



KENYA EDUCATORS PUBLISHERS
KJSEA 2025 BLUE PRINTS

PREDICTION QUESTIONS & TABLE OF SPECIFICATIONS

AGRICULTURE & NUTRITION

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**THIS GUIDE SHOWS YOU WHERE THE KJSEA
(GRADE 9 NATIONAL EXAMS) AGRICULTURE &
NUTRITION QUESTIONS WILL COME FROM IN THE
SYLLABUS WITH UPTO 80% ACCURACY.**

**THE MAIN OBJECTIVE OF THIS NON-
CONVENTIONAL REVISION GUIDE IS TO HELP
THE CANDIDATE AND THE TEACHER TO SAVE
VALUABLE TIME WHILE REVISING FOR THE
FORTH COMING NATIONAL EXAMS**

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2025

KJSEA

Blue Print

AGRICULTURE & NUTRITION

PREDICTION

The purpose of this document is to provide a framework and means of illumination to guide the revision of Agriculture & Nutrition in preparation of learners for the upcoming national exams.' Therefore, teachers should be keen to look at the KJSEA 2025 KNEC Sample examination.

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STRAND 1: CONSERVATION OF RESOURCES

Checkpoint 1.1

Controlling soil pollution is important in farming. State the significance of this practice to farmers in your community.

Checkpoint 1.2

During an agricultural show at Nakuru John a student from maker Eka School asked an agricultural officer a question on how Construct water retention structures, so as to ensure there is a responsible farming practice. What were the swers from the agricultural officer?

Checkpoint 1.3

The Green family owns a small vegetable farm. They want to ensure that their produce retains maximum nutrients from the farm to meals. They currently sell their vegetables at a local market but are exploring ways to improve nutrient retention. Identify and propose methods for the Green family to conserve nutrients in their vegetable production. Consider |storage, preparation, cooking methods and resource utilization.

Checkpoint 1.4

There is a worldwide campaign for people to grow trees. How crucial are trees for conservation of the environment?

Checkpoint 1.5

What are soil conservation measures and why are they important for maintaining soil fertility and promoting sustainable agricultural practices ?

Checkpoint 1.6

1. Sarah lives in a rural area where water scarcity is a major problem, especially during the dry season. To address this, she plans to implement a water harvesting system for her household. The system should be efficient and sustainable, ensuring a steady water supply throughout the year.

(a) Describe the key components that Sarah should include in her water harvesting system ensure it is efficient and sustainable.

(b) Explain how each component contributes to the effectiveness of the system.

2. A community in a semi-arid region is planning to set up a large-scale water storage facility to support agricultural activities. The community wants to ensure that the facility can capture and store enough water to sustain irrigation during dry spells.

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(a) Identify the factors the community should consider when selecting a location for the water storage facility.

(b) Discuss the importance of these factors in ensuring the success of the water storage facility.

Checkpoint 1.7

You are a consultant advising a farming community on sustainable practices. David, a local farmer, asks how understanding and adopting forage conservation can benefit his farm and community in the long term. How would you explain the importance of understanding the methods of conserving forage and adopting these practices to cope with drought, ensuring long-term benefits for both individual farms and the community as a whole?

Checkpoint 1.8

Osama cooked a bowl of rice but did not eat all of it. Why is it important for Osama to conserve the leftover rice?

Checkpoint 1.9

Imagine you are a farmer with a small plot of land where you want to practice integrated farming. You plan to include fish farming, rabbit keeping, poultry keeping and vegetable farming. How would you design your farm to maximize resource conservation and what benefits would you expect from this integrated system?

STRAND 2: FOOD PRODUCTION PROCESSES

Checkpoint 2.1

A teacher wrote the word tilth on a flash card and displayed to his learners. Define soil tilth and elaborate factors to consider when choosing soil tilth.

Checkpoint 2.2

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Can you discuss how the application of weeding, thinning, earthing up and gapping can enhance Crop yield and overall plant health?

Checkpoint 2.3

Compare and contrast the processes involved in grading eggs and processing honey. How does the process ensure quality and consumer satisfaction?

Checkpoint 2.4

You are preparing a menu for a family gathering where dietary preferences vary widely Explain how you would use grilling, roasting and steaming to create a diverse and balanced meal that caters too everyone's tastes.

Checkpoint 2.5

Imagine you are starting a small-scale kitchen and backyard gardening project. Outline three different methods you could use to maximize space and productivity in your garden. Explain the benefits of each method and how they contribute to sustainable food production.

Checkpoint 2.6

Poultry farming is a very important project in the community, what are some of the challenges faced by poultry farmers?

Checkpoint 2.7

1. Maria is a small-scale grows a variety of vegetables, including tomatoes, cucumbers and potatoes. Recently, she has former who noticed several issues in her garden as follows;

- i. Her tomato plants have yellowing leaves with small, dark spots.
- ii. The cucumber leaves are showing white, powdery growth.
- iii. Some of the potato plants have developed dark, water soaked spots on their leaves and the tubers are rotting.

Maria wants to ensure her crops stay healthy and productive, but she is unsure of the best methods to manage these problems.

Questions:

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(a) Identify the likely pest or disease affecting each of Maria's crops.

i. Tomatoes:

ii. Cucumbers:

iii. Potatoes:

For each identified pest or disease, suggest an effective control method.

i. Tomatoes

Control Method

ii. Cucumbers

Control Method

iii. Potatoes:

Control Method

(b) What general cultural practices can Maria implement to prevent pest and disease problems in the future? List at least three practices.

Checkpoint 2.8

Johana was preparing fish dinner for his family why is it important for Johana to process the fish well before the family consumes it?

Checkpoint 2.9

Lucas and Emma are assigned a project to explore sustainable food practices. They decide to focus on how households can minimize food wastage through preservation. Based on their findings, what are Some practical recommendations they might suggest to their community?

Checkpoint 2.10

Ethan is planning a camping trip for friends with varying activity levels, How can he ensure the meal plan provides adequate nutrition for everyone?

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Checkpoint 2.11

Your school has decided to start an organic vegetable garden to provide fresh produce for the cafeteria. The goal is to grow a variety of vegetables using organic gardening practices. As a student involved in the project, you need to explain to your classmates the key organic practices you'll be using and their benefits. How would you describe the main organic gardening practices that will be implemented in the school garden and what are their benefits in producing healthy foods and supporting the environment?

Checkpoint 2.12

After learning about the best practices for storing crops, how would Simon apply these principles to improve his family's small grain storehouse?

Checkpoint 2.13

Define the word flour mixtures and give examples of flour mixtures

STRAND 3: HYGIENE PRACTICES

Checkpoint 3.1A

Sarah's dog's living area is starting to smell. What steps will you advise her to take to address this issue and maintain her dog's hygiene.

Checkpoint 3.2

What do you understand by laundering and loose colored clothes?

Checkpoint 3.3

The Patel family is hosting a family gathering at their home this weekend. They want to ensure their kitchen is clean and organized before their guests arrive. The kitchen has been used throughout the week and now it needs a thorough cleaning to make it presentable and hygienic.

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Current kitchen condition: The sink is filled with dirty dishes. Countertops have crumbs and spills from cooking and snacking. The floor has visible dirt and needs sweeping and mopping The refrigerator needs organizing and cleaning.

Appliances such as the microwave and stove have food splatters and grease buildup.

1. What cleaning supplies and tools would you recommend using for cleaning the refrigerator and mopping the floor? Name at least three items for each task.

2 Why it is important for the Patel family to ensure their kitchen is clean and organized before hosting a family gathering? Provide at least three reasons.

Checkpoint 3.4

David and Lily have been actively participating in their school's hygiene awareness program. They have learned several key points about maintaining clean waste disposal facilities. Summarize what they might have learned and explain why it is crucial for their community,.

Checkpoint 3.5

Think of a time when someone in your home was ill. What steps did you take to disinfect your home to prevent the spread of illness? Above, was a question in grade 9 second term assessment what is likely to be the answers they gave?

STRAND 4: PRODUCTION TECHNIQUES

Checkpoint 4.1

You've decided to knit a stylish scarf for the upcoming winter season using a combination of knit and purl stitches. Describe the steps you would take to knit this scarf, considering the texture and design created by alternating between knit and purl stitches.

Checkpoint 4.2

Mugune Junior School has started planting vegetables using framed suspended gardening. What benefits will they have with this?

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Checkpoint 4.3

Soipan and Ahmed have been learning about value addition in their agriculture class. Can you explain why it might be more profitable for them to process their tomatoes into tomato paste rather than selling them fresh?

Checkpoint 4.4

Sophia was curious about how soap can be made using natural ingredients. How can soap be made using natural ingredients?

Checkpoint 4.5

What factors should you consider when choosing between different types of seams for a sewing project?

Checkpoint 4.6

Emma runs a small farm with a diverse range of livestock, including cows, sheep, goats and chickens. She has been facing challenges with ensuring that all her animals have constant access to clean water especially during the dry season. Emma is considering investing in an innovative automatic waterer system to improve water management on her farm. She has heard that these systems can help maintain a steady supply of fresh water, reduce labour and conserve water. Explain how implementing an innovative automatic waterer system could benefit Emma's farm. Discuss the potential advantages in terms of animal health, farm efficiency, water conservation and overall farm management. Additionally, identify any potential challenges she might face in adopting this technology and propose solutions to address these challenges.



KJSEA 2025 PREDICTION PAPER



906/1- AGRICULTURE & NUTRITION (THEORY)

PAPER 1

SECTION A: MULTIPLE CHOICE QUESTIONS (40 MARKS)

(Answer all questions. Each question carries 2 marks.)

1. Which of the following is NOT a method of soil conservation?
 - A. Mulching
 - B. Contour ploughing
 - C. Overgrazing
 - D. Terracing
2. The best way to improve soil fertility is by:
 - A. Burning crop residues
 - B. Applying organic manure
 - C. Flooding the soil
 - D. Leaving the land bare
3. Which of the following is a leguminous fodder crop?
 - A. Napier grass
 - B. Desmodium
 - C. Maize
 - D. Wheat
4. The term 'zero grazing' in dairy farming means:
 - A. Allowing animals to graze freely
 - B. Feeding animals in a confined space
 - C. Rotating grazing land
 - D. Keeping animals without feeding them
5. Which of these is a sign of good egg quality?
 - A. Cracked shell
 - B. Watery albumen
 - C. Thick and firm albumen
 - D. Large air space
6. Which method is used to preserve perishable foods for a longer period?
 - A. Boiling
 - B. Freezing

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- C. Slicing
 - D. Peeling
7. The main function of calcium in animal nutrition is:
 - A. Improve vision
 - B. Strengthen bones and teeth
 - C. Provide energy
 - D. Enhance growth
 8. Which of the following practices contributes to environmental conservation?
 - A. Deforestation
 - B. Agroforestry
 - C. Overgrazing
 - D. Mining
 9. One major advantage of organic farming is that:
 - A. It increases chemical use
 - B. It reduces soil fertility
 - C. It conserves the environment
 - D. It reduces biodiversity
 10. The part of an egg that contains most of the nutrients is:
 - A. The shell
 - B. The albumen
 - C. The yolk
 - D. The chalaza
 11. Which of the following is NOT an animal feed ingredient?
 - A. Cottonseed cake
 - B. Bone meal
 - C. Sisal fiber
 - D. Sunflower seed cake
 12. The primary function of carbohydrates in human nutrition is to:
 - A. Build muscles
 - B. Provide energy
 - C. Strengthen bones
 - D. Improve digestion
 13. The most suitable container for storing drinking water is:
 - A. A metallic can
 - B. A plastic bucket
 - C. A clay pot
 - D. A wooden box
 14. Which of the following is an example of kitchen waste that can be used to feed animals?
 - A. Spoiled plastic containers
 - B. Vegetable peels
 - C. Leftover soap
 - D. Used batteries
 15. A good kitchen garden should be located:
 - A. Near a garbage pit
 - B. Far from the house

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- C. In a well-drained area
- D. On a steep slope
- 16. The main benefit of crop rotation is:
 - A. Increasing pests
 - B. Improving soil fertility
 - C. Reducing plant growth
 - D. Increasing soil erosion
- 17. One disadvantage of overfeeding animals is:
 - A. Increased production
 - B. Weight loss
 - C. Obesity and reduced productivity
 - D. Better immunity
- 18. Which of these is a method of preserving vegetables?
 - A. Freezing
 - B. Boiling
 - C. Blanching
 - D. Both A and C
- 19. Which nutrient is essential for body-building?
 - A. Proteins
 - B. Carbohydrates
 - C. Fats
 - D. Vitamins
- 20. A proper method of storing eggs for long periods is:
 - A. Exposing them to sunlight
 - B. Keeping them in a refrigerator
 - C. Placing them on a hot surface
 - D. Storing them in open air

SECTION B: STRUCTURED QUESTIONS (60 MARKS)

(Answer all questions.)

21. (a) Define soil conservation. (2 marks)

- (b) Explain three benefits of soil conservation. (6 marks)

22. (a) Mention two sources of animal feeds. (2 marks)

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(b) Describe four characteristics of high-quality feeds. (8 marks)

23. (a) Outline three benefits of agroforestry. (6 marks)

(b) State four ways of conserving kitchen leftovers for animal feeds. (4 marks)

24. (a) Explain two advantages of organic farming. (4 marks)

(b) List three ways of storing perishable foods. (6 marks)

25. (a) Define food preservation. (2 marks)

(b) Describe four methods of preserving vegetables. (8 marks)

26. (a) Identify two factors to consider when selecting a kitchen garden site. (2 marks)

(b) Explain four importance of kitchen gardens. (8 marks)

27. (a) Name two common poultry diseases. (2 marks)

(b) Explain three ways of preventing poultry diseases. (6 marks)

28. (a) State three characteristics of a good egg. (3 marks)

(b) Explain four ways of handling eggs to maintain quality. (7 marks)

29. (a) Define a balanced diet. (2 marks)

(b) List five essential nutrients in a balanced diet and their functions. (8 marks)

30. (a) Outline three reasons why food hygiene is important. (6 marks)

(b) Explain two methods of improving food safety at home. (2 marks)

31. A child was observed to have the following features of a certain nutritional deficiency disease.



Identify the malnutrition disease. **2 marks**

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KJSEA 2025 PREDICTION PAPER



906/2- AGRICULTURE & NUTRITION (PROJECT)

PAPER 2

GRADE 9 KJSEA AGRICULTURE AND NUTRITION PROJECT OUTLINE

1. Title of the Project:

- *"The Role of Agriculture in Promoting Good Nutrition in Kenya"*

2. Introduction:

- **Purpose of the Project:** Explain the goal of your project, which could be exploring how agriculture impacts nutrition in Kenya, particularly focusing on local farming practices and the availability of nutritious food.
- **Importance of the Topic:** Discuss why agriculture and nutrition are important to the health and well-being of the population, especially in Kenya.

3. Research Objectives:

- To understand the relationship between agriculture and nutrition in Kenya.
- To identify locally grown crops and their nutritional benefits.
- To examine how sustainable farming practices can improve food security and nutrition.
- To explore the role of livestock farming in providing essential nutrients.

4. Methodology:

- **Data Collection:** Describe how you will gather information (e.g., interviews with local farmers, surveys in your community or school, library research, or online sources).
- **Types of Data:** Qualitative data (e.g., farmers' experiences) and quantitative data (e.g., nutritional content of crops).

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5. Literature Review:

- **Agriculture in Kenya:** Discuss the current state of agriculture in Kenya, highlighting common crops and livestock raised in various regions.
- **Nutritional Challenges:** Mention some common nutritional challenges faced by people in Kenya, like malnutrition and micronutrient deficiencies.
- **Sustainable Farming and Nutrition:** Review how sustainable farming methods (organic farming, agroforestry) contribute to improving nutrition.

6. Data Analysis and Results:

- **Crop Nutrition:** Present findings about the nutritional value of crops like millet, sorghum, and sweet potatoes.
- **Role of Livestock:** Show how livestock (e.g., milk, eggs, meat) contributes essential proteins and vitamins to the diet.
- **Sustainable Practices:** Explain how sustainable practices, such as crop rotation or the use of natural fertilizers, can help maintain soil health and produce nutrient-dense food.

7. Discussion:

- Discuss how the integration of agriculture into daily nutrition practices can help combat hunger, improve health, and support economic development.
- Analyze the impact of locally grown foods versus imported foods in terms of both nutrition and cost.

8. Conclusion:

- **Summary:** Briefly summarize the key marks of your research.
- **Recommendations:** Offer recommendations on how Kenya can improve nutrition through agriculture (e.g., promoting local farming, introducing nutrition education programs).

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- **Final Thoughts:** Reflect on how agriculture can contribute to the nation's health, focusing on the importance of sustainable practices.

9. References:

- Cite all sources of information you used for your project, including books, articles, interviews, and websites.

10. Presentation:

- Prepare a PowerPoint/Microsoft PowerPoint or poster to present your findings.
- Include visuals such as photos of crops, charts showing nutritional values, and diagrams of sustainable farming practices.

Tips for the Project:

- **Be clear and concise** in presenting your findings.
- **Use visuals** (e.g., pictures of local crops, food pyramids, charts) to make your project more engaging.
- **Use local examples** and data that reflect the agricultural practices in Kenya.
- **Ensure accuracy** when presenting nutritional information, especially if using data from books or online resources.

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