Industry Related Manufacturing Technology

Focus Area: Multimedia Technologies (Preliminary)

Students learn about:	Students learn to:

Processes, tools and machines
 	
Multimedia computer systems
• processor speed
• RAM
• graphics cards
• storage
• motherboards
• screen type and resolution
• sound cards
 	
Operating a computer system
 	
• basic system operation
 	
• select and operate computing packages – manipulate data between applications
 	
• input devices, including:
  – keyboard
  – mouse
  – joystick
  – game controller
  – graphics tablet
  – microphone
  – scanners
 	
• output devices:
  – screens
  – printers (ink-jet and laser)
  – projectors
 	
• internal and external storage devices:
  – USB drives
  – compact disc
  – digital video disc
  – hard drives
 	
• cameras:
  – digital/analog
  – still/video
 	
• communication devices:
  – modems
  – ethernet
  – bluetooth
  – wireless
  – infra-red
  – firewire
  – USB
	• recognise computer hardware typically used in multimedia computer systems
	• identify computers and related hardware components
	• describe multimedia software and related memory, processing and storage requirements
	• understand and apply the procedures associated with the correct use of a computer system
	• manipulate and integrate data between a range of software applications
	• identify and use input and output devices in conjunction with specific multimedia software
	• identify and use a range of printers and scanners
	
	• identify and use a range of storage devices
	
	• set up and operate basic still and video cameras for use in small media production
	• identify and use modems and communication devices
	
	• investigate and use a range of software suitable for the creation, editing and publishing of multimedia projects

Students learn about:	Students learn to:

• appropriate software relevant to the project in the areas of:
  – authoring
  – publishing
  – sound creation/capture/editing
  – image creation/capture/editing
  – video creation/capture/editing
  – text creation/capture/editing
  – animation creation/capture/editing
  – 2D/3D drawing
  – web page design
	• investigate and use a range of software tools and techniques used in the development and publishing of websites

Multimedia design in relation to:
• storyboarding
  – types:
    - linear
    - non-linear
    - hierarchical
    - composite
  – applications
	• identify and use planning processes related to a range of multimedia presentations

• image creation/editing/conversion
  – bitmap
  – vector
  – scanning
  – formats
  – compression
	• investigate and discuss the processes of obtaining, creating and modifying images, sound and text
	
	• produce and manipulate digital images

• sound creation/editing
  – wave
  – MIDI
  – podcasts
  – compression formats/codecs
	• plan and develop an audio podcast
	
	• use presentation techniques and strategies in multimedia

• video and still cameras
  – operation
  – lighting
  – angles/composition
	• author a multimedia product
	
	• apply principles of design in the planning and production of multimedia presentations

• data integration	

• OHS
  – workplace procedures
  – safe handling of equipment
  – risk identification and hazard reduction strategies
	• recognise workplace health and safety procedures
	• safely use computing equipment and associated materials