Plants and Animals

Lesson plan and teacher's notes · Grade 4 Science · 2 periods of 40 minutes

School	(write school name)	**Teacher**	(write name)
Date	(date)	**Class**	Grade 4
Subject	Science	**Enrolment**	Boys ___ Girls ___ Total ___
Time	80 minutes	**Topic**	Plants and Animals

An overview of Grade 4 Term 3 Plants and Animals. Learners see why plants and animals matter in food, shelter, medicine and environmental balance, and meet the key words of horticulture and crop production. Two periods of 40 minutes.

Specific outcomes

By the end of the lesson, learners should be able to:

1. Explain the importance of plants and animals in daily life
2. Name the uses: food, shelter, medicine and environmental balance
3. Explain key words of horticulture and crop production

Prior knowledge

- Learners know common garden plants and farm animals
- Learners have seen a school or home garden

Teaching and learning materials

- Real or drawn plants such as tomatoes, onions, cabbages, rape, bananas and oranges
- Word cards for the key words
- Manila paper and markers
- Cuttings, a bud or a seedling if available

References

Ministry of Education (CDC) Grade 4 Science syllabus and module; 25Schools learners' note: Plants and Animals.

Lesson development

Stage and time	Teacher activities	Learner activities
Period 1 Importance of plants and animals 20 min	Ask learners to name plants and animals at home and school. Group them by what they give: food, shelter, medicine and a balanced environment. Add environmental benefits: shade, preventing soil erosion, improving air and habitats.	Name and group uses of plants and animals.
Period 1 Key words 20 min	Introduce horticulture, horticultural plants and ornamental plants with real examples. Match word cards to meanings.	Match words to meanings.
Period 2 From site to propagation 20 min	Show a flow: site, land preparation, propagation. Explain cuttings, budding and grafting using the definitions, and show a seedling.	Order the steps and explain terms.
Period 2 Harvest and marketing 20 min	Discuss harvest, value addition, marketing and income. Learners role-play a seller displaying, pricing and talking to buyers.	Role-play selling garden products.

Teacher's content notes

Read these before the lesson. They are what you need to know, not what to copy onto the board.

Importance

Plants and animals are essential in sustaining life. They give food, shelter and medicine and help the balance of the environment.

Horticulture

Horticulture is growing fruits, vegetables, flowers and ornamental plants for food, beauty or income. Learners explore it through hands-on activities such as cuttings, budding and grafting.

Key words

Site, land preparation, propagation, cuttings, budding, grafting, seedling, harvest, value addition, marketing, income and environmental benefits.

Questions to ask during the lesson

Question	Expected answer
The teacher asks the class about a village garden where people grow tomatoes, rape and bananas. (a) Which are fruits. (b) Which are vegetables. (c) What is the garden work called.	(a) Bananas and tomatoes. (b) Rape. (c) Horticulture.

The teacher shows a small young plant that just grew from a seed in the school garden. (a) What is it called. (b) How did it start. (c) What should we do when it is mature.	(a) A seedling. (b) From a seed. (c) Harvest it.
The teacher asks about a family that sells oranges at the roadside to earn money for school. (a) What is the money called. (b) What is the selling called. (c) Name one thing the seller does.	(a) Income. (b) Marketing. (c) Display, price or talk to buyers.

Worked examples for the board

From site to income

Step 1: Choose a site. Step 2: Prepare the land. Step 3: Propagate. Step 4: Harvest. Step 5: Market and earn income.

Grouping uses

Step 1: Name a plant, such as cabbage. Step 2: Say its use: food. Step 3: Name another, such as a tree for shade.

Board plan

Write the title Plants and Animals. List the four uses, then the flow from site to income.



The finished board

Mistakes to expect

Learners often think	Put it right
Horticulture means only flowers.	Show that it includes fruits, vegetables, flowers and ornamental plants.
A seedling is any small plant.	A seedling is a young plant that has just grown from a seed.

Differentiation

Learners who struggle

Use real plants and pictures; keep to four key words at a time.

Learners who finish early

Ask learners to plan a small school garden from site to marketing.

Hearing or visual impairment

Let learners handle real plants. Pair learners who find reading hard with a helper.

No projector, no printing

Draw plants on manila paper or use local plants around the school.

If time is short

Keep importance and the flow from site to income. Move the role-play to the next lesson.

Evaluation

Question or task	A correct answer shows
The teacher gives Bwalya a list of garden words after a school garden visit. (a) What is horticulture. (b) What is a cutting. (c) What does harvest mean.	Uses the Ministry definitions correctly.
Mwamba wants to sell tomatoes from his family garden at the market. (a) What is marketing. (b) What is income. (c) Name one thing a seller does.	(a) Selling products to customers. (b) Money earned. (c) Displaying, pricing or talking to buyers.

Homework

Njavwa looks at a garden at home or school. (a) List three plants. (b) Say what each gives to people. (c) Say one environmental benefit of plants.

Extra practice with answers

Question	Answer
1. Chanda wants to start a school garden with the class and must choose where to plant. (a) What is the place called. (b) What is done to the soil. (c) Name two shapes made in the soil.	(a) The site. (b) Land preparation. (c) Ridges or beds.
2. Banji cuts a branch from a plant at home and plants it to grow a new plant. (a) What is the piece called. (b) What is the process called. (c) Name another way.	(a) A cutting. (b) Propagation. (c) Budding or grafting.
3. Mulenga's family grows flowers in front of the house for beauty. (a) What type of plants are they. (b) What is growing plants called. (c) Name one environmental benefit.	(a) Ornamental plants. (b) Horticulture. (c) Shade, preventing soil erosion, improving air or habitats.
4. Mwamba harvests cabbages from the school garden and the class wants to sell them at the market for a class trip. (a) What do we call collecting mature plants. (b) What do we call selling to customers. (c) What do we call the money earned.	(a) Harvest. (b) Marketing. (c) Income.

Answers to the learners' check-yourself questions

1. Name two things plants and animals give us.
   Food, shelter or medicine.
2. What is horticulture.
   Growing fruits, vegetables, flowers and ornamental plants.
3. What is a seedling.
   A young plant that has just grown from a seed.
4. What does harvest mean.
   To collect mature fruits, leaves, flowers or stems from plants.
5. Mulenga wants to start a small vegetable garden at home with tomatoes, onions and rape for his family. (a) What is the place for the garden called. (b) What must he do to the soil. (c) Name one way to grow new plants.
   (a) The site. (b) Land preparation: clear, dig and loosen it and make ridges or beds. (c) Seeds, cuttings, budding or grafting.
6. Chanda has harvested cabbages from the school garden and wants to sell them at the market to earn money for the class. (a) What do we call the money earned. (b) What do we call selling to customers. (c) Name one thing a seller does.
   (a) Income. (b) Marketing. (c) Displaying, pricing or talking to buyers.

Teacher's reflection

What went well:

What I will change next time:

Learners who need follow-up: