Packet tracer

# Introduction

This activity uses a piece of software called **Packet tracer**. This software is designed to allow you to **design** and **configure** your own networks in a simulated environment. It is a powerful tool and is used in industry and universities to train network administrators.

# A wired network .

| **Steps** | **Instructions** |
| --- | --- |
| 1. **Locate** the Packet tracer software | * Teacher enter the instructions for opening packet tracer on your school network here |
| 1. **Open** the A3 Wired network file | * Go to File > Open * Teacher enter the instructions for locating the A3 Wired network file here |
| 3. **Observe** the wired network | * Allow the network some time to switch on and establish connections to all the devices on the network. * Wait until you see green arrows across all three wires. |
| 4. **Connect** the fourth laptop using copper cable | * Select the **connections** icon in the bottom left-hand corner.      * Select the **copper straight-through** cable.      * Click on the **switch** and select FastEthernet0/4. * Click on the **fourth laptop** and select FastEthernet0. |
| 5. **Configure** the IP address for the laptop  Note: The IP address is a unique address to allow the device to be located. You will learn more about this in Lesson 7. | * Click on the **laptop** and a new window should appear. * Select **Config**. * Select FastEthernet0 on the left-hand side (this is the port that you connected the copper cable to). * Look for a white box labelled **IPv4 Address**. * Enter the IP address 192.168.1.4 * Press the Enter key on your keyboard and a subnet mask will automatically be assigned (this will appear just below the IP address). |
| 6. **Congratulations** you just added your first device to a network! | * Explore the configurations for all of the other laptops on the network. * See what IP address has been allocated for each one. * Note the similarities and the differences. |

# A wireless network .

| **Steps** | **Instructions** |
| --- | --- |
| 1. **Locate** the Packet tracer software (if it isn’t already open) | * Teacher enter the instructions for opening packet tracer on your school network here |
| 1. **Open** the A3 Wireless network file | * Go to File > Open * Teacher enter the instructions for locating the A3 Wired network file here * You will be asked to **save your previous file**, save a copy of your previous network in your user area. |
| 3. **Observe** the wired network | * Allow the network some time to switch on and establish connections to all the devices on the network. * Wait until you see the wireless connection established across all three laptops. |
| 4. **Connect** the fourth laptop to the wireless router | * Click on the **laptop** and a new window should appear. * Select **Desktop**. * Select **PC Wireless**. * The message will say “No association with access point”. * Select **connect**. * Select **refresh** and wait for the wireless router to appear in the list.      * Click **connect**. * Enter the **WEP Key 1** (password) which is abcde12345 * Click **connect**. * Close the window. * After a few moments, the wireless connection will be established. |
| 6. **Congratulations** you just added your second device, this time to a wireless network! | * The IP addresses in this network are automatically allocated using something called DHCP. * If you hover over each laptop you will see a pop up that tells you the IP address for each device. |
| 7. **Save** your file | * Click on File > Save as and save your file in your user area. You will need this later if you are going to try the **explorer tasks**, which are available on another sheet. |

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