Grade 10 Agriculture

Term 3 - 54 complete lesson plans

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

ABOUT THIS PACK

54 complete, ready-to-teach Grade 10 Agriculture lesson plans for Term 3, covering tools and equipment, product processing and value addition, establishing agricultural enterprise, marketing agricultural produce and composting techniques.

TOPICS IN THIS PACK

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3.1	Tools and Equipment	12
3.2	Product Processing and Value Addition	15
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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

Farm tools and equipment: classification by task

By the end of the lesson, the learner should be able to: a) classify farm tools and equipment by the task they do; b) explain why the right tool improves the efficiency of a farm task

> **Tools and equipment on the farm**
> A tool is a simple implement, usually held in the hand, used to do a particular job; equipment is a set of items or a device used for a job; a machine is a device with moving parts driven by an...

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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Farm tools and equipment: classification by task

Strand 3.0 Agricultural Technologies and Entrepreneurship > Sub-strand 3.1 Tools and Equipment | 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) classify farm tools and equipment by the task they do; b) explain why the right tool improves the efficiency of a farm task

KEY INQUIRY QUESTION(S)

- How do tools and equipment contribute to efficiency of farm operations?

CORE COMPETENCIES, VALUES AND PCIS IN THIS LESSON

COMPETENCY	**Self-efficacy**	Learners attempt each task with confidence and see that effort improves results.
COMPETENCY	**Creativity and imagination**	Learners make up their own examples, patterns or ways of showing the idea.
VALUE	**Responsibility**	Learners look after shared materials and finish every task.
VALUE	**Respect**	Learners listen while others explain and accept correction politely.
PCI	**Health promotion issues**	Examples link to healthy habits at home and at school.
PCI	**Social economic and environmental issues**	Examples link to caring for the school and home environment.

LEARNING RESOURCES

Charts, pictures and video clips of farm tools, equipment and machines | Manila paper and marker pens for tables and presentations | Notebooks, pencils and rulers | Digital devices with safe internet access (where available)

ORGANISATION OF LEARNING

Groups of four to five with rotating roles and a safety monitor in each; whole class for safety briefings and demonstrations by the teacher or a trained person; pairs for practising tool use; individual notes and drawings.

KEY WORDS

tool | equipment | burdizzo | elastrator | lubricate | sharpen | corrosion | maintenance | assemble | dissemble

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: "Try to imagine digging a hectare of land with a spoon. What does this tell us about tools?" 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 "Tools and equipment on the farm" (key ideas on the next page), explaining as you go. Use charts, pictures and video clips of farm tools, equipment and machines, manila paper and marker pens for tables and presentations, notebooks, pencils and rulers. 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: "Distinguish a tool from a machine."	Say the key idea in their own words and answer the exit question in the exercise book.

KEY IDEAS

Tools and equipment on the farm

A tool is a simple implement, usually held in the hand, used to do a particular job; equipment is a set of items or a device used for a job; a machine is a device with moving parts driven by an engine, motor or animal. The right tool makes work faster, easier, safer and of better quality, saves labour and time and therefore money.

Farm tools and equipment are grouped by the tasks they do: gardening tasks (clearing, digging, weeding, planting, watering, pruning, spraying and harvesting); livestock production tasks (feeding, watering, milking, restraining, castration, dehorning, hoof care, treatment and cleaning); and assembling and dissembling tasks (building and repairing structures, putting together and taking apart equipment such as sprayers, hutches and feeders).

By power: hand tools (jembe, panga, secateurs), animal-drawn equipment (ox plough) and machines (tractor and its implements, pumps, milking machines, chaff cutters).

PRACTICE QUESTIONS - WITH ANSWERS FOR THE TEACHER

No.	Question	Answer
1	State the three groups of tasks for which farm tools and equipment are used.	**Gardening tasks; livestock production tasks; assembling and dissembling tasks.**
2	State two ways in which the right tool improves farm work.	**For example: faster; easier; safer; better quality; saves labour and money.**

3	Name two hand tools and one machine used on farms.	**For example: jembe, panga; tractor.**
4	Distinguish a tool from a machine.	**A tool is a simple implement usually held in the hand; a machine has moving parts driven by an engine, motor or animal.**

WATCH OUT FOR

Learners use tools for the wrong task. Every tool has a purpose.

ASSESSMENT RUBRIC - THE FOUR CBC LEVELS

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

SUPPORT AND EXTENSION

Learners who need support	Give pictures of tools to sort into the three groups of tasks.
Learners ready for more	Explain why a farmer with a large area might buy a tractor but a farmer with a small plot might not. (Answer: The machine saves time on big areas but is expensive, so it does not pay for a small plot)
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 "farm tools and equipment: classification by task" 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.

ELIMU254

Gardening tools: identification and uses

Strand 3.0 Agricultural Technologies and Entrepreneurship > Sub-strand 3.1 Tools and Equipment | 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) identify the common gardening tools and their uses; b) analyse which tool is right for a given task

KEY INQUIRY QUESTION(S)

- How do tools and equipment contribute to efficiency of farm operations?

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COMPETENCY	**Self-efficacy**	Learners attempt each task with confidence and see that effort improves results.
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