Grade 7 Agriculture and Nutrition

Term 1 - 41 complete lesson plans

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

ABOUT THIS PACK

41 complete, ready-to-teach Grade 7 Agriculture and Nutrition lesson plans for Term 1, covering controlling soil pollution, constructing water retention structures, conserving food nutrients, growing trees and crop establishment.

TOPICS IN THIS PACK

Topic	Name	Lessons
1.1	Controlling Soil Pollution	7
1.2	Constructing Water Retention Structures	8
1.3	Conserving Food Nutrients	9
1.4	Growing Trees	8
2.1	Crop Establishment	9

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 pollution is

By the end of the lesson, the learner should be able to: a) explain the meaning of soil pollution; b) state why soil must be protected

> **Soil pollution is the presence of harmful substances in the soil that damage soil life, plants, animals and people.**
> Healthy soil is full of living things (earthworms, microorganisms), holds water and air, and grows healthy crops.
> Polluted soil: plants grow poorly, earthworms die, harmful substances enter food and water.

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 pollution is

Strand 1.0 Conservation of Resources > Sub-strand 1.1 Controlling Soil Pollution | Lesson 1 of 7 | 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 meaning of soil pollution; b) state why soil must be protected

KEY INQUIRY QUESTION(S)

- How can household practices cause soil pollution?

CORE COMPETENCIES, VALUES AND PCIS IN THIS LESSON

COMPETENCY	**Citizenship**	Learners take turns, listen to others and link the work to life in their community.
COMPETENCY	**Communication and collaboration**	Learners explain their thinking to a partner and report their findings to the group.
VALUE	**Patriotism**	Learners use Kenyan examples — shillings, local markets, familiar places.
VALUE	**Responsibility**	Learners look after shared materials and finish every task.
PCI	**Environmental conservation**	Examples link to caring for the school and home environment.

LEARNING RESOURCES

Pictures of polluted and healthy soils | Manila paper and markers | 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

soil pollution | pollutant | wastewater | fertiliser | agrochemical | biodegradable | compost | soak pit

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 household practices cause soil pollution? Look at the soil near the school dumping area and near the garden. What differences do you see?" 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 the key ideas on the next page, explaining as you go. Use pictures of polluted and healthy soils, manila paper and markers, 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 one living thing found in healthy soil."	Say the key idea in their own words and answer the exit question in the exercise book.

KEY IDEAS

Soil pollution is the presence of harmful substances in the soil that damage soil life, plants, animals and people.
Healthy soil is full of living things (earthworms, microorganisms), holds water and air, and grows healthy crops.
Polluted soil: plants grow poorly, earthworms die, harmful substances enter food and water.
We depend on soil for most of our food, so protecting it protects our health.

PRACTICE QUESTIONS - WITH ANSWERS FOR THE TEACHER

No.	Question	Answer
1	What is soil pollution?	**Harmful substances in the soil that damage living things**
2	Name one sign of polluted soil.	**Plants grow poorly (also no earthworms)**
3	Why must soil be protected?	**Most of our food grows in it**
4	Name one living thing found in healthy soil.	**Earthworms**

WATCH OUT FOR

Touching waste at dumping sites; observe from a distance.

ASSESSMENT RUBRIC - THE FOUR CBC LEVELS

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

SUPPORT AND EXTENSION

Learners who need support	Use pictures of healthy and polluted soil side by side.
Learners ready for more	How can polluted soil affect people who do not farm? (Answer: Harmful substances reach food and water)
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 pollution 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.

Causes of soil pollution

Strand 1.0 Conservation of Resources > Sub-strand 1.1 Controlling Soil Pollution | Lesson 2 of 7 | 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 explain the causes of soil pollution in gardening and at home

KEY INQUIRY QUESTION(S)

- How can household practices cause soil pollution?

CORE COMPETENCIES, VALUES AND PCIS IN THIS LESSON

COMPETENCY	**Citizenship**	Learners take turns, listen to others and link the work to life in their community.
COMPETENCY	**Communication and collaboration**	Learners explain their thinking to a partner and report their findings to the group.
VALUE	**Patriotism**	Learners use Kenyan examples — shillings, local markets, familiar places.
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LEARNING RESOURCES

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ORGANISATION OF LEARNING

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KEY WORDS

soil pollution | pollutant | wastewater | fertiliser | agrochemical | biodegradable | compost | soak pit

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: "Where does the soapy water from washing go in your home?" 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 "Causes (from the design)" (key ideas on the next page), explaining as you go. Use pictures of polluted and healthy soils, manila paper and markers, 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: "Why are used chemical containers dangerous?"	Say the key idea in their own words and answer the exit question in the exercise book.

KEY IDEAS

Causes (from the design)
Wastewater: soapy, oily or chemical water poured on the ground.
Excessive use of artificial fertilisers: makes soil acidic and harms soil life.
Agricultural chemicals (pesticides, herbicides) used wrongly or spilled; used chemical containers thrown away carelessly.
Plastic wastes: do not rot, block air and water, and release harmful substances.
Others: used batteries, motor oil, broken glass.

PRACTICE QUESTIONS - WITH ANSWERS FOR THE TEACHER

No.	Question	Answer
1	Give three causes of soil pollution.	**Wastewater, plastics and too much fertiliser**
2	Why are plastics harmful to soil?	**They do not rot and block air and water**
3	How does too much fertiliser harm soil?	**It makes soil acidic and harms soil life**
4	Why are used chemical containers dangerous?	**Leftover chemicals leak into the soil**