



# LIGHTING

By KAREN LOFTUS, JOSH HATT, AND KERRY HISHON

Students will be able to demonstrate their knowledge of lighting effectiveness. They'll also be able to identify, analyze, and evaluate how lighting is used in a theatre production.

## 1 - Lighting Design

To be able to demonstrate knowledge of lighting effectiveness.

## 2 - Lighting Systems

To demonstrate comprehension of how lighting systems work.

## 3 - Research Project: Lighting

Students will dive deeper in their knowledge of specific lighting equipment and/or systems as a way to further their ability to use lighting as a tool of storytelling.

# Standards Connections

## National Core Arts Standards

### Generate and conceptualize artistic ideas and work - Grade 6

TH:Cr1.1.6.b - Identify solutions to design challenges in a drama/theatre work.

### Perceive and analyze artistic work - Grade 6

TH:Re7.1.6.a - Describe and record personal reactions to artistic choices in a drama/theatre work.

### Generate and conceptualize artistic ideas and work - Grade 7

TH:Cr1.1.7.b - Explain and present solutions to design challenges in a drama/ theatre work.

### Perceive and analyze artistic work - Grade HS Proficient

TH:Re7.1.HSI.a - Respond to what is seen, felt, and heard in a drama/theatre work to develop criteria for artistic choices.

### Generate and conceptualize artistic ideas and work - High School Proficient

TH:Cr1.1.HSI.b - Explore the impact of technology on design choices in a drama/theatre work.

### Generate and conceptualize artistic ideas and work - High School Accomplished

TH:Cr1.1.HSII.b - Understand and apply technology to design solutions for a drama/theatre work.

### Develop and refine artistic techniques and work for presentation - Grade 6

TH:Pr5.1.6.b - Articulate how technical elements are integrated into a drama/ theatre work.

### Develop and refine artistic techniques and work for presentation - Grade 7

TH:Pr5.1.7.b - Choose a variety of technical elements that can be applied to a design in a drama/theatre work.

### Apply criteria to evaluate artistic work - Grade 7

TH:Re9.1.7.b - Consider the aesthetics of the production elements in a drama/theatre work.

### Apply criteria to evaluate artistic work - Grade HS Proficient

TH:Re9.1.HSI.b - Consider the aesthetics of the production elements in a drama/theatre work.

## Common Core

### Speaking and Listening

CCSS.ELA-LITERACY.CCRA.SL.1 - Prepare for and participate effectively in a range of conversations and collaborations with diverse partners, building on others' ideas and expressing their own clearly and persuasively.

### Language

CCSS.ELA-LITERACY.CCRA.L.1 - Demonstrate command of the conventions of standard English grammar and usage when writing or speaking.

CCSS.ELA-LITERACY.CCRA.L.2 - Demonstrate command of the conventions of standard English capitalization, punctuation, and spelling when writing.

### Language

CCSS.ELA-LITERACY.L.9-10.1 - Demonstrate command of the conventions of standard English grammar and usage when writing or speaking.

CCSS.ELA-LITERACY.L.9-10.2 - Demonstrate command of the conventions of standard English capitalization, punctuation, and spelling when writing.

## California VAPA Standards (2019)

### 6.TH:Cr1 Generate and conceptualize artistic ideas and work

6.TH:Cr1.c - Identify solutions to design challenges in a drama/theatre work.

### 6.TH:Re7 Perceive and analyze artistic work.

6.TH:Re7 - Describe and record personal reactions to artistic choices in a drama/theatre work.

### 7.TH:Cr1 Generate and conceptualize artistic ideas and work

7.TH:Cr1.c - Explain and present solutions to design challenges in a drama/ theatre work.

### Prof.TH:Re7 Perceive and analyze artistic work.

Prof.TH:Re7 - Respond to what is seen, felt, and heard in a drama/theatre work to develop criteria for artistic choices.

### Prof.TH:Cr1 Generate and conceptualize artistic ideas and work

Prof.TH:Cr1.c - Explore the impact of technical theatre elements on design choices in a drama/theatre work.

### Acc.TH:Cr1 Generate and conceptualize artistic ideas and work.

Acc.TH:Cr1.c - Understand and apply technical theatre elements to design solutions for a drama/theatre work.

### 6.TH:Pr5 Develop and refine artistic techniques and work for presentation.

6.TH:Pr5.b - Articulate how technical theatre elements are integrated into a drama/ theatre work.

### 7.TH:Pr5 Develop and refine artistic techniques and work for presentation.

7.TH:Pr5.b - Choose a variety of technical theatre elements that can be applied to a design in a drama/theatre work.

### 7.TH:Re9 Apply criteria to evaluate artistic work.

7.TH:Re9.c - Analyze and evaluate the aesthetics of the technical theatre elements in a drama/theatre work.

### Prof.TH:Re9 Apply criteria to evaluate artistic work.

Prof.TH:Re9.c - Analyze and evaluate the aesthetics and effect of the technical theatre elements in a drama/theatre work.

## Florida Sunshine State Standards

### Critical Thinking & Reflection

TH.912.C.1.3 - Justify a response to a theatrical experience through oral or written analysis, using correct theatre terminology.

TH.912.C.2.4 - Collaborate with a team to outline several potential solutions to a design problem and rank them in order of likely success.

### Skills, Techniques & Processes

TH.912.S.2.2 - Apply technical knowledge of safety procedures and demonstrate safe operation of theatre equipment, tools, and raw materials.

## Georgia Performance Standards 2017 - Theatre Arts

### Grade 6 - Creating

TA6.CR.1 - Organize, design, and refine theatrical work., a. Identify artistic choices, utilize theatre vocabulary, and demonstrate non-verbal communication skills in the rehearsal process., b. Interpret a character's motivation by understanding the relationship between their background and

their behavior., c. Identify the variety of relationships between characters., d. Identify, define, and classify character traits., e. Recognize and demonstrate the roles, responsibilities, and skills associated with collaborative performance., f. Use resources to identify and create technical elements of theatre.

### **Grade 7 - Creating**

TA7.CR.1 - Organize, design, and refine theatrical work., a. Identify and rehearse effective communication skills., b. Compare and contrast character types and relationships by analyzing character motivations, objectives, and goals., c. Compare the physical, emotional, vocal, and social dimensions of a character., d. Investigate the role and responsibility of the cast and crew., e. Identify and model ensemble skills in the rehearsal process., f. Utilize staging and blocking choices to enhance the performance., g. Compare, contrast, and design elements of technical theatre., h. Utilize theatre vocabulary throughout the rehearsal process.

### **Grade 7 - Performing**

TA7.PR.2 - Execute artistic and technical elements of theatre., a. Select a variety of technical elements that can be applied to a theatrical work., b. Incorporate artistic and technical elements into a theatre performance.

### **Grade 8 - Creating**

TA8.CR.1 - Organize, design, and refine theatrical work., a. Differentiate the physical, emotional, vocal, and social dimensions of a variety of characters., b. Compare the relationships and interactions between characters by analyzing character motivation (objectives, obstacles, strategy, action, stakes, outcome)., c. Incorporate dramatic elements through improvisation., d. Connect theatre vocabulary to the application of theatre performance., e. Identify and demonstrate both ensemble and leadership skills in the rehearsal process., f. Evaluate the effectiveness of artistic and technical elements used in a theatre production., g. Design and create scenery, props, costumes, lighting, and sound., h. Assume different roles and responsibilities in the rehearsal process.

### **Grade 8 - Performing**

TA8.PR.2 - Execute artistic and technical elements of theatre., a. Incorporate artistic and technical elements into a theatre production., b. Resolve conflicts in technical applications.

### **Grades 9-12 - FUNDAMENTALS OF THEATRE LEVELS I-IV - Performing**

TAHSFT.PR.2 - Execute artistic and technical elements of theatre., a. Identify and define the various collaborative roles and relationships of technical production personnel (e.g. sound, lighting, set, scenic, costume, dramaturge, makeup, marketing, business aspects) in relation to the directors and performers., b. Identify and apply the various aspects of directing, staging, performance spaces, and rehearsal management., c. Recognize and apply the basic elements and procedures involved in the construction of props, scenery, and platforms., d. Formulate effective theatrical designs in order to support the text and directorial concept.

### **Grades 9-12 - TECHNICAL THEATRE LEVELS I-IV - Creating**

TAHSTT.CR.1 - Create technical elements of theatre (e.g. sets, props, costumes, makeup, lighting, sound)., a. Explore and utilize the elements of design and principles of composition for a theatrical context., b. Create basic to advanced technical elements by choosing appropriate materials, tools, and techniques., c. Analyze and/or develop choices in technical elements (e.g. sets, lights, costumes, sound) of informal and formal productions and theatrical texts as a part of the design process, considering mood, tone, and

symbolism., d. Create industry standard paperwork (e.g. budgets, cut lists, materials, cue sheets, lighting and costume plots, schedules, calendars) as it relates to completing design renderings and/or models., e. Conceptualize and/or generate design elements for a dramatic work (e.g. scene, one act, full-length, musical).

### **Grades 9-12 - TECHNICAL THEATRE LEVELS I-IV - Producing**

TAHSTT.PR.1 - Produce technical elements in theatre., a. Identify, explain, and demonstrate standard safety guidelines and operating procedures for tools and equipment used in formal and informal theatre productions., b. Identify and interpret design and construction documentation, materials, techniques, and procedures for production., c. Differentiate between stock and non-standard material, scenic, or technical elements related to a production., d. Conduct initial research about design to inform further development of the production concept., e. Explore and/or produce an appropriate series of design documentation for a theatrical production (e.g. thumbnail sketches, swatches, first renderings, mixed media presentation).

### **Grades 9-12 - TECHNICAL THEATRE LEVELS I-IV - Responding**

TAHSTT.RE.1 - Respond to technical elements of theatre using appropriate supporting evidence., a. Revise projects, plans, and/or procedures after peer criticism to improve development of technical elements., b. Identify and analyze the characteristics of different types of performance spaces and how they can influence production decisions (e.g. proscenium stage, studio/black box, thrust stage, classroom, arena, found space)., c. Evaluate design choices of professional designers., d. Evaluate design and technical elements in a post mortem following the completion of a theatre production.

### **Grades 9-12 - TECHNICAL THEATRE LEVELS I-IV - Connecting**

TAHSTT.CN.1 - Connect technical elements of theatre., a. Explore and understand the collaborations between designers and directors to develop design elements., b. Investigate the history of theatre architecture, stage technology, and other technical elements., c. Understand technical theatre career options and various industry unions (e.g. International Alliance of Theatrical Stage Employees, Actor's Equity, United Scenic Artists, Stage Directors and Choreographers Society, League of Resident Theatres)., d. Explore connections with other disciplines associated with technical theatre (e.g. scientific principles behind technical theatrical practices, physics of electricity and sound, basic structural engineering, load ratings, working load limits)., e. Connect design themes with historical and social relevance using dramaturgical research and an understanding of historical and cultural artistic movements (e.g. expressionism, realism, Kabuki, Sanskrit Drama).

## **North Carolina Essential Standards**

### **Beginning High School Standards - Aesthetics**

B.AE.1.1 - Understand the major technical elements, such as sound, lights, set, and costumes, and their interrelationships.

B.AE.1.2 - Explain how the major technical elements, such as sound, lights, set, and costumes, are used to enhance formal or informal productions.

### **Intermediate High School Standards - Aesthetics**

I.AE.1.1 - Use technical knowledge and design skills to formulate designs.

### **Proficient High School Standards - Aesthetics**

P.AE.1.1 - Analyze design concepts for aesthetic impact of technical elements.

P.AE.1.2 - Apply working knowledge to solve problems in the major technical elements, such as sound, lights, set, and costumes, for formal or informal audiences.

### **Advanced High School Standards - Aesthetics**

A.AE.1.2 - Use the knowledge and skills associated with technical roles, such as lighting operator, prop master, or stage manager, in an appropriate and effective manner.

## **Tennessee Theatre Curriculum Standards**

### **GRADES 9-12**

5.0 Research - Students will research by evaluating and synthesizing cultural and historical information to support artistic choices.

## **Texas Essential Knowledge and Skills for Theatre Arts**

### **MS 117.212 LII - Foundations: Inquiry and Understanding**

B.1.E - demonstrate knowledge of theatrical vocabulary and terminology.

### **MS 117.212 LII - Creative Expression: production**

B.3.B - create theatrical elements such as scenery, properties, lighting, sound, costume, makeup, and publicity appropriate to specific performances.

### **MS 117.213 LIII - Foundations: Inquiry and Understanding**

B.1.E - apply knowledge of theatrical vocabulary and terminology.

### **MS 117.213 LIII - Creative Expression: production**

B.3.B - create theatrical elements such as scenery, properties, lighting, sound, costume, makeup, and publicity using the principles of design.

### **HS 117.315 LI - Creative Expression: production**

C.3.A - develop and practice technical theatre skills.

C.3.B - apply technical knowledge and skills safely to create or operate theatrical elements such as scenery, properties, lighting, sound, costumes, makeup, current technology, or publicity.

C.3.D - demonstrate responsibility, artistic discipline, and creative problem solving by concentrating in one or more areas of theatre production such as acting, technical theatre, or theatre management.

### **HS 117.316 LII - Creative Expression: production**

C.3.A - develop and practice safe and effective stagecraft skills.

C.3.E - develop responsibility, artistic discipline, and creative problem solving by concentrating in one or more areas of theatre production such as acting, technical theatre, or theatre management.

2 - recognize the importance of illusion in lighting design  
3 - demonstrate understanding of the important of artistic unity in lighting design

4 - demonstrate knowledge of appropriate safety procedures

5 - demonstrate understanding of functions of standard lighting instruments: flood, fresnel, ellipsoidal, follow spotlight, border lights

6 - demonstrate understanding of functions of gels, barn doors, gobos, c-clamps, shutters

7 - demonstrate understanding of basic functions of lighting control systems

8 - demonstrate understanding of symbolism and psychological implications of colour, angle, intensity and timing in creating mood

9 - demonstrate understanding that gels affect the way colour is perceived in scenery, costume and makeup

### **Junior Orientation**

generate imaginative and creative solutions to problems

listen effectively

meet deadlines and follow through on individual and group commitments

offer and accept constructive criticism, given specific guidelines, with a desire to improve

support positivity the work of others

understand that technical elements enhance verbal/physical communication

work cooperatively and productively with all members of the class in pairs, small groups and large groups

### **Junior Goal I Objectives**

develop self-discipline

develop the ability to initiate, organize and present a project within a given set of guidelines

develop the ability to offer and accept constructive criticism

develop the willingness to make a decision, act upon it and accept the results

strengthen powers of concentration

### **Technical Theatre - Levels I, II, III - Awareness**

1 - recognize the basic terminology associated with the component being studied

2 - demonstrate understanding of the basic functions of the component being studied.

3 - show awareness of the importance of research

4 - show awareness of available resources pertaining to the component being studied; e.g., supplies, libraries and theatre companies

5 - demonstrate understanding of the various conventions of the components being studied

### **Technical Theatre - Levels I, II, III - Readiness**

6 - demonstrate understanding of the importance of planning and organization

7 - select a project appropriate to the component being studied

8 - demonstrate understanding of the use of colour, shape and texture to achieve a desired effect

### **Technical Theatre - Application**

14 - use appropriate tools and skills to assemble or construct the planned project

### **Senior Goal I Objectives**

demonstrate a sense of inquiry and commitment, individually and to the group

demonstrate a sense of responsibility and commitment,

## **Alberta, Canada**

### **Technical Theatre/Design 10-20-30 - Lighting**

1 - demonstrate understanding of the purpose of stage lighting

10 - demonstrate safe and proper care in handling and maintaining available lighting instruments

individually and to the group

demonstrate the ability to consider decisions, act upon them and accept the results

demonstrate the ability to contribute effectively and constructively to the group process

demonstrate the ability to initiate, organize and present a project within a given set of guidelines

demonstrate the ability to offer, accept, and reflect upon, constructive criticism

develop a sense of inquiry and commitment to learning

extend the ability to concentrate

increase self-discipline

### **Orientation Drama 10**

concentrate on the task at hand

demonstrate effective use and management of time

demonstrate self-discipline, self-direction and a sense of responsibility

listen to self and others

make effective decisions or choices

offer and accept constructive criticism with a desire to progress

positively support the work of others

share ideas confidently

solve problems imaginatively and creatively

work cooperatively and productively

### **Grades 9 & 10 - Creating and Presenting - Presentation Techniques & Technologies**

A.3.3 - use a variety of technological tools (e.g., light, sound, set design, props, models) to enhance the impact of drama works

## **British Columbia (2018)**

### **GRADE 6 - ARTS - Reasoning and reflecting**

Research, describe, interpret and evaluate how artists (dancers, actors, musicians, and visual artists) use processes, materials, movements, technologies, tools, techniques, and environments in the arts

### **GRADE 7 - ARTS - Reasoning and reflecting**

Research, describe, interpret and evaluate how artists (dancers, actors, musicians, and visual artists) use processes, materials, movements, technologies, tools, techniques, and environments in the arts

### **GRADE 8 - ARTS - Reasoning and reflecting**

Describe, interpret and evaluate how artists (dancers, actors, musicians, and visual artists) use processes, materials, movements, technologies, tools, techniques, and environments to create and communicate ideas

### **GRADE 10 - DRAMA - Explore and Create**

Experiment with a range of props, processes, and technologies

## **Ontario, Canada**

### **Grades 9 & 10 - Foundations - Responsible Practices**

C.3.2 - identify and apply the skills and attitudes needed to perform various tasks and responsibilities in producing drama works (e.g., use active listening and cooperative problem-solving skills; practise punctuality; use tact in suggesting changes and improvements; demonstrate willingness to accept criticism and build consensus)

### **Grades 9 & 10 - Foundations - Concepts and Terminology**

C.1.3 - demonstrate an understanding of production roles, practices, and terminology when planning and presenting drama works (e.g., set design, costume design, lighting plot, light cue sheet, sound cue sheet, prompt book, set sketch, set model)