

Computing Year 8 Autumn Term 1: 4Ps & ICT



Marketing Mix

Product:

Products go through a cycle, they can be extended to stop them declining

PRODUCT LIFE CYCLE



Price:

There are different pricing strategies that can be used:

Psychological

Competitive

Penetration

Skimming

Promotion:

There are different ways you can promote:

Sponsorship

Adverts

Leaflet

<u>Place</u>

Where businesses are located could be online or as shops



Key Terms

Business Plan: A business plan is a document created by a business or entrepreneur that provides details about each element of the business it is often to try and get people to invest and give money to the business

Market Mix: It is the Price, Product, Promotion and Place of the business all together

Extending Product Life Cycle:

Before the product goes into decline strategies to ensure it stays alive, such as advertising

Retailer: A Shop

Software: A program on a Computer. Microsoft Office is an application software which includes Excel, Word, PowerPoint and Publisher.

Software

Word Processing

You use a word processor for documents that are mainly text such as letters, essays and reports. You can change fonts, text sizes, emphasise headings, highlight text or make it bold, italic or underlined.

You can create columns, bullet pointed lists and you can still include images and icons. Spell checker is also a very useful tool!

PowerPoint

Presentation software creates a series of slides in a single document.

Excel

Used to make calculations on nos.

Publisher

Used to make posters and leaflets









Computing Year 8 Autumn Term 2: Data Representation





Images

Bitmap image is made of a series of coloured dots (pixels) whereas a vector image is made up of a set of lines and shapes.

The colour of each pixel in a bitmap image is represented by a binary code.

Binary works by

Computers use something called binary code. Binary code is made up 1s and 0s.

They use 1s and 0s because a computer is also made up of lots of electronic parts each of which can be either on (1) or off (0).

Binary

1286432 16 8 4 2 1
10011011
128+0+0+16+8+0+2+1
= 155

Key Terms

Denary: Normal numbers which use base 10, include 1,2,3,4,5 etc. **Binary:** This is a number system that only uses two digits: 1 and 0. All information that is processed by

a computer is in the form of a sequence of 1s and 0s.

Pixel: A tiny dot or square that makes up a picture, the more pixels in an image the better quality the image will be

Binary Addition: Adding two binary numbers together not the same as adding two ordinary numbers together there is a rule you must follow

Hexdecimal: Similar to binary because you are converting a number from denary, in hexadecimal it is into a 16 base system which runs:

0,1,2,3,4,5,6,7,8,9,A,B,C,E,F

Hexadecimal

Hexadecimal		0	1	2	3	4	5	6	7	8	9	Α	В	С	D	Е	F
Decimal		0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
01101101																	
128	64		3			16	i l				4			2		1	
0	1		1	L		0		1	ı		1		0		1		
+													Ų.				
8	4		2		1				8			4		2		1	
0	1		1		0					1 :		1	0		1		
	+							<u> </u>									
4+2 = 6									8+4+1 = 13								
6									13 = D								

Answer = 6D

Binary Addition

$$0 + 0 = 0$$
 $1 + 0 = 1$
 $1 + 1 = 10$
 $1 + 1 + 1 = 11$









₩ Watch

Computing Year 8 Spring Term 1: Graphics



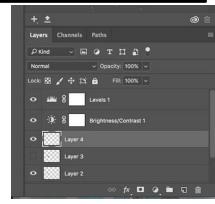


Graphics

Graphic design is the art or skill of combining text and pictures in advertisements, magazines, or books.

Tools

Layers are used to change parts of an image





Magic Wand



Spot Healing Tool





Add Zoom text



Key Terms

Bitmap: An image made up of pixels. This type of image loses quality if its width and/or height are increased.

Vector: Vector graphics are based on mathematical relationships with control points that make up the image. Vectors are used for cartoon mages or logos

Pixel: One individual unit or dot which makes up an image Editing: Changing the way an image looks

Composition: Different parts of images put together, putting images onto one image

Audience: Who your graphical work is designed for

Layout: How the page is set out **Mood board**: A group images put together about a topic

Repurpose

This is changing or editing an image in some way. This could either be hanging the colour, making it black an white, adding things to an image or changing something within the image.

Bitmap v Vector

Bitmap images are real digital images they are made up of pixels which are tiny coloured dots.

Vector images are used for cartoon images and logos they are made by mathematical co-ordinates.

When a Bitmap image is resized it goes blurry when a vector image is resized the quality remains the same.









Computing Year 8 Spring Term 2: Computers





Operating System

An operating system performs several functions in s computer:

- Multi-tasking
- Provides the user interface
- Security
- File Management
- **Controls Peripherals**

Examples: Windows, Android, IOS

Open Source

Advantages	Disadvantages
Free	Lacks features of paid for software
Can change the software to your liking	Projects could be buggy
Encourages sharing	No warranties or customer support if something goes wrong

Hardware: The physical parts of the computer which you can touch they include mouse, printer and motherboard

Software: The programs that run on a computer, this might be PowerPoint, Word, Roblox or your internet browser Google Chrome

Memory: Memory is the area where the computer stores or remembers data. Memory provides the CPU with its instructions. **RAM:** What's currently being used,

Volatile memory

ROM: Used to boot up (start up) the computer, non volatile memory **Storage:** Where you save your work

Operating Systems: Allows the computer to work together links the software and the hardware

Open Source Software: Free software where you get the code and can change the software

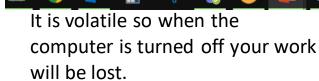
Storage

Magnetic- Hard Drive lots of storage Optical- CD Uses Lasers portable, outdated now

Solid State- USB Flash Drive, portable has no moving parts



RAM is what is used when you have a number of documents open.



ROM is used when the computer is loading up it is non volatile so it doesn't change









Computing Year 8 Summer Term: Programming





Programing

Variables

You define a variable in Python by assigning a value to it. The data type of the variable depends on the value you assign to it.

Inputs and Outputs

You can take text inputs from the user with the input() command, and output messages to the user with the print() command.

Selection

We can use IF statements to check whether the player has got the question correct. Make sure that you use colons in the correct places and that everything is correctly indented

Key Terms

Programming: writing computer code to create a program, to solve a problem

Text based Programming:

Programming using text such as Small Basic or Python

Sequence: Sequence means to set down instructions one after another for the computer to run

Algorithm: This sets out a sequence of steps, that, when ran, will carry out a specific task.

Loop: Repeatedly doing a piece of code

Selection: Choosing between possible actions

Variable: A piece of data that you

can alter

Flow Charts

Name	Symbol
Start or Stop	Start/Stop
Process	Process
Decision	Decision
Input or Output	Input/Output

Errors

If there is an error in your code it will either not work, or work but not in the way that you want it to. This could be the smallest of errors, errors are called bugs.





