

# Unit III - The Video Camera

Content Area: **Technology**  
Course(s): **Video Production I**  
Time Period: **3 weeks**  
Length: **Weeks**  
Status: **Published**

## Unit Overview

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The students will learn how the Video Camera works and the equipment needed to operate it.

## Transfer

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Students will be able to independently use their learning to...

- Types of Cameras
- Parts of the Camera
- Mounting the Camera
- Camera Care
- Basic Rules of composition
- White Balancing
- Depth of field
- Camera Movements

## Meaning

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## Understandings

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After completing this unit, students will be able to:

- Explain the difference between the various video cameras available
- Identify each part of a video camera and note the corresponding function.
- Differentiate between the focal length and the focal point related to a zoom lens.
- Explain the interrelationship between f-stop, the iris, and aperture in controlling light.
- Understand how the white balancing a camera affects the picture.
- Summarize how the depth of field contributes to composing a good picture.
- Identify the composition of each type of camera shots.
- Illustrate a variety of camera movements.
- Explain how a videographer can psychologically and physically affect the audience.

## **Essential Questions**

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- How do I use a video camera?
- What do I use to make my shot look professional?
- How do I control the amount of light going in to the video camera?
- What does White Balancing a camera do?
- Why does my shot not look like what I see on TV?
- Moving the camera and tripod is called....

## **Application of Knowledge and Skill**

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### **Students will know...**

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Students will know...

- How to explain the difference between the various video cameras available
- How to identify each part of a video camera and note the corresponding function.
- How to differentiate between the focal length and the focal point related to a zoom lens
- How to explain the interrelationship between f-stop, the iris, and aperture in controlling light.
- How to understand how the white balancing a camera affects the picture.
- How to summarize how the depth of field contributes to composing a good picture.
- How to identify the composition of each type of camera shots.
- How to illustrate a variety of camera movements.
- Explain how a videographer can psychologically and physically affect the audience.

### **Students will be skilled at...**

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Students will be skilled at...

- Identifying the parts of a video camera.

- Perform basic functions on a video camera.
- Differentiate between the focal length and focal point related to a zoom lens
- Explain the interrelationship between f-stop, the iris, and aperture in a controlled light environment.
- Setting the White Balance of the camera.
- Composing a good shot
- Using the correct terminology to move the camera.

## **Academic Vocabulary**

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aperture  
 auto-focus  
 auto-iris circuit  
 camcorder  
 camera control unit  
 camera head  
 charge coupled device  
 convertible camera  
 diopter adjustment  
 dolly  
 drag  
 fast lens  
 fluid head  
 focal length  
 focal point  
 focus  
 friction head  
 f-stop  
 gain  
 hot  
 iris  
 jib  
 lens  
 optical center  
 pan handle  
 pedestal column  
 pedestal control  
 remote control unit  
 shutter  
 slow lens  
 studio camera  
 studio pedestal  
 subjective camera  
 target  
 tighten  
 tripod  
 tripod head  
 variable focal length lens  
 viewfinder

widen  
zebra stripes  
zoom in  
zoom lens  
zoom lenses  
zoom out

arc  
arc left  
arc right  
bust shot  
close-up  
depth of field  
dolly  
dolly in  
dolly out  
establishing shot  
extreme close-up  
extreme long shot  
four shot  
great depth of field  
group shot  
head room  
high angle shot  
knee shot  
lead room  
long shot  
low angle shot  
macro  
medium close-up  
medium long shot  
medium shot  
mid shot  
minimum object distance  
narrow angle shot  
nose room  
over-the-shoulder shot  
pan  
pan left  
pan right  
pedestal  
pedestal down  
pedestal up  
pre-focus  
profile shot  
pull focus  
rack focus  
reaction shot  
rule of thirds  
selective depth of field  
shallow depth of field  
shot

shot sheet  
three shot  
tilt  
tilt down  
tilt up  
truck  
truck left  
truck right  
two shot  
white balance  
wide angle shot

### **Learning Goal 1**

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Students will understand the parts and the functions of a video camera.

### **Target 1**

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Students will be able to identify the parts of a Video Camera.

### **Target 2**

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Students will be able to understand what the functions of a video camera are.

### **Learning Goal 2**

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Student will differentiate between the focal length and focal point related to a zoom lens.

### **Target 1**

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Students will be able to explain the focal length and be able to demonstrate different focusing techniques.

## **Target 2**

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Students will be able to explain the zoom lens works and demonstrate techniques on how to use the zoom lens.

## **Learning Goal 3**

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Students will be able to explain how to compose a good shot, move the camera with the proper terms, and how White Balancing can effect the picture.

## **Target 1**

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Students will be able to explain how to compose a good shot, and be able to point out when a shots composition is wrong.

## **Target 2**

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Students will be able to explain and demonstrate the camera movement terms by using them to move the camera.

## **Target 3**

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Students will be able to explain why and how to proper White Balance a camera shot.

## **Summative Assessment**

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Written/Performance Assessment

## **21st Century Life and Careers**

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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.CRP4	Communicate clearly and effectively and with reason.
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.

## **Formative Assessment and Performance Opportunities**

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Written Assessment

Performance Assessment

## **Accommodations/Modifications**

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Multiple charts and diagram handouts of the cameras, lenses, and accessories

Online videos of the parts of a camera and their uses

Enrichment opportunities: Video assistance outside the classroom

Differentiation: 504 accommodations and IEP modifications

## **Unit Resources**

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Television Production & Broadcast Journalism Text Book

Television Production & Broadcast Journalism Workbook

TV Studio Camera