Grade 8 Agriculture and Nutrition

Term 2 - 39 complete lesson plans

Ready to teach, in the KICD lesson-plan format | 40-minute lessons | PDF and editable Word

ABOUT THIS PACK

39 complete, ready-to-teach Grade 8 Agriculture and Nutrition lesson plans for Term 2, covering crop pest and disease control, preparation of animal products, preserving animal products and cooking: preparing a balanced meal.

TOPICS IN THIS PACK

Topic	Name	Lessons
2.3	Crop Pest and Disease Control	10
2.4	Preparation of Animal Products	9
2.5	Preserving Animal Products	9
2.6	Cooking: Preparing a Balanced Meal	11

INSIDE EVERY LESSON PLAN

- The specific learning outcomes, key inquiry question, core competencies, values and PCIs, and the resources needed.
- A timed lesson flow: what the teacher does and what the learners do, from introduction to summary.
- The key content (a worked example, notes or a practical with its expected results), then four practice questions with the answers for the teacher.
- The common mistake to watch for, and ideas for learners who need support and for those ready for more.
- A four-level CBC assessment rubric (EE, ME, AE, BE), homework, and a blank reflection space to fill in after teaching.

A TASTE OF LESSON 1

Pests and diseases in vegetables

By the end of the lesson, the learner should be able to: a) define crop pests and diseases; b) explain how they reduce yields

> **Enemies of crops**
> A pest is any organism that damages crops: insects (aphids, caterpillars, cutworms, whiteflies), mites, slugs, birds, rodents.
> A crop disease is a condition that harms a plant's normal growth, caused by fungi, bacteria or viruses (for example blight, bacterial wilt, leaf spot).

You also receive this pack as an editable Word file, so you can change any lesson to suit your class before you print it. Lessons follow the order of the KICD curriculum design.

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Pests and diseases in vegetables

Strand 2.0 Food Production Processes > Sub-strand 2.3 Crop Pest and Disease Control | Lesson 1 of 10 | 40 minutes

SCHOOL	TEACHER	DATE
CLASS / STREAM	TIME	ROLL (B / G)

SPECIFIC LEARNING OUTCOME(S)

By the end of the lesson, the learner should be able to: a) define crop pests and diseases; b) explain how they reduce yields

KEY INQUIRY QUESTION(S)

- How can we identify vegetable crops attacked by pests and diseases?
- How can we control pests and diseases affecting crops?

CORE COMPETENCIES, VALUES AND PCIS IN THIS LESSON

COMPETENCY	**Learning to learn**	Learners say what they found easy or hard and decide their next step.
COMPETENCY	**Critical thinking and problem solving**	Learners choose a method, check their answers and give reasons for their choices.
VALUE	**Respect**	Learners listen while others explain and accept correction politely.
VALUE	**Responsibility**	Learners look after shared materials and finish every task.
PCI	**Environmental conservation**	Examples link to caring for the school and home environment.
PCI	**Food security**	Developed through the activities in this lesson.

LEARNING RESOURCES

Pictures of common vegetable pests and diseases | Hand lens | Learners' exercise books

ORGANISATION OF LEARNING

Whole class for the introduction and the summary; pairs or groups of four to five for guided practice; individual work for the independent tasks.

KEY WORDS

pest | disease | aphid | cutworm | caterpillar | blight | wilt | leaf spot | natural pesticide | crop rotation

THE LESSON AT A GLANCE

Introduction	Teacher models	Guided practice	On their own	Wrap-up
6 min	9 min	10 min	9 min	6 min

LESSON FLOW

Stage	Minutes	The teacher	The learners
Introduction	6	Greet the class and ask: "Key question: how can we identify vegetable crops attacked by pests and diseases?" Take two or three answers, link them to earlier work, then state today's outcome.	Answer the starter question, recall what they already know and read the outcome aloud.
Step 1: Teacher models	9	Take learners through "Enemies of crops" (key ideas on the next page), explaining as you go. Use pictures of common vegetable pests and diseases, hand lens, learners' exercise books. Ask learners to predict what comes next before you show it.	Watch, predict the next step, ask questions and note the key steps in their exercise books.
Step 2: Guided practice	10	Give questions 1 and 2. Move round the groups, ask "How do you know?" and correct errors kindly on the spot.	Work in pairs or small groups, explain each step to a partner and check one another's answers.
Step 3: Independent practice	9	Set questions 3 and 4 for individual work. Mark as you walk round and note who needs help in the next lesson.	Work on their own, then swap books with a partner to check.
Summary and conclusion	6	Ask two or three learners to state the key idea in their own words. Give this exit question and check the answers: "Give two effects of pests and diseases."	Say the key idea in their own words and answer the exit question in the exercise book.

KEY IDEAS

Enemies of crops

A pest is any organism that damages crops: insects (aphids, caterpillars, cutworms, whiteflies), mites, slugs, birds, rodents.

A crop disease is a condition that harms a plant's normal growth, caused by fungi, bacteria or viruses (for example blight, bacterial wilt, leaf spot).

They reduce yields and quality, increase costs and can wipe out a garden.

PRACTICE QUESTIONS - WITH ANSWERS FOR THE TEACHER

No.	Question	Answer
1	Define a crop pest.	**An organism that damages crops.**
2	Name three vegetable pests.	**Aphids, cutworms and caterpillars.**
3	Name three causes of crop disease.	**Fungi, bacteria and viruses.**
4	Give two effects of pests and diseases.	**Lower yields and poorer quality.**

WATCH OUT FOR

Keep to vegetable crops the learners grow.

ASSESSMENT RUBRIC - THE FOUR CBC LEVELS

Level	What the learner can do
Exceeds expectations (EE)	Can define crop pests and diseases confidently and accurately, explain the method used, and apply the idea to new or unfamiliar problems.
Meets expectations (ME)	Can define crop pests and diseases accurately in familiar situations; notices and corrects slips without help.
Approaches expectations (AE)	Can partly define crop pests and diseases, or does so with prompts from the teacher or a partner; makes some errors.
Below expectations (BE)	Cannot yet define crop pests and diseases without direct help; needs the idea taught again with concrete objects.

SUPPORT AND EXTENSION

Learners who need support	Use picture cards.
Learners ready for more	Are all insects in a garden pests? (Answer: No, some (bees, ladybirds) are helpful)
Inclusion	Seat learners with low vision near the board and read aloud whatever you write; use large, clear, tactile materials; allow extra time; pair with a patient partner; use gestures or Kenyan Sign Language for the key words.

HOMEWORK AND FOLLOW-UP

Redo questions 3 and 4 neatly in the exercise book. Then tell someone at home what you learned about "pests and diseases in vegetables" and bring one question of your own to ask next lesson.

TEACHER SELF-CHECK

- Did every learner get a turn to handle materials or explain their thinking?
- Did most learners meet the outcome? Write down the names of those who did not.
- Was the pace right — did any step take too long or too short a time?
- Which competency and value did I see learners showing?
- What will I change the next time I teach this lesson?

REFLECTION ON THE LESSON / SELF-REMARKS

Write this after teaching - what worked, what to change, which learners need follow-up.

Signs of pest damage

Strand 2.0 Food Production Processes > Sub-strand 2.3 Crop Pest and Disease Control | Lesson 2 of 10 | 40 minutes

SCHOOL	TEACHER	DATE
CLASS / STREAM	TIME	ROLL (B / G)

SPECIFIC LEARNING OUTCOME(S)

By the end of the lesson, the learner should be able to: a) identify signs of pest attack; b) find where pests are found on plants

KEY INQUIRY QUESTION(S)

- How can we identify vegetable crops attacked by pests and diseases?
- How can we control pests and diseases affecting crops?

CORE COMPETENCIES, VALUES AND PCIS IN THIS LESSON

COMPETENCY	**Learning to learn**	Learners say what they found easy or hard and decide their next step.
COMPETENCY	**Critical thinking and problem solving**	Learners choose a method, check their answers and give reasons for their choices.
VALUE	**Respect**	Learners listen while others explain and accept correction politely.
VALUE	**Responsibility**	Learners look after shared materials and finish every task.
PCI	**Environmental conservation**	Examples link to caring for the school and home environment.
PCI	**Food security**	Developed through the activities in this lesson.

LEARNING RESOURCES

Hand lens | Gloves | Small containers for collected pests | Wood ash | A knife or secateurs (teacher) | Chillies, garlic or neem leaves and soap for a natural spray | A sprayer or watering can | Sacks for diseased plant material

ORGANISATION OF LEARNING

Whole class for the introduction and the summary; pairs or groups of four to five for guided practice; individual work for the independent tasks.

KEY WORDS

pest | disease | aphid | cutworm | caterpillar | blight | wilt | leaf spot | natural pesticide | crop rotation

THE LESSON AT A GLANCE

Introduction	Teacher models	Guided practice	On their own	Wrap-up
6 min	9 min	10 min	9 min	6 min

LESSON FLOW

Stage	Minutes	The teacher	The learners
Introduction	6	Greet the class and ask: "What might cause holes in sukuma wiki leaves?" Take two or three answers, link them to earlier work, then state today's outcome.	Answer the starter question, recall what they already know and read the outcome aloud.
Step 1: Teacher models	9	Take learners through "Practical: field excursion" (key ideas on the next page), explaining as you go. Use hand lens, gloves, small containers for collected pests. Ask learners to predict what comes next before you show it.	Watch, predict the next step, ask questions and note the key steps in their exercise books.
Step 2: Guided practice	10	Give questions 1 and 2. Move round the groups, ask "How do you know?" and correct errors kindly on the spot.	Work in pairs or small groups, explain each step to a partner and check one another's answers.
Step 3: Independent practice	9	Set questions 3 and 4 for individual work. Mark as you walk round and note who needs help in the next lesson.	Work on their own, then swap books with a partner to check.
Summary and conclusion	6	Ask two or three learners to state the key idea in their own words. Give this exit question and check the answers: "What do holes in leaves usually show?"	Say the key idea in their own words and answer the exit question in the exercise book.

KEY IDEAS

Practical: field excursion
Materials: hand lens, notebook, gloves.
Visit the school or a nearby vegetable garden.
Signs: punctured or eaten leaves (caterpillars, beetles); cut-off seedlings at ground level (cutworms); curling, sticky leaves with tiny insects underneath (aphids); silver streaks (thrips); tunnels in leaves (leaf miners).
Look under leaves, at growing tips, at the soil surface and around stems.
Record crop, sign, likely pest and where found.

PRACTICE QUESTIONS - WITH ANSWERS FOR THE TEACHER

No.	Question	Answer
1	What pest cuts seedlings at ground level?	**Cutworms.**
2	What pest causes curling, sticky leaves?	**Aphids.**
3	Where do aphids usually hide?	**Under leaves and on growing tips.**
4	What do holes in leaves usually show?	**Chewing pests such as caterpillars.**

WATCH OUT FOR

Ask permission before entering private gardens; avoid touching unknown insects.