



## Highsted Knowledge Organiser

### Computer Science: Computer Systems - Year 7

#### What I need to know

- Identify different input, output and storage devices.
- Differentiate between computer system and embedded system.
- Differentiate between hardware and software.

#### Key Vocabulary

- Input devices	- Output devices
- Storage devices	- Magnetic storage
- Solid state drive	- Optical drive
- Computer systems	- Embedded system
- Hardware	- Software

#### Student reference point

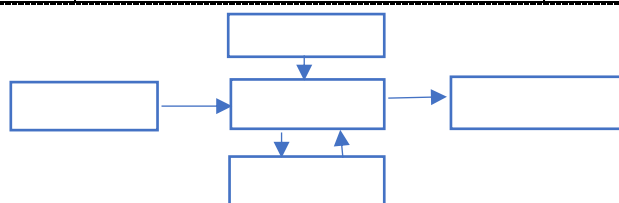
Input devices	Output devices	Storage devices
Send data to the computer	Receives information from the computer	Store information and programs from the computer
<ul style="list-style-type: none"> <li>- Keyboard</li> <li>- Mouse</li> <li>- Barcode reader</li> <li>- Scanner</li> <li>- Touch screen</li> </ul>	<ul style="list-style-type: none"> <li>- Screen</li> <li>- Speaker</li> <li>- Printer</li> <li>- Plotter</li> <li>- Touch screen</li> </ul>	<ul style="list-style-type: none"> <li>- Magnetic storage: hard disk drive</li> <li>- Solid state drive: solid state drives, USB</li> <li>- Optical drive: CD, DVD, Blu Ray</li> </ul>

Computer System	Embedded System	Hardware	Software
A computer system is an all-purpose system. You can load and execute various programs simultaneously.	An embedded system forms part of a larger computer system, device or machine. They tend to have one, or a limited number of tasks that they can perform.	Hardware is the physical components of the computer.	Software is the programs that run on the computer
<ul style="list-style-type: none"> <li>- Laptop</li> <li>- Personal Computer (PC)</li> <li>- Tablet</li> <li>- Ipad</li> </ul>	<ul style="list-style-type: none"> <li>- Washing machine</li> <li>- ATM</li> <li>- Traffic light system</li> </ul>	<ul style="list-style-type: none"> <li>- Mouse</li> <li>- Keyboard</li> <li>- Cables</li> <li>- Motherboard</li> <li>- Buttons</li> </ul>	<ul style="list-style-type: none"> <li>- Operating system (Windows OS)</li> <li>- Word processor</li> <li>- Internet Browser (Chrome)</li> </ul>

Internal Devices	ROM	RAM
They are components that help with the running of the computer.	Read Only Memory	Random Access Memory
<ul style="list-style-type: none"> <li>- CPU</li> <li>- Fan</li> <li>- Cables</li> <li>- Motherboard</li> <li>- ROM and RAM</li> </ul>	<ul style="list-style-type: none"> <li>- Non-volatile</li> <li>- Data is not lost when computer power is switched off</li> <li>- Small capacity (4-8MB)</li> <li>- Stores the BIOS to check the hardware</li> <li>- Stores the bootstrap to load the operating system</li> </ul>	<ul style="list-style-type: none"> <li>- Volatile</li> <li>- Data is lost when computer power is switch off</li> <li>- Larger capacity (32-128GB)</li> <li>- Holds programs and data currently in use by the user</li> </ul>

#### Challenge question

- Complete this diagram: input, output, storage, software, process



#### Suggested reading

- <https://www.bbc.co.uk/bitesize/guides/z7qqmsg/revision/1>



## Highsted Knowledge Organiser

### Computer Science: HTML – Web Design - Year 7

#### What I need to know

- What is HTML
- What is the WWW
- How to use HTML coding to create a simple web site
- How to add table, list and image on a webpage

#### Key Vocabulary

- HTML	- Tags
- Head	- Body
- Title	- Table
- List	- Image
- Reference	- Target audience

#### Student reference point

##### What is HTML?

HTML (HyperText Mark up Language) is used to create websites. A text editor will be used like Notepad to write the HTML code. It has to be saved in a .txt version so it can be edited in future and a .html version where it will open the webpage on a web browser like Google Chrome or Safari.

##### What is WWW?

WWW stands for World Wide Web. It is a collection of webpages or websites that are stored in web servers all around the world. Users will need access to the Internet to be able to access the web pages on any Internet-enabled device.

#### Basic Tags

Most tags start with the opening tag and end with the closing tag. For e.g.

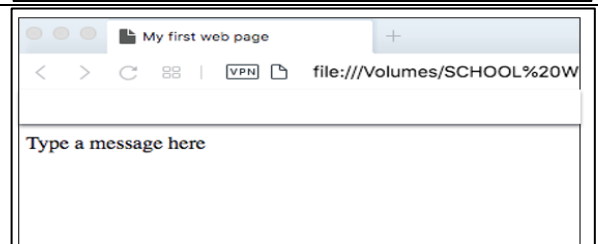
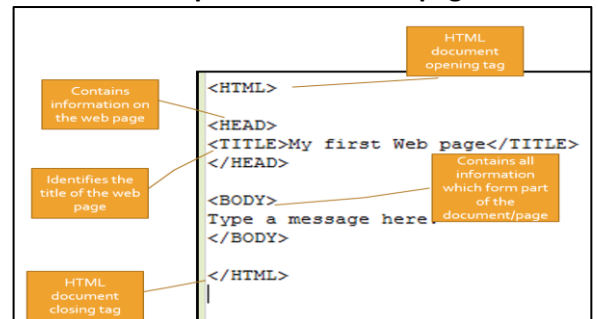
`<html> ... </html>`. This means start a HTML document and close the HTML document.

`<head> ... </head>` is where the title of the page will be displayed

`<title> ... </title>` is the title of the web page (a tab on the browser)

`<body> ... </body>` is where the main content of the webpage is written

#### Example of a basic web page

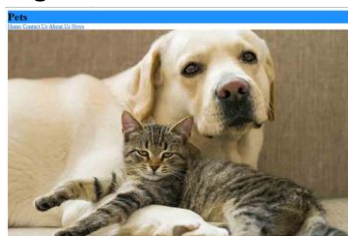


#### Adding Images

```

1 <html>
2
3 <head>
4 <title>My first image web page</title>
5 </head>
6
7 <body>
8 <h1>This is a picture of a dog and a cat</h1>
9 <br>
10 
11
12 </body>
13

```



#### Adding Hyperlinks

```

10 
11 <br>
12 <a href = https://animalmedical.org/fun-facts> facts about pets</a>
13

```

#### Basic Formatting tags

`<h1 style = "color: DodgerBlue;> ...</h1>` is a blue font  
`<p><i> .... </i></p>` starts the paragraph in italics  
`<center>...</center>` aligns the text into the centre of the page

#### Challenge question

- What is CSS and how can it be used to make the webpage more attractive?

#### Suggested reading

- <https://www.w3schools.com/html/>