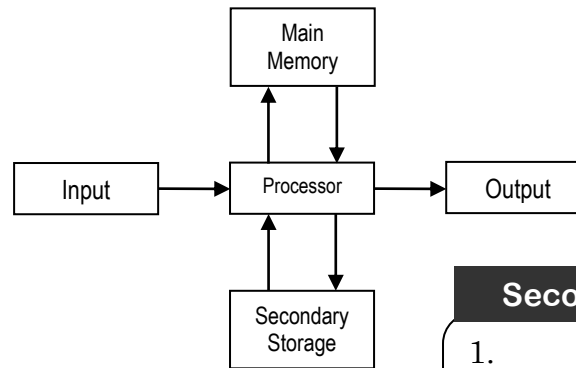


# Computer Systems

## Input Devices & Methods

1. \_\_\_\_\_
2. \_\_\_\_\_
3. \_\_\_\_\_
4. \_\_\_\_\_
5. \_\_\_\_\_
6. \_\_\_\_\_
7. \_\_\_\_\_
8. \_\_\_\_\_
9. \_\_\_\_\_
10. \_\_\_\_\_
11. \_\_\_\_\_
12. \_\_\_\_\_
13. \_\_\_\_\_
14. \_\_\_\_\_
15. \_\_\_\_\_
16. \_\_\_\_\_
17. \_\_\_\_\_
18. \_\_\_\_\_

## Components of a Computer System



Many different devices can be used within a computer system.

All of the devices that are external to the processor are called **peripherals**.

Complete these tables by researching and naming **40** possible computer peripherals or processes. Each of your chosen devices or methods **must** be listed in the correct section of a computer system.

## Main Memory

1. \_\_\_\_\_
2. \_\_\_\_\_

**Note:**

If you are not sure what the sections of *INPUT*, *MAIN MEMORY*, *SECONDARY STORAGE* or *OUTPUT* mean, research them first.

When listing the devices, think carefully about each individual name.

*[IE: Do not just state "printer"; think about the different types of printer.]*

## Secondary Storage

1. \_\_\_\_\_
2. \_\_\_\_\_
3. \_\_\_\_\_
4. \_\_\_\_\_
5. \_\_\_\_\_
6. \_\_\_\_\_
7. \_\_\_\_\_
8. \_\_\_\_\_
9. \_\_\_\_\_
10. \_\_\_\_\_

## Output Devices

1. \_\_\_\_\_
2. \_\_\_\_\_
3. \_\_\_\_\_
4. \_\_\_\_\_
5. \_\_\_\_\_
6. \_\_\_\_\_
7. \_\_\_\_\_
8. \_\_\_\_\_
9. \_\_\_\_\_
10. \_\_\_\_\_

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# Consequences of Uses of Computers

Year 12 – Task 2

There are many legal and ethic issues that have to be considered when using computers. From the time of the first commonly used computers in the 1970s to today, new laws have been introduced to help govern responsible use of computers and information communication technology. The main IT related laws are:

- **Copyright, Designs and Patents Act 1988,**
- **Computer Misuse Act 1990,**
- **Data Protection Act 1984 and 1998 – and GDPR,**
- **Health and Safety (Display Screen Equipment) Regulations 1992, and**
- **Regulation of Investigatory Powers Act 2000.**



## Activity 1

Research **each** of the laws stated above and summarise them in a six slide presentation.

**Slide 1** should be an introduction, including your name, and each following slide should show a summary of the principles (points/facts) of each law. You should not have more than **150 words** on any one slide (so do **not** just copy blocks of text from the Internet)!

## Activity 2

Research and supply details of **two** IT and the Law related news stories. These are news articles that say how one of the above laws may have been broken through the use, or actions, of an IT user. Your two articles can be based around as few or as many of the above laws as you like, but it must add up to two articles. (For example, you might have one **copyright** story and one about a recent **cyber-attack** story.)

Each article should be presented on a **single side** of A4 paper.

**Note:** Think carefully about how you might use the Internet to research these laws and news stories. News agencies, such as “[www.bbc.co.uk/news](http://www.bbc.co.uk/news)”, might be a better starting point, rather than general search engines.

This task is a very basic introduction to Python programming if you have no experience of it.  
If you have coded in Python before, complete the “**Practical Programming Problems – Python**” tasks.

### Introduction to Programming – Using Python 3

**Python** is a programming language that can be used to create solutions to problems. It is a very well respected “high level” computer language that helps to teach a range of programming concepts. Complete the following tasks by either installing **Python 3**; version 3.6 or later, on a computer, or use the online editor [www.onlinegdb.com](http://www.onlinegdb.com), Python 3.

If you have never coded in Python before, follow the tutorials on [www.codecademy.com/learn/learn-python-3](http://www.codecademy.com/learn/learn-python-3) or [www.w3schools.com/python/default.asp](http://www.w3schools.com/python/default.asp) first, to build your skills.

#### Tasks:

Using Python, develop programs to solve these problems.

1. Display the words “**Hello World!**” on the screen.

Write a simple program that will be able to display a statement on the screen.

➤ **Save your program with a suitable name.**

2. Change your program so that it displays your name rather than “**Hello World!**”

➤ **Save your work using a new file and program name.**

3. Develop your original program so that it says:

```
"1 Hello World!"  
"2 Hello World!"  
"3 Hello World!"  
... etc.
```

up to 10. **You must NOT use 10 “print()” statements!**

➤ **Save your work using a new file and program name.**

4. In your program, change the number of times the statement is displayed. The user should be able to enter this **when the program** is running.

➤ **Save your work using a new file and program name.**

#### Development Tasks

1. Annotate copies of your programs so that you explain what is happening on each line.
2. In your annotation of “**Program 3**”, highlight the programming concepts of: **assignment**, **iteration** and **sequence**.
3. Explain how you are able to show an **integer** number and **string** text on the same “**print()**” line.

#### Review

1. Make sure you document and record your work so that you can build up a “**Programming Glossary**”. This will help you to learn the **syntax** of Python commands, how they are used and how programs are structured.
2. What did you know about programming before you started these tasks?
3. State three new things you now know.

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