# Grade 9 Agriculture and Nutrition

## Term 3 - 38 complete lesson plans

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

### ABOUT THIS PACK

38 complete, ready-to-teach Grade 9 Agriculture and Nutrition lesson plans for Term 3, covering disinfecting clothing and household articles, grafting in plants and homemade sun dryer.

### TOPICS IN THIS PACK

| Topic | Name | Lessons |
|---|---|---|
| 3.2 | Disinfecting Clothing and Household Articles | 12 |
| 4.1 | Grafting in Plants | 13 |
| 4.2 | Homemade Sun Dryer | 13 |

### 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

**Why disinfect clothing and household articles**

By the end of the lesson, the learner should be able to: a) define disinfection; b) explain its importance

> **Killing germs**
> Disinfection kills or reduces germs (bacteria, viruses, fungi) on articles. Washing removes dirt; disinfecting kills germs that washing may leave.
> Articles needing disinfection: towels, handkerchiefs, socks, aprons, dust coats, kitchen cloths, babies' nappies, a sick person's clothing and bedding.

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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# Why disinfect clothing and household articles

Strand 3.0 Hygiene Practices > Sub-strand 3.2 Disinfecting Clothing and Household Articles | 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) define disinfection; b) explain its importance

## KEY INQUIRY QUESTION(S)

- How can we disinfect household articles for hygiene purposes?

## 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. |
| VALUE | **Responsibility** | Learners look after shared materials and finish every task. |
| PCI | **Health promotion** | Examples link to healthy habits at home and at school. |

## LEARNING RESOURCES

Pictures of disinfection methods | 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

disinfect | germ | sunlight | salting | boiling | disinfectant | ironing | communicable disease

## 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: "Key question: how can we disinfect household articles for hygiene purposes?" 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 "Killing germs" (practical: method and expected results on the next page), explaining as you go. Use pictures of disinfection methods, 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 two diseases it helps prevent." | Say the key idea in their own words and answer the exit question in the exercise book. |

## PRACTICAL: METHOD AND EXPECTED RESULTS

**Killing germs**

Disinfection kills or reduces germs (bacteria, viruses, fungi) on articles. Washing removes dirt; disinfecting kills germs that washing may leave.

Articles needing disinfection: towels, handkerchiefs, socks, aprons, dust coats, kitchen cloths, babies' nappies, a sick person's clothing and bedding.

It prevents communicable diseases such as skin infections, athlete's foot, eye infections and diarrhoea.

## PRACTICE QUESTIONS - WITH ANSWERS FOR THE TEACHER

| No. | Question | Answer |
|---|---|---|
| 1 | Define disinfection. | **Killing or reducing germs on articles.** |
| 2 | How is it different from washing? | **Washing removes dirt; disinfecting kills germs.** |
| 3 | Name three articles that need disinfecting. | **For example towels, socks and kitchen cloths.** |
| 4 | Name two diseases it helps prevent. | **For example skin infections and athlete's foot.** |

## WATCH OUT FOR

Learners think clean-looking means germ-free. Germs are invisible.

## ASSESSMENT RUBRIC - THE FOUR CBC LEVELS

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

## SUPPORT AND EXTENSION

| | |
|---|---|
| **Learners who need support** | Use a chart of germs and the diseases they cause. |
| **Learners ready for more** | List articles in your home that should be disinfected regularly. (Answer: Answers will vary) |
| **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 "why disinfect clothing and household articles" 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.

# Methods of disinfection

Strand 3.0 Hygiene Practices > Sub-strand 3.2 Disinfecting Clothing and Household Articles | 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) describe five methods; b) match methods to articles

## KEY INQUIRY QUESTION(S)

- How can we disinfect household articles for hygiene purposes?

## 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. |
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## KEY WORDS

disinfect | germ | sunlight | salting | boiling | disinfectant | ironing | communicable disease

## THE LESSON AT A GLANCE

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|---|---|---|---|---|
| 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: "How did people kill germs before chemical disinfectants?" 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 "Five methods" (practical: method and expected results on the next page), explaining as you go. Use pictures of disinfection methods, 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 iron seams carefully?" | Say the key idea in their own words and answer the exit question in the exercise book. |

## PRACTICAL: METHOD AND EXPECTED RESULTS

**Five methods**

Sunlight: ultraviolet rays and heat kill many germs; dry articles in full sun.

Salting: soaking in strong salt water slows or kills many germs (useful for handkerchiefs, kitchen cloths). Boiling: boiling cotton articles in water for about 10 to 15 minutes kills most germs.

Chemical disinfectants: soaking in a diluted disinfectant. Ironing: a hot iron kills germs and lice eggs in seams (cotton and linen).

## PRACTICE QUESTIONS - WITH ANSWERS FOR THE TEACHER

| No. | Question | Answer |
|---|---|---|
| 1 | Name five methods of disinfection. | **Sunlight, salting, boiling, disinfectants and ironing.** |
| 2 | Which method suits a cotton towel? | **Boiling (or sunlight, ironing).** |
| 3 | How does sunlight kill germs? | **Ultraviolet rays and heat.** |
| 4 | Why iron seams carefully? | **Lice eggs and germs hide there.** |

## WATCH OUT FOR

Boiling damages wool and synthetics. Check fabric first.