Unit One: Diagrams and Description of Objects and Devices

Topic One: Diagrams and Description of Objects

1.1 Learning Objectives:

- Understand how to describe shapes, features, and measurements of objects.
- Learn how to make statements about diagrams and illustrate text with diagrams.
- Develop the ability to make inferences from diagrams and descriptions.
- Practice expressing measurements using basic, derived, and compound metric units.

1.2 Key Grammar Focus:

- **Present Simple Tense:** Describe general features and uses of objects.
  - Example: *The box has four sides. It is made of cardboard.*
- **Adjectives and Prepositions:** Use adjectives to describe shape, size, material, and prepositions of place to explain where parts of an object are located.
  - Example: *The small, blue cube is made of plastic. It is positioned on top of the table.*

1.3 Vocabulary Focus:

- **Shapes:** square, rectangular, circular, triangular
- **Dimensions:** length, width, height, depth, diameter
- **Materials:** wood, metal, plastic, rubber, glass
- **Basic Metric Units:** meters (m), liters (L), grams (g)
- **Derived Metric Units:** square meters (m²), cubic meters (m³)
- **Compound Metric Units:** meters per second (m/s), watts per square meter (W/m²)

1.4 Examples:

1. **Describing a Pen:**
   o *The pen is cylindrical. It is made of plastic. It is blue and white. The length of the pen is 15 cm.*

2. **Describing a Box:**
   o *The box is rectangular. It is made of cardboard. Its dimensions are 30 cm by 20 cm by 10 cm.*

3. **Making Statements About Diagrams:**
   o *In the diagram, the square represents a box, and the arrow shows the flow of air into the system.*

4. **Illustrating a Text with Diagrams:**
   o *The object is a circular disc, as shown in Figure 1, which is connected to a rod for rotation.*

5. **Describe the following objects using measurements**

* A table (length, width, height)
* A bottle (height, diameter, volume)

Solutions:

1. **Table:**
   o *The table is rectangular. It is 120 cm long, 60 cm wide, and 75 cm high.*

2. **Bottle:**
   o *The bottle is cylindrical. It is 30 cm tall, with a diameter of 8 cm. The volume of the bottle is 1.5 liters.*

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