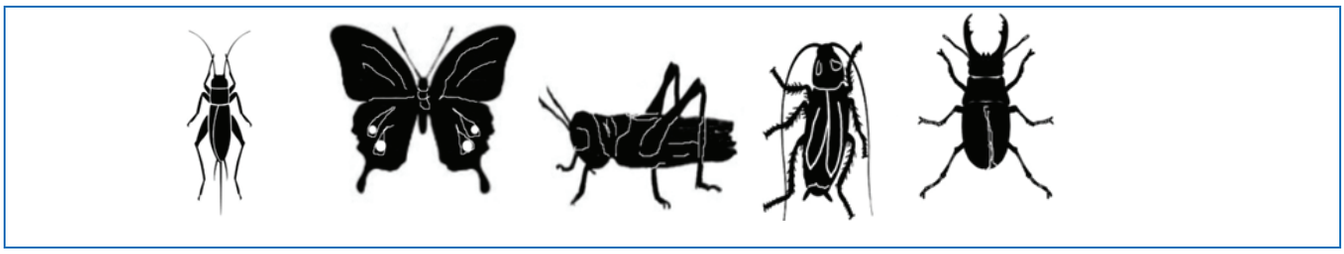
Living and non-living things



Topic	By the end of the lesson the students will be able to:	Vocabulary	Structures	Learning strategies
1. Identifying living and non-living things	• identify living and non-living things • explain seven characteristics of living things.	Person; girl; spoon; cup; saucer; animal/dog; tree; insect/fly; table; reproduce/ reproduction; move/movement; remove waste; respond; excrete/excretion; exchange gases; react; breathe/respiration; grow/growth; feed; sensitive/sensitivity	Yes, it does/No, it doesn't; ...is a living/non-living thing; What are the characteristics of living things?; Is... a living/non-living thing?; Yes, it is/No, it isn't; Present simple: It breathes/ reproduces; It doesn't breathe/ reproduce etc.; All living things...; Does a... +verb?	• Activate previous knowledge by talking about the topic initially in a group • Thinking about the underlying grammar in a lesson.
2.Classification of living things	• identify four major groups of living things • explain the differences between the groups.	Animals; plants; birds; insects; fur; features; mammals; vertebrate; invertebrate; compound eyes	What is/are the characteristics of...; It is...; It has...; They have...; Do... do/have this?	• Categorising • Grouping.
3. Animals	• identify vertebrate and invertebrate animals • understand some basic information about types of vertebrates/ invertebrates.	Fish; amphibians; reptiles; birds; worms; mammals; molluscs; anthropoids; vertebrate; invertebrate; skeleton; shell; fins; feather; warm-blooded/cold-blooded	Identify...; Which...; What are...; Does... have a backbone?; Yes it does/No, it doesn't; A... is large/small...; A... has...; A... is (colour)	• Ways of remembering spelling.
4. Domestic Animals	• identify domestic and wild animals • explain the functions of domestic animals.	Domestic animal; wild animal; hen; dog; cat; cow; goat; sheep; horse; donkey; pig; pigeon; pull; goose; duck; goat; manure; plough; guinea fowl; turkey; meat; milk	What is this/that?; That is a...; Is it domestic or wild?; Do you have any ...s/Yes we have five...; How many... do you have?; Why do you have a...?; Because it...	• Classifying • Games for spelling.

5. Insects	• list and name insects found in their environment • spell the names of insects found in their environment • understand and express some basic facts about insects.	Insect; butterfly; mosquito; house fly; cockroach; bee; ant; grasshopper; moth; outside; inside; dark; light; on the ground; species; antennae; suck; Plurals e.g. + s; + es; +ies	Can you spell butterfly? Yes, b-u-t-t-e-r-f-l-y.	• Games for learning vocabulary.
6. Harmful insects	• identify harmful insects • recognise useful insects • list some effects caused by flies, mosquitoes and cockroaches • suggest ways to keep harmful insects away.	Harmful; malaria; diarrhoea; typhoid; cholera; dengue; bite; sting; contaminate; spread; carry; germ	Which insects are harmful?; What effects are caused by mosquitoes/ flies/cockroaches; ...are harmful because... ; ...can cause.../can spread ...	• Listening for gist and specific information.
7.Common plants	• list different plants found in the local environment • describe parts of plants • understand and express functions of the three major parts of a plant.	Plants; leaves; stem; roots, minerals; water; food; photosynthesis; absorb; cassava plant	This is..., What are ... (the major parts of plant?); What are leaves/stem/roots for?; What do they/does it do?; The... is/are located ...; ... are important because...	• Peer correction.
8. Types of plants	• identify four major groups of plants • explain the functions of each group.	Flowering plants; wood plants; food plants; grass; trunk; oxygen; respiration; wood; honey; anywhere; fruit; flowers; seat; vegetables; decoration	Can you imagine a world without plants?	• Poetry • Writing questions for a quiz.
9. Plants for food	• list kinds of food that plants produce • state what part of the plant the food comes from, and other simple characteristics.	Seeds; roots; flour; leaves; fruit; sugar; oil	What kind of food comes from...; Which of these foods...?; It comes from the... roots/flower/ leaves/stem	• Matching • Peer marking.
10. Viruses	• identify diseases that are caused by viruses • explain how to prevent viral	Measles; rabies; flu; illness; virus; serious; minor; infection; infectious; spread; multiply; inject; eradicate; transmit; immune; immunisation; antibodies;	Present simple. How can ...? We can .... by +ing/not +ing	• Predicting • listening for gist • Ordering.

Lesson 1: Identifying living and non-living things

Vocabulary: Person; girl; spoon; cup; saucer; animal/dog; tree; insect/fly; table; reproduce/reproduction; move/movement; remove waste; excrete/excretion; exchange gases; breathe/respiration; grow/growth; sensitive/sensitivity; react; respond; feed; living things; non- living things

Structures: Yes, it does/No, it doesn't; ... is a living/non-living thing; What are the characteristics of living things?; Is ... a living/non -living thing?; Yes, it is/No, it isn't; Present simple: It breathes/reproduces; It doesn't breathe/reproduce, etc.; All living things ...; Does a ... +verb?

Lesson content objectives:

By the end of the lesson the students will be able to:

- identify living and non-living things
- explain seven characteristics of living things.

Learning strategies: Activate previous knowledge by talking about the topic initially in a group; thinking about the underlying grammar of a lesson.

Introduction (5 mins)

- Say: *'Good morning/afternoon. How are you?'* Wait for the students to reply.
- *Say*: *'We are going to learn about living things and non-living things.'*
- Ask: *'What is the difference between living and non-living things?'* (Answers are difficult to predict. The students should know this concept from primary science but may not know the terms in English. Accept logical replies.)
- Ask: *'Is a dog a living thing? Why?'* (Answer – Yes, because it breathes, it can move, it eats, it can reproduce. Answers will depend on the students' recollection of previous learning.)
- Ask: *'Is a piece of paper a living thing?'* Hold up a piece of paper. (Answer – No, because it does not eat, it does not move, it does not reproduce.)

Note: Just accept whatever the students offer here. You do not need to elicit or tell them the range of answers.

Presentation (10 mins)

- Ask the students to open their Student book at Topic 3, Lesson 1 and look at Activity 1. Ask the students to name what they can see in the diagrams.

- Then ask the students: *'How many non-living things can you see?'* (Answer: 3 or 4 – if the cup and saucer are mentioned as separate things).
- Say: *'Close your books. How do you know they are non-living things?'* Elicit some answers
- Put the students into groups of three or four and ask them to discuss, 'What are the characteristics of living things? Give them at least five minutes for this as it is quite difficult. Monitor and give some help.
- Say: *'What did you decide?'* (Answers – The characteristics of living things are excretion, breathing, reproduction, movement, sensitivity, feeding, growth.) Elicit any answers that you can and write them on the board. Translate any words that need to be translated.

> *Note: It is a good idea to keep the top right hand side of the board as a place for vocabulary and translations. This way the students know where to look when they need help with a word. If anyone in the class asks for a spelling or translation then you can write it here so that it is there for the rest of the class. Make sure that you let the class know what kind of word each is: (n) = noun; (v) = verb; (adv) = adverb; (adj) = adjective, etc.*

- Ask the students to open their books again and look at the table. Say:
  - *'Does a table breathe?'* (Answer – No, it doesn't.)
  - *'Does it eat?'* (Answer – No, it doesn't)
  - *'Does it grow?'* (Answer – No, it doesn't)
  - *'Does it reproduce, that means to have babies?'* (Answer – No, it doesn't)
  - *'Does it move?'* (Answer – No, but we can move it.)
  - *'Does it react to the conditions around it?'* (Answer – No, it doesn't)
  - *'Does the table change if it is very sunny, or if we put water on it?'* (Answer – Yes, possibly.)
  - *'Does a table eat anything?'* (Answer – No, it doesn't)
- Ask the students to look at the girl and ask:
  - *'Does a human breathe?'* (Answer – Yes, it does.)
  - *'Does a human grow?'* (Answer – Yes, it does.)
  - *'Does a human reproduce?'* (Answer – Yes, it does.)
  - *'Does a human move?'* (Answer – Yes, it does.)
  - *'Does a human react to the conditions around them?'* (Answer – Yes, it does.)
  - *'Does a human eat anything?'* (Answer – Yes, it does.)
- Tell the students to look at the pictures .They should tell you why each one is either a living or non-living thing. (Answers – It breathes/it doesn't breathe; it eats/it doesn't eat, etc.)
- Remember to write the key words on the board and their translations if needed.

Practice (10 mins) 

- Say: *'Look at Activity 2.'* The students write the sentences in their exercise books and match them to one of the characteristics of living things in the box.
- Monitor the activity and help with any difficult vocabulary.

Consolidation/evaluation and assessment (5 mins) 

- Put the students into pairs and ask them to ask each other questions about living and non-living things.
- Bring a student to the front to demonstrate with you. Ask: *'Does a river move?'* (Answer – Yes, it does.) *'Is a river a living thing? Why/Why not?'* (Answer – It is not a living thing because it doesn't reproduce/breathe, etc.)
- Bring a different student to the front and demonstrate again. Say: *'Does a car move?'* (Answer – Yes.) *'Is a car a living thing? Why/Why not?'* (Answer – No, it isn't because it doesn't grow/feed, etc.)
- Let the students ask each other similar questions.

Reflection 

- *' Ask: 'What are the phrases we used in this lesson?'* (Accept any answers from the lesson structures.)
- Ask students to think about other times they have used those phrases. Tell students they should do this at the end of every lesson. They can make notes in their exercise books.

Answers 

Activity 1

A dog, a spoon, a cup (and saucer), a fly/insect, a table, a tree, a person/human/woman/girl

Living – a dog, a tree, a human, a fly.

Non-living – a spoon, a cup and saucer, a table.

Activity 2

Living things have seven main characteristics.

1. Feeding: All living things have to take in food found around them to continue living.
2. Movement: All living things move in some way; it can be external or internal.
3. Breathing/respiration: Living things take in and give out air.
4. Excretion: Living things have to get waste out of their bodies in some way.
5. Growing: Living things grow and get bigger
6. Sensitivity: Living things respond to things like light, touch and sound.
7. Reproduction: Living things always reproduce. For example humans have babies; plants make seeds which produce new plants

Extension activity 

- Write these sentence beginnings on the board and ask the students to finish them:
  - A volcano is not a living thing because it…
  - A fish is a living thing because it…

Teacher's reflections 

- This lesson contained a lot of topic-specific vocabulary but the grammar was simple and consistent. How can you help the students to *notice* the structures and phrases – the grammar of the lessons - without formally teaching it each lesson?

Homework 

- The students can study a living thing in or near their home. They can write about how it breathes, what it eats, when it grows, how it reproduces and how it moves. They can bring in this piece of writing and share it with the class and see if the class can guess what it is.

Lesson 2: Classification of living things

Vocabulary: Animals; plants; birds; insects; fur; features; mammals; vertebrate; invertebrate; compound eyes

Structures: What is …? ; It is…/It has …; What are the characteristics of …?

Lesson content objectives:

By the end of the lesson the students will be able to:

- identify major groups of living things.
- explain the differences between the groups.

Learning strategies: Categorizing; grouping.

Introduction (5 mins)

- Say: *'Good morning/afternoon. How are you?'* Wait for the students to reply.
- Ask the students if they can remember some of the characteristics of living things. (Answer – Respiration, feeding, excretion, reproduction, growth, movement, sensitivity.)

Presentation (10 mins)

- Say *'We can put living things into different groups. Do you know any groups?* (Answers - animals, plants are the groups they should mention, but they can mention other groups too.) *Today we are going to learn more about animals and plants'*. Write the two groups on the board in two columns as below.

Animals	Plants

- Ask the students to give examples of each group. Try and get at least four examples of each.
- Ask the students to open their Student book at Topic 3, Lesson 2 and look at Activity 1.
- Say: *'Work in pairs. Draw two columns in your exercise books like those on the board* (point to the board) *and put the letters of the things you can see in the picture in Activity 1 into the table.'* (Note: they should write the letters, not the names).
- Check the letters, eliciting the names as you go along.

- Tell the students '*Now you're going to do a spelling competition. You have three minutes to spell as many of the things correctly as you can*.' Show them the clock. Let them work in pairs, but keep to the time limit.
- Correct the answers as a whole class. Write the correct spellings on the board. The students get two points for each plant/animal they have spelt correctly. Ask if any pair has more than 20 points and congratulate them.
- Practise pronunciation of the words with the whole class.

Practice (10 mins) 

- Ask the students to look at Activity 2 in their Student book. Tell them to copy the table and match one characteristic with each column.
- Monitor the activity and mark each student's work if possible.
- Ask the students to write the names of the plants and animals from Activity 1 in the correct columns.

Consolidation/evaluation and assessment (5 mins) 

- Ask: *'What does 'give birth' mean?'* (Answer – To have a baby.)
- Ask: '*Do plants give birth? Do birds give birth?'* (Answer – No, mammals have babies.)
- Ask: *'What are feathers?'* (Answer – The things that birds have on the outside of their body.)
- Ask: *'Do mammals have feathers? Do insects have feathers?'* (Answer – No, birds have feathers.)
- Ask: *'What is the singular of leaves?'* (Answer – Leaf.)
- Ask: *'Do birds have leaves? Do insects have leaves?'* (Answer – No, plants and trees have leaves.)
- Ask: *'What are compound eyes?'* (Answer – Eyes made up of lots of little eyes.)
- Ask: *'Do plants have compound eyes? Do birds have compound eyes?'* (Answer – No, only insects have compound eyes.)

Reflection 

- Ask:
  - *'Which did you find more difficult, trying to name the living things or the spelling?'*
  - *'What can you do to make that task easier?'*

Answers

Activity 1

Animals	Plants
human elephant crocodile lion lizard frog cockerel eagle mosquito grasshopper butterfly	mango tree banana plant maize plant

Activity 2

Mammals	Birds	Insects	Plants
3. Have hair or fur and give birth.	**4.** Have feathers and can usually fly.	**2.** Have antennae and compound eyes.	**1.** Stay in one place and have leaves.
human elephant lion	cockerel eagle	mosquito grasshopper butterfly	mango tree banana plant maize plant

Extension activity

- Ask the students to add more examples to each of their lists from Activity 1 and Activity 2.

Teacher's reflections 

- Think about the answers the students gave to their reflection questions. What ways can you help them with the spelling and vocabulary recall? Perhaps this could be the topic of another lesson.

Homework 

- Ask the students to consider the 'animal' category. Ask them to think of at least two different groups of animals and what the characteristics of each group are. Tell them to bring their ideas to the next class.

Lesson 3: Animals

Vocabulary: Fish; amphibians; reptiles; birds; mammals; worms; molluscs; anthropoids; vertebrate; invertebrate; skeleton; shell; fins; feather; warm-blooded/cold-blooded

Structures: Identify…; Which…; What are…; Does… have a…?; Yes, it does/No, it doesn't; A… is large/small…; A… has…; A… is (colour).

Lesson content objectives:

By the end of the lesson, the students will be able to:

- identify vertebrate and invertebrate animals
- give some basic information about types of vertebrates/invertebrates.

Learning strategy: Ways of remembering spelling.

Preparation: Make sure that you can pronounce all the names of the vertebrates and invertebrates.

Introduction (5 mins)

- Say: '*Good morning/afternoon. How are you?'* Wait for students to respond.
- Point to your backbone and say: *'I have got a backbone. Have you?'* (Answer – Yes.) *''What is the name for animals with backbones?''* (Answer – Vertebrates.)
- Ask the students: *'What other animals have backbones?'* (Answers – fish, frogs, snakes, crocodiles, lizards, dogs, human beings, goats, elephants, birds.)
- Ask: *'Can you name some animals without backbones?'* (Answer – insects, centipedes, millipedes etc.)
- Ask the students to open their Student book at Topic 3, Lesson **2** and look at the picture to decide which of the animals are vertebrates and which are not.

Note: This is the picture in Lesson 2 not Lesson 3.

Presentation (10 mins)

- Ask the students to open their books at Topic 3, Lesson 3 and read the text in Activity 1. Hold your book open at the correct page and show the students.

Note: It is probably best not to ask the students to read aloud for the moment because there are many new words that are difficult to pronounce.

- For this first reading ask the students whether any of the animals that they have already mentioned this lesson are in the text.
- Feedback on the answers to this and ask: *'Did you know there were so many types of invertebrate?'*
- Draw two columns on the board:

Vertebrates	Invertebrates

- Ask the students to read the text again and tell you the different types of vertebrates/invertebrates. Write each in the correct column.
- Practise the pronunciation of each animal. Make sure all the students, individually and chorally, have the chance to pronounce each of the words.

Practice (10 mins) 

- Ask the students to work in groups of three.
- Ask them to look together at Activity 2 in their Student books, and choose the correct information about each type of animal. They should write complete sentences in their exercise books.

Note: Tell the students this is not to test what they should know, but to try and learn new things. Tell them to think carefully and try their best. If you have access to dictionaries you should give them out for this lesson.

- Monitor the activity and help with difficult vocabulary. As the students work, encourage them to pronounce the words correctly.
- Check the activity as a group, and make sure everyone has the correct answers in their exercise books.

Consolidation/evaluation and assessment (5 mins) 

- Ask the students to close their books.
- Point to the columns you have on the board from Activity 1.

- Read out the characteristics of different types of animal from Activity 2, and see if the students can tell you which animal you are referring to.
- Ask the students: *'Are there more vertebrates or invertebrates in the world?'* (Answer – invertebrates.)
- Ask: *'Why do vertebrates dominate in the world?'* (Answer: Because they are usually bigger, and they can do more things with their bodies.)

Reflection 

- Once again this lesson has a lot of vocabulary and difficult spelling. Ask the students to show each other a method for learning the spelling of *anthropoids*.

Activity 1

vertebrates	invertebrates
fish	
amphibians	molluscs
reptiles	anthropoids
mammals	
birds	

Activity 2

Fish **g)** live in water, and have fins.

Amphibians **a)** live both on land and in water.

Reptiles **e)** have scales and lay eggs.

Birds **b)** have feathers and wings.

Mammals **c)** drink their mother's milk and usually have body hair.

Molluscs **d)** often have a hard outer shell.

Anthropoids **f)** include spiders and lobsters.

Extension activity 

- Students draw a diagram of vertebrate and an invertebrate in their exercise books.
- Underneath they should write which sub-group it belongs to and at least two more characteristics of that animal.

Teacher's reflections 

- Think about what the students did in their reflection activity. Did they have any good ways of remembering spellings? Could you find time to show them the 'look-cover-write-check' method?

Homework 

- Find a vertebrate and an invertebrate in your home environment. Write its name, the type of animal it is (vertebrate or invertebrate), and one more characteristic.

Lesson 4: Domestic animals

Vocabulary: Domestic animal; wild animal; hen; dog; cat; cow; goat; sheep; horse; donkey; cat; pig; pigeon; goose; duck; goat; guinea fowl; turkey; meat; milk; manure; pull; plough

Structures: What is this/that?; That is a… ; Is it domestic or wild?; Do you have any…?; Yes we have five…; How many… do you have?; Why do you have a…?; Because it…

Lesson content objectives:

By the end of the lesson the students will be able to:

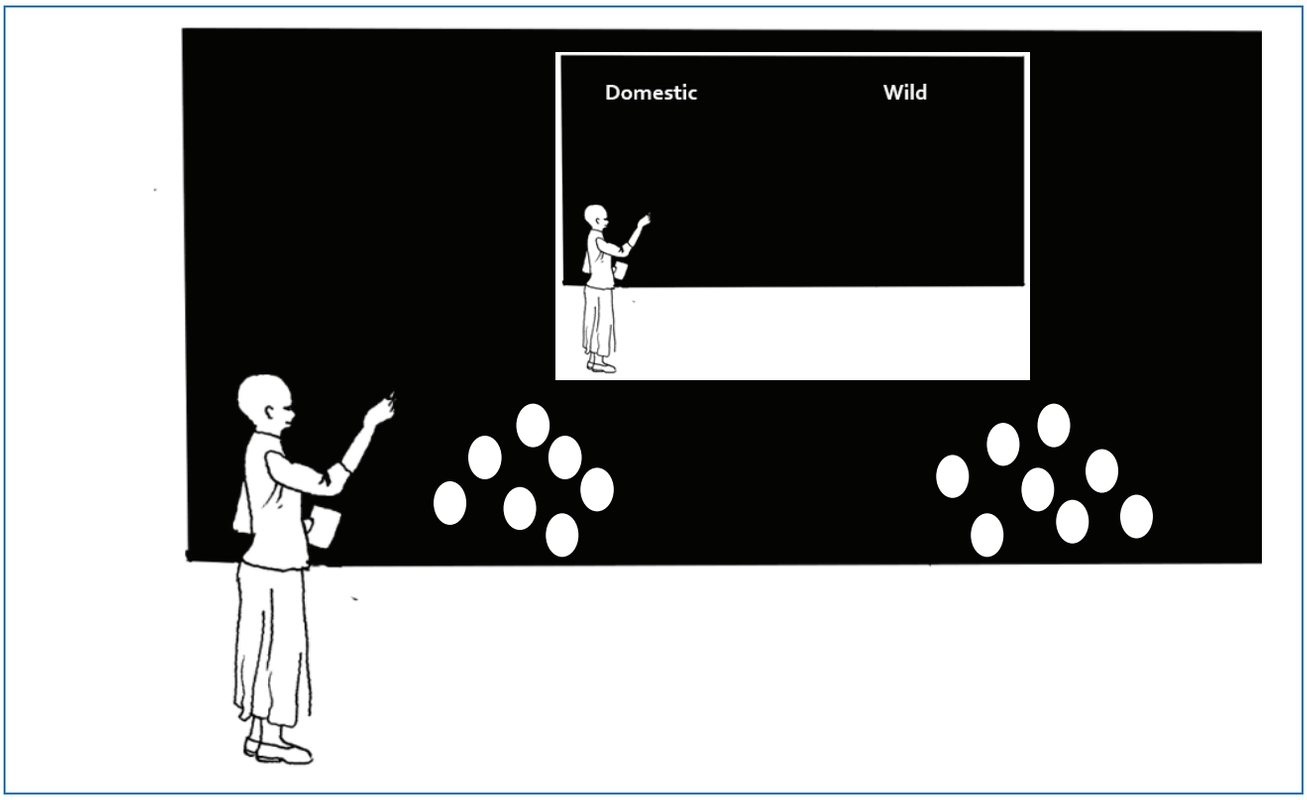
- identify domestic and wild animals
- explain the functions of domestic animals.

Learning strategies: Classifying; games for spelling.

Preparation: Prepare word cards with the following words: dog, rabbit, duck, goat, sheep, donkey, horse, cat, pigeon, goose, turkey, guinea fowl, cow, and hen.

Introduction (5 mins)

- Say, '*Good morning/afternoon. How are you?*' Wait for the students to reply.
- Ask the students to write down an animal on a piece of paper.
- Tell the students: *'Today we are going to talk about domestic and wild animals.'*
- Write 'domestic' and 'wild' on opposite sides of the board (right and left) and make sure the students know the meaning.
- Tell the students to move to the side of the board for the animal they wrote down.
- Say: *'Now tell us your animal and we will check that you are in the right place. If you go to the wrong side your classmates will tell you.'*
- Ask the students to say their animals one by one and the rest of the class tells them to stay in their place or move to the other side. There may be some debate about certain animals, which is good!



Presentation (10 mins)

- Say: *'Today we are going to concentrate on domestic animals.'*
- Give out the word cards and tell the students to keep them face-down for the moment and not to look at them.
- Ask all students to open their Student book at Topic 3, Lesson 4 and look at the pictures in Activity 1.
- Ask each student who has a word card to read it out in turn and hold it up so that the class can see it.

Note: Some pictures such as turkey and hen might be confusing. Allow the class to debate and decide, saying why. This is good language practice. For example: 'A turkey is bigger than a hen!'

- The other students shout out the letter for that animal in the picture in Activity 1.
- Write the words on the board as they are said, so that students can see the spelling.
- If time, you can give out the word cards to different students and repeat the activity.

Practice (10 mins)

- Ask: '*Who keeps cows at home? Why do you keep cows?'* (Answer – They give us milk/meat.)
- Say the sentence: *'We keep cows because they give us milk.'* Emphasise the word *because*.
- Let the students repeat this after you as a class, then in small groups and then individually.
- Write the sentence on the board. Let the students copy it.
- Ask: '*What else makes you keep cows?'* (Answer – For meat/for dung *or* manure/to pull carts/to plough/for leather/for biogas.)
- Write on the board: *…give us…'* and *'…help us to…'*
  - Give an example: *'Ducks give us feathers for pillows and decoration.'*
  - Elicit at least five different animals and their functions from the class.

Consolidation/evaluation and assessment (5 mins)

- Ask the students to look at Activity 2 in their Student book. They should complete and copy the sentences into their exercise books.
- Monitor the activity and collect the exercise books if necessary to correct later.

Reflection

- Ask: *'Are animals important in our lives? Why?'*

Answers

Activity 1

a) cat	**b)** dog
c) duck	**d)** goose
e) guinea fowl	**f)** pigeon
g) cow	**h)** goat
i) hen	**j)** turkey
k) donkey	**l)** sheep
m) horse	**n)** rabbit

Activity 2

Example answers:

Dogs – guard, pet, hunting,

Rabbits – meat, pet, manure

Ducks – meat, eggs , feathers, manure

Goat – meat, manure, leather, milk

Donkey – carrying, pulling, manure

Extension activity 

- Play hangman to practise the spellings of some of the more difficult words.

Teacher's reflections 

- Did the students have enough previously-known vocabulary to express the functions of domestic animals? In future lessons, should you spend more time pre-teaching vocabulary, or provide it when it is needed?

Homework 

- Ask the students to write a few sentences about an animal and its function/why we keep this kind of animal.

Lesson 5: Insects

Vocabulary: Insect; butterfly; mosquito; housefly; cockroach; bee; ant; grasshopper; moth; outside; inside; dark; light; on the ground; species; antennae; suck; Plurals e.g. + s = bees/ants + es = cockroaches/mosquitoes + ies = flies/butterflies;

Structures: Can you spell butterfly? Yes, b-u-t-t-e-r-f-l-y.

Lesson content objectives:

By the end of the lesson the students will be able to:

- list and name insects found in their environment
- spell the names of insects found in their environment
- understand and express some basic facts about insects.

Learning strategy: Games for learning vocabulary.

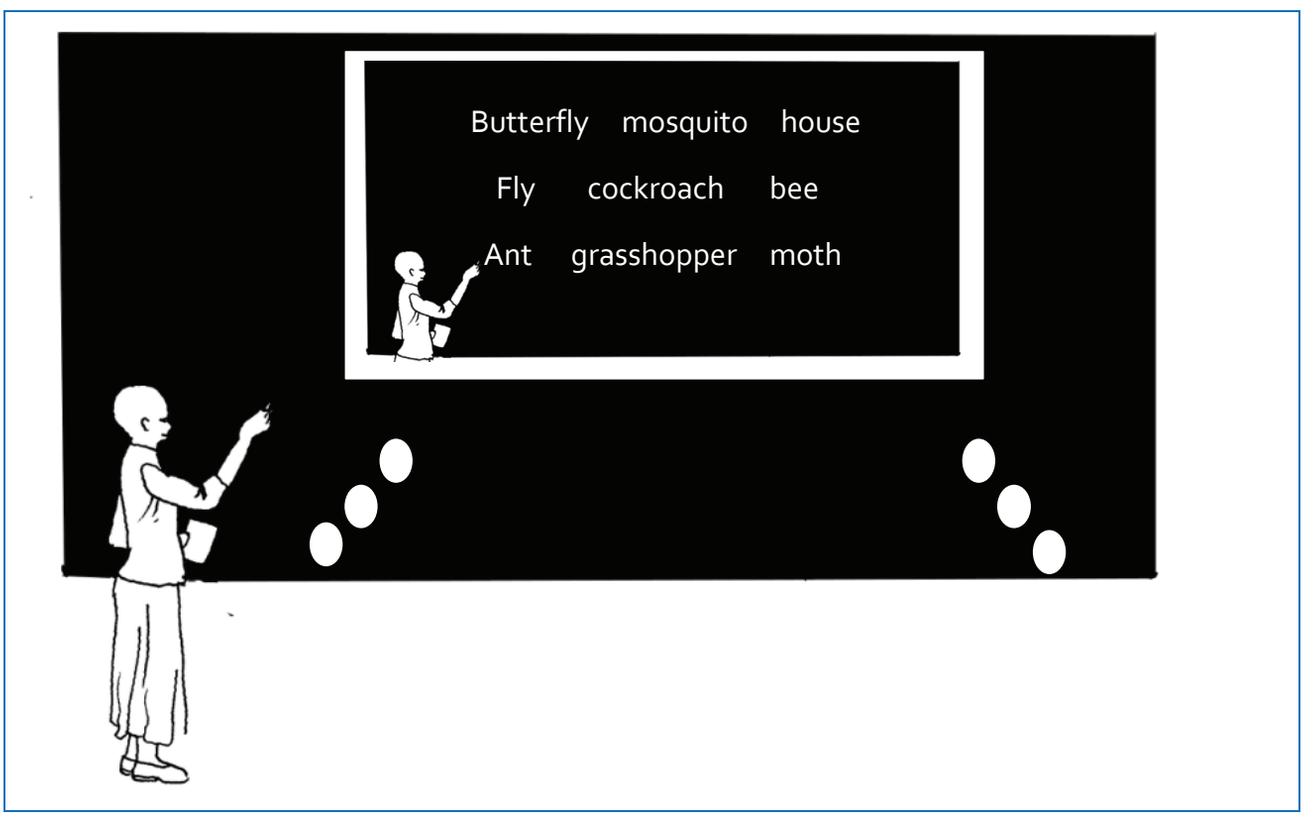
Introduction (5 mins)

- Say, *'Good morning/afternoon. How are you?'* Wait for the students to reply.
- Say: *'Today we are going to look at insects in our environment.'*
- Ask the students to work in groups of four and write down the names of as many insects as they can think of in two minutes.
- Put groups together to share the insects they have listed. Ask the groups to feedback and write the list on the board in a random order.
- Ask: *'Do you like insects? Why? Why not?'*

Presentation (10 mins)

- Ask the students to open their Student books at Topic 3, Lesson 5 and look at the pictures in Activity 1.
- Ask the students to work in pairs and name each of the insects they can see. The words they need are in the box and may also be on the board. Add any new ones that are not listed on the board.
- Check their work and ask students to help each other if they are not sure of the names of some insects.

- Select a few insects and have a general discussion about them. Ask: *'Where does it live? What does it eat? What do you know about this insect?'* (This is to activate previous knowledge, accept any logical contributions.)
- Ask six students to come to the front and put them in two teams of three. Line the two teams up on each side of the class away from the board but where they can run to the board safely. Shout out an insect name written on the board and the first student in each team has to run to the board and slap the word.
- Do this with another two teams if it is successful and you have time.



Practice (10 mins) 

- Ask the students to look at Activity 2 in their Student books.
- Ask them to read the activity and note down any vocabulary they do not know.
- Put the students into pairs to share the unknown vocabulary. After a few minutes put two pairs together to share the vocabulary.
- Ask the students to put their hands up and ask you if there are any words they still do not know the meaning of.
- Once all the vocabulary has been explained ask the students to complete the sentences in Activity 2 and write them in their exercise books
- Monitor and check the activity, making sure that all students have the correct facts written down. Give them the answers if they cannot work them out together.

Consolidation/evaluation and assessment (5 mins) 

Ask the students to close their Student books and their exercise books. Divide the class up into groups of ten or less. They will play a game called 'I went to the forest and I saw…' In this game the first person says the sentence and puts the name of an insect at the end. The next person repeats the sentence including the first insect, adds *and a..*, then adds another insect. The third person repeats the sentence and adds another insect. That continues along the line. Each student has to remember the correct order of insects. If they don't they are out.

- Say: *'We are going to play '*I went to the forest and saw…*'* Demonstrate with a team of ten and then ask all the students to play in their groups.

Reflection 

- Ask:
  - *'Did you enjoy the game?'*
  - *'Did it help you to remember the insects?'*
  - *'Could you play this game with your friends with other English vocabulary?'*

Answers

Activity 1

a) mosquito **b)** centipede **c)** spider **d)** bedbug **e)** ant **f)** fly **g)** praying mantis **h)** ladybird **i)** dragonfly **j)** cricket k**)** butterfly **l)** grasshopper **m)** cockroach **n)** beetle **o)** scorpion

Activity 2

1. b **2.** a **3.** b **4.** a **5.** b **6.** b **7.** a **8.** b

Extension activity

- Ask the students to write the names of the insects in the picture in Activity 1 in alphabetical order to help remember the spellings.

Teacher's reflections

- Did this lesson keep the students interested and motivated? Did the games help? Do you think that you could apply these games to other classes? How?

Homework

- Ask the students to look for as many insects as they can find on their way home from school. They should list any insects they see, where they see them and what the insects were doing.

Lesson 6: Harmful insects

Vocabulary: Harmful; malaria; diarrhoea; typhoid; cholera; dengue; bite; sting; contaminate; spread; germ ; carry.

Structures: Which insects are harmful?; What effects are caused by mosquitoes/ flies/cockroaches; …are harmful because…; …can cause…, spread …

Lesson content objectives:

By the end of the lesson the students will be able to:

- identify harmful insects
- recognise useful insects
- list some of the effects caused by mosquitoes, flies and cockroaches
- suggest ways to keep harmful insects away.

Learning strategy: Listening for gist and specific information.

Introduction (5 mins)

- Say: '*Good morning/afternoon. How are you?'* Wait for the students to reply.
- *Say: 'Put your hands up if you like insects. Why do you like them?'* (Possible answers – Other animals eat them, some insects help us.)
- Say: *'Put your hands up if you don't like insects. Why not?'* (Possible answers – They bite and sting us, they give us diseases.)
- Write on the board: 'harmful insects' and 'useful insects'.
- Ask if anyone can name one useful insect and say why it is useful.
- Ask the students if anyone can name one harmful insect and say why it is harmful.

Presentation (10 mins)

- Ask the students to open their Student books at Topic 3, lesson 6 and look at Activity 1.
- Say: *'What insect is a?'* (Answer – A mosquito.)
- Ask: *'Are mosquitoes harmful? Why?'* (Answer – Yes, because when they bite us, they can spread malaria.)
- Ask: *'What insect is b?'* (Answer - A housefly.)
- Ask: *'Are flies harmful?'* (Answer – Yes, because they spread diseases like cholera and diarrhoea.)

- Continue through the other insects shown in the images.
- Ask the students if they know how exactly these insects spread diseases. They do not harm us directly by biting us, but carry germs which they spread by making contact with humans and leaving the germs behind.
- Say to the students: *'These insects are all found in our environment. How can we prevent insects harming us? Can we kill them all?'* (Answer – No.)
- Ask the students to look again at each of the harmful insects and say how we can keep them away from us.

Practice (10 mins)

- Read the text and ask the students to listen and tell you the three insects mentioned.

Some insects are harmful to humans. Mosquitoes spread malaria germs through biting and stinging. Houseflies carry germs which cause diarrhoea and eye disease through contamination. Cockroaches carry germs which cause diarrhoea and cholera through contamination of food and water. You must protect yourself against these harmful insects by keeping the environment clean.

- Ask the students to look at Activity 2 in their Student books. Go through each sentence one-by-one with the class and then ask them to try and complete the sentences orally. The activity is difficult because some of the diseases (dengue and typhoid) are not mentioned in the text. Get the students to tell you what they already know about these diseases, e.g. that dirty water is often a source of dengue – ask them which of the insect(s) live near dirty water.
- Read the text again to remind them.
- As the correct answers are offered, ask the students to write the sentences in their exercise books. Check they produce the correct plural forms –es/-ies.
- At the end, write all the correct sentences on the board so that the students can check their own work.

Consolidation/evaluation and assessment (5 mins)

- Ask the students to close their exercise books and their Student books.
- Ask the students if they can remember which insects the class has talked about today.
- Ask the students to name a *useful* insect.
- Ask the students to name three *harmful* insects and say why they are harmful.

Reflection

- Ask:
  - *'This lesson included a listening lesson. How did you find this?'*
  - *'Could you understand the text easily or did you find the questions very hard to answer?'*
  - *'Would listening to somebody in your family read English help you with your English?'*

Answers

Activity 1

a) mosquito b) housefly c) butterfly d) grasshopper e) cockroach

Harmful insects: mosquitoes, houseflies, cockroaches. Non-harmful: grasshoppers, butterflies

Presentation

Possible answers:

Mosquitoes: Cover our bodies, use mosquito nets and screens on our windows.

Houseflies: Do not leave our food around for them to land on. Keep the kitchen clean and the floor clean.

Cockroaches: Don't leave any food or rubbish on the floor or around the kitchen.

Activity 2

1. malaria … biting and stinging . **2.** diarrhoea and cholera **3.** Cockroaches and houseflies

4. mosquitoes **5.** Cockroaches and houseflies

Extension activity

- Ask the students to look at all the insects they saw in Lesson 5 and say which are harmful or not, and what harm they can cause.

Teacher's reflections

- How well did the students do with their listening task? Do you think some students found this easier than reading? Do you think it is a good idea to do listening activities again?

Homework

- Ask the students to speak to their families and ask about what they do at home to keep flies, mosquitoes and cockroaches away. They should note down the answers and share them with the class later.

Lesson 7: Common plants

Vocabulary: Plants; leaves; stem; roots, minerals; water; food; photosynthesis; absorb; cassava plant;

Structures: What... (plants are found here?), This is .., What are ...(the major parts of plant?); What are leaves/stem/roots for?; What do they/does it do? The… is/are located…; …are important because…

Lesson content objectives:

By the end of the lesson the students will be able to:

- list different plants found in the local environment
- describe parts of plants
- understand and express the functions of the three major parts of a plant.

Learning strategy: Peer correction.

Preparation: Bring a plant or a poster of a plant to the class.

Introduction (5 mins) 

- Say: *'Good morning/afternoon. How are you?'* Wait for the students to reply.
- Say: *'We are going to talk about plants found in and around our school.'*
- Ask the students to think of all the different plants they see in and around the school area and see if they can name them. (Possible answers – Mango tree, orange tree, cassava plant, grass, pawpaw, etc.)

Note: This may be difficult, depending on their previous knowledge of this vocabulary in English. They can give you the names in Kiswahili and you can translate.

- Ask: *'Why do we need plants in our environment?'* (Answers - To eat, to produce oxygen, to look nice).

Presentation (10 mins) 

- Say: '*Open your books at Topic 3, Lesson 7 and look at Activity 1.'* Hold up your Student book at the correct page and point to the activity.
- Ask: *'What are the main parts of the plant?'* (Answer – Roots, stem and leaves.)
- Ask students to quickly copy the outline of the plant into their exercise books and label the parts. Tell them they have three minutes to do this.

- Point to your real plant or the picture when checking that their answers are correct. Make sure the words are on the board for spelling.
- Ask: '*What are the roots for? What do they do?'* (Answer – They absorb water and minerals from the soil.)
- Ask: *'What are the leaves for? Why are they important?'* (Answer –they are where the plant makes food using sunlight through the process known as photosynthesis).
- Ask: *'What is the stem for? What does it do?'* (Answer – It transports water from the roots to the leaves and transports food from the leaves to other parts of the plant).

Practice (10 mins) 

- Say: '*Look at Activity 2.'* Ask students to copy and complete the sentences.
- Monitor and check the students. Be sure that all students have correct sentences in their exercise books for future reference.
- Ask students who finish early to check other students' work or help them to complete it.

Consolidation/evaluation and assessment (5 mins) 

- Ask the students: *'What do plants need to live?'* (Possible answer – Water, food, light, soil.)
- Ask: *'Which part of the plant uses light?'* (Answer – The leaves.)
- Ask: *'Which part of the plant absorbs water?'* (Answer – The roots.)
- Ask: *'Which part of the plant is between the roots and the leaves?'* (Answer – The stem.)
- Ask: *'Do you know how leaves make food?'* (Accept any attempts at describing photosynthesis.)
- Ask: *'Why are plants so important in our environment?'* (Answer – Because we eat them, animals eat them, and they give us oxygen.)

Reflection 

- Ask:
  - *'Did a classmate help you to complete your work?'*
  - *'Did a classmate correct your work? Did you correct a classmate's work?'*
  - *'Was this a useful exercise? Did you learn anything?'*

Answers 

Activity 1

a) leaves **b)** stem **c)** root

Activity 2

1. Plants have **three** major parts. These are the **roots**, **stem**, and **leaves**.
2. The **roots** are found in the soil. The **stem** and **leaves** are found above the **ground**.
3. The function of the **roots** is to absorb **water** and **minerals** from the soil.
4. The function of the **leaves** is to make **food**. This process is called **photosynthesis.**
5. The function of the **stem** is to transport **water** and **food.** Also, to store food materials.
6. **Maize plants, mango trees** and **cassava plants** are common plants found in our environment.

Extension activity 

- Write on the board:
  1. 'I am in the soil. Water and minerals go through me. What am I?' (Answer – Roots.)
  2. 'I am above the stem and I make food because of my colour. What am I?' (Answer – Leaves.)
  3. 'I am long and straight. I am a transport agent and storage unit. What am I?' (Answer – Stem.)

Teacher's reflections 

- Did this lesson cover enough content for the 35 minutes? Do you feel it should have covered more or less? What would you include or take out?

Homework 

- Ask the students to collect some plants from their home environment and bring them to school. They should try to find out their names in English.

Lesson 8: Types of plants

Vocabulary: Flowering plants; wood plants; food plants; grass; trunk; oxygen; respiration; wood; honey; anywhere; fruit; flowers; seat; vegetables; decoration

Structures: Can you imagine a world without plants?

Lesson content objectives:

By the end of the lesson the students will be able to:

- identify four major groups of plants
- explain the functions of each group.

Learning strategies: Poetry; writing questions for a quiz.

Introduction (5 mins)

- Say: '*Good morning/afternoon. How are you?*' Wait for the students to reply.
- Say: *'Let's see how many plants we can name.'* (Try to elicit about ten types of plant. They may have found these in their homework activity.)
- Say: '*Just like animals, plants can be divided into groups. Can you think what those groups might be?'*

  Note: This is a difficult question; allow some discussion and accept logical answers. For example: plants we can eat, plants that are poisonous, plants that have/do not have flowers.
- If you have time ask the students to form groups of three or four and go outside the classroom to look for different types of plants. (Possible answers – grass, flowering plant, mango tree, pawpaw tree, trees, food plants, etc.)

Presentation (10 mins)

- Say: '*Open your books at Topic 3 Lesson 8 and look at Activity 1.'* Hold up your Student book at the correct page.
- Ask students to name the plants, **a** to **d**.
- Ask: *'What are the characteristics of a wood plant? What can you notice?'* (Answer – The stem or trunk is thick.)
- Ask: *'How do you know which one is a flowering plant?'* (Answer – It has flowers.)
- Ask: *'How do you know if a plant is a food plant?'* (Answer – It grows something we can eat.)
- Ask: *'How can you identify grass?'* (Answer – It has many small, long, narrow leaves.)

- Ask: *'Do trees that are wood plants sometimes provide food? Which trees provide food?'* (Answer – Baobab, custard apple, hibiscus.)
- Ask: *'Does grass provide food to animals? Which animals eat grass?'* (Answer – Cows, donkeys, horses.)
- Ask: *'Do flowering plants sometimes provide food? Can you think of an example?'* (Answer – Cornflower, chicory, mustard.)
- Ask: *'Can food plants provide decoration and make our land beautiful? Can you think of an example?'* (Answer – Mamezi, mawezi, mamala, banana plants in the UK are used as garden decoration.)

Practice (10 mins) 

- Ask: *'Why are plants important in our world?'* Wait for at least three different answers. (Answers- They give us food, they give animals food, they give us oxygen, they give us paper, they provide homes for birds and insects.)
- Ask the students to look at Activity 2 in their Student books and copy the poem, filling in the words in the right places.
- Read the poem to the class. The students can check their answers from your reading. Allocate lines to groups of students and read the poem group after group. Ask if there are any volunteers who want to read the poem.

Consolidation/evaluation and assessment (5 mins) 

- Ask the students to close their Student books and their exercise books and look at you.
- Say: *'We are going to have a quiz. Please get into groups of five. In your group I want you to write three questions about this topic that I can ask in the quiz. You have three minutes.'*
- Collect in the questions and quickly organise them throwing out any duplicates. Say: *'Take out a piece of paper and in your groups answer these questions.'*
- Ask the questions giving each a number. When you have asked all the questions add one of your own.
- Review the answers and praise the winning group.

Reflection 

- Ask the students:

- *'Which activities have you enjoyed the most in this topic?'*
- *'Which activities have you learned the most from?'*

- Ask the students to think about their answers to these questions. Try to discuss what helps them to learn and whether this is linked to enjoying the topic and activities.

Answers

Activity 1

a. wood plant b. grass c. food plant d. flowering plant

Activity 2

Can you imagine a world without plants? No **fruit** or **vegetables** to eat.

Can you imagine a world without plants? No **wood** to make a **seat.**

Can you imagine a world without plants? No **flowers** for decoration**.**

Can you imagine a world without plants? No **oxygen** for respiration.

Can you imagine a world without plants? No **honey** made by a bee.

Can you imagine a world without plants? No life, **anywhere** to see**.**

Extension activity

- Ask students to write the names of three different plants.
- Next to each name they should write what kind of plant it is, and why it is important in our world.

Teacher's reflections

- How did the quiz activity go? Were the students motivated? Do you think that asking them to write the questions helped with motivation? Are there other times you can involve the students like this?

Homework

- Ask the students to try to write a few new lines for the poem and then bring them to the next lesson. Reading these out will be an excellent warmer for the next lesson.

Lesson 9: Plants for food

Vocabulary: Seeds; roots; flour; leaves; fruit; sugar; oil

Structures: What kind of food comes from…; Which of these foods…?; It comes from the… roots/flower/leaves/stem

Lesson content objectives:

By the end of the lesson the students will be able to:

- list kinds of food that plants produce
- state what part of the plant the food comes from, and other simple characteristics.

Learning strategies: Matching; peer marking.

Preparation: Prepare pieces of paper, each with one of the following foods written on it: potato, rice, apple, mango, cabbage, wheat, carrot, yam, sugar, beans.

Introduction (5 mins)

- Say: *'Good morning/afternoon. How are you?'* Wait for the students to reply.
- Ask one student: *'What have you eaten today?'*
- Ask: *'Did that food come from plants or animals or both?'*
- Ask the class: '*Who can name foods we eat that come from plants?'* (Answers – Try to get about ten examples.)

Presentation (10 mins)

- Write on the board: 'maize corn, nuts, flour, sugar, cassava, yams, potatoes, spinach, cabbage, carrots, beans'.
- Ask:
  1. '*Which of these foods comes from the roots of a plant?'* (Answer – Cassava, yams, potatoes, carrots.)
  2. *'What kind of food comes from the stem of a plant?'* (Answer – Sugar, sugar cane.)
  3. *'What kind of food comes from the leaves of a plant?'* (Answer – Spinach, cabbage.)
  4. *'What food comes from seeds of a plant?'* (Answer – Nuts, beans.)
- Say: '*Open your books at Topic 3, lesson 9 and look at Activity 1.'* Hold up your Student book at the correct page and point to the activity.

- Ask the students to look at the pictures and decide what they are. Then tell them to read the sentences and decide which of the pictures each is about.

Practice (10 mins) 

- Ask one student to come to the front. Give them a piece of paper with a food written on it.
- Ask questions to find out what the food is. For example: Is it sweet? Is it green? Does it come from the roots? Does it come from the leaves? Is it a fruit? Does it come from the stem?
- Ask another student to come to the front and give them a different piece of paper containing a food word. The rest of the class must ask questions until they guess what the food is.

Note: Tell the students when they are sure what the food is they must put their hands up. They must not name the food until they are sure. Otherwise the children will simply shout out food vocabulary.

Consolidation/evaluation and assessment (5 mins) 

- Ask the students to look at the instructions in Activity 2 of their Student book.
- They should complete the activity in pairs.

Note: This is a relatively 'unguided' activity and the students may need vocabulary that has not been seen in the lesson. Write all new words on the board for everyone to see.

- Monitor and help.

Reflection 

- Ask the students:
  - *'How did you find marking your partner's work?'*
  - *'Did you feel comfortable doing this?'*
  - *'What would have made it easier?'*

Lesson 10: Viruses

Vocabulary: Measles; rabies; diseases flu; illness; virus; serious; minor; infection; disease; infectious; spread; multiply; inject; eradicate; transmit; immune; immunisation; antibodies; vaccination; living cells; organism

Structures: Present simple; What is …?,This is…, What can ?,We can….; to prevent …; to prevent X …ing

Lesson content objectives:

By the end of the lesson the students will be able to:

- identify diseases that are caused by viruses
- explain how to prevent viral diseases.

Learning strategies: Predicting; matching.

Introduction (5 mins)

- Say: '*Good morning/afternoon. How are you?'* Wait for the students to reply.
- Write 'virus' on the board and ask: *'What is a virus?'* If the students respond with the name of a disease say: *'This is a disease caused by a virus, but what exactly is a virus?'* (Answer - A tiny infectious particle which multiplies only inside the living cells of animals and plants and causes disease.)
- Ask: *'Can anyone tell me the name of a disease caused by a virus?'* (Answer – Dengue fever, common cold, chicken pox, rabies, mumps, yellow fever, foot and mouth disease, influenza, , measles, Ebola, common cold, HIV/AIDS , polio) .

Note: Don't give them all of these diseases as the next activity asks for these.

- Write the diseases that are given on the board.

Presentation (10 mins)

- Say: '*We are going to talk about viruses in our environment.'*
- Ask the students to open their Student book at Topic 3, Lesson 10 and look at Activity 1.
- Tell the students they have five minutes to discuss the questions with their partner, and that at the end you will ask for an interesting contribution from each pair of students.
- Monitor the activity and help with vocabulary and ideas.

- Stop the activity and ask each pair to make a contribution to the class, trying not to repeat other pairs' contributions.
- Ask the students to write their answers in their exercise books.

Practice (5 mins) 

- Say: '*Look at Activity 2.*'
- Say: *'Read the passage and copy it into your exercise books with the correct words in the blanks.'*

Consolidation/evaluation and assessment (10 mins) 

- Ask the students to do Activity 3 in Lesson 10. The students should work in pairs to match the viral diseases with the ways to prevent them. Check their answers.
- Ask the pairs to write two example sentences in their exercise books using the verb 'prevent'. They should write one sentence about taking a positive action, and one about not doing something harmful.

Reflection 

- Ask the students:
  - *'Do you think we will ever stop viruses from existing?'*
  - *'Why/why not?'*

Answers 

Activity 1

1. Flu, measles, yellow fever, rabies, HIV/AIDs

2. Possible answers:

- take care of yourself
- avoid sharing personal items like razor blades and underwear
- live in a well-ventilated house
- make sure you keep everything clean
- avoid contact with blood and body fluids of infected people
- abstain from sex until marriage
- attend hospitals for regular check-ups
- have vaccinations for some viral diseases (but not all).

Activity 2

a) multiplies **b)** live **c)** transmitted **d)** cause **e)** measles

Activity 3

1. Washing your hands frequently. (c)
2. Destroying the habitat of all mosquitoes. (a)
3. Avoiding contact with wild animals such as monkeys and not touching any infected person. (d)
4. Avoiding contact with blood and body fluids and not sharing sharp objects. (b)

Extension activity

- Ask the pairs to put the four diseases in Activity 3 in 0rder, from the most common to the least common in Tanzania.
- Ask the students to make groups of four to discuss measures to be taken to eradicate HIV/AIDs in our community.

Teacher's reflections

- Did the students manage to match the viral disease with corresponding way to prevent it? How familiar are they with the diseases, and how can you keep reminding them to look after themselves?

Homework

- Ask the students to research the difference between a virus and bacteria.