

Strand 4: Production techniques

4.1: Knitting skills

Section A

1. B.
2. D.
3. C.
4. B.

Section B

1. Knitting needles, scissors and darning needle.
2. Knit stitch.
3.
 - (a) Careless handling of knitting needles.
 - (b) Crowded working area.
 - (c) Leaving needles lying around.
4. Scarves, table mats, gloves, tools bags, table wipers.
5.
 - (a) Inconsistent yarn tension; incorrect holding of yarn or needle; uneven pulling of stitches.
 - (b) Maintain even tension; practice correct hand positioning; use appropriate needle size.
6. The knitting stitches were not secured by casting them off and by weaving the loose ends of the thread into the fabric.

4.2: Constructing framed suspended garden

Section A

1. B.
2. C.
3. B.

Section B

1. A framed suspended garden uses vertical space such as walls and fences instead of open land, allowing the family to grow vegetables in containers even where space is limited.
2. Manure adds nutrients and improves the fertility of the soil in the containers.
3. Waterlogging; root rot; poor crop growth or death of plants due to excess water.
4.
 - (a) Watering regularly - Ensures the plants have enough moisture for healthy growth and prevents wilting.
 - (b) Weeding- Reduces competition for water, nutrients, sunlight and space, allowing the crops to grow well.

- (c) Controlling pests and diseases- Prevents damage to the plants, keeping them healthy and improves growth and yield.
- 5. A framed suspended garden. This is because it does not depend on the poor natural soil. Containers can be filled with fertile soil mixed with manure, allowing crops to grow well.
- 6.
 - (a) Wood; metal bars or poles; wires, strings or ropes.
 - (b) Select a suitable site with sunlight and access to water; design the shape and size of the frame; construct a strong, stable frame; securely attach planting containers; suspend the structure on a stable, accessible area.

4.3: Adding value to crop produce

Section A

1. D.
2. A.
3. C.
4. B.
5. C.

Section B

1.
 - (a) Value addition is the process of improving the quality, usefulness, appearance or market value of crop produce through various methods such as drying, frying, roasting, grinding and processing.
 - (b) Frying, grinding, roasting, drying and processing.
- 2.

	Raw crop produce	Ways of adding value
(a)	Groundnuts	Roasting
(b)	Cassava	Drying or milling
(c)	Pumpkin	Frying

3.
 - (a) Frying.
 - (b) Potatoes.
 - (c) Slotted spoon, clean sufuria or frying pan, sharp knife or potato peeler.
 - (d) Potato chips.
4.
 - (a) Drying.
 - (b) Select mature and good quality groundnuts seed pods; clean the pods by rubbing off the mud or dirt repeatedly using fingers or soft cloth; dry the produce thoroughly in the sun; shell out the groundnuts from the pods; clean by removing any chaff and package the dried produce appropriately.
5. Wash and peel the potatoes; cut the potatoes into thin slices; remove excess moisture; fry the slices in hot oil until golden brown; remove the fried crisps from oil and place them on the absorbent paper; package them appropriately.

4.4: Making homemade soap

Section A

1. B.
2. B.
3. C.
4. B.
5. A.

Section B

1. Saponification is the process of making soap.
2. Liquid soap, bar or cake soap, powder soap, paste soap.
3. Animal fat or vegetable oil, lye, salt, dye (optional), natural fragrance (optional).
4.
 - (a) Lye.
 - (b) It is mixed with ash to prepare lye.
5.
 - (c) Salt- helps the soap become hard.
 - (d) Dye- improves the appearance by giving colour.
 - (e) Fragrance- adds a pleasant smell to the soap.
6.
 - (a) Lye will corrode or damage aluminium containers.
 - (b) Stainless steel/enamel/earthen pot.
7. They lessen the spread of germs because there is no direct contact.
8. No. Aluminium reacts with lye.
9.
 - (a) Very little or no salt was added.
 - (b) Add the correct amount of salt to harden the soap; use the correct proportions of ingredients.
10.
 - (a) Gloves, safety goggles and apron.
 - (b) To protect the body from burns or injuries.
11.
 - (a) Soap A. It has a smooth surface.
 - (b) The soap cooled down too quickly.