

Strand 4: Production techniques

4.1: Sewing skills: Constructing household items

Section A

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

Section B

1. A seam is the part of a garment or household article where two or more pieces of fabric are joined together neatly and securely, using permanent stitches.
Seams are useful when joining separate pieces of fabric together, such as collars, sleeves, pockets, straps and the back and front parts.
2.
 - (a) Cotton fabric- because it is a strong fabric.
 - (b) Wear a thimble to protect your finger when sewing; sew away from your body to avoid hurting yourself; ensure there is enough space between you and others; keep all the sewing tools in a needlework box after use; always store needles and pins on a pincushion.
 - (c) Back stitches and running stitches.
3.
 - (a) Because the edges are not finished or neatened.
 - (b)
 - Edge stitching- This is done by folding the raw edge towards the underside of the seam allowance and then making running stitches close to the fold to neaten it.
 - Loop stitches- This is done by making a row of loop stitches on the raw edge to prevent it from fraying.
4. In a plain seam, the two edges of the seam are neatened together and pressed to one side. In an open seam, the edges of the seam are pressed open and neatened separately.
5. Trim the seam allowances to make them even. Neaten or finish the raw edges to prevent them from fraying and make them neat.

4.2: Constructing innovative animal waterer

Section A

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

Section B

1. Contamination; water wastage; suitability; inadequate number of waterers and poor quality of materials used to make the waterers.
2.
 - (a) Contamination; water wastage and inadequate number of waterers.
 - (b) Solution to contamination: clean the waterer regularly.
Solution to water wastage: use waterers of the correct size and fill it without spillage.
Solution to inadequate number of waterers: provide enough waterers for all animals; distribute waterers evenly within the animal housing area; increase the number of water points as the herd or flock grows.
3.
 - (a) (i) and (ii).
 - (b) (iii).
4.
 - (a) A sizeable innovative waterer for goats made from locally available suitable materials such as used jerricans free from cracks placed at a convenient height on a firm support accessible to goats.
 - (b) Used jerricans are locally available. Raising the innovative waterer on a firm support prevents contamination of the water while being sizeable and free from cracks minimises water wastage.
5. Saves on cost of buying hence the money can be spent on other basic needs; it helps to manage waste which in turn promotes conservation of the environment.
6.
 - (a) Animals compete for water; animals get stressed and have reduced water consumption.
 - (b) Provide enough waterers for all animals; distribute waterers evenly within the animal housing area; increase the number of water points as the herd or flock grows.

4.3: ICT support services

Section A

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

Section B

1. The farmer can use a mobile phone or the internet to:
 - (a) order certified maize seeds from a registered dealer or supplier online.
 - (b) compare prices.
 - (c) make payment through mobile money.
 - (d) have the seeds delivered directly to the farm.
2.
 - (a) The farmer may be defrauded (losing money without receiving genuine goods or receiving counterfeit or poor-quality fertiliser).
 - (b) Verify the supplier's identity, physical address and contact details; use trusted and verified platforms or read reviews from other buyers before making payment.
3.
 - (a) Weather apps helped farmers determine the best planting time and prepare for adverse weather, reducing crop losses.
 - (b) Mobile banking made it easier and faster to access farm inputs, credit and payments.
 - (c) Online extension training improved farmers' knowledge of best practices, pest and disease control, leading to better crop and livestock management.
4.
 - It saves time and transport costs.
 - Transactions are quick, secure and convenient, allowing the farmer to make payments from the farm.
5. Market information services help farmers to:
 - (a) know the current market prices.
 - (b) identify potential buyers and monitor demand for their produce.
 - (c) make informed selling decisions.
 - (d) avoid exploitation by middlemen and get better income from their produce.
6.
 - (a) Extension service.
 - (b) Through ICT, the farmer can access agricultural extension officers or online agricultural platforms to describe or share images of the affected leaves, receive advice on identifying the disease and get recommendations on suitable pest and disease control measures.

7.

- (a) Sharing his mobile banking password with another person.
- (b) Not share his password; he should use a strong, secure password known only to himself; log out of accounts after use.
- (c) Poor cyber security can lead to loss of money through fraud and unauthorised access to personal or financial data, which can result in identity theft and loss of trust in digital services.

8.

- (a) Weather forecasting service.
- (b) It helps the farmer plan out the right time to carry out farm activities such as planting and harvesting.

9.

- (a) Information on livestock diseases and their control; veterinary consultation and services.
- (b)
 - It enables early diagnosis and treatment of livestock diseases, reducing losses.
 - It provides farmers with advice on proper feeding, breeding and management practices, improving productivity.
 - It helps farmers access timely veterinary services, resulting in healthier and more productive livestock.