

Digital Communications III: Grades 10, 11, 12

Adopted 2010

Elements of Media

1.1 Define terminology

1. Prepare a list of terms with definitions 1.1.1
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1.2 Describe the basic elements of media

1. Identify the typical components of media: text, graphics, sound, video, and animation 1.2.1
 2. Review the basic concepts of text and graphics as they relate to digital media 1.2.2
 3. Evaluate the appropriate use of elements in media 1.2.3
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1.3 Examine the types of software used in the development of digital media

1. Evaluate the types of software used in the development of digital media: animation, sound editing, podcasting, file conversion, painting, drawing, image editing, video editing, DVD authoring, web design 1.3.1
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1.4 Identify current and emerging technologies as they apply to digital media

1. Identify current and emerging technologies, i.e. E-readers, social networking, podcasts, apps, games, wiki, blog, mobile devices, online learning systems, cloud computing 1.4.1
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1.5 Discuss the copyright laws and guidelines that affect the use of digital media

1. Analyze and illustrate the basic concepts of ethics, copyright law, fair use, public domain, shareware, and royalty-free 1.5.1
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Web Design

2.1 Define terminology

1. Prepare a list of terms with definitions 2.1.1
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2.2 Identify the options for developing a website

1. Explain the options for designing and creating a website, i.e. writing the code, using web design software, using an online website builder, outsourcing to a professional web designer 2.2.1

2.3 Discuss design considerations and planning steps in developing an effective website

1. Explain concepts to be considered when planning a website: web-safe colors, appropriate fonts, screen size, file naming conventions, browser compatibility, download time [2.3.1](#)
 2. Evaluate web sites for effectiveness [2.3.2](#)
 3. Determine target audience [2.3.3](#)
 4. Develop a navigational structure [2.3.4](#)
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2.4 Review the copyright/trademark laws as they relate to creating and publishing

1. Identify and critique acceptable sources of media for websites [2.4.1](#)
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2.5 Identify components of a website

1. Identify a multipage website using components such as: templates, thumbnails, banner, photo gallery, alternative text, page captions, tables, hover/rollover buttons, forms, image map/hot spot, site map [2.5.1](#)
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2.6 Create a website

1. Create a basic website with components such as: banner, page titles, background color or images, graphics, appropriate text, hyperlinks [2.6.1](#)
 2. Create a multi-page website with components such as: navigational structure, hot spot, rollover, animated gifs, tables, etc. [2.6.2](#)
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2.7 Examine web hosting options

1. Identify the various options for hosting a website [2.7.1](#)
 2. Explain domain naming [2.7.2](#)
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Audio/Sound

3.1 Define terminology

1. Prepare a list of terms with definitions [3.1.1](#)
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3.2 Discuss the categories of audio

1. Identify and give examples of the categories of audio: speech, sound effects, music, and silence [3.2.1](#)
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3.3 Discuss common sound file formats

1. Compare quality size, compression and platform compatibility of audio formats: MP4, Midi, AIF, Wave, WMA, MP3 [3.3.1](#)
 2. Compare and contrast the following: streaming audio and downloading audio [3.3.2](#)
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3.4 Discuss the hardware needed for sound

1. Connect speakers, microphone, and headphones to the computer and adjust settings [3.4.1](#)

2. Identify different types of microphones: omnidirectional microphone, bidirectional microphone, boom microphone, lavalier microphone (lapel), wireless microphone, mounted microphone 3.4.2
 3. Assess appropriate use of microphones 3.4.3
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3.5 Discuss the software needed for sound

1. Compare and contrast the software used to manipulate audio: editing, playback, conversion 3.5.1
 2. Create a sound file 3.5.2
 3. Adjust settings to maximize sound quality: sampling rate, bit rate, and channels 3.5.3
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3.6 Review the copyright laws and guidelines that affect the use of sound

1. Analyze and critique acceptable sources of sound for digital media productions, i.e. royalty-free, original works, etc. 3.6.1
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3.7 Describe the process of editing sound

1. Edit a sound file using a sound editor program, i.e. mix sound, insert sounds, cut sounds, rip sound files, convert sound formats 3.7.1
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3.8 Incorporate sounds in media

1. Create and incorporate sound in media, i.e. public service announcement, podcast, webcast, etc. 3.8.1
 2. Upload sound files to webpage 3.8.2
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Animation

4.1 Define terminology

1. Prepare a list of terms with definitions 4.1.1
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4.2 Discuss the different types of animation

1. Compare and contrast 2D and 3D animation 4.2.1
 2. Examine the different types of animation: frame, stop motion, morphing, warping 4.2.2
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4.3 Discuss the software needed to create animation

1. Compare and contrast the software used to create the different types of animation 4.3.1
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4.4 Describe the different processes for creating animation

1. Create a frame animation, i.e. animated GIF 4.4.1
 2. Create a stop motion animation 4.4.2
 3. Create a morphing/warping animation 4.4.3
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4.5 Incorporate an animation in a media production

1. Utilize animation in media production 4.5.1
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Integration

5.1 Integrate the basic elements of media into a project

1. Create a project incorporating the media elements 5.1.1