Grade 4 Science and Technology

Term 1 - 40 complete lesson plans

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

ABOUT THIS PACK

40 complete, ready-to-teach Grade 4 Science and Technology lesson plans for Term 1, covering plants, animals and human digestive system.

TOPICS IN THIS PACK

Topic	Name	Lessons
1.1	Plants	12
1.2	Animals	12
1.3	Human digestive system	16

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 makes something a living thing

By the end of the lesson, the learner should be able to list the general characteristics of living things

> **Characteristics of living things**
> Living things share certain characteristics: they grow, reproduce (make more of their own kind), respond to their surroundings, need food/nutrients, breathe (respire), and eventually die.
> Non-living things, like rocks or chairs, do not do any of these things on their own.

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 makes something a living thing

Strand 1.0 Living Things and their Environment > Sub-strand 1.1 Plants | Lesson 1 of 12 | 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 list the general characteristics of living things

KEY INQUIRY QUESTION(S)

- Why are plants grouped as living things?

CORE COMPETENCIES, VALUES AND PCIS IN THIS LESSON

COMPETENCY	**Communication and collaboration**	Learners explain their thinking to a partner and report their findings to the group.
COMPETENCY	**Digital literacy**	Learners use a phone, tablet or the class computer to explore or check the idea.
VALUE	**Unity**	Learners share materials fairly and work as one team.
VALUE	**Respect**	Learners listen while others explain and accept correction politely.
PCI	**Safety and security**	Learners follow safety rules when using materials and moving about.

LEARNING RESOURCES

A real potted plant or garden plant to observe | Pictures of different plants and their parts | Manila paper and marker pens

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

living thing | characteristic | root | stem | leaf | flower | photosynthesis

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

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	5	Greet the class and ask: "What is the difference between a rock and a tree? Is a tree alive? Is a rock?" 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	Work through the worked example on the next page, thinking aloud. Use a real potted plant or garden plant to observe, pictures of different plants and their parts, manila paper and marker pens. Ask learners to predict each step 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: "Why is "dying eventually" considered part of being alive, even though it sounds negative?"	Say the key idea in their own words and answer the exit question in the exercise book.

WORKED EXAMPLE

Characteristics of living things

Living things share certain characteristics: they grow, reproduce (make more of their own kind), respond to their surroundings, need food/nutrients, breathe (respire), and eventually die.

Non-living things, like rocks or chairs, do not do any of these things on their own.

PRACTICE QUESTIONS - WITH ANSWERS FOR THE TEACHER

No.	Question	Answer
1	Name two characteristics shared by all living things.	**Any two of: grow, reproduce, respond to surroundings, need food, respire, die**
2	Is a rock alive? Explain.	**No - it does not grow, reproduce, respond, feed, or respire on its own.**
3	Name one living thing and one non-living thing you can see right now.	**Answers vary; check the classification is correct.**
4	Why is "dying eventually" considered part of being alive, even though it sounds negative?	**It is a natural part of the life cycle every living thing goes through, distinguishing it from something that was never alive.**

WATCH OUT FOR

Learners confuse "moving" with "being alive" (e.g. thinking a moving car is alive, or a plant which barely visibly moves is not). Clarify with the full list of characteristics, not movement alone.

ASSESSMENT RUBRIC - THE FOUR CBC LEVELS

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

SUPPORT AND EXTENSION

Learners who need support	Sort picture cards of living and non-living things together as a class.
Learners ready for more	Why might a car seem "alive" in some ways (it moves, needs fuel) but is not actually a living thing? (Answer: A car does not grow, reproduce, or respond on its own - it is operated by a person, unlike a genuinely living thing)
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 makes something a living thing" 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.

Why plants are grouped as living things

Strand 1.0 Living Things and their Environment > Sub-strand 1.1 Plants | Lesson 2 of 12 | 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 identify characteristics of plants as living things

KEY INQUIRY QUESTION(S)

- Why are plants grouped as living things?

CORE COMPETENCIES, VALUES AND PCIS IN THIS LESSON

COMPETENCY	**Communication and collaboration**	Learners explain their thinking to a partner and report their findings to the group.
COMPETENCY	**Digital literacy**	Learners use a phone, tablet or the class computer to explore or check the idea.
VALUE	**Unity**	Learners share materials fairly and work as one team.
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LEARNING RESOURCES

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LESSON FLOW

Stage	Minutes	The teacher	The learners
Introduction	5	Greet the class and ask: "Does a plant grow? Does it need water and sunlight? What does that tell you?" 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	Work through the worked example on the next page, thinking aloud. Use a real potted plant or garden plant to observe, pictures of different plants and their parts, manila paper and marker pens. Ask learners to predict each step before you show it.	Watch, predict the next step, ask questions and note the key steps in their exercise books.
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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: "Why are plants classified as living things?"	Say the key idea in their own words and answer the exit question in the exercise book.

WORKED EXAMPLE

Plants as living things

Plants show all the characteristics of living things: they grow taller and produce more leaves, they reproduce through seeds or spores, they respond to their surroundings (e.g. leaves turning towards sunlight), and they need water, air, and nutrients to survive.

Even though plants do not move around like animals, they are still classified as living things because they show these other characteristics.

PRACTICE QUESTIONS - WITH ANSWERS FOR THE TEACHER

No.	Question	Answer
1	Give one way a plant shows it is growing.	**It gets taller, or produces more leaves**
2	How do plants reproduce?	**Through seeds or spores**
3	Give one example of a plant responding to its surroundings.	**Leaves turning towards sunlight**
4	Why are plants classified as living things?	**They show all the characteristics of living things: growth, reproduction, response, and need for nutrients, even though they do not move around.**