



Multimedia

Revision Notes

Int 1 Computing Studies

Multimedia

☀ Combines

- Text

- Sound (music, voice)

- Graphics (pictures, video, animation)

Input Devices and Software

- ✦ Keyboard and mouse

- To type in text and control the computer and software



Input Devices and Software

- ✦ Scanner

- ✦ To scan in text and images



- ✦ Optical Character Recognition (OCR) software

- ✦ To convert scanned image containing text into editable text

Input Devices and Software

- ☀ Microphone

- ☀ To record sound, music and speech



- ☀ Voice recognition software

- ☀ To convert recorded speech into editable text



Input Devices and Software

- ☀ Graphics tablet

- ☀ To input drawings and text using an electronic “pen”

- ☀ Handwriting recognition software

- ☀ To convert text written on the tablet into editable text



Input Devices and Software

- ☀ Digital Camera

- ☀ To take digital photographs

- ☀ Digital Camera Software

- ☀ To edit digital photographs



Input Devices and Software

- ☀ Digital Video Camera

- ☀ To record digital video

- ☀ Video Editing Software

- ☀ To edit the digital video

Output Devices

☀ Monitors

- Cathode Ray Tube (big older style monitor)
- Liquid Crystal Display (thin modern style)



Output Devices

- ☀ Speakers

- ☀ To listen to sound



- ☀ Sound card

- ☀ Improves the quality of sound being recorded or played back

Output Devices



- ☀ Data Projector

- Allows the computer display to be shown to a whole room full of people

- ☀ Graphics card

- Controls the display of the output on the monitor or projector

Backing Storage

★ Hard Disk

- Many Gigabytes of storage
- Good for storing large files for multimedia presentations



Backing Storage

★ Floppy Disk

- Only 1.44 Megabytes of storage
- Only suitable for storing small files e.g. text
- Easily damaged



Backing Storage

- ☀ CD - Compact Disk

- ☀ 700 Megabytes of storage
- ☀ Good for storing multimedia presentations

- ☀ DVD - Digital Versatile Disk

- ☀ 17 Gigabytes
- ☀ Excellent for storing multimedia



Backing Storage

- ★ CD-ROM & DVD-ROM

- Read Only - cannot be changed

- ★ CD-R & DVD-R

- Recordable - can be written to ONCE

- ★ CD-RW & DVD-RW

- ReWritable - can be written to and then changed many times

Backing Storage

★ USB Flash Drive

- Can store up to several Gigabytes
- Can be rewritten many times
- Robust and very compact



File Types

☀ Text

- ☀ TXT - text files
- ☀ DOC - word documents
- ☀ RTF - text files with formatting (Fonts, styles, layout)
 - Can be opened using many different word processing software programs

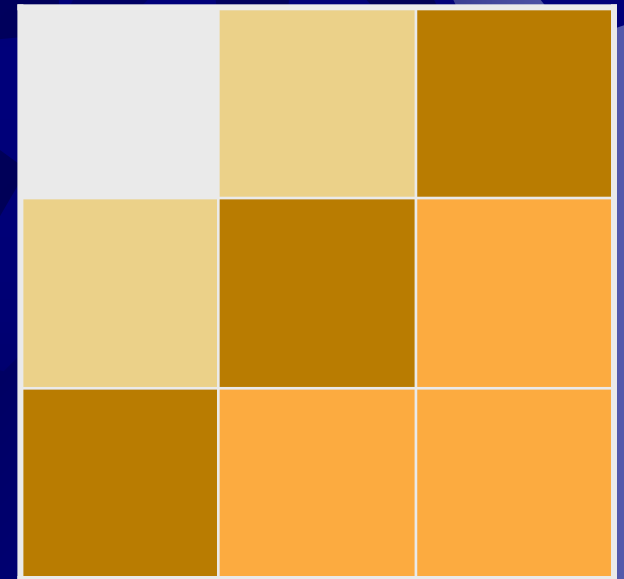
File Types

★ Graphics

- ★ BMP - bit mapped graphics
- ★ GIF - graphics interchange format
- ★ JPG or
- ★ JPEG - joint photographic experts group
 - Digital photographs

Graphics files

- ✦ Bitmapped graphics are stored as dots of colour
- ✦ Each dot is called a pixel
- ✦ The more pixels, the more detailed the picture (better resolution) but the more storage the file will take





Moving pictures

★ Video

- ★ MPEG - Moving picture experts group

- ★ AVI - Audio Video interlaced

★ Animation

- ★ Animation is made up from many still images played very fast

Sound files

- ★ WAV - WAV sound file
 - Compressed, but still very large
- ★ MP3
 - Highly compressed so much smaller file size



Compression

- ✦ Graphics, sound and video files can be very large
- ✦ Compression makes the file size smaller without losing too much detail
- ✦ Smaller files are much faster to download from the internet



Multimedia Software

- ★ Presentation

- ★ E.g. Powerpoint to create a multimedia presentation

- ★ Authoring

- ★ E.g. Hyperstudio to create e.g. a multimedia encyclopedia

- ★ Desk top publishing

- ★ E.g. publisher to create a multimedia document such as a calendar, newspaper, birthday card



Templates

- ✦ Ready made blank document
- ✦ Layout and colour schemes already set up
- ✦ Places for inserting text and pictures



Operations

- ✦ Save - save your work to backing storage
- ✦ Print - get a paper copy of your work
- ✦ Colours - change the colours of your text
- ✦ Text and graphics effects - how your text or pictures appear onto the screen



Images

★ Vector graphics

- ★ Draw shapes
- ★ Change their colour, outline, size
- ★ Change the layer order - move one on top of another or behind another

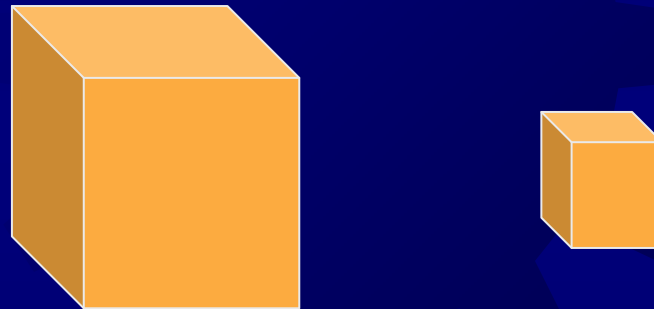
★ Bitmap graphics

- ★ Made up of dots of colour called pixels
- ★ Can change the colour of any pixel

Graphics

☀ Scale

- Change the size without losing any part



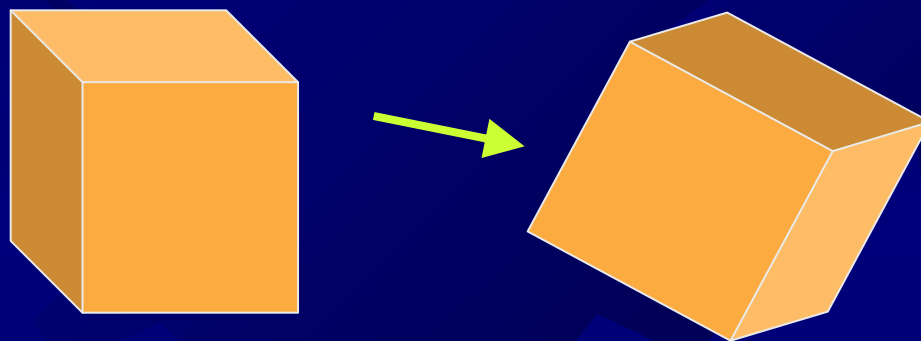
☀ Crop

- Cut off one or more of the edges

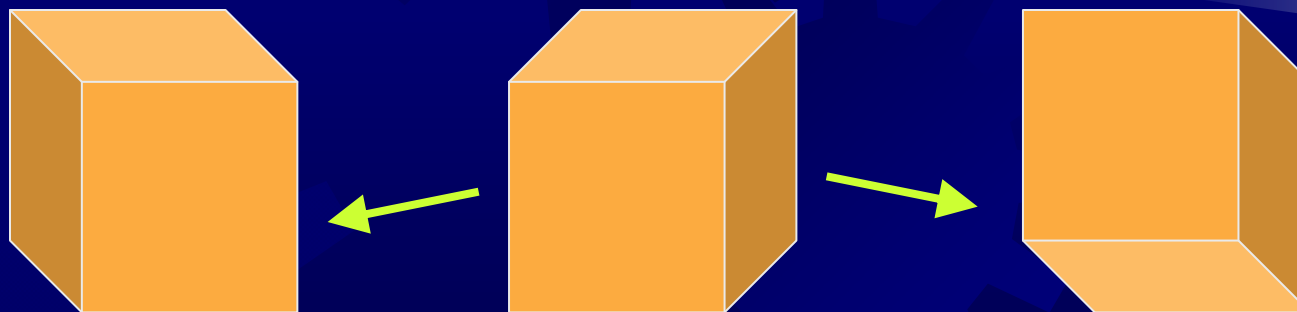


Graphics

✦ Rotate



✦ Flip



Graphics

★ Colour

