Grade 9 Agriculture and Nutrition

Term 1 - 35 complete lesson plans

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

ABOUT THIS PACK

35 complete, ready-to-teach Grade 9 Agriculture and Nutrition lesson plans for Term 1, covering conserving animal feed: hay, conserving leftover foods and integrated farming.

TOPICS IN THIS PACK

Topic	Name	Lessons
1.1	Conserving Animal Feed: Hay	12
1.2	Conserving Leftover Foods	11
1.3	Integrated Farming	12

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

Drought and the need to conserve forage

By the end of the lesson, the learner should be able to: a) explain the effects of drought on livestock; b) define forage and forage conservation

> **Why conserve forage**
> Forage is plant material eaten by livestock: grass, legumes, crop residues such as maize stover.
> In the dry season pasture dries up; animals lose weight, produce less milk and may die. Herders move long distances, sometimes causing conflict over pasture.

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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Drought and the need to conserve forage

Strand 1.0 Conservation of Resources > Sub-strand 1.1 Conserving Animal Feed: Hay | Lesson 1 of 12 | 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) explain the effects of drought on livestock; b) define forage and forage conservation

KEY INQUIRY QUESTION(S)

- How can hay conservation contribute to coping with drought?

CORE COMPETENCIES, VALUES AND PCIS IN THIS LESSON

COMPETENCY	**Critical thinking and problem solving**	Learners choose a method, check their answers and give reasons for their choices.
COMPETENCY	**Communication and collaboration**	Learners explain their thinking to a partner and report their findings to the group.
VALUE	**Peace**	Learners settle differences calmly during group work.
PCI	**Disaster risk reduction**	Developed through the activities in this lesson.

LEARNING RESOURCES

Pictures of hay bales and stacks | Digital or print resources | 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

forage | hay | standing forage | stacking | box baling | maize stover | straw | drought

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

Inside this plan: the step-by-step lesson flow with what the teacher and learners do, the key content, practice questions with answers, a common mistake to watch for, an assessment rubric on the four CBC levels, support and extension ideas, homework and a reflection page.

LESSON FLOW

Stage	Minutes	The teacher	The learners
Introduction	6	Greet the class and ask: "Key question: how can hay conservation contribute to coping with drought? What happens to cattle in a long dry season?" 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 "Why conserve forage" (practical: method and expected results on the next page), explaining as you go. Use pictures of hay bales and stacks, digital or print resources, 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: "How can conserved forage reduce conflict?"	Say the key idea in their own words and answer the exit question in the exercise book.

PRACTICAL: METHOD AND EXPECTED RESULTS

Why conserve forage

Forage is plant material eaten by livestock: grass, legumes, crop residues such as maize stover.

In the dry season pasture dries up; animals lose weight, produce less milk and may die. Herders move long distances, sometimes causing conflict over pasture.

Conserving forage means storing surplus feed from the wet season for use in the dry season.

PRACTICE QUESTIONS - WITH ANSWERS FOR THE TEACHER

No.	Question	Answer
1	Define forage.	**Plant material eaten by livestock.**
2	Give two effects of drought on livestock.	**For example weight loss and low milk yield.**
3	What is forage conservation?	**Storing surplus feed for the dry season.**
4	How can conserved forage reduce conflict?	**Herders need not move into others' grazing land.**

WATCH OUT FOR

Learners think only grass is forage. Crop residues count too.

ASSESSMENT RUBRIC - THE FOUR CBC LEVELS

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

SUPPORT AND EXTENSION

Learners who need support	Show pictures of animals in wet and dry seasons.
Learners ready for more	Ask a farmer how they feed animals in the dry season. (Answer: Answers will vary)
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 "drought and the need to conserve forage" 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.

Methods of conserving forage

Strand 1.0 Conservation of Resources > Sub-strand 1.1 Conserving Animal Feed: Hay | Lesson 2 of 12 | 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) describe hay, standing forage and stacking; b) compare the methods

KEY INQUIRY QUESTION(S)

- How can hay conservation contribute to coping with drought?

CORE COMPETENCIES, VALUES AND PCIS IN THIS LESSON

COMPETENCY	**Critical thinking and problem solving**	Learners choose a method, check their answers and give reasons for their choices.
COMPETENCY	**Communication and collaboration**	Learners explain their thinking to a partner and report their findings to the group.
VALUE	**Peace**	Learners settle differences calmly during group work.
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LEARNING RESOURCES

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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

forage | hay | standing forage | stacking | box baling | maize stover | straw | drought

THE LESSON AT A GLANCE

Introduction	Teacher models	Guided practice	On their own	Wrap-up
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Inside this plan: the step-by-step lesson flow with what the teacher and learners do, the key content, practice questions with answers, a common mistake to watch for, an assessment rubric on the four CBC levels, support and extension ideas, homework and a reflection page.

LESSON FLOW

Stage	Minutes	The teacher	The learners
Introduction	6	Greet the class and ask: "What could a farmer do with extra grass in April?" 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 "Three methods" (practical: method and expected results on the next page), explaining as you go. Use pictures of hay bales and stacks, digital or print resources, 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: "Name a crop residue used as forage."	Say the key idea in their own words and answer the exit question in the exercise book.

PRACTICAL: METHOD AND EXPECTED RESULTS

Three methods

Hay: grass or legumes cut and dried to low moisture, then stored loose, stacked or baled.

Standing forage (standing hay): pasture left uncut in a fenced field to dry and be grazed in the dry season.

Stacking: piling dried forage or stover in a heap or on a raised platform, often under a roof or in a tree fork. (Silage, fermented green forage, is another method studied later.)

PRACTICE QUESTIONS - WITH ANSWERS FOR THE TEACHER

No.	Question	Answer
1	What is hay?	**Forage cut and dried for storage.**
2	What is standing forage?	**Pasture left uncut to be grazed in the dry season.**
3	Why raise a stack off the ground?	**To keep it dry and away from termites.**
4	Name a crop residue used as forage.	**Maize stover or straw.**

WATCH OUT FOR

Learners confuse hay and silage. Hay is dried; silage is fermented green forage.