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## Topic Two: Diagrams and Description of Devices

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### 2.1 Learning Objectives:

- Understand how to describe the function of a device using appropriate vocabulary.
- Express measurements using basic, derived, and compound metric units.
- Make inferences about the function of a device based on its components and diagram.

### 2.2 Key Grammar Focus:

- **Present Simple Tense for Functions:** Use present simple to explain how something works.
  - Example: *The fan rotates when the switch is turned on.*
- **Prepositions of Place:** Use prepositions to describe the location of components within a device.
  - Example: *The motor is located inside the housing الهيكلي!*

### 2.3 Vocabulary Focus:

- **Device Components:** motor, battery, switch, wire, blade, handle مقبض , button
- **Verbs for Function:** rotates, powers, connects, supports, controls
- **Metric Units:** Basic (m, L, g), Derived (m<sup>2</sup>, m<sup>3</sup>), Compound (m/s, W/m<sup>2</sup>)

### 2.4 Examples:

#### 1. Describing a Fan:

- *The fan has three blades. The motor is located inside the base, which powers the rotation of the blades. The fan is turned on by pressing the power button.*

#### 2. Describing a Coffee Machine:

- *The coffee machine has a water reservoir, a filter basket **سلة فلتر**, and a heating element. Water is poured **سكب** into the reservoir, and the machine heats the water, which passes through the coffee grounds **حببيات القهوة** to make coffee.*
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## 2.5 Exercise: Describe the following devices using diagrams

- A blender
- A printer

### Solutions:

#### 1. Blender:

- *The blender has a motor, a blade assembly, and a jar. The motor spins the blades inside the jar to blend food. In the diagram, the arrows show the rotation of the blades.*
- *يحتوي الخلاط على محرك ومجموعة شفرات ووعاء. يقوم المحرك بتدوير الشفرات داخل الوعاء لخلط الطعام. في الرسم التخطيطي، توضح الأسهم دوران الشفرات.*

#### 2. Printer:

- *The printer consists of a paper tray, a print head, and an output tray. Paper is fed from the tray, passed through the print head, and then delivered to the output tray.*
  - *تتكون الطابعة من درج ورق ورأس طباعة ودرج إخراج. يتم تغذية الورق من الدرج، ثم يمر عبر رأس الطباعة، ثم يتم تسليمه إلى درج الإخراج.*
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## 3. Developing Skills:

### 3.1 Making Inferences:

- Practice making inferences about devices based on descriptions and diagrams.
  - Example: *If the arrow in the diagram shows air entering a tube, we can infer that the device is a pump.*

### 3.2 Exercise:

- Look at the diagram of a device and make two inferences about how it functions.

#### Solution:

- **Inference 1:** *The motor drives the fan, as the arrow shows the air flow through the fan blades.*
  - **Inference 2:** *The switch controls the power to the motor, based on its connection in the diagram.*
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## 4. Reading and Writing

### 4.1 Reading for Specific Information:

- Practice identifying key information and general ideas in a text about devices.

#### Exercise:

- Read a short passage about a washing machine and identify the function of its key components.

#### Solution:

- *The washing machine has a drum, which rotates to clean clothes. The control panel allows the user to select different washing settings.*
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### 4.2 Writing:

- **Writing the Description of a Device:**
  - Write a short description of how a microwave oven works.

#### Solution:

- *The microwave oven uses electromagnetic waves to heat food. It has a control panel to set the time and power level, and a rotating plate inside to ensure even heating.*

#### **4.3 Summarizing:**

- Summarize a paragraph that explains the function of a solar panel.

#### **Solution:**

- *A solar panel converts sunlight into electrical energy using photovoltaic cells. The energy is then stored in batteries for later use.*
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