Grade 6 Agriculture and Nutrition

Term 1 - 44 complete lesson plans

Ready to teach, in the KICD lesson-plan format | 35-minute lessons | PDF and editable Word

ABOUT THIS PACK

44 complete, ready-to-teach Grade 6 Agriculture and Nutrition lesson plans for Term 1, covering controlling soil erosion, conserving water, conserving wild animals and rearing small domestic animals.

TOPICS IN THIS PACK

Topic	Name	Lessons
1.1	Controlling Soil Erosion	11
1.2	Conserving Water	11
1.3	Conserving Wild Animals	10
2.1	Rearing Small Domestic Animals	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

What soil erosion is

By the end of the lesson, the learner should be able to: a) explain the meaning of soil erosion; b) name the agents of soil erosion

> **Soil erosion and its agents**
> Soil erosion is the removal of the top fertile soil from one place to another by running water, wind, people or animals.
> The top soil is the most fertile layer: it holds the humus and plant food. When it is carried away, crops grow poorly and the land can become bare.

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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What soil erosion is

Strand 1.0 Conservation of Resources > Sub-strand 1.1 Controlling Soil Erosion | Lesson 1 of 11 | 35 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 meaning of soil erosion; b) name the agents of soil erosion

KEY INQUIRY QUESTION(S)

- How does erosion control conserve the environment?

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	**Responsibility**	Learners look after shared materials and finish every task.
VALUE	**Unity**	Learners share materials fairly and work as one team.
PCI	**Environmental awareness**	Examples link to caring for the school and home environment.
PCI	**Safety and security**	Learners follow safety rules when using materials and moving about.

LEARNING RESOURCES

Photographs of the four types of soil erosion | Chart of erosion control measures | Notebooks and pencils

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

soil erosion | splash erosion | sheet erosion | rill erosion | gully erosion | mulching | cover crop | grass strip | terrace | check dam | cut-off drain

THE LESSON AT A GLANCE

Introduction	Teacher models	Guided practice	On their own	Wrap-up
5 min	8 min	9 min	8 min	5 min

LESSON FLOW

Stage	Minutes	The teacher	The learners
Introduction	5	Greet the class and ask: "After a heavy storm, where does the muddy water running across the school field go, and what does it carry with it?" 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	8	Take learners through "Soil erosion and its agents" (key ideas on the next page), explaining as you go. Use photographs of the four types of soil erosion, chart of erosion control measures, notebooks and pencils. 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	9	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	8	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	5	Ask two or three learners to state the key idea in their own words. Give this exit question and check the answers: "Give one way people cause soil erosion."	Say the key idea in their own words and answer the exit question in the exercise book.

KEY IDEAS

Soil erosion and its agents

Soil erosion is the removal of the top fertile soil from one place to another by running water, wind, people or animals.

The top soil is the most fertile layer: it holds the humus and plant food. When it is carried away, crops grow poorly and the land can become bare.

Agents of erosion: running water (the main agent in Kenya), wind (in dry, bare areas), and people and animals (overgrazing, paths, cultivating steep slopes, cutting trees).

PRACTICE QUESTIONS - WITH ANSWERS FOR THE TEACHER

No.	Question	Answer
1	What is soil erosion?	**The removal of top soil from one place to another by water, wind, people or animals**
2	Why is losing top soil a problem?	**It is the most fertile layer, so crops grow poorly**
3	Name the main agent of soil erosion in Kenya.	**Running water**
4	Give one way people cause soil erosion.	**Any one, for example overgrazing, cutting trees, cultivating steep slopes, making paths**

WATCH OUT FOR

Learners think erosion only happens in big floods. Show that a little soil lost every rainy season adds up to a lot.

ASSESSMENT RUBRIC - THE FOUR CBC LEVELS

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

SUPPORT AND EXTENSION

Learners who need support	Rub a little dry soil on paper and blow it: wind carries it away, just as in erosion.
Learners ready for more	Why is erosion worse on bare land than on land covered with grass? (Answer: Grass roots hold the soil and leaves break the force of the rain)
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 "what soil erosion is" 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.

Splash erosion

Strand 1.0 Conservation of Resources > Sub-strand 1.1 Controlling Soil Erosion | Lesson 2 of 11 | 35 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 splash erosion; b) show how raindrops loosen bare soil

KEY INQUIRY QUESTION(S)

- How does erosion control conserve the environment?

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	**Responsibility**	Learners look after shared materials and finish every task.
VALUE	**Unity**	Learners share materials fairly and work as one team.
PCI	**Environmental awareness**	Examples link to caring for the school and home environment.
PCI	**Safety and security**	Learners follow safety rules when using materials and moving about.

LEARNING RESOURCES

Jembes and spades | Gloves | Dry grass or maize stalks for mulch | Grass splits (Napier, Kikuyu or vetiver) | Stones and sticks for a small check dam | Watering can | Two trays of soil (one bare, one covered)

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

soil erosion | splash erosion | sheet erosion | rill erosion | gully erosion | mulching | cover crop | grass strip | terrace | check dam | cut-off drain

THE LESSON AT A GLANCE

Introduction	Teacher models	Guided practice	On their own	Wrap-up
5 min	8 min	9 min	8 min	5 min

LESSON FLOW

Stage	Minutes	The teacher	The learners
Introduction	5	Greet the class and ask: "Have you seen mud splashed on the lower part of a wall after rain? What caused it?" 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	8	Take learners through "Practical: showing splash erosion" (key ideas on the next page), explaining as you go. Use jembes and spades, gloves, dry grass or maize stalks for mulch. 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	9	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	8	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	5	Ask two or three learners to state the key idea in their own words. Give this exit question and check the answers: "Is splash erosion the first or last stage of water erosion?"	Say the key idea in their own words and answer the exit question in the exercise book.

KEY IDEAS

Practical: showing splash erosion

Materials: two trays of soil (one bare, one covered with dry grass), watering can, white paper; group work.

Splash erosion happens when raindrops hit bare soil and break it into small particles that are thrown (splashed) into the air and land elsewhere. It is the first stage of water erosion.

Stand white paper upright beside each tray and sprinkle water from a height. The paper beside the bare tray is splashed with mud; the paper beside the covered tray stays almost clean.

PRACTICE QUESTIONS - WITH ANSWERS FOR THE TEACHER

No.	Question	Answer
1	What causes splash erosion?	**Raindrops hitting bare soil**
2	Which tray had more mud splashed on the paper?	**The bare tray**
3	Why did the covered tray splash less?	**The grass broke the force of the drops**
4	Is splash erosion the first or last stage of water erosion?	**The first stage**

WATCH OUT FOR

Groups pour water instead of sprinkling. Raise the can and sprinkle like rain so the drops hit with force.