

Name _____

WORKSHEET 10 – COMPUTER NETWORKS

Make sure that you are familiar with all of the information detailed in this booklet. There are a number of tasks for you to carry out, be sure to read the information fully whilst completing the tasks. You could be asked about any of this in the test!

Use the theory notes in the worksheet 10 section of the teach-ict.com site to help you complete this booklet.

TASK 1: INTRODUCTION TO COMPUTER NETWORKS

Use the words below to fill in the gaps in the text.

SHARE	DATA	COMMUNICATE
APPLICATION	NETWORK	PRINTERS
SCANNERS		

A computer _____ is a collection of computers that have been linked together so that they can _____ with one another. Being linked in a network enables them to _____ hardware (such as _____ and _____), software (such as _____ programs) and _____ (such as files stored in the project folders).

TASK 2: LOCAL AREA NETWORKS (LANS)

In your own words, explain what the meaning of the term 'Local Area Network'.

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What two things do you need in order to be able to log onto a LAN?

- 1.....
- 2.....

INFORMATION

Computers in a LAN might be connected by cables – have a quick look at the back of the machine that you are using – I bet there are a mass of cables, many of these will be connecting the computers together. They can also be connected by radio waves – are you able to use a lap top around your school? If so, you are probably using what is called a 'wireless network'.

In order to connect to the network, each machine will need a special piece of hardware called a 'Network Interface Card'. They will also need to use special network software such as an operating system.

How can you tell if you are using a networked computer?

Usually a networked computer will allow you to send messages to a friend who is working on another computer. Can you do this? _____

You were asked to log on with a user name and password and you probably saw a message telling you that you are using a networked system. Did this happen? _____

You will probably have access to some shared resources or files. Do you? _____

You will probably have a choice of more than one printer to send your work to e.g. colour, black and white and possibly different rooms. Are you given a choice? _____

If you answered YES to most of these questions, it is likely that the computer you are using is part of a LAN.

IMPORTANT TERMS

A computer that is connected to a network is called a

A computer that isn't connected to a network is called a

TASK 3: WIDE AREA NETWORKS (WANS)

In your own words, explain what the meaning of the term 'Wide Area Network'.

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TASK 4: CONNECTING TO A NETWORK

Below, list the different methods that you could use to connect to a Wide Area Network:

- 1.....
- 2.....
- 3.....
- 4.....

Which of these methods is the most commonly used to connect to a WAN?

.....

In order to connect to a WAN using the telephone network, what piece of equipment is needed?

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In your own words, explain why the purpose of a modem

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.....

What measurement is used to measure the speed of data transfer via a modem?

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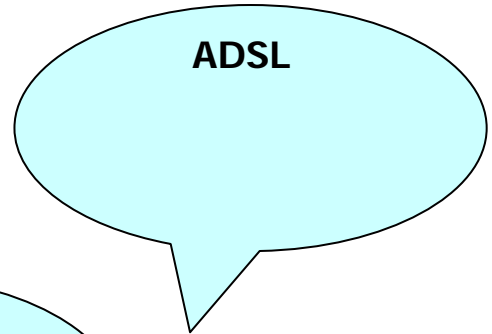
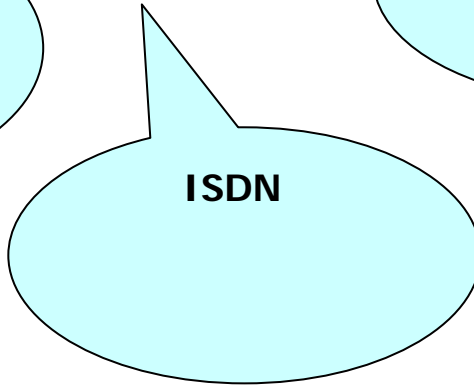
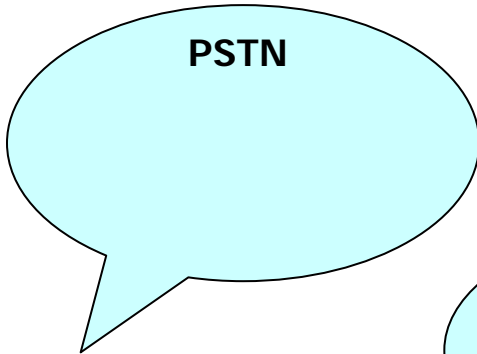
In your own words, explain the difference between analogue and digital data.

ANALOGUE DATA

DIGITAL DATA

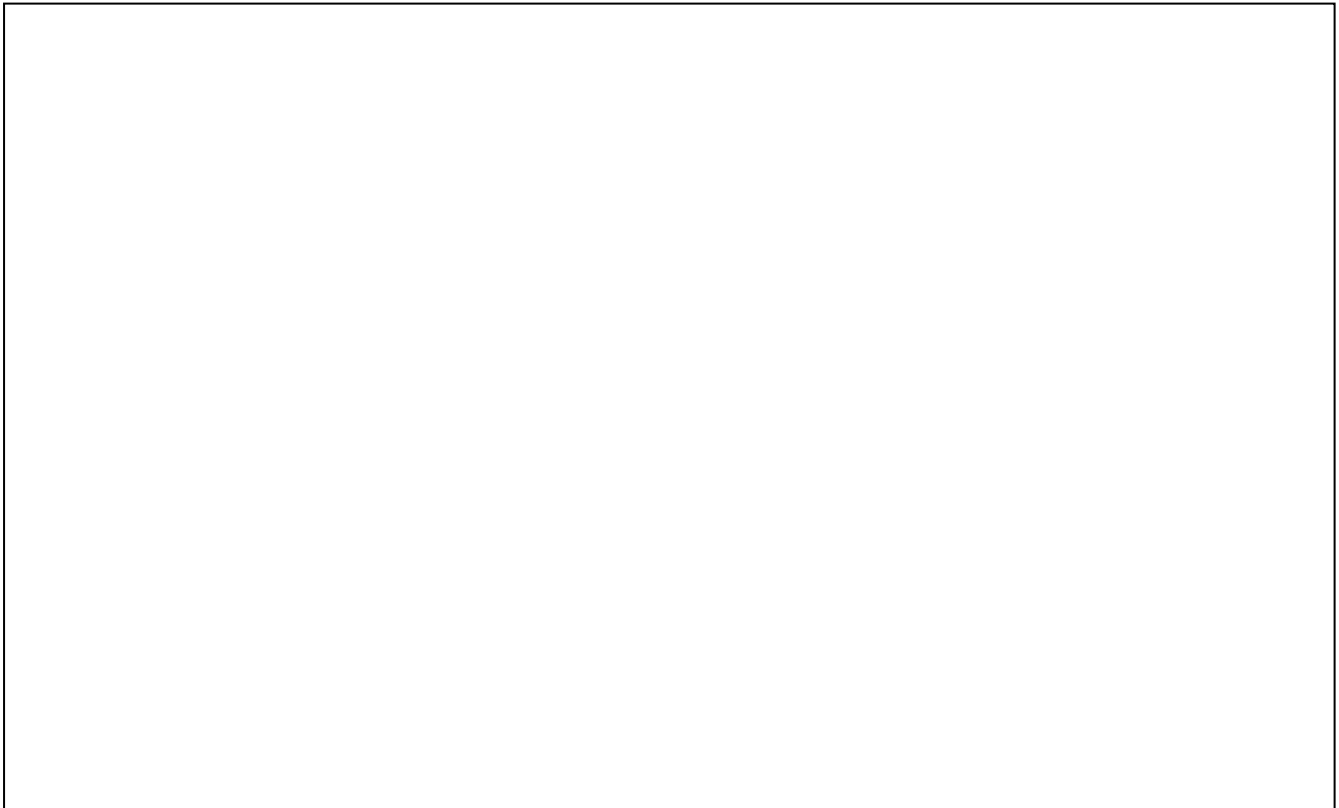
TASK 5: IMPORTANT TERMS

What do the following acronymns stand for?



TASK 6: CLIENT / SERVER

In the space below, draw an example of a 'client / server model' and explain the role of the client and the server.



A File Server

A Print Server

TASK 7: ADVANTAGES AND DISADVANTAGES OF NETWORKING

In the table below, identify three advantages and three disadvantages for using a network to enable people to work together

Advantages	Disadvantages

TASK 8: NETWORKS

Decide whether the following statements are true or false:

Statement	True/False
Computers that are joined together are called a 'network'	
Computers that are joined together are able to share hardware and software, but not data	
Examples of hardware that computers on a network can share are the operating system and the web browsers.	
Computers that are close to one another are connected to form a Local Area Network	
Computers in a LAN are most likely to be connected using cables.	
A user name and password is normally needed to log onto a LAN	
Radio waves can be used to connect computers to a network	
The telephone system is the only way to connect computers in a WAN together	
Computers in a WAN can also be connected by satellites and fibre optic cables	