**Internet Connections and Speed**

**📄 Vocabulary – Internet and Network Terms**

| **Term** | **Definition** |
| --- | --- |
| Fiber Optic | High-speed internet using light signals through fiber glass cables |
| DSL | Internet over telephone lines, slower than fiber |
| Cable Internet | Internet via coaxial TV cables |
| Modem | Device that connects you to the internet |
| Router | Device that sends internet signal to multiple devices |
| Bandwidth | The amount of data that can be sent or received at a time |
| Upload Speed | How fast you can send data (e.g., sending emails, uploading files) |
| Download Speed | How fast you can receive data (e.g., streaming, opening websites) |
| Latency | The delay before data starts to transfer |
| Range | The distance your signal can cover |
| Cat6 Cable | A high-speed Ethernet cable used in networks |
| Audio/Video Server | A system that stores and sends multimedia content |

**🧠 Vocabulary Matching Exercise**

Match the term to its correct definition.

**A. Terms**

1. Router -- C
2. Bandwidth --F
3. Fiber Optic --A
4. Upload Speed --D
5. Cat6 Cable --A
6. Audio/Video Server
7. DSL --E
8. Range --G
9. Download Speed --F
10. Latency --B

**B. Definitions**  
a. A cable with high-speed internet transmission  
b. The time it takes for information to travel  
c. A device that connects many devices to the internet  
d. Speed of sending data  
e. Type of internet using telephone lines  
f. Speed of receiving data  
g. Distance of the signal  
h. Device used for video and music distribution  
i. The total capacity of a connection  
j. Internet through light signals

**📋 Practical Group Task – Measure and Compare Internet Speed**

**Instructions:**

1. Use your phone or school computer to go to [speedtest.net](https://www.speedtest.net/) or similar tool.
2. Measure:
   * Type of Connection (Wi-Fi, fiber, cable, mobile)
   * Download Speed
   * Upload Speed
   * Is it fast or slow?

**Table to Fill:**

| **Group** | **Type of Connection** | **Download Speed** | **Upload Speed** | **Fast or Slow?** | **Signal Range** |
| --- | --- | --- | --- | --- | --- |
| A | 4.5.G | 86.03 | 28.0 | FAST |  |
| B |  |  |  |  |  |
| C |  |  |  |  |  |

**Group Discussion Prompt:**

* "We tested \_\_\_\_\_\_\_\_\_\_\_. It was \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_."
* "Our upload speed was \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_."
* "The signal range was \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_."

**📚 Simple Past**

**🔹 Part A – Regular and Irregular Verbs Table**

| **Base Verb** | **Past Tense** | **Type** |
| --- | --- | --- |
| test | tested | Regular |
| connect | connected | Regular |
| compare | compared | Regular |
| use | used | Regular |
| install | installed | Regular |
| go | went | Irregular |
| have | had | Irregular |
| do | did | Irregular |
| be | was/were | Irregular |

**🔹 Part B – Fill in the blanks**

**Instructions:** Complete the sentences with the correct past tense of the verb in parentheses.

1. Yesterday, we \_\_\_\_TESTED\_\_\_\_\_\_ (test) the connection.
2. I \_\_\_USED\_\_\_\_\_\_\_ (use) a Cat6 cable.
3. She \_\_\_\_\_ DID HAVE\_\_\_\_\_ (not have) good internet.
4. They \_\_\_\_INSTALLED\_\_\_\_\_\_ (install) a new router last week.
5. We \_\_\_\_COMPARED\_\_\_\_\_\_ (compare) speeds at school.
6. He \_\_WAS\_\_\_\_\_\_\_\_ (be) in the lab at 9 a.m.
7. I \_\_\_CONNECTED\_\_\_\_\_\_\_ (connect) the modem to the computer.
8. The signal \_\_WENT\_\_\_\_\_\_\_\_ (go) out during the storm.
9. We \_\_\_\_\_DINOT\_\_\_\_\_ (not use) fiber optic.
10. Did you \_\_\_\_CHECK\_\_\_\_\_\_ (check) the speed?
11. My friend \_DID\_\_\_\_\_\_\_\_\_ (do) a presentation about bandwidth.
12. They \_WATCHED\_\_\_\_\_\_\_\_\_ (watch) a video about servers.
13. I \_\_\_DIDNOT GO\_\_\_\_\_\_\_ (not go) to the training.
14. Did she HAVE\_\_\_\_\_\_\_\_\_\_ (have) the right cable?
15. We \_\_\_\_DIDNOT\_\_\_\_\_\_ (not install) the modem yet.

**✍️ Extra Writing Task – Use Past Tense**

Write **a short paragraph (5-7 sentences)** using the past tense. Use vocabulary from this lesson. Here’s a model:

**Model:**  
"Last Wednesday, I tested my home internet speed. I used Wi-Fi. The download speed was 30 Mbps. I didn’t use a Cat6 cable. I had some connection problems. The signal was weak. I compared it with my friend’s connection."

**Now You:**

* What did you do?
* What did you use?
* Was it fast or slow?
* Did you have problems?

**🎯 Wrap-Up Game – Vocabulary Pictionary**

**Instructions:**  
Divide students into two teams. One person from each team draws a word (from the list below) on the board. The team guesses in English.

**Words List:**

1. Modem
2. Router
3. Cat6 cable
4. Server
5. Internet speed
6. Wi-Fi
7. Mobile data
8. Fiber optic
9. Upload
10. Range

**📘 Applications, Devices & Past Events**

**🔁 1. Vocabulary + Grammar**

**Part A – Vocabulary Multiple Choice**

Circle the correct answer.

1. What is a Cat6 cable used for?  
   a) Charging phones  
   b) High-speed internet  
   c) Printing documents  
   d) Recording videos
2. What device shares internet with multiple users?  
   a) Monitor  
   b) Switch  
   c) Router  
   d) Cable
3. Which of the following is an example of upload activity?  
   a) Watching Netflix  
   b) Reading a website  
   c) Sending an email  
   d) Opening a PDF
4. What is the signal range?  
   a) Internet cost  
   b) Speed of upload  
   c) Signal distance  
   d) Cable thickness
5. Which connection is usually the fastest?  
   a) DSL  
   b) Fiber optic  
   c) Mobile data  
   d) Dial-up

**Part B – Complete with the Past Tense**

Use the correct past tense form of the verbs in parentheses.

1. We \_\_\_\_\_\_\_\_\_\_ (install) the router last week.
2. I \_\_\_\_\_\_\_\_\_\_ (not test) my connection yesterday.
3. They \_\_\_\_\_\_\_\_\_\_ (connect) the modem to the server.
4. She \_\_\_\_\_\_\_\_\_\_ (watch) a video about fiber optic.
5. We \_\_\_\_\_\_\_\_\_\_ (go) to the training on Wednesday.
6. He \_\_\_\_\_\_\_\_\_\_ (not have) a good cable.
7. The technician \_\_\_\_\_\_\_\_\_\_ (explain) everything.
8. Did you \_\_\_\_\_\_\_\_\_\_ (use) a Cat6 cable?
9. I \_\_\_\_\_\_\_\_\_\_ (compare) upload speeds.
10. We \_\_\_\_\_\_\_\_\_\_ (not install) a new server.

**📖 2. Reading Activity – Tesco Network Upgrade**

**Contextualized, simplified reading text. Ideal for vocabulary and grammar use.**

**📄 Reading Text: TESCO’s Network Upgrade**

In 2022, TESCO upgraded their internet network. They installed new routers and used Cat6 cables. They added audio and video servers to improve customer experience. Over 1,000 stores had faster internet. The technicians tested download and upload speeds. The result was excellent: customers used the Wi-Fi with better performance.

**📌 Vocabulary Focus:**

* upgraded = improved
* installed = put new devices in
* tested = checked
* servers = machines that store and share data

**📘 Comprehension Questions:**

**True or False:**

1. TESCO installed old routers.
2. They used Cat6 cables.
3. Only 10 stores upgraded their networks.
4. They added audio/video servers.
5. The upgrade happened in 2022.

**Answer the questions:**  
6. What did TESCO upgrade?  
→ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  
7. What type of cable did they use?  
→ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  
8. Why did they add audio/video servers?  
→ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  
9. How many stores got faster internet?  
→ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  
10. Who tested the connection?  
→ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**✍️ 3. Writing Practice – What Did You Do on Wednesday?**

**Instructions:** Write 8–10 sentences about a past day (Wednesday or another recent day). Use past tense verbs and vocabulary from class.

**Model Paragraph:**  
"On Wednesday, I went to school. I had a class about networks. We tested the internet speed. My group used Wi-Fi. The download speed was 25 Mbps. It was fast. We compared the signal with mobile data. The mobile signal was weaker. I learned about Cat6 cables and routers."

**Your Turn:**  
Write about what you did in class or at home using:

In the past, I used a desktop computer with a CRT monitor. It is big and slow. I also used floppy disks to save my files, but could not store much data. I listened to music on a Walkman, which needed cassette tapes. Now I use a laptop and a smartphone. The laptop is fast and portable, and the smartphone lets me do many things like browse the internet, watch videos, and talk to friends. Before, technology was simple but limited, now it is advanced and much easier to use. I like modern devices because are more powerful.

* used, tested, compared, had, installed, watched, went, didn’t…

**Checklist:**  
✅ Use 2 regular verbs  
✅ Use 2 irregular verbs  
✅ Mention 2 tech words  
✅ Use connectors: *and, but, because*

**🎧 4. Listening Activity – Simple Network Conversations**

**👂 Listening Transcript:**

**Technician:** "We tested the internet yesterday. The download speed was 50 Mbps. We used a fiber optic cable. It worked very well. The router was new, so the signal was strong."

**Student:** "Last week, I watched a video about Cat6 cables. Then I tested the cable in the lab. The upload speed was slow. We didn’t use the new modem. That’s why the signal was weak."

**📝 Listening Tasks**

**A. Fill in the blanks:**

1. We \_\_\_\_\_\_\_\_\_\_ the internet yesterday.
2. The download speed was \_\_\_\_\_\_\_\_\_\_ Mbps.
3. We used a \_\_\_\_\_\_\_\_\_\_ cable.
4. The \_\_\_\_\_\_\_\_\_\_ was new.
5. I \_\_\_\_\_\_\_\_\_\_ a video about Cat6 cables.
6. We didn’t use the new \_\_\_\_\_\_\_\_\_\_.
7. The \_\_\_\_\_\_\_\_\_\_ was weak.

**B. Answer in short phrases:**

1. When did they test the internet?  
   → \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
2. What kind of cable did they use?  
   → \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
3. Was the signal strong or weak?  
   → \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
4. What device was not used?  
   → \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**🎭 5. Role-play Activity – You’re the Technician!**

**Objective:** Practice speaking in English using past tense and technical vocabulary.

**👥 Pair Work:**

**Student A:** You are the client. You have a slow internet connection.  
**Student B:** You are the technician. Ask questions and make suggestions.

**Dialogue Prompts:**

* “What happened with your internet?”
* “Did you test the speed?”
* “What type of cable did you use?”
* “We used a Cat6 cable. It was fast.”
* “We didn’t use a new router.”
* “You had a weak signal because…”
* “Try installing…”

**📘 Network Devices, Past Technologies & Recommendations**

**🧰 1. Vocabulary Expansion – Network Hardware**

| **Device** | **Function** |
| --- | --- |
| Repeater | Boosts and extends a network signal |
| Bridge | Connects two networks |
| Router | Sends data to devices in a network |
| Gateway | Connects two different systems/networks |
| Hub | Sends data to all devices (not smart) |
| Switch | Sends data to a specific device (smart) |
| Access Point | Creates wireless access in a wired network |

**🧠 Matching Activity**

Match the device to its correct function:

1. Repeater
2. Hub
3. Switch
4. Gateway
5. Bridge
6. Router
7. Access Point

**Functions:**  
a) Sends data to all devices  
b) Connects two networks  
c) Sends data to specific devices  
d) Extends Wi-Fi signal  
e) Connects different networks  
f) Sends data to phones/laptops  
g) Manages traffic inside the network

**✍️ 2. Writing Activity – Technology in the Past (45 min)**

**Instructions:** Write a paragraph about technology you used in the past and what you use now. Compare them.

**Model Paragraph:** In the past, I used a desktop computer with a CRT monitor. It was big and slow. I also used floppy disks to save my files, but they could not store much data. I listened to music on a Walkman, which needed cassette tapes. Now I use a laptop and a smartphone. The laptop is fast and portable, and the smartphone lets me do many things like browse the internet, watch videos, and talk to friends. Before, technology was simple but limited, now it is advanced and much easier to use. I also like modern devices because they are lighter and more powerful.

**Your Turn:**

* Mention 3 old technologies.
* Mention 2 modern ones.
* Use *Simple Past* and *Present Simple*.
* Compare: *Before… Now…*
* Use connectors: *but, now, because, also*

**🔧 3. Helping a Client**

**Scenario:**  
A client wants to improve their network. They have an old modem and use DSL. They have many devices at home (TV, phones, PC, printer).

**Your Task:**  
Make suggestions. Use past tense to explain what they used before and present/future to suggest better options.

**Table:**

| **Situation Before** | **Problem** | **Recommendation (Use “should”)** |
| --- | --- | --- |
| DSL connection | Slow speed | You should use fiber optic |
| Old modem | Weak signal | You should install a router |
| No access point | No Wi-Fi in all rooms | You should add an access point |
| Using Hub | Data not optimized | You should use a switch |

**Sentence Models:**

* “The client had DSL. It was slow. They should use fiber optic.”
* “They used an old modem. The signal was weak. They should buy a router.”
* “The client didn’t have Wi-Fi in all rooms. Add an access point.”

**🔁 5. Grammar Practice – Simple Past Review**

**Instructions:** Choose the correct past tense form. Then rewrite the sentences using *didn’t* or questions.

**Part A – Choose the correct form**

1. We (used/use) a repeater to extend the signal.
2. They (connect/connected) two networks with a bridge.
3. I (have/had) a hub before.
4. She (did/didn’t) test the download speed.
5. The technician (installed/install) a switch.

**Part B – Rewrite with *didn’t* or Questions**

1. I used a hub. → I \_\_\_\_\_\_\_\_\_\_ a hub.
2. They tested the router. → \_\_\_\_\_\_\_\_\_\_ they test the router?
3. He had an old modem. → He \_\_\_\_\_\_\_\_\_\_ an old modem.
4. We connected the printer. → \_\_\_\_\_\_\_\_\_\_ we connect the printer?
5. She installed a new access point. → She \_\_\_\_\_\_\_\_\_\_ a new access point.

**🧩 Internet Speed & Connections**

**🔤 Technical Vocabulary (with translation)**

* **Mbps (Megabits per second)** – Megabits por segundo
* **Upload** – Enviar dados
* **Download** – Baixar dados
* **Fiber Optic** – Fibra óptica
* **Wi-Fi** – Conexão sem fio
* **Mobile Data** – Dados móveis
* **DSL (Digital Subscriber Line)** – Linha digital do assinante

**📚 Grammar Focus: Simple Past – Regular Verbs**

We use the **simple past** to talk about actions completed in the past.  
Regular verbs: just add **-ed** to the base verb.

**Examples:**

* I **tested** the connection.
* We **measured** the internet speed.
* They **connected** their phones.

**📝 Practice Exercises (Answer in English)**

1. What type of internet connection did you have last year? Describe its speed and stability.
2. Compare your home connection and your school’s. Which one is faster? Why?
3. Write about a time you used mobile data. Was it effective? What were you doing?
4. Use at least 3 regular past verbs to describe an internet test or activity you did.

**🧩 Applications, Devices & Past Events**

**🔤 Technical Vocabulary (with translation)**

* **Cat6 Cable** – Cabo de rede de alta velocidade
* **Audio/Video Server** – Servidor de áudio/vídeo
* **TESCO** – Rede de supermercados (exemplo no Reino Unido)
* **Bandwidth** – Largura de banda

**📚 Grammar Focus: Simple Past – Irregular Verbs**

Some verbs don’t follow the regular “-ed” pattern. They change form in the past.

**Examples:**

* go → went
* do → did
* have → had
* make → made
* use → used (regular verb)

**📝 Practice Exercises**

1. What did TESCO upgrade in 2022 regarding their network infrastructure?
2. Why did they choose Cat6 cables? Explain the advantages.
3. Describe what you did in your last English class. Use at least 3 irregular verbs.
4. Write a short paragraph explaining the use of audio/video servers in a company.

**🧩 Network Devices, Past Technologies & Recommendations**

**🔤 Technical Vocabulary (with translation)**

* **Router** – Roteador
* **Switch** – Comutador
* **Access Point** – Ponto de acesso
* **Hub** – Concentrador de rede
* **Gateway** – Porta de entrada
* **VPN (Virtual Private Network)** – Rede privada virtual

**📚 Grammar Focus: Making Suggestions (using “should”)**

We use **should** to give advice or recommendations.

**Examples:**

* You **should** upgrade your router.
* The company **should** improve the Wi-Fi signal.

**📝 Practice Exercises**

1. What network devices did you use in the past? What do you use now? Compare both.
2. Write two suggestions to improve the internet connection in your classroom using “should”.
3. What old technology did you use in 2010 (ex: Orkut, MySpace)? What replaced it?
4. Imagine a home network. Draw or describe it. Include devices and cables (e.g., Cat6, router, switch).