purple mash

Computing
Scheme of Work

Unit 4.8 – Hardware Investigators

Year Group: 4
Number of Lessons: 2

From 2simple

Contents

Introduction

For these sessions, the children will need to have their own individual logins to Purple Mash.

If you are currently using a single login per class or group and would like to set up individual logins yourself, then please see our guide to doing so at Create and Manage Users. Alternatively, please contact support at support@2simple.com or 0208 203 1781.

Medium-term Plan

Lesson	Aims	Success Criteria
1	To understand the different parts that make up a computer.	• Children can name the different parts of a desktop computer. • Children know what the function of the different parts of a computer is.
2	To recall the different parts that make up a computer.	• Children have created a leaflet to show the function of computer parts.

Lesson 1 – Hardware

Aims

- To understand the different parts that make up a desktop computer.

Success criteria

- Children can name the different parts of a desktop computer.
- Children know what the function of the different parts of the computer is.

Resources

Unless otherwise stated, all resources can be found on the main unit 4.8 page. From here, click on the icon to set a resource as a 2do for your class. Use the links below to preview the resources; right-click on the link and 'open in new tab' so you don't lose this page.

- Parts of a Computer pairs game. This should be set as a 2Do for the class.
- Computer Parts slideshow.
- If you have a school technician who can supply any parts from computers for children to examine or even demonstrate dismantling a computer for the class, this will add to the experience.
- If you have computers such as Raspberry Pis or Microbits in school, you can compare these to the desktop computer while talking about their features.
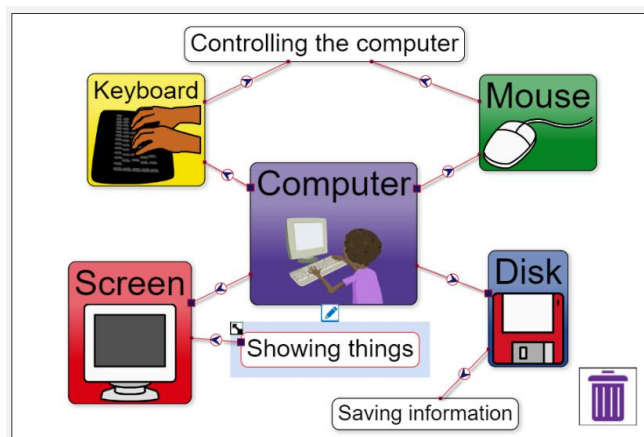
Activities

1. Share the learning objective and success criteria with the children.

2. Have children heard the words 'hardware' and 'software' and do they know what they mean or the difference between them?

> **Hardware** refers to the physical parts of a computer or device. The parts inside the computer casing are often called the **components**. The parts that are attached to the computer case are called **peripherals**.
>
> **Software** describes the programs that run on the computer.

3. Open 2Connect or use the whiteboard and ask the children what parts make up a computer. Record their answers. A sample 2Question file appears below:

4. Open the presentation Computer Parts slideshow and talk the children through it.

5. After the presentation, ask the children to complete the Parts of a Computer pairs game. This is a pairs game where the children match the image to the description.

6. As an extension, the children can use 2Quiz to create their own quiz about parts of a computer.

7. If you have other hardware devices such as tablets, Raspberry Pis or Microbits, children could do some research into the similarities between the hardware in these devices and desktop computers.

Lesson 2 – Parts of a Computer

Aims

- To recall the different parts that make up a computer.
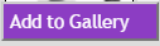
Success criteria

- Children have created a leaflet to show the function of computer parts.

Resources

Unless otherwise stated, all resources can be found on the main unit 4.8 page. From here, click on the icon to set a resource as a 2do for your class. Use the links below to preview the resources; right-click on the link and 'open in new tab' so you don't lose this page.

- Set Computer Hardware leaflet as a 2Do for the class.

Activities

1. Share the learning objective and success criteria with the children.

2. Recap the learning from the last lesson.

3. Show the children the file Computer Hardware leaflet. Draw their attention to the following features:

   - How to turn the pages and turn the leaflet over.
   - How to add text boxes and pictures.
   - If you click on the green cross on a picture box, it takes you to the photo gallery; click on an image to use it, or click Add to Gallery to upload a picture from your computer.
   - There is a checklist to help them remember the different parts of the computer.

4. Children should produce a leaflet about the parts of a computer.

Assessment Guidance

The unit overview for year 4 contains details of national curricula mapped to the Purple Mash Units. The following information is an exemplar of what a child at an expected level would be able to demonstrate when completing this unit with additional exemplars to demonstrate how this would vary for a child with emerging or exceeding achievements.

Assessment Guidance	
Emerging	Children understand what hardware is and that specific components allow computers to join and form a network. Children can recognise some hardware parts that relate to networking (Unit 4.8 Lesson 1). With some support, children can create their own hardware leaflet.
Expected	Children recognise the main component parts of hardware which allow computers to join and form a network (Unit 4.8 Lesson 1). Children can create their own leaflet to share their understanding of Computer Hardware (Unit 4.8 Lesson 2).
Exceeding	Children recognise the components parts of hardware which allow computers to join and form a network (Unit 4.8 Lesson 1). They are also able to explain that there are different types of network and how they are connected. Children can create their own leaflet to share their understanding of Computer Hardware and can compare physical network connections with wireless connections. (Unit 4.8 Lesson 2).