

Multimedia

Unit	Objectives
Foundational Concepts	<ol style="list-style-type: none"> 1 Develop vocabulary related to multimedia 2 Investigate the key principles in internet safety, security, and privacy 3 Utilize hardware to manipulate various types of media (e.g., cameras, microphones, graphic tablets) 4 Determine appropriate software application for task 5 Use organizational skills to plan multimedia products (e.g., storyboarding, outlining, scripting, task delegation) 6 Apply design principles used in multimedia productions 7 Create text using typography principles 8 Evaluate and determine hardware and software required for multimedia use
Electronic Presentations	<ol style="list-style-type: none"> 1 Identify a variety of presentation software (e.g., Prezi, Empressr, PowerPoint, Open Office Impress, Apple Keynote, NXPowerlite) 2 Identify components of effective electronic presentations 3 Design linear and non-linear presentations (e.g., interactive game) 4 Import files into a presentation (e.g., text, images, audio, video) 5 Apply advanced editing techniques (e.g., build, effects, timing, animation, transitions) 6 Export presentation to various formats (e.g., .ppt, .jpg, .html) 7 Deliver a presentation using professional standards and techniques
Emerging Technologies	<ol style="list-style-type: none"> 1 Utilize and create collaborative electronic tools (e.g., wikis, blogs, forums) 2 Utilize web-based technologies to publish media (e.g., screencasts, podcasts, vodcasts, iTunes)
Animation	<ol style="list-style-type: none"> 1 Create frame-by-frame animations 2 Create reusable symbols (e.g., button, movie, graphic) 3 Apply motion and shape tweens 4 Modify bitmaps (trace bitmap, convert to symbol) 5 Use layers and object modification techniques (e.g., transform, alpha transparency, filters) 6 Add interactivity to animations with buttons, menus, and scripting 7 Explore advanced animation techniques (e.g., 3D)
Audio Files	<ol style="list-style-type: none"> 1 Compare and contrast audio formats common size and quality (e.g., .mp3, .wav, .midi) 2 Rip and import audio from a variety of sources (e.g., CD/DVD, video, Internet) 3 Create original audio (e.g., voice, instrument) 4 Mix audio (e.g., layering, trimming, level adjustments) 5 Apply effects to audio (e.g., noise reduction, amplify, echo) 6 Export audio files based on delivery method 7 Apply editing techniques
Video Files	<ol style="list-style-type: none"> 1 Develop pre-production documents (e.g., storyboard, shot list) 2 Apply basic filming techniques (e.g., camera angles, camera movement, lighting, sound) 3 Access, capture, and import a variety of file sources converting file types, if necessary (e.g. audio, video, graphics) 4 Arrange video clips, audio clips, titles and still images on timeline 5 Manipulate clips (e.g., link/unlink, adjust transparency, set properties, trim, adjust speed/duration) 6 Apply special effects, transitions, key frame/motion settings, animations, filters, and text 7 Synchronize audio with video 8 Apply advanced editing techniques (e.g., split screen format, chromakey, audiopan) 9 Evaluate sources for playing completed video (e.g., hardware, software, web applications) 10 Apply codec (compression) appropriate for the media delivery 11 Export video for a variety of media outlets (e.g., broadcast, web) 12 Author DVD

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Foundations of Communication	<ol style="list-style-type: none">1 Demonstrate ability to listen/read and follow directions2 Demonstrate proofreading and spell check of written media3 Demonstrate appropriate use of grammar while delivering presentations4 Demonstrate ability to format written communications to include numbers, and punctuation5 Demonstrate ability to function as a team member6 Demonstrate ability to research and analyze information from various sources (i.e. written, digital) for use in written or oral presentation
Workplace Readiness Skills	<ol style="list-style-type: none">1 Compare copyright and patent laws for multimedia between educational and workplace settings (e.g., video, text, sound, pictures)2 Demonstrate ethical behavior when designing multimedia applications3 Identify career/self-employment opportunities in multimedia production4 Exhibit leadership skills through a student organization (e.g., FBLA, PBL)5 Interact with industry professionals (e.g., guest speakers, field trips, job shadowing)6 Use help tools (e.g., technical manual, on-line help, technical support)7 Demonstrate mastery through work samples
Managing Images	<ol style="list-style-type: none">1 Acquire and import images from a variety of sources (e.g., scanners, cameras, phones)2 Apply appropriate resolution settings for intended use of image3 Apply appropriate image mode for intended application (e.g., convert RGB, CMYK, grayscale)4 Compose images using layers and selections5 Edit images (e.g., color, filter, tint, contrast, brightness)6 Manipulate images (e.g., mask, resize, crop, scale, group/ungroup, zoom, pan)7 Create original artwork using illustrative software
Media Files	<ol style="list-style-type: none">1 Identify types of files used in multimedia applications (e.g., .gif, .jpg, .ai, .psd, .png, .avi, .wmv)2 Develop electronic file management systems (project folders, file naming, etc.)3 Download files from various sources (e.g., audio, images, video, animation)4 Convert files to various formats (e.g., .flv to .avi, .mov to .wmv, .psd to .jpg)5 Utilize storage devices (e.g., CD/DVD, portable storage devices)6 Manage electronic file storage/transfer (online, Bluetooth, etc.)