
Practice exercises: unit 2 topic 1

Exercise 1: Drawing and Labeling a Process Diagram

Instructions: Draw a simple diagram that illustrates how a **washing machine** works. Label the following stages in the process:

- Filling with water
- Agitation
- Rinsing
- Spinning
- Draining

Solution:

1. **Filling with water:** The machine fills the drum with water at the start of the cycle.
2. **Agitation:** The drum rotates to move the clothes and mix them with soap and water.
3. **Rinsing:** Clean water is added to rinse the soap out of the clothes.
4. **Spinning:** The machine spins the clothes at high speed to remove excess water.
5. **Draining:** The water is drained out of the drum.

Exercise 2: Describing a Process

Instructions:

Using **sequencers** (e.g., first, next, after that, finally), describe how an **electric car** works.

Solution: "**First**, the electric car's battery is charged by connecting it to a power source. **Next**, the stored electrical energy powers the car's electric motor, which converts it into mechanical energy. **After that**, the motor drives the wheels of the car, allowing it to move. **Finally**, regenerative braking recovers energy when the car slows down, sending it back to the battery."

Exercise 3: Passive Voice in Describing a Process

Instructions: Rewrite the following sentences in the **passive voice** to describe the process of how a solar panel generates electricity.

1. The sun's energy heats the solar cells.
2. The solar cells convert sunlight into electricity.
3. The electricity powers the devices.

Solution:

1. The solar cells **are heated** by the sun's energy.
 2. Sunlight **is converted** into electricity by the solar cells.
 3. Devices **are powered** by the electricity.
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Exercise 4: Listening and Sequencing Events

Instructions: Listen to or imagine a presentation about how a **smartphone** works. Place the following steps in the correct order.

1. The screen displays information to the user.
2. The user inputs commands through the touchscreen.
3. The processor executes the commands.
4. The battery supplies power to the device.

Solution:

1. The battery supplies power to the device.
 2. The user inputs commands through the touchscreen.
 3. The processor executes the commands.
 4. The screen displays information to the user.
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Exercise 5: Describing a Process Using Relative Pronouns

Instructions: Complete the following sentences about how **Wi-Fi** works, using appropriate **relative pronouns** (which, that, where).

1. A router is a device _____ transmits Wi-Fi signals.
2. The area _____ you can access Wi-Fi is called a hotspot.
3. Wi-Fi is a technology _____ allows devices to connect wirelessly.

Solution:

1. A router is a device **that** transmits Wi-Fi signals.
 2. The area **where** you can access Wi-Fi is called a hotspot.
 3. Wi-Fi is a technology **which** allows devices to connect wirelessly.
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Exercise 6: Vocabulary and Definitions

Instructions: Match the technology terms to their correct definitions.

Terms:

1. **Algorithm**
2. **Processor**
3. **Sensor**

Definitions: A. A device that detects and responds to changes in the environment. B. A step-by-step procedure for solving a problem or performing a task. C. The central component of a computer that executes instructions.

Solution:

1. **Algorithm** → B. A step-by-step procedure for solving a problem or performing a task.
 2. **Processor** → C. The central component of a computer that executes instructions.
 3. **Sensor** → A. A device that detects and responds to changes in the environment.
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Exercise 7: Reading Comprehension

Instructions: Read the following description of how a **3D printer** works and answer the questions.

Text: "A 3D printer creates objects by layering materials, such as plastic or metal. First, the design is created on a computer using 3D modeling software. Then, the printer reads the file and begins laying down material, layer by layer, until the object is formed."

Questions:

1. What is the first step in the 3D printing process?
2. How does the printer form the object?

Solution:

1. The first step is creating the design on a computer using 3D modeling software.
 2. The printer forms the object by laying down material, layer by layer.
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Exercise 8: Writing Task - Describing a Technological Process

Instructions: Write a short paragraph describing how **cloud storage** works, using **sequencers** and the **passive voice**.

Solution: "First, files **are uploaded** from a user's device to a remote server. Next, the data **is stored** securely in the cloud, where it **can be accessed** from any device with an internet connection. When needed, the files **are downloaded** back to the user's device."

Exercise 9: Guessing the Meaning of Words Through Context

Instructions: Read the following sentence and guess the meaning of the word "modem" based on the context.

Sentence: "The modem connects your home to the internet by translating digital signals from your device into a form that can travel through the internet."

Question: What is the function of a modem?

Solution: A modem is a device that **translates digital signals** from your device so that they can travel through the internet.

Exercise 10: Summarizing a Process

Instructions: Summarize the following steps in how a **wind turbine** generates electricity.

Steps:

- The wind turns the blades.
- The blades are connected to a rotor.
- The rotor turns a generator.
- The generator produces electricity.

Solution: "A wind turbine generates electricity by using the wind to turn the blades, which are connected to a rotor. The rotor then turns a generator, which produces electricity."
