

KENYA NATIONAL EXAMINATION AND ASSESSMENT PREDICTION SERIES

ENDTERM 2 ASSESSMENT 2025

GRADE 7

PRETECHNICAL STUDIES PAPER 2

MARKING SCHEME

PROJECT SCENARIO: Simple Pencil Holder

Objective: Design, make, and present a Simple Pencil Holder using basic, locally available materials.

TASK 1: Technical Skills (14 Marks)

1. Design and Planning:

a) **As a group, brainstorm and agree on a design for your simple pencil holder. Consider its shape and size.**

Guidance: Your group should discuss various shapes (cylindrical, rectangular, hexagonal, irregular) and sizes (tall enough for pencils, stable base). Consider using materials like:

- i. Recycled plastic bottles (cut and decorated)
- ii. Cardboard tubes (from tissue rolls, kitchen foil)
- iii. Cardboard boxes (from cereals, shoes)
- iv. Small wooden offcuts (if available and safe to work with).

Key points for a good design:

Stability, capacity, aesthetic appeal, ease of construction with chosen materials and tools.

b) **Make a freehand pictorial sketch of your chosen design. The sketch should clearly show how the pencil holder will look. (4 marks) * Model Sketch Description (since I cannot draw directly):**

Clarity:

The sketch should clearly represent the chosen shape (e.g., a cylinder with a stable base, or a rectangular box).

3D Representation: Use basic isometric or oblique drawing techniques to show three dimensions, making it look solid. **Detail:** Include basic features like the opening for pencils, and any decorative elements you plan (e.g., a pattern, color).

Proportion: The sketch should show roughly correct proportions (e.g., not extremely wide and very short if it's meant to hold pencils upright).

Neatness: Despite being freehand, the lines should be reasonably straight and the sketch should be neat. **(Learners would draw their sketch here in the provided space.)**

c) **List the main materials you will use to construct the pencil holder (e.g., cardboard tube, plastic bottle, small pieces of wood). (2 marks)**

Model Answer Example (choose based on your design):

1. **Recycled Plastic Bottle** (e.g., 500ml water bottle or 2-liter soda bottle)
2. **Fabric Scraps** (for decoration)
3. **Strong Adhesive/Glue** (e.g., UHU, hot glue, or strong craft glue)
4. **(Optional):** Cardboard piece (for base, if using bottle)
5. **(Optional):** Paint or decorative paper

2. Material Preparation and Tool Selection:

a) **Based on your chosen materials, list at least three appropriate hand tools you will need for marking, cutting, and joining the parts of your pencil holder (e.g., ruler, pencil, scissors, knife, glue). (3 marks)**

Model Answer Example (matching the plastic bottle example above):

1. **Marker Pen / Pencil** (for marking cutting lines)
2. **Craft Knife / Scissors** (for cutting the plastic bottle)
3. **Ruler / Tape Measure** (for accurate measurements)
4. **(Optional):** Glue gun (if using hot glue)
5. **(Optional):** Paintbrushes (if painting)

b) **Briefly describe one safety precaution you must observe when using a cutting tool like scissors or a knife. (1 mark)**

Model Answer Examples:

Always cut away from your body.

Ensure a stable cutting surface and firm grip on the material.

Keep fingers clear of the cutting path.

Use the correct type of cutting tool for the material.

When not in use, always put the blade cover on a knife or close scissors safely.

Never run with scissors or a knife.

3. Construction:

- a) **Carefully measure, mark out, and cut the pieces according to your design sketch using the selected tools.**
- b) **Assemble the cut pieces using appropriate joining methods (e.g., glue, tape).**
- c) **Decorate your pencil holder (e.g., painting, covering with paper, drawing) to make it look nice.**

d) **Submission: Present your completed Simple Pencil Holder. (Marking will be based on how well it is made and how it looks). (4 marks)**

Assessment Criteria for Pencil Holder (Learners should aim for these):

Functionality: Does it hold pencils effectively? Is it stable?

Craftsmanship: Is it well-constructed? Are the joints strong? Are the cuts neat?

Aesthetics: Is it visually appealing? Is the decoration well-applied and tidy?

Material Use: Has the group effectively utilized the chosen materials?

TASK 2: Business Skills (3 Marks)

5. Usefulness and Cost:

a) **Explain why your pencil holder is useful. (1 mark)**

Model Answer Example: * Our pencil holder is useful because it helps to **organize pencils, pens, and other stationery items**, keeping them tidy on a desk and easily accessible, reducing clutter.

b) **If you were to make more pencil holders to sell, suggest two things that would affect how much it costs to make one. (2 marks)**

Model Answer Examples:

1. **Cost of Materials:** The price of the raw materials (e.g., cardboard, plastic bottles, glue, paint, decorative items) will directly impact the cost. Buying in bulk might reduce this.

2. **Labor Cost:** The time and effort (and therefore wages, if applicable) put into making each pencil holder by the crafters/workers.

3. **Overhead Costs:** Expenses like rent for a workshop, electricity for tools, or marketing expenses, if operating as a larger business.

4. **Tooling/Equipment Cost:** The initial investment in tools needed for production.

TASK 3: Computer Studies (3 Marks)

7. Documentation and Presentation:

a) **Take clear photos during the making of your pencil holder (e.g., showing the materials, cutting, joining, decorating). (1 mark)**

Assessment Criteria: The photos should be clear, well-lit, and effectively capture the different stages of the project. A minimum of 3-4 photos showing distinct steps would be ideal.

b) **Create a simple electronic document (e.g., using word processing software on a computer or tablet) that includes the photos taken, showing the steps you followed to make the pencil holder. (2 marks)**

Assessment Criteria: Software Use: Evidence of using a word processing application (e.g., Microsoft Word, Google Docs, Pages).

Photo Integration: Photos are correctly inserted into the document.

Step Description: Brief, clear captions or descriptions accompany each photo, explaining the process shown (e.g., "Step 1: Gathering materials,"

"Step 2: Cutting the bottle,"

"Step 3: Gluing the base,"

"Step 4: Decorating").

Organization: The document should be well-organized and easy to follow.

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