

Industry Related Manufacturing Technology

Focus Area: Multimedia Technologies (HSC)

Students learn about:	Students learn to:
<p>Multimedia elements</p> <p><i>Text</i></p> <ul style="list-style-type: none"> • fonts: <ul style="list-style-type: none"> – serif – sans serif – decorative • formatting: <ul style="list-style-type: none"> – bold – italics – underline – alignment – indents – bullets – numbers – size – colour • stroke and fill • headings, subheadings • formatting paragraphs and document • pagination <p><i>Graphics</i></p> <ul style="list-style-type: none"> • graphic images: <ul style="list-style-type: none"> – vector – bitmap • resolution: <ul style="list-style-type: none"> – image size – colour depth – binary digits (bits), eg 8-bit, 16-bit, 24-bit • file size: in relation to screen size and colour depth • file formats: <ul style="list-style-type: none"> – TIFF – BMP – PCX/PICT – JPEG – GIF – PNG • importing images: <ul style="list-style-type: none"> – clip art – screen capture – scanning – graphics tablet – cameras <ul style="list-style-type: none"> ○ still ○ video – image libraries – stock photographs 	<ul style="list-style-type: none"> • author a multimedia Major Project • select and competently use a range of input and output devices, printers, cameras and scanners in the production of the Major Project • investigate and use a range of multimedia components in the development and publishing of the Major Project • competently plan all processes and stages required to complete the Major Project • apply principles of design in the planning and production of the Major Project • produce storyboards to plan presentations and the Major Project • produce multimedia elements, identify scope of authoring software, produce and evaluate prototypes

Students learn about:	Students learn to:
<ul style="list-style-type: none"> object layering: <ul style="list-style-type: none"> text other images image enhancements: <ul style="list-style-type: none"> filters special effects anti-aliasing image manipulation: <ul style="list-style-type: none"> stretch skew rotate colour adjustment <p><i>Audio</i></p> <ul style="list-style-type: none"> sound waves: <ul style="list-style-type: none"> analogue and digital wave patterns volume frequency mono/stereo/surround sound converting analogue to digital sound sampling: <ul style="list-style-type: none"> sample rate sample size 8-bit 16-bit relationship to file size: file compression file formats: <ul style="list-style-type: none"> WAV AIFF MP3 WMA MIDI <p><i>Video</i></p> <ul style="list-style-type: none"> video types: <ul style="list-style-type: none"> analogue digital file size considerations: <ul style="list-style-type: none"> frame rate image size colour depth video compression: <ul style="list-style-type: none"> lossy lossless image quality software video players file types: <ul style="list-style-type: none"> MPEG avi MP4 	<ul style="list-style-type: none"> obtain, create and modify images, sound and text compose camera shots and operate still and video cameras transform prototypes into a final product select from a wide range of industry techniques and apply them in the production and presentation of the Major Project obtain, create and modify images, sound and text outsource appropriate expertise where necessary to complement personal practical skills utilise the features of a range of storage devices identify requirements of memory, processing speed, storage and peripherals to complete Major Project outsource appropriate expertise where necessary to complement personal practical skills

[illegible]

Students learn about:	Students learn to:
Intellectual property and ethics <ul style="list-style-type: none">• copyrights and multimedia• ethical use• ease of copying, manipulation and incorporating multimedia objects• WHS<ul style="list-style-type: none">– workplace procedures– safe handling of equipment– risk identification and hazard reduction strategies	<ul style="list-style-type: none">• obtain, modify and use a range of pre-existing components• consider legal and ethical issues in the development of multimedia presentations• use computers, associated materials and accessories safely and responsibly• identify specific WHS issues associated with the production of the Major Project