

Title
Ring Lights and Different Types of Lighting – Lesson Plan 6 <div style="text-align: right;">Created by Izzy Voltz</div>
Grade Level
K – 5
Time Allotment
One 45-minute class period
Lesson Summary
In this lesson, students will learn about different types of lighting in filmmaking projects and what purposes they serve. They will also get a chance to experiment recording with a ring light at school.
Objective
Students will understand how different types of lighting affects how a video looks. Through hands-on experience manipulating light, they will see how significant lighting is to video projects and how lighting can change the mood of the video.
Vocabulary
<p><i>Three-point lighting</i></p> <ul style="list-style-type: none"> - A way of lighting videos that includes key, back, and fill light. <i>(See introduction lesson for further explanation)</i> <p><i>Ring light</i></p> <ul style="list-style-type: none"> - A circular light with limited settings. Usually the camera is placed in the middle of the ring light so that the subject in focus is evenly lit with little to no shadows. <p><i>Over-exposed lighting</i></p> <ul style="list-style-type: none"> - When the subject(s) and background in the frame are too bright to see. For example, if a subject is over-exposed, their skin tone might go from tan to completely white, making it hard to see their features. <p><i>Under-exposed lighting</i></p> <ul style="list-style-type: none"> - When the subject(s) and background are too dark to see. This can happen if you are filming at night or if the camera is not focusing correctly. <p><i>Cool tones</i></p> <ul style="list-style-type: none"> - Colors such as blue, green, and white. These colors usually convey a sense of distance or drama in a scene, oftentimes used in intense moments. <p><i>Warm tones</i></p>

- Colors such as orange, red, and yellow. These colors usually convey a sense of warmth and coziness.

Hard lighting

- Light that casts a sharp and dark shadow on a subject in a video.

Soft lighting

- Light that casts an even shadow onto the subject in a video. There are no harsh edges and everything looks smooth.

Prep for teachers

- Provide students with a recording device, a ring light, and a diagram of Standard Three-Point Lighting: https://static.pbslearningmedia.org/media/media_files/Three_Point_Lighting.pdf

Learning activity/main lesson

Introduction lesson

Start a discussion with students about how many lights they see in the room. *Ask them:* how many light sources are in the room? If you are watching a video and it is really dark, what time of day do you think it is? If a video is being filmed inside of a room, do you think that the sunlight might affect how the lighting looks? What direction the light is coming from in the room? If the only lights in the room are overhead lights, then the light is coming from above. If there are lamps, then the light might be coming from the side.

Explain to students that lighting is an important part of every movie, show, and video being produced. Lighting is important because it sets the tone for a video and it also guides the viewers to where they should be looking. You can use any lights you have available to create depth and tone in your videos, this includes sunlight and other sources of natural light.

Ask students:

- If you are watching a video and it is really dark, what time of day do you think it is?
- If a video is being filmed outside, what do you think the main source of light is?
- If a video is being filmed inside of a room, do you think that the sunlight might affect how the lighting looks?

Ring light

A ring light is a source of lighting that comes directly in front of the subject being recorded. It helps eliminate shadows from around your subject and evenly lights the object so that the camera can see it clearly.

Three-point lighting

Three-point lighting is a standard method used in visual media. By using three separate positions, the photographer can illuminate the subject however desired, while also controlling the shading and shadows produced by direct lighting. There are three aspects to create three-point lighting:

Key lighting

The main light and brightest light in the video. This can be the ring light. The key light highlights the subject of the video so that it can be seen clearly.

Back lighting

A light coming from behind the subject, making it stand out from the background, adding depth to what the viewers see.

Fill lighting

A light coming from the sides, softening the shadows from the key and back light.

Tip: setting up your video the way you want it to be set up before hitting record means that you won't have to do as much editing later!

Learning activity

Before beginning, ask students clarifying questions (especially if you are doing the activity on a different day than the initial lesson). Ex., *What kind of light does a ring light provide? What are the main components of three-point lighting? What do we mean by natural light?*

Getting the lighting in a video to look the way you want it to look might take some time. If you are using only a ring light, your subject should look evenly lit. Take your time to make sure your video won't be over or under-exposed.

While filming, record with the same type of lighting so that your video flows properly. This can change depending on the scene and the setting, but if you are filming something in the same room or the same location over the span of a few different days, try to light it the same way every time before hitting record.

Explain to students that you will be comparing and contrasting videos with a ring light and without a ring light to demonstrate the difference between the two videos and how the lighting impacts what you are seeing.

Provide students with a recording device and a ring light.

1. After providing students with a recording device and ring light put students into groups of two or three. One student will record and the other student(s) will act as the subject(s). Have students to set up a scene where there is action, movement, and dialogue. This could be a short scene where two of the students are walking down a long hallway or where students are standing somewhere relatively dark, stepping into the light.
2. Challenge groups to record in different spaces.

3. Students will record a short scene with the ring light, then without. Once the first video without the ring light has been recorded, have students record the same exact short scene with the ring light. They can place the ring light behind, in front, or beside the subjects—allow them to be creative!
4. Once students have recorded their videos with and without the ring light, have them come back to the classroom so that both videos can be shared with the other students. When they share their videos, allow students to give each other feedback, encouraging both positive comments and kind criticism.

Monitor students in case they need any help or if you see them doing anything incorrectly.

Culminating activity

Reflection questions:

- Did the ring light make your video look better or worse?
- Were your peers more visible when the ring light was used while recording versus when it wasn't?
- What did you like about this experiment? What did you not like? Why?
- For the students who were filmed, how did it feel to be in front of the camera and then share that with others?

Teacher Tips

Ring lights are portable and easy to use because they usually only have a few settings – changing the intensity of brightness with a dimmer.

If you choose to use other sources of light such as lamps, flashlights, or handheld lights, make sure to consider that lights can get hot, and you have to be extra careful so that you don't get hurt.

Additional Resources

Using these additional resources can provide further ideas and tips on how to implement video production in your classroom.

Lighting Strategies | Video Production: Behind the Scenes with the Pros

<https://westernreserve.pbslearningmedia.org/resource/ket-vid-production-17/lighting-strategies/>

Standard Three-Point Lighting Diagram

https://static.pbslearningmedia.org/media/media_files/Three_Point_Lighting.pdf

Lighting Techniques

<https://westernreserve.pbslearningmedia.org/collection/video-production-behind-the-scenes-with-the-pros/t/lighting-techniques/>

Lights, Camera, Questions! | Media Academy

<https://westernreserve.pbslearningmedia.org/resource/lights-camera-questions-video/media-academy/>

Media Academy

<https://westernreserve.pbslearningmedia.org/collection/media-academy/>

Media Arts Toolkit

<https://westernreserve.pbslearningmedia.org/collection/media-arts-toolkit/>