



# Getting Ready for...

---

## **KS4 (GCSE) ICT**

Commissioned by GCSEPod.

This resource is strictly for the use of schools, teachers, students and parents and may not be sold. It may be freely downloaded for the purposes of teaching and study during the coronavirus pandemic and until such time that GCSEPod decides. All opinions and contributions are those of the authors. The contents of this resource are not connected with, or endorsed by, any other company, organisation or institution. All rights reserved.

To find out more about subscribing to GCSEPod with access to hundreds of resources for teachers, students and parents please go to [www.gcsepod.com](http://www.gcsepod.com)

April 2020

# Activities

## 1. Input and output devices

Computer systems have a range of input and output devices connected to them which enable users to perform a variety of tasks.

- Can you identify the typical input and output devices which can be connected to a computer system?
- Can you extend this knowledge by identifying different input and output devices which can be used to support learners with disabilities?

## 2. Connecting to the Internet

Not all devices use the same technology to connect to the Internet.

- Name 3 different types of technology which can be used to connect a device to the Internet, and briefly describe how each type of technology works.
- To extend this - outline the benefits and disadvantages of each piece of technology you have identified.



## 3. Data security

Data security is perhaps the most important aspect of ICT for organisations that hold and process data.

- Find out why data security is so important to organisations. Write a brief report which outlines your findings and include suggestions of different tools organisations can implement to try and protect the data they hold and process.
- Can you extend this piece of work to include examples of legislation that organisations must follow when holding and processing data?



## 4. Email

Email, short for electronic mail, is one of the most used communication systems in the world.

- Summarise how the process of sending and receiving an email works. Name each of the typical features an email can contain, and give an example of when each feature might be used.
- To extend this – consider the overall benefits and disadvantages of using email as a communication system, is this type of system always effective?



## 5. Staying safe online

Although the use of Internet can bring users many benefits, it can also bring about many dangers for both individuals and organisations.

- Identify some of the typical dangers users can face on the Internet. Briefly describe how these dangers can be avoided.
- Can you extend this to explain why many organisations get their employees to accept a code of conduct before they can access and use their computer systems?

## 6. Home entertainment

A range of technology can be used in the home to provide users with home entertainment.

- Name 5 different types of devices which can be used for home entertainment and describe how they work. For each device identified outline an input and output device which is required for that device to work.
- Can you extend this by investigating how AR and VR devices are starting to be used in the home? Are these technologies the same as each other or do they differ?

## 7. ICT and learning

It is important you understand how ICT can be used to help learning.

- Summarise the different ways in which you can currently use ICT to help you with your own learning. Can you describe some of the different technologies which are required to make each of them work?
- Can you extend this by investigating the digital divide? To what extent do you believe the digital divide prevent users from using ICT to help improve their own learning?



## 8. Software packages

Studying GCSE ICT is going to require you to use a range of software packages to perform a variety of tasks to display, process and interpret data.

- Find out which software packages you are going to use on your course and for each software package identified make sure you can use each of the typical features it contains.

## 9. Key terms

In GCSE ICT, aside from using a range of software packages there are some key terms which appear in most areas of study. Create a glossary for each of the following key terms:

- Validation
- Verification
- Ethical
- Data
- Browser
- Software
- Hardware
- Input
- Output
- Interface
- Legal
- Component
- File



## 10. ICT in the news

The digital world is constantly evolving and for you to be successful at GCSE ICT it is fundamental you keep yourself as up to date as possible with developments in the real world.

- Find three different news items in relation to ICT. For each news item, explain how the item is related to ICT, explain why the news item is important to the ICT industry and identify the different technologies being discussed. Examine how the item being discussed could impact on the wider ICT community.