

INTRODUCTION TO AUDIO & VIDEO TECHNOLOGY LESSON PLAN

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LESSON SUMMARY: This lesson is meant to introduce and educate students on audio video technology. Depending on the level of interaction and discussion with class participants, this lesson can last 45-55 minutes or longer.

OBJECTIVE: Upon completion of these materials, students will know the basics of recording and editing audio and video and identify the tools and equipment used in audio and video technology.

MATERIALS AND RESOURCES NEEDED:

- Audio & Video Technology Video
 - *Run Time: 18 minutes, 17 seconds*
- Student internet access for test

INTRODUCTION / WARM-UP: Do frequency, amplitude, and wavelength relate to audio technology, video technology, or both?

INSTRUCTIONAL VIDEO OUTLINE

- Differences between audio and video technology
- Frequency
 - Audio: pitch of the sound
 - Video: frame rate
- Amplitude
 - Audio: volume of the sound
 - Video: brightness of the light
- Wavelength
 - Audio: pitch of the sound
 - Video: color of the light
- Tools and Equipment
 - Microphones
 - Dynamic microphone
 - Condenser microphone
 - Ribbon microphone
 - Mixer (console or board) - Technique: Sound mixing
 - Digital Audio Workstations (DAW) - Technique: Mastering
 - Cameras
 - Digital single-lens reflex (DSLR)
 - Mirrorless camera
 - Video camera
 - Speakers
 - Headphones
 - Lights
 - Tripods
 - Cables

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INSTRUCTIONAL VIDEO OUTLINE CONTINUED

- Recording Audio
 - Choose microphone
 - Connect microphone to mixer or audio interface
 - Adjust equalization and other levels on mixer
 - Record
- Editing Audio
 - Import audio files into audio editing software
 - Make edits
 - Master the audio
- Recording Video
 - Choose camera
 - Lighting
 - Key light
 - Fill lights
 - Backlight
 - Ring lights
 - Framing
 - Connect audio equipment
 - Record
- Editing Video
 - Import video files into video editing software
 - Make edits
 - Mix and master audio behind video clips
- Career pathways and industry projections

CLASS ACTIVITIES

Group Activity: Frequency, Amplitude, and Wavelength

- The instructor should lead a class discussion on the differences between frequency, amplitude, and wavelength as they relate to audio and video.

Independent Activity: Identifying Audio and Video Equipment

- Using images or physical equipment in the classroom, the instructor should show students different types of microphones, cameras, and other audio/video equipment. Independently or in groups, students should identify each piece of equipment and describe its purpose.

LESSON EVALUATION:

Students complete the Audio & Video Technology test on MyCareerTech.com.