**Modem Presentation Outline Organizer**

**Name:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date:\_\_\_\_\_\_\_\_\_\_**

Objectives:

* Describe the function of the modem
* Identify considerations when choosing a modem.
* Identify different types of modems.
* Describe how a modem works.
* List the steps to install or replace a modem.
* Identify test and troubleshooting techniques for a modem.

1. Function of a Modem
2. A modem is a device that lets computers \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ through \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_ .

1. Modem stands for \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_/ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
2. Choosing a Modem

When choosing a modem, the following features should be explored before buying:

* 1. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ - Most modems have the capability to send and receive \_\_\_\_\_\_\_.
  2. \_\_\_\_\_\_\_\_\_\_\_\_\_ - this will indicate the amount of

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ the modem can send and \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

* 1. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Program – this is software that manages the \_\_\_\_\_\_\_\_\_\_ of information between two \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
  2. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ - Check to see if you can \_\_\_\_\_\_\_\_\_\_

your current modem. This could be a \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ you install or a \_\_\_\_\_\_\_\_\_\_ you add to the modem.

1. Different Types of Modems
   1. External modems: have LEDs \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ that can be useful in seeing whether the modem is

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ or receiving data.

* 1. Internal modems: do not have \_\_\_\_\_\_\_\_\_\_\_\_\_\_ . These are an

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ card that plugs into an expansion slot inside the computer.

1. K56 Modem: will pull more data \_\_\_\_\_\_\_\_\_\_\_\_\_ from the Internet. This modem sends data at normal analog rates but gets information back nearly \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ as fast.
2. Cable modem: a device that lets computers access the

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ using \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ cable. These are not really modems because they work with \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

signals rather than \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ signals.

1. DSL: stands for \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ and \_\_\_\_\_\_\_\_\_\_
2. ISDN stands for \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_
3. Both these modems send digital signals over \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ lines. They offer extremely fast \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ connections.
4. How a Modem works
5. Communications software sends a voltage along \_\_\_\_\_\_\_\_\_\_ of the serial port of which the modem is connected telling it that the PC is

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_. At the same time the PC detects a \_\_\_\_\_\_\_\_\_\_ from the modem on \_\_\_\_\_\_\_\_\_ telling it the modem is ready to \_\_\_\_\_\_\_\_\_\_\_\_

data or instructions.

1. A command is sent to the modem over \_\_\_\_\_\_\_\_\_\_, the Transmit Data line and it tells your modem to go \_\_\_\_\_\_\_\_\_\_ -to open a connection with the \_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_. The modem acknowledges the command by replying to the PC on \_\_\_\_\_\_\_\_\_\_, the Receive Data line.
2. When the modem on the other end of the \_\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ – the remote modem- answers the call, your local modem sends out a \_\_\_\_\_\_\_\_\_\_\_\_\_ tone to let the remote modem know that it’s being called by another modem. The remote modem responds with a \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ - \_\_\_\_\_\_\_\_\_\_\_\_\_\_ tone.

1. When your communications are \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_, your modem sends your PC a \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ (CD) on

\_\_\_\_\_\_\_\_\_\_\_\_. The signal tells the communications software that the modem is receiving a \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ signal, which is a \_\_\_\_\_\_\_\_\_\_\_\_ tone of a certain frequency that later will be \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ to transmit data.

1. The two modems \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ information about how they’ll

\_\_\_\_\_\_\_\_\_\_\_\_ data to each other, a process called a *\_\_\_\_\_\_\_\_\_\_\_\_\_\_*. If

the local and remote systems do not use the same \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. When the communication software wants to send data, it first sends data to \_\_\_\_\_\_\_\_\_ which will ask the modem whether it is \_\_\_\_\_\_\_\_\_ to receive data from your PC. If your PC is busy doing something else, it will send a \_\_\_\_\_\_\_\_\_\_\_\_ to the modem telling it to \_\_\_\_\_\_\_\_ sending data until the PC \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ its other work.
2. At the other end of the phone line, the remote modem \_\_\_\_\_\_\_\_\_\_\_\_\_\_

incoming data as a series of \_\_\_\_\_\_\_\_\_\_\_\_ with different frequencies. It

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ these tones back into \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

signals and sends them to the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ computer.

1. When you tell your communications software to \_\_\_\_\_\_ a communications session, the software sends a \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ to the modem that causes it to \_\_\_\_\_\_\_\_\_\_\_ the phone connection.
2. Steps to Install external modem

|  |  |
| --- | --- |
| 1 |  |
| 2 |  |
| 3 |  |
| 4 |  |
| 5 |  |

1. Steps to install an internal modem

|  |  |
| --- | --- |
| 1 |  |
| 2 |  |
| 3 |  |
| 4 |  |
| 5 |  |

1. Test and Troubleshoot
2. Use a program such as \_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_ which is included with \_\_\_\_\_\_\_\_\_\_\_\_\_ to test the modem. Try to make a phone call. You will hear the modem making a \_\_\_\_\_\_\_\_\_\_ noise if it is communicating properly with the computer.
3. If your modem is having problems making a connection it may be features on your \_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_ such as call waiting for \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ .
4. Voice mail changes the \_\_\_\_\_\_\_ of the telephone line to indicate a message is waiting. This may prevent the modem from

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ a connection.

1. The call waiting feature generates a beep that indicates an

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ call and the beep may cause some modems to \_\_\_\_\_\_\_\_\_\_\_\_\_ the connection. These features should be

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ before using your modem.

1. If the modem is operating slowly, the problem may be with the

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ of the telephone line. If so, contact your local telephone company.

Additional Notes: