

# Unit 05: Lighting the Production Studio

Content Area: **Template**  
Course(s):  
Time Period: **Full Year**  
Length: **FY**  
Status: **Published**

## Standards Alignment

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### New Jersey Student Learning Standards

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AAAA.K-12.1	Inquire, think critically, and gain knowledge.
AAAA.K-12.1.1	Skills
AAAA.K-12.1.1.1	Follow an inquiry-based process in seeking knowledge in curricular subjects, and make the real-world connection for using this process in own life.
AAAA.K-12.1.1.2	Use prior and background knowledge as context for new learning.
AAAA.K-12.1.1.3	Develop and refine a range of questions to frame the search for new understanding.
AAAA.K-12.1.1.4	Find, evaluate, and select appropriate sources to answer questions.
AAAA.K-12.1.1.5	Evaluate information found in selected sources on the basis of accuracy, validity, appropriateness for needs, importance, and social and cultural context.
AAAA.K-12.1.1.6	Read, view, and listen for information presented in any format (e.g., textual, visual, media, digital) in order to make inferences and gather meaning.
AAAA.K-12.1.1.7	Make sense of information gathered from diverse sources by identifying misconceptions, main and supporting ideas, conflicting information, and point of view or bias.
AAAA.K-12.1.1.8	Demonstrate mastery of technology tools for accessing information and pursuing inquiry.
AAAA.K-12.1.1.9	Collaborate with others to broaden and deepen understanding.
AAAA.K-12.1.2	Dispositions in Action
AAAA.K-12.1.2.1	Display initiative and engagement by posing questions and investigating the answers beyond the collection of superficial facts.
AAAA.K-12.1.2.2	Demonstrate confidence and self-direction by making independent choices in the selection of resources and information.
AAAA.K-12.1.2.3	Demonstrate creativity by using multiple resources and formats.
AAAA.K-12.1.2.4	Maintain a critical stance by questioning the validity and accuracy of all information.
AAAA.K-12.1.2.5	Demonstrate adaptability by changing the inquiry focus, questions, resources, or strategies when necessary to achieve success.
AAAA.K-12.1.2.6	Display emotional resilience by persisting in information searching despite challenges.
AAAA.K-12.1.2.7	Display persistence by continuing to pursue information to gain a broad perspective.
AAAA.K-12.1.3	Responsibilities
AAAA.K-12.1.3.1	Respect copyright/intellectual property rights of creators and producers.
AAAA.K-12.1.3.2	Seek divergent perspectives during information gathering and assessment.
AAAA.K-12.1.3.3	Follow ethical and legal guidelines in gathering and using information.

AAAA.K-12.1.3.4	Contribute to the exchange of ideas within the learning community.
AAAA.K-12.1.3.5	Use information technology responsibly.
AAAA.K-12.1.4	Self-Assessment Strategies
AAAA.K-12.1.4.1	Monitor own information-seeking processes for effectiveness and progress, and adapt as necessary.
AAAA.K-12.1.4.2	Use interaction with and feedback from teachers and peers to guide own inquiry process.
AAAA.K-12.1.4.3	Monitor gathered information, and assess for gaps or weaknesses.
AAAA.K-12.1.4.4	Seek appropriate help when it is needed.
AAAA.K-12.2	Draw conclusions, make informed decisions, apply knowledge to new situations, and create new knowledge.
AAAA.K-12.2.1	Skills
AAAA.K-12.2.1.1	Continue an inquiry- based research process by applying critical- thinking skills (analysis, synthesis, evaluation, organization) to information and knowledge in order to construct new understandings, draw conclusions, and create new knowledge.
AAAA.K-12.2.1.2	Organize knowledge so that it is useful.
AAAA.K-12.2.1.3	Use strategies to draw conclusions from information and apply knowledge to curricular areas, real-world situations, and further investigations.
AAAA.K-12.2.1.4	Use technology and other information tools to analyze and organize information.
AAAA.K-12.2.1.5	Collaborate with others to exchange ideas, develop new understandings, make decisions, and solve problems.
AAAA.K-12.2.1.6	Use the writing process, media and visual literacy, and technology skills to create products that express new understandings.
AAAA.K-12.2.2	Dispositions in Action
AAAA.K-12.2.2.1	Demonstrate flexibility in the use of resources by adapting information strategies to each specific resource and by seeking additional resources when clear conclusions cannot be drawn.
AAAA.K-12.2.2.2	Use both divergent and convergent thinking to formulate alternative conclusions and test them against the evidence.
AAAA.K-12.2.2.3	Employ a critical stance in drawing conclusions by demonstrating that the pattern of evidence leads to a decision or conclusion.
AAAA.K-12.2.2.4	Demonstrate personal productivity by completing products to express learning.
AAAA.K-12.2.3	Responsibilities
AAAA.K-12.2.3.1	Connect understanding to the real world.
AAAA.K-12.2.3.2	Consider diverse and global perspectives in drawing conclusions.
AAAA.K-12.2.3.3	Use valid information and reasoned conclusions to make ethical decisions.
AAAA.K-12.2.4	Self-Assessment Strategies
AAAA.K-12.2.4.1	Determine how to act on information (accept, reject, modify).
AAAA.K-12.2.4.2	Reflect on systematic process, and assess for completeness of investigation.
AAAA.K-12.2.4.3	Recognize new knowledge and understanding.
AAAA.K-12.2.4.4	Develop directions for future investigations.
AAAA.K-12.3	Share knowledge and participate ethically and productively as members of our democratic society.
AAAA.K-12.3.1	Skills

AAAA.K-12.3.1.1	Conclude an inquiry-based research process by sharing new understandings and reflecting on the learning.
AAAA.K-12.3.1.2	Participate and collaborate as members of a social and intellectual network of learners.
AAAA.K-12.3.1.3	Use writing and speaking skills to communicate new understandings effectively.
AAAA.K-12.3.1.4	Use technology and other information tools to organize and display knowledge and understanding in ways that others can view, use, and assess.
AAAA.K-12.3.1.5	Connect learning to community issues.
AAAA.K-12.3.1.6	Use information and technology ethically and responsibly.
AAAA.K-12.3.2	Dispositions in Action
AAAA.K-12.3.2.1	Demonstrate leadership and confidence by presenting ideas to others in both formal and informal situations.
AAAA.K-12.3.2.2	Show social responsibility by participating actively with others in learning situations and by contributing questions and ideas during group discussions.
AAAA.K-12.3.2.3	Demonstrate teamwork by working productively with others.
AAAA.K-12.3.3	Responsibilities
AAAA.K-12.3.3.1	Solicit and respect diverse perspectives while searching for information, collaborating with others, and participating as a member of the community.
AAAA.K-12.3.3.2	Respect the differing interests and experiences of others, and seek a variety of viewpoints.
AAAA.K-12.3.3.3	Use knowledge and information skills and dispositions to engage in public conversation and debate around issues of common concern.
AAAA.K-12.3.3.4	Create products that apply to authentic, real-world contexts.
AAAA.K-12.3.3.5	Contribute to the exchange of ideas within and beyond the learning community.
AAAA.K-12.3.3.6	Use information and knowledge in the service of democratic values.
AAAA.K-12.3.3.7	Respect the principles of intellectual freedom.
AAAA.K-12.3.4	Self-Assessment Strategies
AAAA.K-12.3.4.1	Assess the processes by which learning was achieved in order to revise strategies and learn more effectively in the future.
AAAA.K-12.3.4.2	Assess the quality and effectiveness of the learning product.
AAAA.K-12.3.4.3	Assess own ability to work with others in a group setting by evaluating varied roles, leadership, and demonstrations of respect for other viewpoints.
AAAA.K-12.4	Pursue personal and aesthetic growth.
AAAA.K-12.4.1	Skills
AAAA.K-12.4.1.1	Read, view, and listen for pleasure and personal growth.
AAAA.K-12.4.1.2	Read widely and fluently to make connections with self, the world, and previous reading.
AAAA.K-12.4.1.3	Respond to literature and creative expressions of ideas in various formats and genres.
AAAA.K-12.4.1.4	Seek information for personal learning in a variety of formats and genres.
AAAA.K-12.4.1.5	Connect ideas to own interests and previous knowledge and experience.
AAAA.K-12.4.1.6	Organize personal knowledge in a way that can be called upon easily.
AAAA.K-12.4.1.7	Use social networks and information tools to gather and share information.
AAAA.K-12.4.1.8	Use creative and artistic formats to express personal learning.
AAAA.K-12.4.2	Dispositions in Action
AAAA.K-12.4.2.1	Display curiosity by pursuing interests through multiple resources.

AAAA.K-12.4.2.2	Demonstrate motivation by seeking information to answer personal questions and interests, trying a variety of formats and genres, and displaying a willingness to go beyond academic requirements.
AAAA.K-12.4.2.3	Maintain openness to new ideas by considering divergent opinions, changing opinions or conclusions when evidence supports the change, and seeking information about new ideas encountered through academic or personal experiences.
AAAA.K-12.4.3	Responsibilities
AAAA.K-12.4.3.1	Participate in the social exchange of ideas, both electronically and in person.
AAAA.K-12.4.3.2	Recognize that resources are created for a variety of purposes.
AAAA.K-12.4.3.3	Seek opportunities for pursuing personal and aesthetic growth.
AAAA.K-12.4.3.4	Practice safe and ethical behaviors in personal electronic communication and interaction.
AAAA.K-12.4.4	Self-Assessment Strategies
AAAA.K-12.4.4.1	Identify own areas of interest.
AAAA.K-12.4.4.2	Recognize the limits of own personal knowledge.
AAAA.K-12.4.4.3	Recognize how to focus efforts in personal learning.
AAAA.K-12.4.4.4	Interpret new information based on cultural and social context.
AAAA.K-12.4.4.5	Develop personal criteria for gauging how effectively own ideas are expressed.
AAAA.K-12.4.4.6	Evaluate own ability to select resources that are engaging and appropriate for personal interests and needs.

## **Integration of Career Readiness, Life Literacies and Key Skills**

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CRP.K-12.CRP1	Act as a responsible and contributing citizen and employee.
CRP.K-12.CRP2	Apply appropriate academic and technical skills.
CRP.K-12.CRP3	Attend to personal health and financial well-being.
CRP.K-12.CRP4	Communicate clearly and effectively and with reason.
CRP.K-12.CRP5	Consider the environmental, social and economic impacts of decisions.
CRP.K-12.CRP6	Demonstrate creativity and innovation.
CRP.K-12.CRP7	Employ valid and reliable research strategies.
CRP.K-12.CRP8	Utilize critical thinking to make sense of problems and persevere in solving them.
CRP.K-12.CRP9	Model integrity, ethical leadership and effective management.
CRP.K-12.CRP10	Plan education and career paths aligned to personal goals.
CRP.K-12.CRP11	Use technology to enhance productivity.
CRP.K-12.CRP12	Work productively in teams while using cultural global competence.

## **Technology / Integration of Computer Science and Design Thinking**

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TECH.8.1.12	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.
TECH.8.1.12.A	Technology Operations and Concepts: Students demonstrate a sound understanding of technology concepts, systems and operations.

TECH.8.1.12.A.2	Produce and edit a multi-page digital document for a commercial or professional audience and present it to peers and/or professionals in that related area for review.
TECH.8.1.12.D	Digital Citizenship: Students understand human, cultural, and societal issues related to technology and practice legal and ethical behavior.
TECH.8.1.12.D.1	Demonstrate appropriate application of copyright, fair use and/or Creative Commons to an original work.
TECH.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.
TECH.8.1.12.F	Critical thinking, problem solving, and decision making: Students use critical thinking skills to plan and conduct research, manage projects, solve problems, and make informed decisions using appropriate digital tools and resources.
TECH.8.1.12.F.1	Evaluate the strengths and limitations of emerging technologies and their impact on educational, career, personal and or social needs.

## **Interdisciplinary Connections: NJSL for ELA, Social Studies, Science and/or Math Section**

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### Key Ideas and Details

LA.K-12.NJSLSA.R1	Read closely to determine what the text says explicitly and to make logical inferences and relevant connections from it; cite specific textual evidence when writing or speaking to support conclusions drawn from the text.
LA.K-12.NJSLSA.R2	Determine central ideas or themes of a text and analyze their development; summarize the key supporting details and ideas.
LA.K-12.NJSLSA.R3	Analyze how and why individuals, events, and ideas develop and interact over the course of a text.

### Craft and Structure

LA.K-12.NJSLSA.R4	Interpret words and phrases as they are used in a text, including determining technical, connotative, and figurative meanings, and analyze how specific word choices shape meaning or tone.
LA.K-12.NJSLSA.R6	Assess how point of view or purpose shapes the content and style of a text.

### Integration of Knowledge and Ideas

LA.K-12.NJSLSA.R7	Integrate and evaluate content presented in diverse media and formats, including visually and quantitatively, as well as in words.
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### LA.RI.11-12

#### Reading Informational Text

LA.RI.11-12.1	Accurately cite strong and thorough textual evidence, (e.g., via discussion, written response, etc.), to support analysis of what the text says explicitly as well as inferentially, including determining where the text leaves matters uncertain.
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### LA.K-12.NJSLSA.W

#### Writing

LA.RI.11-12.2	Determine two or more central ideas of a text, and analyze their development and how they interact to provide a complex analysis; provide an objective summary of the text.
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### Text Types and Purposes

LA.K-12.NJSLSA.W1	Write arguments to support claims in an analysis of substantive topics or texts, using valid reasoning and relevant and sufficient evidence.
LA.RI.11-12.3	Analyze a complex set of ideas or sequence of events and explain how specific individuals, ideas, or events interact and develop over the course of the text.
LA.K-12.NJSLSA.W2	Write informative/explanatory texts to examine and convey complex ideas and

information clearly and accurately through the effective selection, organization, and analysis of content.

LA.K-12.NJSLSA.W3

Write narratives to develop real or imagined experiences or events using effective technique, well-chosen details, and well-structured event sequences.

LA.RI.11-12.4

Determine the meaning of words and phrases as they are used in a text, including figurative, connotative, and technical meanings; analyze how an author uses and refines the meaning of a key term or terms over the course of a text (e.g., how Madison defines faction in Federalist No. 10).

Production and Distribution of Writing

LA.K-12.NJSLSA.W4

Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.

LA.RI.11-12.6

Determine an author's point of view or purpose in a text in which the rhetoric is particularly effective, analyzing how style and content contribute to the power, persuasiveness or beauty of the text.

LA.K-12.NJSLSA.W5

Develop and strengthen writing as needed by planning, revising, editing, rewriting, or trying a new approach.

LA.K-12.NJSLSA.W6

Use technology, including the Internet, to produce and publish writing and to interact and collaborate with others.

LA.RI.11-12.7

Integrate and evaluate multiple sources of information presented in different media or formats (e.g., visually, quantitatively) as well as in words in order to address a question or solve a problem.

LA.W.11-12.1.D

Establish and maintain a style and tone appropriate to the audience and purpose (e.g., formal and objective for academic writing) while attending to the norms and conventions of the discipline in which they are writing.

LA.W.11-12.2.A

Introduce a topic; organize complex ideas, concepts, and information so that each new element builds on that which precedes it to create a unified whole; include formatting (e.g., headings), graphics (e.g., figures, tables), and multimedia when useful to aiding comprehension.

LA.W.11-12.2.E

Establish and maintain a style and tone appropriate to the audience and purpose (e.g., formal and objective for academic writing) while attending to the norms and conventions of the discipline in which they are writing.

LA.W.11-12.3.D

Use precise words and phrases, telling details, and sensory language to convey a vivid picture of the experiences, events, setting, and/or characters.

LA.W.11-12.4

Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience. (Grade-specific expectations for writing types are defined in standards 1–3 above.)

LA.W.11-12.5

Develop and strengthen writing as needed by planning, revising, editing, rewriting, trying a new approach, or consulting a style manual (such as MLA or APA Style), focusing on addressing what is most significant for a specific purpose and audience.

LA.W.11-12.6

Use technology, including the Internet, to produce, share, and update individual or shared writing products in response to ongoing feedback, including new arguments or information.

## **Integration of Diversity, Equity and Inclusion; Climate Change; Informational and Media LiteracyNew Section**

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see Crosswalks

## 21st Century Life and Careers

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### Stage I: Desired Results

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#### Transfer/Overview/Rationale

##### Transfer / Overview / Rationale

###### Unit Rationale

The purpose of this unit...

is to teach students how lighting a set in-studio calls for carefully controlled illumination, shadowing and relative transparency of props and talent.

#### Meaning

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#### Essential Questions

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##### Essential Questions

Is deliberate lighting of the performance area necessary?

Why is it important to understand the difference between directional and diffused lighting?

Can falloff and shadows really effect your field of view?

When is and when isn't the photographic principal necessary for video production?

## **Enduring Understanding/Indicators of Understanding**

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### Enduring Understanding/Indicators of Understanding

Illuminating a set can be achieved through directional and diffuse light.

Shadows, attached and cast, can control falloff.

Using additive and subtractive colors of light along with adjusting color temperatures and white balancing can provide optimal environment for video production.

The operation of lights, safety procedures and photographic principals assist the LD and AD in deterring set design and mood of production.

## **Acquisition (Student Learning Objectives)**

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### **Knowledge**

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Knowledge  
Students will know...

The difference between directional and diffused light

The difference between attached and cast shadows

The difference between additive and subtractive light colors

How to use and identify spots, floods, keys and back lights

The aesthetic use of artificial lighting

## **Skills**

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Skills

Student will be skilled at ...

Assembling illumination for video production

Controlling lighting of a performance area

Designing and constructing artificial lighting in a television studio

Producing video in high and low light situations

## **Stage 3: Learning Plan**

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## **Resource and Mentor Texts**

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Resources and Mentor Texts

Video Basics Chapter 8

Ellipsoidals, Fresnels, Cycs and Floods in the TV studio

Studio dimmer board

## **Formative Assessment Strategies**

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### Formative Assessment Strategies

Designing a light grid and executing using the batman and light instruments

## **Learning Activities/Unit of Study**

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### Learning Activities/Unit of Study

Read and annotate Video Basics Unit 8

Defining lighting design terminology

Drawing light grid on a floor plan

## **Modifications and/or Accommodations**

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### **Suggested Modifications (ELL, Sp. Ed, Gifted, At-risk of Failure)**

#### **English Language Learners**

**Native language support:** The teacher provides auditory or written content to students in their native language.

**Adjusted Speech:** The teacher changes speech patterns to increase student comprehension. This could include facing the students, paraphrasing, clearly indicating the most important ideas, and speaking more slowly.

**Visuals:** The teacher uses graphics, pictures, visuals, and manipulatives. This helps ELL students better understand and comprehend the subjects at hand.

**Front-Loading Vocabulary:** The teacher front loads vocabulary. This means providing students with a list of important vocabulary words they will need to know for a book, lesson, etc. prior to the lesson

being taught. Including pictures to go with the vocabulary words is also very beneficial for the students.

### **Special Education Students**

**Chunking:** The teacher presents information in a way that makes it easy for students to understand and remember. Chunking is based on the presumption that our working memory is easily overloaded by excessive detail. The best way to deliver information is to organize it into meaningful units. Because students with special needs get overloaded easily, chunking is an effective strategy to use with them.

**Checking for Understanding:** It is important to constantly check for understanding, especially for students who have accommodations. Teachers want to make sure students understand the concepts being covered in a way that makes sense to them.

**Extra time:** The teacher provides students with special needs extra time to complete work or answer questions. It is important to give students enough time to process their thoughts.

**Oral Reading:** The teacher will read work orally to students. Class work such as tests and literature circles may need to be read aloud to the student.

**Timers:** The teacher will use timers as an instructional tool. The use of timers is beneficial for students who have trouble completing tasks. Timers can be helpful so the student is aware of how much time they have to complete an assignment.

### **Students with 504 Plans**

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### **Gifted & Talented Strategies**

**Extensions/Enrichments:** Teachers will provide gifted and talented students with extension/enrichment projects. Students will be challenged to further their understanding, to apply acquired knowledge, and/or to produce something in reference to acquired knowledge.

**Modify/Change Activities:** Teachers will monitor and modify activities to accommodate those students who need to be challenged further. Additional reading, problem-solving, writing, or project work is necessary for those students who are ready to move on at a rate more accelerated than their peers. In this way, G & T students are provided the same opportunity for support as special needs students.

## Students at Risk of School Failure

**Directions or Instructions:** Make sure directions and/or instructions are given in limited numbers. Give directions/instructions verbally and in simple written format. Ask students to repeat the instructions or directions to ensure understanding occurs. Check back with the student to ensure he/she hasn't forgotten.

**Peer Support:** Peers can help build confidence in other students by assisting in peer learning. Many teachers use the 'ask 3 before me' approach. This is fine, however, a student at risk may have to have a specific student or two to ask. Set this up for the student so he/she knows who to ask for clarification before going to you.

**Alternate or Modified Assignments:** Always ask yourself, "How can I modify this assignment to ensure the students at risk are able to complete it?" Sometimes you'll simplify the task, reduce the length of the assignment or allow for a different mode of delivery. For instance, many students may hand something in, the at-risk student may jot notes and give you the information verbally. Or, it just may be that you will need to assign an alternate assignment.

**Increase One to One Time:** When other students are working, always touch base with your students at risk and find out if they're on track or needing some additional support. A few minutes here and there will go a long way to intervene as the need presents itself.

**Contracts:** It helps to have a working contract between you and your students at risk. This helps prioritize the tasks that need to be done and ensure completion happens. Each day write down what needs to be completed, as the tasks are done, provide a checkmark or happy face. The goal of using contracts is to eventually have the student come to you for completion sign-offs.

**Hands On:** As much as possible, think in concrete terms and provide hands-on tasks. This means a child doing math may require a calculator or counters. The child may need to tape record comprehension activities instead of writing them. A child may have to listen to a story being read instead of reading it him/herself.

**Tests/Assessments:** Tests can be done orally if need be. Break tests down in smaller increments by having a portion of the test in the morning, another portion after lunch and the final part the next day.

**Seating:** Seat students near a helping peer or with quick access to the teacher. Those with hearing or sight issues need to be close to the instruction which often means near the front.

