

**Lesson Plan Title: Functions and Qualities of Light****Author: Aileen Zeigler****Date: July 10, 2020**

**Description:** In this tech lesson, students will examine the functions and qualities of lighting. They will demonstrate their understanding by creating images with light.

**Learning Outcomes:**

The students will be able to describe and identify the functions and qualities of light as they pertain to a theatrical production

**Grade Level:** High School Accomplished**2014 National Core Theatre Standards:**

TH:Pr5.1.II.b. Apply technical elements and research to create a design that communicates the concept of a drama/theatre production.

**Time to Teach:** 3 - 50 minute class periods**Materials Required for Instruction:**

Dramatics magazine images of productions or other magazines with images of faces, places, etc.

light sources - flashlight, theatrical fixture, clip light

objects to light- these should be proportional in size to your light source, i.e. if using a flashlight use dolls, stuffed animals or toy furniture.

Color- gels, color changing fixture or other translucent material that can be used to change the color of light. (students used dish soap and water bottles at home during distance learning)

## Opening:

Have ready an assortment of magazines with images of faces, places, etc. Even better if they are Dramatics magazine with images of productions! Have students choose a magazine image and give them 2 minutes to brainstorm a list of words which describe the light in the image. Use this brainstorming to begin the discussion of the qualities of light.

## Instructional Procedures:

1. Ask the class to brainstorm how you can use light. What are the qualities of light? How can you change and adjust a light?
2. Then share examples of each of the qualities.
  - a. **Qualities of Light: Intensity, direction, movement, color, texture**
3. Ask students to take pictures that demonstrate the qualities of light. Light source options include flashlights, phones, clip lights, desk lamps or theatrical fixtures. Students can then use dolls or other small items to light. Ask them to take at least 5 different photos demonstrating their understanding of the qualities.
4. Share these photos with the class and begin to discuss the impact of the lights on the image. How does shifting the lighting affect the story, character or mood.
5. The analysis of examples of lights leads directly into a review of the functions of light. I use a slideshow with photos that demonstrate each one. **Functions of Light: visibility, mood, composition, focus, verisimilitude, unity**
6. Then steer the conversation to how lighting could accomplish those things. What are the tools available to a lighting designer? How can you combine the qualities of light to accomplish the functions of lighting.
7. Have students select a recognizable story, a fairy tale, popular book or movie, etc. They should then select 3 key moments from that story. Using available lighting; such as the flashlights from the previous activity or you could allow them access to your theatrical lighting, ask students to light a space as if it were those 3 key moments in the story. They should then take a photo of each lighting look. Students should then share those photos with annotations about their goals and design choices.
  - a. Little Red Riding Hood
    - i. Traveling to Grandma's house - textured light on floor to create forest feel, yellow/amber light to indicate outside
    - ii. Wolf hiding in grandma's bed - saturated cool lighting to show gloomy mood, foot lighting to create shadows
    - iii. Little Red and Grandma escape- bright, soft light to indicate positive and safe moment

**Functions of Light: visibility, mood, composition, focus, verisimilitude, unity**

**Qualities of Light: Intensity, direction, movement, color, texture**

**Assessment:**

	4	3	2	1
Overall aesthetic	Images presented tie together the qualities of light in order to enhance the story telling via mood, setting and aesthetic of the story.	Images presented utilize multiple qualities of light to create pictures that establish the mood, setting and aesthetic tone of the story.	Images presented use qualities of light to indicate the mood, setting or aesthetic of the story.	the qualities of light presented do not create a picture that is connected to the story.
Annotations	The annotations elaborate upon clear and specific design choices that align with their goals.	The annotations describe clear and specific design choices met their design goals.	The annotations indicate some design choices.	The annotations do not specify design choices.

**Closing:**

Final debate after sharing the lighted images. Ask the students to rank the functions of lighting in order of importance.

**Please use the space below for suggestions for any adaptations or accommodations for inclusion of special needs learners.**

The method for annotations can be adapted based upon the needs of the learner.

Students could work in groups to create their images, each acting as light holders for the other designers in their group.

This work could also be completed at home with lamps, flashlights and household items.

**Please use the space below to list any suggestions for multi-cultural inclusions.**

Suggest and welcome students to use stories that are familiar to them, and important in their communities.

An important topic when looking at color in lighting is to discuss the effect of different color lighting on different skin tones. It is a lighting designer's responsibility to make all actors look good, not just white actors. Many theatres have shifted from using the McCandless amber and blue and instead use chocolate and purple as they are flattering on more skin tones.

**Additional Tools & Resources:**

<http://lightingdb.nypl.org>

<http://www.stagelightingprimer.com/index.html?slfs-angles.html&2>