based photography
3.2.3	Explain the disadvantages of using a digital zoom feature
3.2.4	Demonstrate correct lens care
3.2.5	Explain the need to consider the conversion factor when using a standard lens on a digital body
3.2.6	Demonstrate the uses of various types of lenses for different shooting situations
3.2.7	Describe lens filters and their uses

CONTENT STANDARD 4.0 : DEMONSTRATE PROPER EXPOSURE SETTINGS TO ACHIEVE DESIRED EFFECTS

PERFORMANCE STANDARD 4.1: DEMONSTRATE PROPER EXPOSURE SETTINGS

- 4.1.1 Describe and utilize the basic elements of exposure (e.g., ISO, aperture, and shutter speed)
- 4.1.2 Accurately read, apply, and explain a histogram
- 4.1.3 Demonstrate how to bracket exposures
- 4.1.4 Calculate exposure equivalents
- 4.1.5 Utilize appropriate shutter speed to create panned, blurred, and stop action photos
- 4.1.6 Apply the appropriate aperture setting for deep or shallow depth of field
- 4.1.7 List the factors that affect depth of field
- 4.1.8 Explain how the environment can mislead the camera meter
- 4.1.9 Experiment with aperture and shutter speed as creative controls to capture an image in a variety of ways
- 4.1.10 Practice reflective, incident, and spot meter readings
- 4.1.11 Demonstrate the proper use of a gray card

PERFORMANCE STANDARD 5.1: IDENTIFY AND APPLY THE ELEMENTS OF DESIGN

5.1.1 | Identify the applications of color, line, shape, texture, form, space, and value in photographs

DESIGN AND COMPOSITION

- 5.1.2 | Analyze the use of color, line, shape, texture, space, and value in photographs
- 5.1.3 Incorporate color, line, shape, texture, space, and value in photographs

PERFORMANCE STANDARD 5.2: IDENTIFY AND APPLY THE PRINCIPLES OF DESIGN

- 5.2.1 Identify the application of balance, contrast, rhythm, repetition, movement, variety, emphasis, and unity in photographs
- 5.2.2 Analyze the principles of balance, contrast, rhythm, repetition, movement, variety, emphasis, and unity in photographs
- 5.2.3 Incorporate principles of balance, contrast, rhythm, repetition, movement, variety, emphasis, and unity in photographs

PERFORMANCE STANDARD 5.3: IDENTIFY AND APPLY GUIDELINES FOR COMPOSITION

5.3.1 Identify the application of simplicity, rule of thirds, point of view, focal point, proportion/scale, and framing
5.3.2 Analyze guidelines for composition (e.g., simplicity, rule of thirds, point of view, focal point, proportion/scale, and framing)
5.3.3 Incorporate guidelines for composition (e.g., simplicity, rule of thirds, point of view, focal point, proportion/scale, and framing)
5.3.4 Communicate a specific idea through the subject matter and the composition of a photograph
5.3.5 Use critical thinking skills to describe, interpret, analyze, and make judgments about composition

CONTENT STANDARD 6.0: UNDERSTAND LIGHT SOURCES

PERFORMANCE STANDARD 6.1: UNDERSTAND PROPERTIES OF COLOR AND QUALITY OF LIGHT

- 6.1.1 Describe the difference between the additive and subtractive color systems
- 6.1.2 Explain the importance of the color temperature of light to the appearance of colors in an image
- 6.1.3 Explore various color spaces

PERFORMANCE STANDARD 6.2: UTILIZE AMBIENT LIGHTING TECHNIQUES

6.2.1	Set white balance to match light source
6.2.2	Create photographs using direct, indirect, reflective, and diffused ambient light

- 6.2.3 Manipulate and control existing light with light modifiers
- 6.2.4 Demonstrate knowledge of how environmental conditions affect the quality of light and its effects on the subject
- 6.2.5 Practice balancing ambient and artificial light sources

PERFORMANCE STANDARD 6.3: UTILIZE ARTIFICIAL LIGHT

Set white balance to match light source		
Demonstrate traditional studio portrait lighting set-ups (e.g., split, loop, Rembrandt,		
butterfly/Paramount, short, broad)		
Adjust lights to achieve specific lighting ratios		
Demonstrate proper use of a handheld light meter		
Utilize light modifiers to adjust the quality of light		
Explain and utilize correct sync speed		
Demonstrate the proper use of on or off-camera flash		
MANCE STANDARD 6.4 : DEMONSTRATE THE SAFE USE OF PHOTOGRAPHIC MATERIALS AND EQUIPMENT		
Recognize and implement safety protocols		
 Recognize and implement safety protocols Demonstrate proper use of electrical cords and equipment 		
Discuss safety measures needed during a photo shoot		

CONTENT STANDARD 7.0: IMPLEMENT DIGITAL WORKFLOW PROCESSES

PERFORMANCE STANDARD 7.1: DEMONSTRATE DIGITAL ASSET INPUT AND MANAGEMENT

- 7.1.1 Capture an image using the highest resolution
- 7.1.2 Determine correct file format and resolution for intended output
- 7.1.3 Utilize file management and naming conventions to organize images
- 7.1.4 Classify various media storage types (e.g., memory cards, flash drives, external hard drives, cloud)
- 7.1.5 Explore various input equipment such as scanners, mobile devices, etc.
- 7.1.6 Describe file search procedures to locate files
- 7.1.7 Explain the value of Raw Capture
- 7.1.8 Apply key wording conventions to images during import
- 7.1.9 Explain the benefits of batch processing

PERFORMANCE STANDARD 7.2: DEMONSTRATE EDITING TECHNIQUES

- 7.2.1 Utilize selection tools and layer masks to manipulate specific parts of an image
- 7.2.2 Demonstrate nondestructive editing techniques using digital imaging software
- 7.2.3 Demonstrate use of layers in photo-editing software
- 7.2.4 Practice image sizing, cropping, orientation, and resolution adjustment
- 7.2.5 Apply image adjustments (e.g., levels, curves, contrast)
- 7.2.6 Explore restoration and retouching techniques
- 7.2.7 Explore the importance of monitor and printer color management

PERFORMANCE STANDARD 7.3: DEMONSTRATE EFFECTIVE OUTPUT TECHNIQUES

7.3.1	Save edited or modified digital images onto selected storage devices
7.3.2	List and define various file types and when to appropriately use them
7.3.3	Set dots per inch (DPI) and pixels per inch (PPI) for desired outcome
7.3.4	Describe and utilize appropriate safe backup procedures
7.3.5	Utilize appropriate printer profiles (e.g., paper type, size, quality, color management)
7.3.6	Evaluate print quality and troubleshoot various printer malfunctions
7.3.7	Discuss the advantages and disadvantages of different types of printers

CONTENT STANDARD 8.0: DEMONSTRATE COMPETENCE IN PRESENTATION TECHNIQUES AND PORTFOLIO DEVELOPMENT

PERFORMANCE STANDARD 8.1 : DEMONSTRATE KNOWLEDGE IN DISPLAYING PRINTED IMAGES

- 8.1.1 Critique work with constructive criticism
- 8.1.2 Select work and present appropriately in an exhibition
- 8.1.3 Identify and demonstrate photographic presentation techniques
- 8.1.4 Demonstrate the need for archival preservation of printed images

PERFORMANCE STANDARD 8.2: CREATE A PHYSICAL AND DIGITAL PORTFOLIO

- 8.2.1 Select quality work and justify choice of specific images
- 8.2.2 Create a professional digital and print portfolio
- 8.2.3 Organize, maintain, and update portfolio for specific presentation
- 8.2.4 Demonstrate proper use of materials and equipment necessary to create a presentation
- 8.2.5 Present portfolio for job or college placement

CROSSWALKS AND ALIGNMENTS OF PHOTOGRAPHY STANDARDS AND THE COMMON CORE STATE STANDARDS, THE NEVADA SCIENCE STANDARDS, AND THE COMMON CAREER TECHNICAL CORE STANDARDS

CROSSWALKS (ACADEMIC STANDARDS)

The crosswalk of the Photography Standards shows links to the Common Core State Standards for English Language Arts and Mathematics and the Nevada Science Standards. The crosswalk identifies the performance indicators in which the learning objectives in the Photography program support academic learning. The performance indicators are grouped according to their content standard and are crosswalked to the English Language Arts and Mathematics Common Core State Standards and the Nevada Science Standards.

ALIGNMENTS (MATHEMATICAL PRACTICES)

In addition to correlation with the Common Core Mathematics Content Standards, many performance indicators support the Common Core Mathematical Practices. The following table illustrates the alignment of the Photography Standards Performance Indicators and the Common Core Mathematical Practices. This alignment identifies the performance indicators in which the learning objectives in the Photography program support academic learning.

CROSSWALKS (COMMON CAREER TECHNICAL CORE)

The crosswalk of the Photography Standards shows links to the Common Career Technical Core. The crosswalk identifies the performance indicators in which the learning objectives in the Photography program support the Common Career Technical Core. The Common Career Technical Core defines what students should know and be able to do after completing instruction in a program of study. The Photography Standards are crosswalked to the AV/Arts and Communications] Career ClusterTM and the Visual Arts Career Pathway.

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CROSSWALK OF PHOTOGRAPHY STANDARDS AND THE COMMON CORE STATE STANDARDS

CONTENT STANDARD 1.0: UNDERSTAND THE HISTORY, EVOLUTION, AND CURRENT TRENDS OF PHOTOGRAPHY

Performance Indicators	Common Core State Standards and Nevada Science Standards	
1.1.1		e Arts: Writing Standards for Literacy in Science and Technical Subjects Write arguments focused on discipline-specific content.
		Introduce precise, knowledgeable claim(s), establish the significance of the claim(s), distinguish the claim(s) from alternate or opposing claims, and create an organization that logically sequences the claim(s), counterclaims, reasons, and evidence.
1.1.2		e Arts: Writing Standards for Literacy in Science and Technical Subjects
		Gather relevant information from multiple authoritative print and digital sources, using advanced searches effectively; assess the strengths and limitations of each source in terms of the specific task, purpose, and audience; integrate information into the text selectively to maintain the flow of ideas, avoiding plagiarism and overreliance on any one source and following a standard format for citation.
1.1.3		e Arts: Reading Standards for Literacy in Science and Technical Subjects
	RST.11-12.7	Integrate and evaluate multiple sources of information presented in diverse formats and media (e.g., quantitative data, video, multimedia) in order to address a question or solve a problem.
		e Arts: Writing Standards for Literacy in Science and Technical Subjects
	WHST.11-12.8	Gather relevant information from multiple authoritative print and digital sources, using advanced searches effectively; assess the strengths and limitations of each source in terms of the specific task, purpose, and audience; integrate information into the text selectively to maintain the flow of ideas, avoiding plagiarism and overreliance on any one source and following a standard format for citation.
1.1.5		e Arts: Writing Standards for Literacy in Science and Technical Subjects
	WHST.11-12.8	Gather relevant information from multiple authoritative print and digital sources, using advanced searches effectively; assess the strengths and limitations of each source in terms of the specific task, purpose, and audience; integrate information into the text selectively to maintain the flow of ideas, avoiding plagiarism and overreliance on any one source and following a standard format for citation.
1.1.6		e Arts: Writing Standards for Literacy in Science and Technical Subjects
		Conduct short as well as more sustained research projects to answer a question (including a self-generated question) or solve a problem; narrow or broaden the inquiry when appropriate; synthesize multiple sources on the subject, demonstrating understanding of the subject under investigation.
		Gather relevant information from multiple authoritative print and digital sources, using advanced searches effectively; assess the strengths and limitations of each source in terms of the specific task, purpose, and audience; integrate information into the text selectively to maintain the flow of ideas, avoiding plagiarism and overreliance on any one source and following a standard format for citation.

CONTENT STANDARD 2.0: UNDERSTAND LEGAL AND ETHICAL ISSUES RELATED TO PHOTOGRAPHY

Performance Indicators	Common Core State Standards and Nevada Science Standards	
2.1.1	English Langua RST.11-12.9	ge Arts: Reading Standards for Literacy in Science and Technical Subjects Synthesize information from a range of sources (e.g., texts, experiments, simulations) into a coherent understanding of a process, phenomenon, or concept, resolving conflicting information when possible.
2.1.3	RST.11-12.9 English Langua	ge Arts: Reading Standards for Literacy in Science and Technical Subjects Synthesize information from a range of sources (e.g., texts, experiments, simulations) into a coherent understanding of a process, phenomenon, or concept, resolving conflicting information when possible. ge Arts: Writing Standards for Literacy in Science and Technical Subjects Produce clear and coherent writing in which the development, organization, and style
	WIIG1.11 12.1	are appropriate to task, purpose, and audience.
2.1.4	RST.11-12.2 English Langua	 age Arts: Reading Standards for Literacy in Science and Technical Subjects Determine the central ideas or conclusions of a text; summarize complex concepts, processes, or information presented in a text by paraphrasing them in simpler but still accurate terms. age Arts: Writing Standards for Literacy in Science and Technical Subjects Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.
	WHST.11-12.7	Conduct short as well as more sustained research projects to answer a question (including a self-generated question) or solve a problem; narrow or broaden the inquiry when appropriate; synthesize multiple sources on the subject, demonstrating understanding of the subject under investigation.
2.1.6	English Langua SL.11-12.1	ge Arts: Speaking and Listening Standards Initiate and participate effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grades 11–12 topics, texts, and issues, building on others' ideas and expressing their own clearly and persuasively.
	SL.11-12.1a	Come to discussions prepared having read and researched material under study; explicitly draw on that preparation by referring to evidence from texts and other research on the topic or issue to stimulate a thoughtful, well reasoned exchange of ideas.
	SL.11-12.1d	Respond thoughtfully to diverse perspectives; synthesize comments, claims, and evidence made on all sides of an issue; resolve contradictions when possible; and determine what additional information or research is required to deepen the investigation or complete the task.
	SL.11-12.4 English Langua WHST.11-12.1	Present information, findings, and supporting evidence, conveying a clear and distinct perspective, such that listeners can follow the line of reasoning, alternative or opposing perspectives are addressed, and the organization, development, substance, and style are appropriate to purpose, audience, and a range of formal and informal tasks. ge Arts: Writing Standards for Literacy in Science and Technical Subject Write arguments focused on discipline-specific content.
2.1.7	English Langua WHST.11-12.4	ge Arts: Writing Standards for Literacy in Science and Technical Subjects Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.

2.1.9	English Langua	ge Arts: Speaking and Listening Standards
	SL.11-12.1	Initiate and participate effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grades 11–12 topics, texts, and issues, building on others' ideas and expressing their own clearly and persuasively.
	SL.11-12.1a	Come to discussions prepared having read and researched material under study; explicitly draw on that preparation by referring to evidence from texts and other research on the topic or issue to stimulate a thoughtful, well reasoned exchange of ideas.
	SL.11-12.1d Respond thoughtfully to diverse perspectives; synthesize comments, claims, evidence made on all sides of an issue; resolve contradictions when possible determine what additional information or research is required to deepen the investigation or complete the task.	
	SL.11-12.4	Present information, findings, and supporting evidence, conveying a clear and distinct perspective, such that listeners can follow the line of reasoning, alternative or opposing perspectives are addressed, and the organization, development, substance, and style are appropriate to purpose, audience, and a range of formal and informal tasks.
		ge Arts: Writing Standards for Literacy in Science and Technical Subject
	WHST.11-12.1	Write arguments focused on discipline-specific content.
2.1.10	English Langua	ge Arts: Reading Standards for Literacy in Science and Technical Subjects
RST.11-12.2 Determine the central ideas or conclusions of a text; summ processes, or information presented in a text by paraphrasin		Determine the central ideas or conclusions of a text; summarize complex concepts, processes, or information presented in a text by paraphrasing them in simpler but still accurate terms.
	English Langua	ge Arts: Writing Standards for Literacy in Science and Technical Subjects
	WHST.11-12.8	Gather relevant information from multiple authoritative print and digital sources, using advanced searches effectively; assess the strengths and limitations of each source in terms of the specific task, purpose, and audience; integrate information into the text selectively to maintain the flow of ideas, avoiding plagiarism and overreliance on any one source and following a standard format for citation.

PHOTOGRAPHY STANDARDS

CONTENT STANDARD 3.0: IDENTIFY AND USE DIFFERENT TYPES OF CAMERAS AND LENSES

Performance Indicators		Common Core State Standards and Nevada Science Standards	
3.1.1	English Langua	ge Arts: Speaking and Listening Standards	
	SL.11-12.4	Present information, findings, and supporting evidence, conveying a clear and distinct perspective, such that listeners can follow the line of reasoning, alternative or opposing perspectives are addressed, and the organization, development, substance, and style are appropriate to purpose, audience, and a range of formal and informal tasks.	
	English Language Arts: Writing Standards for Literacy in Science and Technical SubjectsWHST.11-12.2Write informative/explanatory texts, including the narration of historical events, scientific procedures/ experiments, or technical processes.		
	WHST.11-12.4	Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.	
	WHST.11-12.7	Conduct short as well as more sustained research projects to answer a question (including a self-generated question) or solve a problem; narrow or broaden the inquiry when appropriate; synthesize multiple sources on the subject, demonstrating understanding of the subject under investigation.	
3.1.2	English Langua	ge Arts: Reading Standards for Literacy in Science and Technical Subjects	
	RST.11-12.9	Synthesize information from a range of sources (e.g., texts, experiments, simulations) into a coherent understanding of a process, phenomenon, or concept, resolving conflicting information when possible.	
		ge Arts: Writing Standards for Literacy in Science and Technical Subjects	
	WHST.11-12.8	Gather relevant information from multiple authoritative print and digital sources, using advanced searches effectively; assess the strengths and limitations of each source in terms of the appricate test purpose and audiences integrate information into the text.	
		terms of the specific task, purpose, and audience; integrate information into the text selectively to maintain the flow of ideas, avoiding plagiarism and overreliance on any one source and following a standard format for citation.	
		ge Arts: Reading Standards for Literacy in Science and Technical Subjects	
	RST.11-12.9 Synthesize information from a range of sources (e.g., texts, experiments, sinito a coherent understanding of a process, phenomenon, or concept, resolv		
	English Longuo	conflicting information when possible. ge Arts: Speaking and Listening Standards	
	SL.11-12.4	Present information, findings, and supporting evidence, conveying a clear and distinct	
	SL.11-12.4	perspective, such that listeners can follow the line of reasoning, alternative or opposing	
		perspective, such that inscribes can follow the fine of reasoning, alternative of opposing perspectives are addressed, and the organization, development, substance, and style are	
		appropriate to purpose, audience, and a range of formal and informal tasks.	
	English Langua	ge Arts: Writing Standards for Literacy in Science and Technical Subjects	
		Gather relevant information from multiple authoritative print and digital sources, using advanced searches effectively; assess the strengths and limitations of each source in	
		terms of the specific task, purpose, and audience; integrate information into the text selectively to maintain the flow of ideas, avoiding plagiarism and overreliance on any	
		one source and following a standard format for citation.	
3.2.2	English Langua	ge Arts: Reading Standards for Literacy in Science and Technical Subjects	
	RST.11-12.9	Synthesize information from a range of sources (e.g., texts, experiments, simulations)	
		into a coherent understanding of a process, phenomenon, or concept, resolving	
		conflicting information when possible.	
		ge Arts: Writing Standards for Literacy in Science and Technical Subjects	
	WHST.11-12.8	Gather relevant information from multiple authoritative print and digital sources, using	
		advanced searches effectively; assess the strengths and limitations of each source in	
		terms of the specific task, purpose, and audience; integrate information into the text selectively to maintain the flow of ideas, avoiding plagiarism and overreliance on any one source and following a standard format for citation.	

3.2.3	English Langua	ge Arts: Reading Standards for Literacy in Science and Technical Subjects
	RST.11-12.3	Follow precisely a complex multistep procedure when carrying out experiments, taking measurements, or performing technical tasks; analyze the specific results based on explanations in the text.
	RST.11-12.9	Synthesize information from a range of sources (e.g., texts, experiments, simulations) into a coherent understanding of a process, phenomenon, or concept, resolving conflicting information when possible.
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3.2.7	English Langua	ge Arts: Reading Standards for Literacy in Science and Technical Subjects
	RST.11-12.4	Determine the meaning of symbols, key terms, and other domain-specific words and phrases as they are used in a specific scientific or technical context relevant to grades $11-12$ texts and topics.
	English Langua	ge Arts: Writing Standards for Literacy in Science and Technical Subjects
	WHST.11-12.4	Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.

CONTENT STANDARD 4.0: DEMONSTRATE PROPER EXPOSURE SETTINGS TO ACHIEVE DESIRED EFFECTS

Performance Indicators	Common Core State Standards and Nevada Science Standards	
4.1.1	English Langua RST.11-12.3	ge Arts: Reading Standards for Literacy in Science and Technical Subjects Follow precisely a complex multistep procedure when carrying out experiments, taking measurements, or performing technical tasks; analyze the specific results based on explanations in the text.
RST.11-12.9 Synthesize information from a range of sources (e.g., texts, exp into a coherent understanding of a process, phenomenon, or cor		Synthesize information from a range of sources (e.g., texts, experiments, simulations) into a coherent understanding of a process, phenomenon, or concept, resolving conflicting information when possible.
	English Langua	ge Arts: Speaking and Listening Standards
perspective, such that listeners can follow the line of reasoning, alterna perspectives are addressed, and the organization, development, substar		Present information, findings, and supporting evidence, conveying a clear and distinct perspective, such that listeners can follow the line of reasoning, alternative or opposing perspectives are addressed, and the organization, development, substance, and style are appropriate to purpose, audience, and a range of formal and informal tasks.
		ge Arts: Writing Standards for Literacy in Science and Technical Subjects
	WHST.11-12.8 Gather relevant information from multiple authoritative print and digital source advanced searches effectively; assess the strengths and limitations of each sour terms of the specific task, purpose, and audience; integrate information into the selectively to maintain the flow of ideas, avoiding plagiarism and overreliance one source and following a standard format for citation.	
4.1.2	English Langua	ge Arts: Reading Standards for Literacy in Science and Technical Subjects
2	RST.11-12.9	Synthesize information from a range of sources (e.g., texts, experiments, simulations) into a coherent understanding of a process, phenomenon, or concept, resolving conflicting information when possible.
4.1.4	Math: Algebra	- Creating Equations
	ACED.A.1	Create equations and inequalities in one variable and use them to solve problems.
4.1.8		ge Arts: Reading Standards for Literacy in Science and Technical Subjects
	RST.11-12.3	Follow precisely a complex multistep procedure when carrying out experiments, taking measurements, or performing technical tasks; analyze the specific results based on explanations in the text.
	RST.11-12.9	Synthesize information from a range of sources (e.g., texts, experiments, simulations) into a coherent understanding of a process, phenomenon, or concept, resolving conflicting information when possible.
	English Language Arts: Writing Standards for Literacy in Science and Technical Subject	
	WHST.11-12.8	Gather relevant information from multiple authoritative print and digital sources, using advanced searches effectively; assess the strengths and limitations of each source in terms of the specific task, purpose, and audience; integrate information into the text selectively to maintain the flow of ideas, avoiding plagiarism and overreliance on any one source and following a standard format for citation.

CONTENT STANDARD 5.0: UNDERSTAND THE ELEMENTS AND PRINCIPLES OF DESIGN AND COMPOSITION

Performance Indicators	Common Core State Standards and Nevada Science Standards	
5.1.2	English Language Arts: Reading Standards for Literacy in Science and Technical SubjectsRST.11-12.4Determine the meaning of symbols, key terms, and other domain-specific words and phrases as they are used in a specific scientific or technical context relevant to grades 11–12 texts and topics.	
	RST.11-12.9 Synthesize information from a range of sources (e.g., texts, experiments, simulations) into a coherent understanding of a process, phenomenon, or concept, resolving conflicting information when possible.	
	 English Language Arts: Writing Standards for Literacy in Science and Technical Subjects WHST.11-12.8 Gather relevant information from multiple authoritative print and digital sources, usin advanced searches effectively; assess the strengths and limitations of each source in terms of the specific task, purpose, and audience; integrate information into the text selectively to maintain the flow of ideas, avoiding plagiarism and overreliance on any one source and following a standard format for citation. 	
5.2.2	English Language Arts: Reading Standards for Literacy in Science and Technical SubjectsRST.11-12.7Integrate and evaluate multiple sources of information presented in diverse formats and media (e.g., quantitative data, video, multimedia) in order to address a question or solve a problem.	
	RST.11-12.9 Synthesize information from a range of sources (e.g., texts, experiments, simulations) into a coherent understanding of a process, phenomenon, or concept, resolving conflicting information when possible.	
	English Language Arts: Writing Standards for Literacy in Science and Technical Subjects WHST.11-12.8 Gather relevant information from multiple authoritative print and digital sources, using advanced searches effectively; assess the strengths and limitations of each source in terms of the specific task, purpose, and audience; integrate information into the text selectively to maintain the flow of ideas, avoiding plagiarism and overreliance on any one source and following a standard format for citation.	
5.3.2	English Language Arts: Reading Standards for Literacy in Science and Technical SubjectsRST.11-12.4Determine the meaning of symbols, key terms, and other domain-specific words and phrases as they are used in a specific scientific or technical context relevant to grades 11–12 texts and topics.	
	RST.11-12.7 Integrate and evaluate multiple sources of information presented in diverse formats and media (e.g., quantitative data, video, multimedia) in order to address a question or solve a problem.	
	English Language Arts: Writing Standards for Literacy in Science and Technical SubjectsWHST.11-12.8Gather relevant information from multiple authoritative print and digital sources, using advanced searches effectively; assess the strengths and limitations of each source in terms of the specific task, purpose, and audience; integrate information into the text selectively to maintain the flow of ideas, avoiding plagiarism and overreliance on any one source and following a standard format for citation.	
5.3.5	English Language Arts: Speaking and Listening StandardsSL.11-12.4Present information, findings, and supporting evidence, conveying a clear and distinct perspective, such that listeners can follow the line of reasoning, alternative or opposing perspectives are addressed, and the organization, development, substance, and style are appropriate to purpose, audience, and a range of formal and informal tasks.	
	English Language Arts: Writing Standards for Literacy in Science and Technical Subjects WHST.11-12.1b Develop claim(s) and counterclaims fairly and thoroughly, supplying the most relevant data and evidence for each while pointing out the strengths and limitations of both claim(s) and counterclaims in a discipline-appropriate form that anticipates the audience's knowledge level, concerns, values, and possible biases.	

CONTENT STANDARD 6.0: UNDERSTAND LIGHT SOURCES

Performance Indicators	Common Core State Standards and Nevada Science Standards	
6.1.1	English Language Arts: Reading Standards for Literacy in Science and Technical SubjectsRST.11-12.9Synthesize information from a range of sources (e.g., texts, experiments, simulations)into a coherent understanding of a process, phenomenon, or concept, resolving conflicting information when possible.	
	English Language Arts: Speaking and Listening StandardsSL.11-12.4Present information, findings, and supporting evidence, conveying a clear and distinct perspective, such that listeners can follow the line of reasoning, alternative or opposing perspectives are addressed, and the organization, development, substance, and style are appropriate to purpose, audience, and a range of formal and informal tasks.	
	English Language Arts: Writing Standards for Literacy in Science and Technical SubjectsWHST.11-12.8Gather relevant information from multiple authoritative print and digital sources, using advanced searches effectively; assess the strengths and limitations of each source in terms of the specific task, purpose, and audience; integrate information into the text selectively to maintain the flow of ideas, avoiding plagiarism and overreliance on any one source and following a standard format for citation.	
6.1.2	English Language Arts: Reading Standards for Literacy in Science and Technical Subjects RST.11-12.9 Synthesize information from a range of sources (e.g., texts, experiments, simulations) into a coherent understanding of a process, phenomenon, or concept, resolving conflicting information when possible.	
	English Language Arts: Speaking and Listening StandardsSL.11-12.4Present information, findings, and supporting evidence, conveying a clear and distinct perspective, such that listeners can follow the line of reasoning, alternative or opposing perspectives are addressed, and the organization, development, substance, and style are appropriate to purpose, audience, and a range of formal and informal tasks.	
	English Language Arts: Writing Standards for Literacy in Science and Technical SubjectsWHST.11-12.8Gather relevant information from multiple authoritative print and digital sources, using advanced searches effectively; assess the strengths and limitations of each source in terms of the specific task, purpose, and audience; integrate information into the text selectively to maintain the flow of ideas, avoiding plagiarism and overreliance on any one source and following a standard format for citation.	
6.3.1	English Language Arts: Reading Standards for Literacy in Science and Technical SubjectsRST.11-12.1Cite specific textual evidence to support analysis of science and technical texts, attending to important distinctions the author makes and to any gaps or inconsistencies in the account.	
	RST.11-12.9 Synthesize information from a range of sources (e.g., texts, experiments, simulations) into a coherent understanding of a process, phenomenon, or concept, resolving conflicting information when possible.	
6.3.3	English Language Arts: Reading Standards for Literacy in Science and Technical SubjectsRST.11-12.9Synthesize information from a range of sources (e.g., texts, experiments, simulations)into a coherent understanding of a process, phenomenon, or concept, resolving conflicting information when possible.	
6.3.4	English Language Arts: Reading Standards for Literacy in Science and Technical SubjectsRST.11-12.3Follow precisely a complex multistep procedure when carrying out experiments, taking measurements, or performing technical tasks; analyze the specific results based on explanations in the text.	

6.3.7	English Langu	uage Arts: Speaking and Listening Standards
	SL.11-12.4	Present information, findings, and supporting evidence, conveying a clear and distinct perspective, such that listeners can follow the line of reasoning, alternative or opposing perspectives are addressed, and the organization, development, substance, and style are appropriate to purpose, audience, and a range of formal and informal tasks.
	English Langu	uage Arts: Reading Standards for Literacy in Science and Technical Subjects
	RST.11-12.9 Synthesize information from a range of sources (e.g., texts, experiments into a coherent understanding of a process, phenomenon, or concept, resconflicting information when possible.	
6.4.3	English Langu	uage Arts: Speaking and Listening Standards
	SL.11-12.1	Initiate and participate effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grades 11–12 topics, texts, and issues, building on others' ideas and expressing their own clearly and persuasively.
	SL.11-12.2	Integrate multiple sources of information presented in diverse formats and media (e.g., visually, quantitatively, orally) in order to make informed decisions and solve problems, evaluating the credibility and accuracy of each source and noting any discrepancies among the data.

CONTENT STANDARD 7.0: IMPLEMENT DIGITAL WORKFLOW PROCESSES

Performance Indicators	Common Core State Standards and Nevada Science Standards		
7.1.2	English Langua	ge Arts: Speaking and Listening Standards	
	SL.11-12.4	Present information, findings, and supporting evidence, conveying a clear and distinct	
	~	perspective, such that listeners can follow the line of reasoning, alternative or opposing	
		perspectives are addressed, and the organization, development, substance, and style are	
		appropriate to purpose, audience, and a range of formal and informal tasks.	
	English Language Arts: Writing Standards for Literacy in Science and Technical Subjects		
	WHST.11-12.8	Gather relevant information from multiple authoritative print and digital sources, using	
	WIID1.11 12.0	advanced searches effectively; assess the strengths and limitations of each source in	
		terms of the specific task, purpose, and audience; integrate information into the text	
		selectively to maintain the flow of ideas, avoiding plagiarism and overreliance on any	
		one source and following a standard format for citation.	
7.1.6	English Longuo	ge Arts: Speaking and Listening Standards	
7.1.0	SL.11-12.4	Present information, findings, and supporting evidence, conveying a clear and distinct	
	SL.11-12.4	perspective, such that listeners can follow the line of reasoning, alternative or opposing	
		perspective, such that inschers can follow the fine of reasoning, alternative of opposing perspectives are addressed, and the organization, development, substance, and style are	
		appropriate to purpose, audience, and a range of formal and informal tasks.	
7.1.7	English Longua	ge Arts: Writing Standards for Literacy in Science and Technical Subjects	
/.1./	WHST.11-12.2	Write informative/explanatory texts, including the narration of historical events,	
	WIIS1.11-12.2	scientific procedures/ experiments, or technical processes.	
		scientific procedures/ experiments, of technical processes.	
	WHST.11-12.4	Produce clear and coherent writing in which the development, organization, and style	
		are appropriate to task, purpose, and audience.	
	WHST.11-12.8	Gather relevant information from multiple authoritative print and digital sources, using	
		advanced searches effectively; assess the strengths and limitations of each source in	
		terms of the specific task, purpose, and audience; integrate information into the text	
		selectively to maintain the flow of ideas, avoiding plagiarism and overreliance on any	
one source and following a standard format for citation.		one source and following a standard format for citation.	
7.2.4 English Language Arts: Reading Standards for Literacy in Science and Tech			
	RST.11-12.3	Follow precisely a complex multistep procedure when carrying out experiments, taking	
		measurements, or performing technical tasks; analyze the specific results based on	
		explanations in the text.	
7.3.3	English Langua	ge Arts: Reading Standards for Literacy in Science and Technical Subjects	
	RST.11-12.3	Follow precisely a complex multistep procedure when carrying out experiments, taking	
		measurements, or performing technical tasks; analyze the specific results based on	
		explanations in the text.	
7.3.4		ge Arts: Speaking and Listening Standards	
	SL.11-12.4	Present information, findings, and supporting evidence, conveying a clear and distinct	
		perspective, such that listeners can follow the line of reasoning, alternative or opposing	
		perspectives are addressed, and the organization, development, substance, and style are	
		appropriate to purpose, audience, and a range of formal and informal tasks.	
		ge Arts: Writing Standards for Literacy in Science and Technical Subjects	
	WHST.11-12.2	Write informative/explanatory texts, including the narration of historical events,	
		scientific procedures/ experiments, or technical processes.	
	WHST.11-12.8	Gather relevant information from multiple authoritative print and digital sources, using	
	**1101.11-12.0	advanced searches effectively; assess the strengths and limitations of each source in	
		terms of the specific task, purpose, and audience; integrate information into the text	
		selectively to maintain the flow of ideas, avoiding plagiarism and overreliance on any	
		one source and following a standard format for citation.	
		one source and following a standard format for citation.	

7.3.7	8.7 English Language Arts: Speaking and Listening Standards		
	SL.11-12.1	Initiate and participate effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grades 11–12 topics, texts, and issues, building on others' ideas and expressing their own clearly and persuasively.	
	SL.11-12.1a	Come to discussions prepared, having read and researched material under study; explicitly draw on that preparation by referring to evidence from texts and other research on the topic or issue to stimulate a thoughtful, well reasoned exchange of ideas.	
	SL.11-12.5	Make strategic use of digital media (e.g., textual, graphical, audio, visual, and interactive elements) in presentations to enhance understanding of findings, reasoning, and evidence and to add interest	

CONTENT STANDARD 8.0: DEMONSTRATE COMPETENCE IN PRESENTATION TECHNIQUES AND PORTFOLIO DEVELOPMENT

Performance Indicators	Common Core State Standards and Nevada Science Standards		
8.1.1	English Language Arts: Speaking and Listening Standards		
	SL.11-12.4 Present information, findings, and supporting evidence, conveying a clear and distir perspective, such that listeners can follow the line of reasoning, alternative or oppose perspectives are addressed, and the organization, development, substance, and style appropriate to purpose, audience, and a range of formal and informal tasks.		
	English Langua	ge Arts: Writing Standards for Literacy in Science and Technical Subjects	
	WHST.11-12.1b Develop claim(s) and counterclaims fairly and thoroughly, supplying the r data and evidence for each while pointing out the strengths and limitations claim(s) and counterclaims in a discipline-appropriate form that anticipate audience's knowledge level, concerns, values, and possible biases.		
8.2.2	English Language Arts: Speaking and Listening Standards		
SL.11-12.5 Ma		Make strategic use of digital media (e.g., textual, graphical, audio, visual, and interactive elements) in presentations to enhance understanding of findings, reasoning, and evidence and to add interest.	
8.2.5	English Langua	ge Arts: Speaking and Listening Standards	
	SL.11-12.4	Present information, findings, and supporting evidence, conveying a clear and distinct perspective, such that listeners can follow the line of reasoning, alternative or opposing perspectives are addressed, and the organization, development, substance, and style are appropriate to purpose, audience, and a range of formal and informal tasks.	
	SL.11-12.5	Make strategic use of digital media (e.g., textual, graphical, audio, visual, and interactive elements) in presentations to enhance understanding of findings, reasoning, and evidence and to add interest.	

ALIGNMENT OF PHOTOGRAPHY STANDARDS AND THE COMMON CORE MATHEMATICAL PRACTICES

Common Core Mathematical Practices	Photography Performance Indicators
1. Make sense of problems and persevere in solving them.	
2. Reason abstractly and quantitatively.	
3. Construct viable arguments and critique the reasoning of others.	
4. Model with mathematics.	
5. Use appropriate tools strategically.	7.3.3
6. Attend to precision.	7.3.3
7. Look for and make use of structure.	
8. Look for and express regularity in repeated reasoning.	

CROSSWALKS OF PHOTOGRAPHY STANDARDS AND THE COMMON CAREER TECHNICAL CORE

	Arts, A/V Technology & Communications Career Cluster TM (AR)	Performance Indicators
1.	Analyze the interdependence of the technical and artistic elements of various careers within the Arts, A/V Technology & Communications Career Cluster TM .	1.1.6
2.	Analyze the importance of health, safety and environmental management systems, policies and procedures common in arts, audio/video technology and communications activities and facilities.	6.4.1-6.4.3
3.	Analyze the lifestyle implications and physical demands required in the arts, audio/visual technology and communications workplace.	
4.	Analyze the legal and ethical responsibilities required in the arts, audio/visual technology and communications workplace.	2.1.1-2.1.10
5.	Describe the career opportunities and means to achieve those opportunities in each of the Arts, A/V Technology & Communications Career Pathways.	
6.	Evaluate technological advancements and tools that are essential to occupations within the Arts, A/V Technology & Communications Career Cluster TM .	1.1.5-1.1.6 3.1.1-3.1.3; 3.2.2
	Visual Arts Career Pathway (AR-VIS)	Performance Indicators
1.	Describe the history and evolution of the visual arts and its role in and impact on society.	1.1.1-1.1.6
2.	Analyze how the application of visual arts elements and principles of design communicate and express ideas.	5.1.2; 5.2.2; 5.3.2; 5.3.4
3.	Analyze and create two and three-dimensional visual art forms using various media.	4.1.10 6.2.2; 6.3.8 7.1.1; 7.2.2-7.2.3 7.2.5, 7.2.7; 7.3.5-7.3.6