

# YOUR STEP ASSESSMENT CONSULT

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## AKWAABA MOCK

BASIC DESIGN AND TECHNOLOGY (HOME ECONOMICS 2 & 1)

### MARKING SCHEME

#### OBJECTIVES

1. D	11. B	21. D	31. B
2. C	12. D	22. A	32. A
3. A	13. B	23. D	33. B
4. A	14. B	24. D	34. C
5. C	15. A	25. D	35. D
6. B	16. D	26. A	36. A
7. B	17. B	27. D	37. C
8. D	18. A	28. C	38. B
9. D	19. D	29. A	39. D
10. A	20. D	30. B	40. A

**1 X 40 = 40 MARKS**

## THEORY

### QUESTION 1

(a) i.

- Design and make a unit for pupils to keep their graphic materials
- Design and make a unit to hold pupil's graphic materials.

**1 mark**

ii. a. **Function**

- i. What are the main uses of the artifact?
- ii. How heavy should it be?
- iii. What other purpose can it serve?
- iv. How is it going to be used?
- v. How many items will it hold?

**½ marks**

b. **Material**

- i. What type of material will be used for making the artifact?
- ii. Is the material available in the locality?
- iii. Is the material suitable for the unit?
- iv. What are the properties of the material that makes it suitable?

**½ marks**

iii. i. Using video recorders

ii. Taking photographs

iii. Writing with pen and paper

**1 mark**

iv a. **Economics**

- i. How much will the material cost?
- ii. How many hands will be employed?
- iii. What is the workmanship?
- iv. What is the total cost of production?
- v. What will be the selling price?

**½ marks**

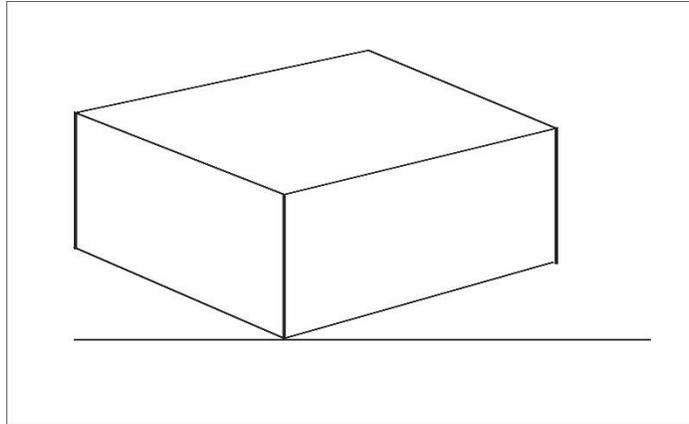
b. **Ergonomics**

- i. Who will use the material?
- ii. Where will the unit be used?

iii. What will be the size of the unit?

**½ marks**

(v)



**2 marks**

(b) i. Principles of design refers to the guidelines that govern the production of an art work.

They describe the ways the artist uses the element of art in a work of art. **1 mark**

ii. Creative /Art designer, Layout artist, logo designer, illustrator, Photo editor, multimedia designer. **1 x 3 = 3 marks**

iii Red, yellow, orange, green, blue, indigo and violet **2 marks**

(c) i. Food spoilage is the state in which food has gone bad and is usually dangerous to eat.

**1 mark**

ii. Bacteria, enzymes, moulds. **1 x 3 = 3 marks**

iii Canning, smoking, freezing, oiling. **1 mark**

iv Food preservation is the act of keeping food for longer periods of time by giving it a

special treatment. **1 mark**

v. sun or solar drying, oven drying, vacuum drying, spray drying **1 x 2 = 2 marks**

## QUESTION 2

(a) i

- Large or fixed equipment (eg. Cupboard, fryers, boiling pan, sink, shelf)
- Mechanical or labour saving equipment (eg heaters, food mixers, freezers, food slicer, mashers)
- Small Equipment (eg. ladles, frying pans, rolling pins, cutters colander, bowls)

**1 x 3 = 3 marks**

ii.

- The money available for buying the tools
- The intended purpose
- The life span of the equipment
- Skills of the user
- Availability of spare parts

**1 x 3 = 3 marks**

(b) i. First Aid is an immediate treatment given to an injured person before competent help arrives.

**1½ marks**

ii.

- It helps in treating simple accidents.
- It saves life
- It helps keep the victim warm, calm and comfortable.
- It removes the source of danger
- It serves as a preliminary treatment before reaching a doctor or clinic.

**1 x 2 = 2 marks**

iii **Cuts:** Wash with cold water to stop bleeding. Soak a piece of cotton wool with acriflavine solution and bandage.

**Burns:** Apply bicarbonate of soda to skin and leave it bare. Do not burst the blisters.

**Scalds:** cover affected area with baking soda, egg or brine (salt solution)

**4½ marks**

(c) i.

- Washing of cooking utensils immediately after use.
- Keeping foods in sieves to avoid flies from settling on them **1 x 2 = 2 marks**

ii **Protein foods**

- It gives off unpleasant smell
- Food changes colour
- Meat, fish and poultry rot.
- Milk curdles and turn sour. **½ marks**

**Fruits and vegetables**

- Vegetables looks moisture
- The flavor of the food changes or disappear
- They become soft and change colour
- They become over-ripe (Pawpaw) or over-mature (Okro) **½ marks**

iii.

<b>FOOD ITEM</b>	<b>METHOD OF PRESERVATION</b>
Fish	Freezing, smoking, salting, drying
Tomatoes	Freezing, canning, dehydration, roasting
Egg	Freezing, oiling,

**1 x 3 = 3 marks**

### QUESTION 3

(a). i.

**Cleaning Agents:** They are chemicals used in washing and cleaning equipment and utensils.

**Scourers:**

**Abrasives:** They are substances used to clean kitchen equipment to remove stains. **4½ marks**

ii.

Abrasive	Examples
Local	Ground white and red clay, egg shell, ground charcoal
Commercial	Vim, Brasso, Silvo

**2 marks**

(b) i.

**Choking:** It occurs when an object blocks the throat of a person making him/her unable to breathe.

**Falls:** It occurs as a result of slippery floors or peels scattered apart.

**Cuts:** It is an opening on the skin caused by knife or sharp object. **1 x 3 = 3 marks**

ii.

- i. Excessive haste
- ii. Lack of concentration
- iii. Wet and slippery floors
- v. Failure of applying safety rules
- v. Disorderliness

**1½ marks**

iii. **Choking**

- i. Children must avoid playing with blown balloons
- ii. Solid foods must be adequately chewed before swallowing.
- iii. Children must be prevented from putting foreign materials into their mouth. **½ marks**

**Falls**

- i. Wipe wet floors quickly
- ii. Put fruits and vegetable peels in bins
- iii. Avoid walking bare footed on tiled floors **½ marks**

**Cuts**

- i. Wash knives separately after use.
- ii. Use the correct knife for the appropriate job.
- iii. Use chopping board when cutting.
- iv. Arrange all knives on knife racks. **½ marks**

(c). i.

- **The wrinkle test:** put about a teaspoon of jam on a cold saucer. Cools quickly and push across with finger, if it forms wrinkles while still warm, the jam is set.
- **The flake test:** Dip a dry clean wooden spoon into jam. Turn horizontally over to cool. If the flake formed break off without running, the jam is ready. **2 x 2 = 4 marks**

ii

- Always test the jam for setting.
- Use a thick heavy iron pot
- Fruits should be washed well
- Reduce the quantity of water when using Pawpaw **1 x 3 = 3 marks**

#### QUESTIONS 4

(a) i.

Tool / Equipment	Material used	Reason for the use of the material
Ladle	Wood	To avoid rusting and burns
Spoon	Stainless steel	To avoid rusting
Sink	Metal	To increase the life span

2 x 3 = 6 marks

(b) i.

**Radiation:** The heat travels from its source unto the food directly.

**Conduction:** The heat travels through a solid medium (metal). Therefore, the medium gets heated and transfer the heat unto the food put into it.

**Convection:** The heated gasses (air) and liquids (steam) rise and hover around the food and cook it.

4½ marks

ii.

- **Boiling where the liquid is thrown away or used as stock:** eg. Boiled yam, meat, nkontomire
- **Boiling where the liquid forms part of the food:** eg. rice, porridge, banku, soups
- **Boiling where the food absorbs the liquid during cooking:** eg. Boiled rice, wheat, Jollof

4½ marks

(c) i.

**Oxidation:** It is a chemical process that produces undesirable changes in colour, flavor and nutrient content as a result of air reacting with food components.

**Moist loss:** It is the state where food loses water which results in shrinkage (change in size) of food and its skin becomes wrinkled.

**3 marks**

ii

- Heating
- Freezing
- Drying

**1 x 2 = 2 marks**