Grade 6 Science and Technology

Term 1 - 42 complete lesson plans

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

ABOUT THIS PACK

42 complete, ready-to-teach Grade 6 Science and Technology lesson plans for Term 1, covering fungi, invertebrates and human circulatory system.

TOPICS IN THIS PACK

Topic	Name	Lessons
1.1	Fungi	12
1.2	Invertebrates	14
1.3	Human circulatory 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 fungi are

By the end of the lesson, the learner should be able to: a) describe what fungi are; b) tell how fungi differ from plants

> **Fungi**
> Fungi (one is a fungus) are living things that are neither plants nor animals.
> They have no green colour (chlorophyll), so they cannot make their own food from sunlight.

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 fungi are

Strand 1.0 Living things and their Environment > Sub-strand 1.1 Fungi | 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: a) describe what fungi are; b) tell how fungi differ from plants

KEY INQUIRY QUESTION(S)

- How is fungi important in nature?

CORE COMPETENCIES, VALUES AND PCIS IN THIS LESSON

COMPETENCY	**Learning to learn**	Learners say what they found easy or hard and decide their next step.
COMPETENCY	**Self-efficacy**	Learners attempt each task with confidence and see that effort improves results.
VALUE	**Responsibility**	Learners look after shared materials and finish every task.
VALUE	**Respect**	Learners listen while others explain and accept correction politely.
PCI	**Financial literacy**	Examples use shillings and cents, shopping, saving and simple budgets.
PCI	**Environmental conservation**	Examples link to caring for the school and home environment.

LEARNING RESOURCES

Pictures of fungi | Charts | 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

fungi (fungus) | mushroom | toadstool | mould | yeast | spore | cap | gills | stalk | decomposer

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: "Key question: how is fungi important in nature? Have you seen white fluffy growth on old bread? What is 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 "Fungi" (key ideas on the next page), explaining as you go. Use pictures of fungi, charts, 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	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: "Name a place where fungi grow well."	Say the key idea in their own words and answer the exit question in the exercise book.

KEY IDEAS

Fungi
Fungi (one is a fungus) are living things that are neither plants nor animals.
They have no green colour (chlorophyll), so they cannot make their own food from sunlight.
They feed on dead or living things, often by growing on them and breaking them down.
Most reproduce by tiny spores carried by wind or water.
They grow best where it is warm, damp and dark.

PRACTICE QUESTIONS - WITH ANSWERS FOR THE TEACHER

No.	Question	Answer
1	Are fungi plants?	**No; they are a separate group of living things.**
2	Why can fungi not make their own food?	**They have no chlorophyll.**
3	How do most fungi reproduce?	**By spores.**
4	Name a place where fungi grow well.	**A warm, damp, dark place.**

WATCH OUT FOR

Learners call mushrooms plants; stress the difference.

ASSESSMENT RUBRIC - THE FOUR CBC LEVELS

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

SUPPORT AND EXTENSION

Learners who need support	Use a comparison table: plants and fungi.
Learners ready for more	Why are fungi often found under logs? (Answer: It is damp and dark, and there is dead wood to feed on)
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 fungi are" 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.

Common fungi in the environment

Strand 1.0 Living things and their Environment > Sub-strand 1.1 Fungi | 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: a) identify common fungi; b) say where each is found

KEY INQUIRY QUESTION(S)

- How is fungi important in nature?

CORE COMPETENCIES, VALUES AND PCIS IN THIS LESSON

COMPETENCY	**Learning to learn**	Learners say what they found easy or hard and decide their next step.
COMPETENCY	**Self-efficacy**	Learners attempt each task with confidence and see that effort improves results.
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THE LESSON AT A GLANCE

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LESSON FLOW

Stage	Minutes	The teacher	The learners
Introduction	5	Greet the class and ask: "Where have you seen fungi near your home or school?" 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 "Common fungi" (key ideas on the next page), explaining as you go. Use pictures of fungi, charts, 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	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 must wild mushrooms never be eaten?"	Say the key idea in their own words and answer the exit question in the exercise book.

KEY IDEAS

Common fungi
Mushrooms and toadstools: umbrella-shaped, in grass and on rotting wood after rain.
Moulds: fluffy growth on bread, fruit, maize and damp walls (black, green, white or blue).
Yeast: tiny one-celled fungi used in baking.
Bracket fungi: shelf-like growths on tree trunks.
Puffballs: round fungi that release clouds of spores.
Safety: many wild mushrooms are poisonous and look like edible ones; never pick or eat wild mushrooms.

PRACTICE QUESTIONS - WITH ANSWERS FOR THE TEACHER

No.	Question	Answer
1	Name four common fungi.	**Mushrooms, moulds, yeast and bracket fungi.**
2	Where does mould often grow?	**On old bread and fruit.**
3	Where are bracket fungi found?	**On tree trunks.**
4	Why must wild mushrooms never be eaten?	**Many are poisonous and hard to tell apart.**

WATCH OUT FOR

Repeat the wild-mushroom safety rule.