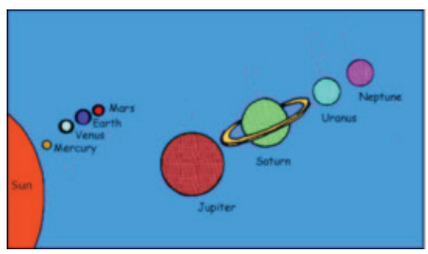
The solar system



Topic	By the end of the lesson the students will be able to:	Vocabulary	Structures	Learning strategies
1. The planets of the solar system	• list and spell the names of planets of the solar system • describe the positions and sizes of the planets in relation to the sun and each other.	Solar system; planet; Sun; Mercury; Venus; Earth; Mars; Jupiter; Saturn; Uranus; Neptune	Where is (planet)?; (Planet) is next to…; (Planet) is between… and…; The planets rotate around the Sun; (Planet) is nearest to/furthest from the Sun; Which planet is the biggest/smallest?; (Planet) is the smallest; (Planet) is the biggest; (Planet) is bigger than (planet).	• Mnemonics.
2. The movement of the Earth	• state the names of two types of movements of the Earth • describe the movements of the Earth • describe the effects of the movements of the Earth.	Movement; revolution/revolve around; rotation/rotate on; axis; orbit	The Earth rotates on its axis; The Earth rotates from West to East; The Earth revolves around the Sun.	• Kinaesthetic learning – pretending to be the object and moving around.
3. Solar energy	• explain why the sun is important to us • list the uses of solar energy in Tanzania • explain how energy from the Sun is converted to electricity.	Energy; solar; heat; light; source; sun; solar panel; PV panel; charge controller; rechargeable battery; household appliances	Solar energy is useful for…; We use solar energy to/for…	• Think, pair, share.
4. Planet Earth and the Moon	• explain how the Moon orbits the Earth • explain the phases of the Moon.	Earth; moon; sun; stars; day; night; travel; orbit; satellite; reflect; new moon; full moon; waxing; waning	What does number… show?; Which number shows…	• Practising questions and answers with a partner.

5. People and places on the Earth	• name the major land masses of the Earth – the continents • name some countries which make up each continent • describe the nationality of the people living in those countries.	Continent; country; land mass; southern/northern hemisphere; race; inhabitant; nationality; country; Asia; Africa; North America; South America; Antarctica; Europe; Australasia Nationalities with common word endings 'an'; 'ish'; 'ese'	I am ……; He/ she / it is …; We / you / they are …; This is…; It represents …	• Matching and grouping • Self-correction.
6. Water for life on Earth	• express the importance of water for Tanzania • list uses of water in all aspects of life in Tanzania.	Irrigation; canal; river; tap; well; transportation; production; crops; agriculture	Water is used for…; Water is essential for…; Water is important for…	• Substitution tables.
7. Weather	• state the weather conditions of the day • guess the weather conditions in other parts of the world.	Weather; wind; temperature; pressure; humidity; clouds; precipitation; hot; rainy; sunny; windy; cloudy; stormy; raining; snowing; cold; wet; dry	It is (It's)…	• Repetition to concentrate on the correct pronunciation.
8. Weather forecasting	• define weather forecasting • name equipment used for weather forecasting.	Weather; forecast; predict; sunny; windy; cloudy; stormy; raining; snowing; cold; wet; dry, rain gauge; pressure; thermometer; manometer; speed; barometer; windsock; direction; temperature;	I think it will be…; It will be…; What will the weather be like tomorrow?	• Substitution tables.
9. Our climate	• define climate and describe the climate in Tanzania • discuss the causes of climate change.	Rainfall; temperature; average; Celsius; weather; climate; millimeters; hot; cool; wet	…is hotter/ cooler/wetter/ drier in… than in…; Because of…; As a result of…; As a consequence of…	• Inductive learning.
10. Conserving our environment	• explain the meaning of environment and conservation • state the dangers to the environment • state what can be done to conserve the environment.	Environment; degradation; conservation/ conserve; bush fires; the environment; deforestation; pollution; recycle; poach; protect; overgraze; factory; cut down; waste; cattle; plant	We should (not)…; We must (not)…; We ought (not) to…; To prevent… we must…; If we…, we will…; …is harming the environment by/through…	• Spider diagrams • Using full sentences.

Lesson 1: The planets of the solar system

Vocabulary: Solar system; planet; Sun; Mercury; Venus; Earth; Mars; Jupiter; Saturn; Uranus; Neptune

Structures: Where is (planet)?; (Planet) is next to…; (Planet) is between… and…; The planets rotate around the Sun; (Planet) is nearest to/furthest from the Sun; Which planet is the biggest/smallest?; (Planet) is the smallest; (Planet) is the biggest; (Planet) is bigger than (planet).

Lesson content objectives:

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

- list and spell the names of planets of the solar system
- describe the positions and sizes of the planets in relation to the Sun and each other.

Learning strategy: Mnemonics.

Preparation: Make word cards of the names of the planets and the word 'Sun'.

Introduction (5 mins) 

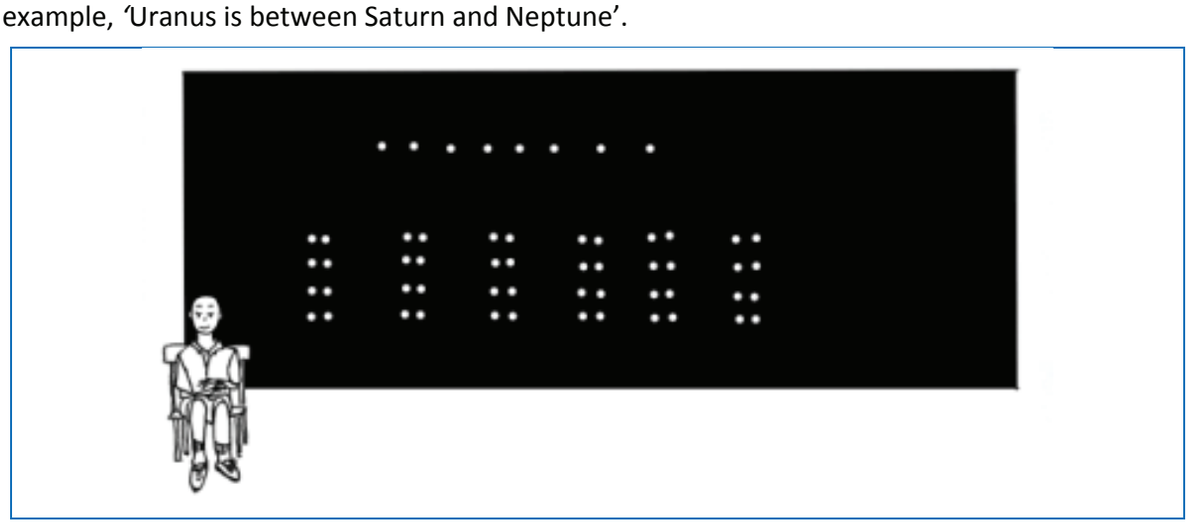
- Say: '*Good morning/afternoon. How are you?*' Wait for the students to reply.
- Draw a picture of the Sun on the left hand side of the board. Ask the students what it is.
- Say: *'What is the solar system?'* Wait to see if the students can name any of the planets. If they cannot, hold up a word card or draw one on the board.
- See if they can name any others. Hold the word card up each time they name a planet.
- Give the names of any of the planets they have not been able to tell you.
- Hold up each of the word cards, say the names and the students repeat the planet names after you.

Presentation (10 mins) 

- Say: *'The Sun is a star and the centre of our solar system.'* Give the 'Sun' word card to a student and tell them to come to the front of the class. Students repeat the sentence.

Note: It is very important to use a lot of hand gestures in this lesson to indicate the position and movement words for the planets. For example, between, next to and rotate.

- Give another student the 'Earth' word card and say: *'Earth is a planet. The planets rotate around the Sun.'* Show the student how to walk around the 'Sun'. The other students repeat the sentence.
- Ask: *'Which planets are between Earth and the Sun?'* Wait for the students to say either Mercury or Venus or both and give the word cards for each planet to students and ask them to stand in their place in line at the front of the class. Say: *'Mercury is between the Sun and Venus'* and as you say it make sure you are showing with gestures what this means. The students repeat the sentence. Say: *'Venus is between Mercury and Earth'* and show with gestures what you mean. The students repeat after you.
- Do this with all of the planets placing them in order and asking where they are in the solar system. Use the target language to explain.
- Make sure that the students who are acting as planets are showing their words to the rest of the class. As they stand in the line in the correct order ask them to say the name of their planet in order. The other students repeat the names.
- Take in the planet word cards and give them to nine more students. Ask them to arrange themselves in the correct order again. Give the students help and encouragement. If the planets are in the wrong place then the students should use the target language to help. For example, 'Uranus is between Saturn and Neptune'.



Practice (5 mins)

- Say: '*Open your Book at Topic 4, Lesson 1 and look at Activity 1'*. Hold up your Student book at the correct page and point to the activity. Ask: '*Which topic, lesson and activity do you need?'* Wait for the students to reply.

- Put the students into pairs. The students take turns asking about the positions of the planets and how to spell them. For example, 'How do you spell Uranus? Where is it?'
- While they are doing this, draw the solar system on the board (try to be accurate with sizes). For feedback, ask the students to name and spell each planet as you write it on the board.
- Ask: *'Which planet is the biggest/smallest? Which planets are bigger than (planet)?'* Make sure that the students answer in full sentences.
- Give the word cards out one more time and ask the students to line up in order of size. (Answer: Jupiter (largest), Saturn, Uranus, Neptune, Earth, Venus, Mars, Mercury.) When correcting use the target language to help, for example, 'Is (planet) bigger than (planet)?'

Consolidation/evaluation and assessment (10 mins)

- Say: '*Look at Activity 2'*.
- Say: *'Read the sentences and then complete the gaps with your partner. Then write some sentences of your own.'*
- When they have finished ask them to swap with another pair and check their work.
- If you have time read out some examples.

Reflection

- Ask the students if they have any easy ways that they can remember the names of the planets and their order. Some students may have interesting ways of remembering such as memorising the first letters in order or having a mnemonic in their own language.
- Discuss this with the students and ask them to investigate the different ideas in the homework task.

Answers

Activity 1

Introduction

Size of the planets – Mercury, Mars, Venus, Earth, Neptune, Uranus, Saturn, Jupiter (largest).

Distance from the Sun – Mercury, Venus, Earth, Mars, Jupiter, Saturn, Uranus, Neptune (farthest).

Activity 2

These are examples: (Other answers are possible depending on which planets they are comparing.)

Mercury is next to Venus; Earth is next to Mars; Saturn is next to Jupiter and Uranus.

Uranus is bigger than (Mercury/Venus/Earth/Mars and Neptune but smaller than Saturn/ Jupiter.)

Neptune is furthest from the Sun. Mercury is nearest to the Sun. Mercury is furthest from Saturn.

Mercury is the smallest planet. Jupiter is the biggest planet.

Extension activity 

- The students can draw the planets in order in their exercise books ready for the homework activity.

Teacher's reflections 

- This lesson involves a lot of moving around and asking students to work in different groups. How did you manage this? Were you successful or do you think that you could have done better? How might you do it differently next time?

Homework 

- Ask the students to learn the names, spellings and order of the planets from the Sun. They must learn it in the best way for them but if they can, they should try using the different ways that have been discussed in the lesson.
- This can be followed up in the next lesson with a discussion on how they learned the planets and what worked best.

Lesson 2: The movement of the Earth

Vocabulary: Movement; revolution/revolve around; rotation/rotate on; axis; orbit

Structures: The Earth rotates on its axis; The Earth rotates from west to east; The Earth revolves round the Sun.

Lesson content objectives:

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

- state the names of two types of movements of the Earth
- describe the movements of the Earth
- describe the effects of the movements of the Earth.

Learning strategy: Kinaesthetic learning – pretending to be the object and moving around.

Preparation: Make word cards for *Sun*, *Africa* and the names of all the planets of the solar system. Bring a globe if you can find one.

Introduction (5 mins)

- Say: '*Good morning/afternoon. How are you?*' Wait for the students to reply.
- Ask: '*Who can name the planets you learned in the last lesson*?' Wait for an answer.
- Give out the word cards and ask the students to line up in order of distance from the Sun and then size.
- Ask if they know any more about Earth and how it moves. Allow any discussion there might be and help with any language. The students will know the concepts but may not be able to express them in English.

Note: It is very important to use a lot of hand gestures in this lesson to indicate the position and movement words for the planets. For example: between, next to and rotate.

Presentation (10 mins)

- Take the globe and show the students the earth movement on its axis.
- Say: *'This is a globe.'* Hold the globe up for the class to see. The students repeat 'globe'. Write the word 'globe' on the board.

- Say: *'The Earth has two movements. The Earth rotates around its axis.'* Demonstrate with the globe how the Earth rotates on a tilt. If you do not have a globe use a ball or any round object.
- Say: *'The Earth has a tilted axis. You cannot see the axis.'* Demonstrate where the axis would be if you could see it.
- Say: *'The Earth takes 24 hours to rotate on its axis.'* Give a student the globe and ask them to keep rotating it. Ask a student to come to the front and give them the Sun word card. They stand near the globe. You guide the globe around the Sun in orbit. Write 24 hours on the board.
- *Say: 'The Earth revolves around the Sun. It is in orbit around the Sun. It takes 365 ¼ days to revolve around the Sun.'* Write 365 ¼ on the board.
- Keep the students at the front and ask concept checking questions:
  - *'What is this?'* Hold up the globe. (Answer – A globe.)
  - *'What planet is it?'* (Answer – The Earth.)
  - *'How does the Earth move?'* (Answer – It rotates around its axis.)
  - *'How long does this take?'* (Answer – 24 hours.)
  - *'How does the Earth move around the Sun?'* (Answer – It revolves around/orbits the Sun.)
  - *'How long does this take?'* (Answer – 365 ¼ days.)
- Get two new students to come to the front of the class. Tell one that they are the Sun and one that they are the Earth. Ask the Earth to hold the Africa word card in front of them and the Sun to put their arms out in front of them. Tell the class that the arms of the Sun are the sun rays of light and heat.
- Ask the Earth to turn around slowly holding the Africa card in front of them. Stop them when their back is to the Sun and ask: '*What happens in Africa when the Earth is here?*' (Answer - It is night time.) Turn the Earth towards the Sun and ask: *'What happens in Africa when the Earth is here?'* (Answer - it is day time.)
- Say: *'The Earth rotating on its axis causes day and night.'* Ask the students to repeat this. Write it on the board.
- Ask for two new volunteers for the Sun and Earth. Give the Earth the globe (holding it at a tilt) and the Sun stands in the middle. Ask the Earth to rotate and revolve at the same time keeping the tilt. Show the students how the Earth's tilt causes the four seasons of the year (autumn, summer, winter, spring). Say: *'The tilt of the Earth and the orbit around the Sun causes the seasons of spring, summer, autumn and winter.'* The students repeat the sentence after you.

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.

Practice (5 mins)

- Say: *'Open your Student book at Topic 4, Lesson 2 and look at Activity 1.'*
- In pairs, the students look at the diagram of the Earth orbiting the Sun. They complete the labels (a to e).
- When most pairs have completed the task, feedback with the answers. Ensure you are keeping a list of the vocabulary on the board.

Consolidation/evaluation and assessment (10 mins)

- Say: *'Look at Activity 2.'*
- In small groups the students complete the text by filling in the gaps.
- To feedback and discuss the answers it is best to read out the completed text pausing before each gap to allow the students time to give the answer first.

Reflection

- Ask the students whether it helped to see the other students pretending to be the Earth and the Sun. Why did this help you to learn?
- Discuss this with the students that took part in the activity and whether being involved helped them to learn.

Answers

Activity 1

a) axis

b) orbit

c) Sun

d) Earth

e) rotation

Activity 2

The two movements the Earth makes are the revolution around the **(d)** ____Sun_____ and rotation on its own **(c)** ___axis. It takes _____ 365 $^{1}/_{4}$ __ days to revolve/ **(e)** ___orbit___ around the **(d)** ____Sun____ and __24_____ hours to rotate on its **(c)** ___axis__. When facing the Sun it is **(a)** ___day_____ and when away from the Sun it is **(b)** ___night_____. The tilt of the Earth causes the four ___seasons_____ of the year

Note: The students have not been given information about the seasons but they should try to deduce this answer.

Extension activity

- Play a 'run to the board and touch' game with the class using all of the vocabulary from Lessons 1 and 2 in this topic.
- Divide the class into three or four teams and line them up at the back of the room away from the board. Write all of the vocabulary words in a random order all over the board. Give the definition of the word and say: '*Go!*' The first person in each team runs to the board to touch the word first. If they get it correct they get a point for their team.

Teacher's reflections

- Did the rotation activity involving movement help any of the students to understand the vocabulary and concepts more easily? How might you transfer this to aid learning other vocabulary and concepts?

Lesson 3: Solar energy

Vocabulary: Energy; solar; heat; light; source; sun; solar panel; PV panel; charge controller; rechargeable battery; household appliances

Structures: Solar energy is useful for…; We use solar energy to/for…

Lesson content objectives:

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

- explain why the Sun is important to us
- list the uses of solar energy in Tanzania
- explain how energy from the Sun is converted to electricity.

Learning strategy: Think, pair, share.

Introduction (5 mins)

- Say: '*Good morning/afternoon. How are you?*' Wait for the students to reply.
- Draw a simple picture of the Sun with rays coming from it on the board. Ask: *'What is this and why is it important?'* (Answer – The Sun which gives us heat and light energy – explain that this is solar energy that helps us to live.)
- Say: *'The Sun is an important source of energy*.' Ask the students to repeat it.
- Write 'heat', 'light' and 'solar energy' on the board, point to them and ask students to read each out loud.

Presentation (5 mins)

- Say: *'What can we do with the energy from the sun?'* Wait for the participants to reply.
- Write any answers on the board that the students give. (Answers could include – cooking, heating, lighting, making electricity, drying crops and clothes.) Only write what the students tell you and don't tell them whether their answers are correct or not.
- Put the students into groups of four.
- Say: *'Open your book at Topic 4, Lesson 3 and look at Activity 1'*. Hold up your Student book at the correct page and point to the activity. Ask: *''Which topic, lesson and activity do you need?'* Wait for the students to reply.

- Tell the students that the pictures are of uses of solar energy. Ask them to decide what each picture is. Give them five minutes to make a list.
- Work through the answers for a to f and give each group a point for each one they got correct. Make sure that the groups are using the target language and whole sentences.
- For a bonus point ask:
  - *'What is the other name for a solar panel?'* (Answer – PV panels or photovoltaic.)
  - *'How does a solar panel work at night when there is no sun?'* (Answer – Uses electricity it made during the day and stored in the battery.)

Practice (10 mins)

- Put the students in pairs.
- Say: *'Look at Activity 2. This is a diagram showing how solar energy is converted into electricity.'*
- Ask for a volunteer to read each of the sentences. Allow other students to help. Correct pronunciation.
- Tell the students to sort the sentences to match the stages on the diagram.
- Monitor and help.
- When they have finished tell them to listen to you read the text while they correct their answers together. Read the text. Check the answers.

Solar Energy

The sun is a very important source of energy. It gives us heat and light energy which is also called solar energy. We can change this energy into electrical energy using a solar panel. These are also called PV panels. 'P' is for *photo* (which means light) and 'V' is for *voltaic* (which means electricity).

The sun's rays hit the solar panel and heat it up. This heat energy is changed into electrical energy and flows through the charge controller which controls the amount of electricity stored in the rechargeable battery and the amount that flows to the household appliances such as TVs, lights and radios.

Consolidation/evaluation and assessment (10 mins)

- Say: *'Look at Activity 3. Work alone for four minutes to think about the text and the gaps in the text. Do not speak to others, think alone.'*
- Give the students at least four minutes reading without talking and then say: *'Now find a partner and discuss the text and your answers.'*
- Give the pairs time to discuss what they had thought about the text and decide on what should go in the gaps and then say: *'Find another pair and make final decisions about what should go into the gaps.'*
- Ask the groups to complete the gaps in the text as they are copying the text into their exercise books. Feedback.

Reflection

- Ask:
  - *'How was the 'think, pair, share' activity in Activity 3?'*
  - *'Did you manage to get the answers without the help of the teacher?'*
  - *'Did you like this activity?'*
  - *'How important is electricity in your lives and what would life be like without it?.'*

Answers

Activity 1

a) Solar cooker for cooking

b) Drying crops, fruit, vegetables

c) Drying clothes

d) Solar (PV) panel for making electricity

e) Solar water heater for heating water

f) Solar traffic lights

Activity 2

b	This heat energy is changed to electrical energy and flows through the charge controller.
d	This is then used when needed for household appliances such as TVs, lights and radios.
a	Rays from the sun are absorbed by the PV panel.
c	This controls the amount of electricity stored in the rechargeable battery.

Activity 3

The sun is a very important source of **energy**. It gives us heat and light energy which is also called **solar** energy. We can change this energy into electrical energy using a solar **panel**. These are also called **PV** panels. P is for photo (which means **light**) and V is for voltaic (which means **electricity**). The Sun's **rays** hit the solar panel and heat it up. This heat energy is changed into electrical energy and flows through the charge **controller** which controls the amount of electricity stored in the rechargeable **battery** and the amount that flows to the household appliances such as **TVs**, lights and radios.

Extension activity

- Ask the students to work in pairs and list any solar powered items they have at home and make notes on how solar power has improved their lives.

Teacher's reflections

- Is this your subject area? If not are you finding teaching a different area good for your teaching in general? Is it making you think in different ways? Is it helping you to improve your English?

Lesson 4: Planet Earth and the Moon

Vocabulary: Earth; moon; sun; stars; day; night; travel; orbit; satellite; reflect; new moon; full moon; waxing; waning

Structures: What does number… show?; Which number shows…

Lesson content objectives:

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

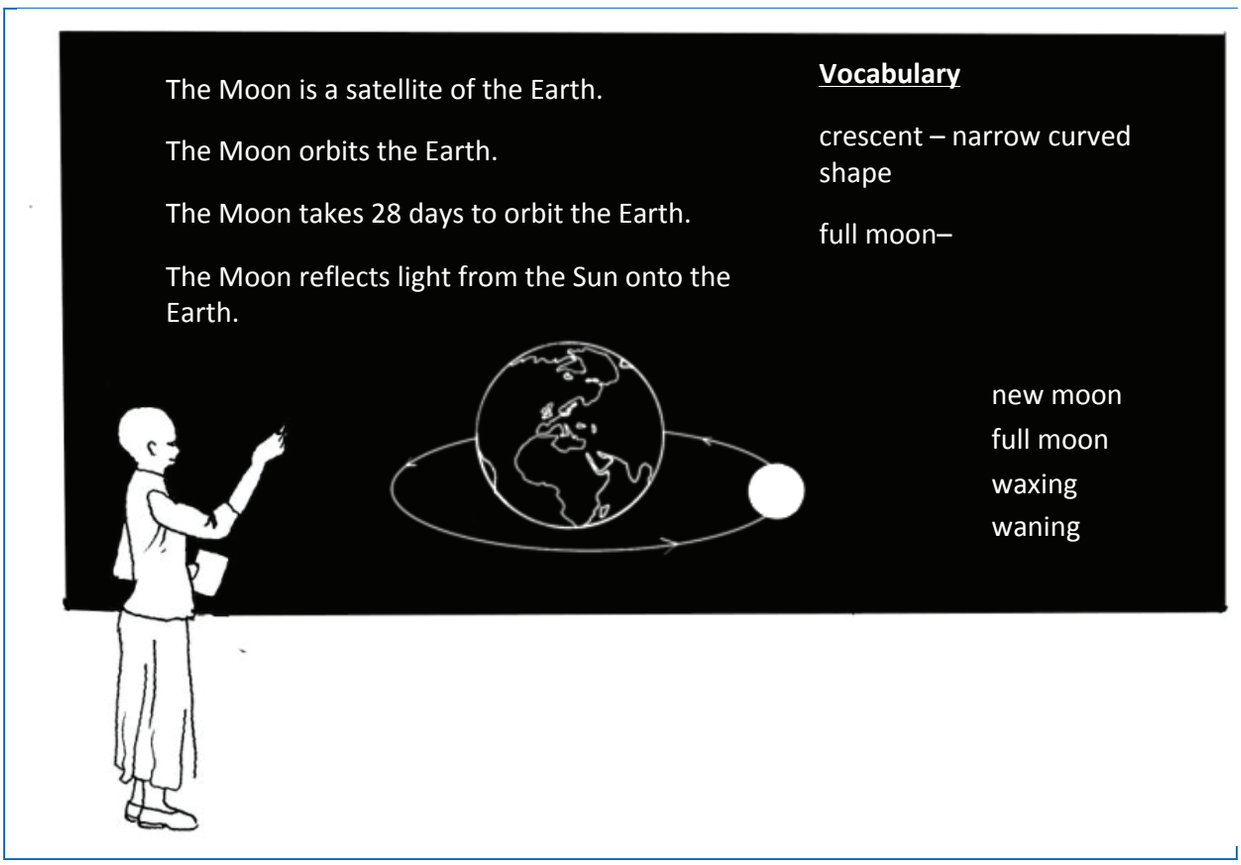
- explain how the Moon orbits the Earth
- explain the phases of the Moon.

Learning strategy: Practising questions and answers with a partner.

Introduction (5 mins)

- Say: '*Good morning/afternoon. How are you?*' Wait for the students to reply.
- Copy the picture of the Earth and the Moon, as seen on the board plan below, onto the board.
- Ask: '*What is this?*' (Answer – Earth, planet Earth, a planet.)
- Write Earth on the board and ask: '*What is the nearest large object to Earth?*' (Answer – the Moon)
- Say: *'The Moon is a natural satellite of the Earth. It orbits the Earth. It takes 28 days to orbit the Earth.'* Draw and write in these facts on the board.
- After you write the facts on the board, ask the students to repeat each sentence.

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.



Presentation (10 mins)

- Ask the students to take one minute to draw the Moon in their exercise books. Some will draw it as a circle and others will draw it as a crescent it is fine to draw it any way.
- Ask: *'What's the shape of the moon?'* (Answer – Circular, round, crescent, we see its different shapes at different times.) Write any new words on the board in the top right hand corner.
- Say: '*Open your book at Topic 4, Lesson 4 and look at Activity 1*.' Hold up your Student book at the correct page and point to the activity.
- Ask: *'What is happening to the Moon in these pictures?'* (Answer – They are likely to say that it is getting bigger and smaller or similar. The answer is that we can see more of it or less of it. The whole of the Moon is always there.)
- Say: '*When the Moon is getting bigger we say it is waxing.'* The students repeat this and you write it on the board.
- Say: *'When the Moon is getting smaller it is waning.'* The students repeat this and you write it on the board.
- Say: *'When you can see all of the Moon we say it is a full moon.'* The students repeat this and you write it on the board.

- Say: *'When you cannot see the Moon we say it is a new moon.'* The students repeat this and you write it on the board.
- Ask for the number on the diagram that shows the new moon, full moon, waxing and waning.

Practice (5 mins)

- Put the students in pairs and ask them to read the questions below the picture in Activity 1.
- Ask for volunteers to read out the questions.
- Bring two more volunteers to the front and indicate to one to ask the question. Help the second to answer the question. Then change roles.
- Ask the pairs to ask each other questions about the picture.
- Monitor and help any students that need help.

Consolidation/evaluation and assessment (10 mins)

- Say: *'Look at Activity 2.'* Hold up your Student book at the correct page and point to the activity.
- Say: *'Discuss the sentences and then complete them with your partner.'*
- Monitor the students as they work.
- Feedback by reading the text and pausing at the gaps for students to give you the answers.

Reflection

- Ask the students:
  - *'How much of the lesson could you understand and how much did you guess?'*
  - *'Are you getting better at guessing the meaning of words from the topic?'*
- Ask the students who say yes to that question, to share any strategies with the rest of the class.

Answers

Activity 1

1. New moon

2. Full moon

3. Waxing

4. Waning

Activity 2

The Moon is a **satellite** of the Earth.

The Moon **orbits** the Earth once every **28** days.

The Moon does not give out light. It **reflects** light from the Sun.

We see the part of the Moon that is lit by the **Sun**.

Sometimes we see the **whole** of the Moon and sometimes we don't see it at all. These are called the **full moon** and the **new moon**.

When the Moon is getting bigger we say that it is **waxing**.

When the Moon is getting smaller we say that it is **waning**.

Extension activity 

- The students can draw the phases of the Moon in their books and label the diagram with the correct terminology.

Teacher's reflections 

- There was quite a lot to put on the board in this lesson. How did you manage? Was there anything that you could have done better with your board work?

Possible homework task 

- Ask the students to look at the sky for the next five nights and to sketch the shape of the Moon each night. Discuss what they find in class before the end of this topic.

Lesson 5: People and places on the Earth

Vocabulary: Continent; country; land mass; southern/northern hemisphere; race; inhabitant; nationality; country; Asia; Africa; North America; South America; Antarctica; Europe; Australasia
Nationalities with common word endings 'an'; 'ish'; 'ese' such as: Brazilian, American, Tanzanian, Vietnamese, Chinese, English, Irish, Scottish
Structures: I am…; He/she/it is…; We/you/they are…; This is…; It represents…

Lesson content objectives:

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

- name the major land masses of the Earth – the continents
- name some countries which make up each continent
- describe the nationality of the people living in those countries.

Learning strategies: Matching and grouping; self-correction.

Preparation: Make word cards for each continent. You will need sheets of A4 paper. Make sure you are familiar with names of countries and nationalities.

Introduction (5 mins)

- Say: *'Good morning/afternoon. How are you?'* Wait for the students to reply.
- Ask: *'Where do you think I come from…?'* The students will begin to guess the town or city.
- If they guess correctly say: *'Good, yes, I come from... Where is that?'* Alternately if they don't answer correctly then say: *'I'm from...'* (Answer –'Tanzania.')
- Ask: '*Where is Tanzania*?' (Answer – In Africa.) Say: *'I am from... which is in Tanzania, which is in Africa. I am African.'*
- Say: *'Where are you from?'* and give the students time to think about this. It is likely that many are from the same town.
- Put the students in pairs and get them to ask each other the question and answer the question. While they are doing this draw an outline of the world continents on the board. (As seen on the board plan below, but without the answers.)

Presentation (10 mins) 

- Ask the students to look at your map of the world and ask: *'Where do we live?'* Ask for one volunteer to come to the front and point.
- Say: *'These are continents. Continents are the large land masses of the Earth. Can you name the continents?'* (Answers – a) North America b) South America c) Europe d) Africa e) Asia f) Australasia g) Antarctica.) Ask for volunteers to come and point to each of the continents on the board.
- Ask for seven volunteers to come to the front and give each one of them a continent card. Ask them to say the name of their continent.
- Say: *'Line up in order of the size of your continent. The biggest continent can stand here.'* (Answer – Asia, Africa, North America, South America, Antarctica, Europe, Australasia). When they have lined up ask them to call out their continent name. If they are not correct ask them to try again.
- Ask: *'What countries are part of each continent? What countries are part of Africa?*' As students call out countries you can write them on a piece of A4 paper. You don't need to write all of the countries just a few of them. Do this for all of the continents.
- Give out the continent and the country word cards to as many students as possible. Ask the students that have a country card to find their matching continent card.
- Review each of the groups and the students check that everyone is in the correct group.

Practice (5mins) 

- Still in their groups ask each country card to say where they come from. Give an example such as: 'I am from England which is in Europe. I am English.' The students self-correct in their groups.
- Choose one or two from each group to say their sentences to the whole class.
- Point out the different endings of the nationalities. Copy the table onto the board without the answers and ask each country what the nationality of its people is. Be prepared to tell them if this is correct or incorrect.

'ese'	'an'	'ish'
e.g. Chinese Japanese Nepalese Burmese	e.g. Zambian American Colombian Russian	e.g. English Finish Turkish

- Divide students into pairs, *Say: 'Open your book at Topic 4, Lesson 5 and look at Activity 1.'* Hold up your Student's book at the correct page and point to the activity.
- Say: *'Ask each other about the continents. How do you ask the question?'* Wait for the students to offer answers. (Answer – Which continent is…?)
- In pairs the students ask and answer the questions.

Consolidation/evaluation and assessment (10 mins)

- Say: *'Look at Activity 2.'* Hold up your Student book at the correct page and point to the activity.
- Ask the students the questions orally to get a feel for how they understood the vocabulary.
- If they need further practice move onto Activity 3, which they can discuss first and then write in their exercise book.

Reflection

- Say: *'Did putting the endings of the nationalities help to remember them better or help you to decide which one sounded correct? Beware though because there are always exceptions to the rule.'*

Answers

Activity 1

Possible answers are:

Australasia – Australia, New Guinea, New Zealand

Antarctica – Antarctica

Asia – China, India, Japan, Malaysia, Saudi Arabia

South America – Argentina, Brazil, Colombia, Bolivia, Uruguay

North America – United States of America, Mexico, Canada

Africa – Tanzania, Rwanda, Kenya, Uganda, Nigeria, Chad

Europe – United Kingdom, France, Germany, Russia, Norway, Finland, Turkey

Activity 2

1. Asia

2. Australasia

3. Asia

4. South America

5. Canadian

6. Spanish

Activity 3

2. This is the American flag. It is red, white and blue. It represents The United States of America and the American people.

3. This is the Brazilian flag. It is yellow, green and blue. It represents Brazil and the Brazilian people.

4. This is the English flag. It is red and white. It represents England and the English people.

5. This is the Australian flag. It is red, white and blue. It represents Australia and the Australian people.

6. This is the Chinese flag. It is red and yellow. It represents The People's Republic of China and the Chinese people.

Extension activity (5 mins)

- Ask the students if they are proud of their country? Have a short discussion about why they are proud to be Tanzanian.

Teacher's reflections

- Did you manage to learn most of the countries and nationalities in English?
- Did you get caught by a country that you did not know? Was this an easy thing to learn or too much? Why?

Lesson 6: Water for life on Earth

Vocabulary: Irrigation; canal; river; tap; well; transportation; production; crops; agriculture

Structures: Water is used for…; Water is essential for…; Water is important for…

Lesson content objectives:

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

- express the importance of water for Tanzania
- list uses of water in all aspects of life in Tanzania.

Learning strategy: Substitution tables.

Preparation: You will need sheets of A4 paper.

Introduction (5 mins)

- Say: '*Good morning/afternoon. How are you?*' Wait for the students to reply.
- Ask the students to open their books at Topic 4, Lesson 6. Point to the pictures and say: *'What are these pictures of?'* (Answer – a) watering can, b) tap c) river d) canal.)
- Ask the students what the link between the four pictures is. (Answer – Water.)
- Ask: '*Why is water important to us?'.* This should start up a discussion. Try to cover lots of general aspects of water on an introductory level. Do not take the conversation into details.

Presentation (10 mins)

- Copy the substitution table onto the board. Do not put the final (shaded) column in at this stage but leave space for it. Ask the question: *'What is water used for?'*

		irrigation			This means…
	is used for	growing crops		agriculture.	Therefore…
Water	is important for	drinking	in	home.	Consequently…
	is essential for	washing	at	the fields.	Hence…
		transporting crops		industry.	As a result…
		producing goods			This is because…

- Point to the table and choose students to answer the question using the substitution table.
- Once they have said as many sentences as they can, put the students into groups of four or five. Give each group one of the sentences and write in the final shaded column.

- Ask the students to develop their information further using one of the phrases from the shaded box.

Practice (10 mins)

- Say*: 'Look at Activity 2.'*
- Ask the students to listen and complete the gaps in the activity.

Water

Water is very important in Tanzania. Taking care of water is a top priority as water is often scarce and drought happens often. Water is needed everywhere in our lives.

Agriculture is the main source of jobs and income. It is also the main export of the country. It is essential for our crops that we have rain and when we don't have rain we need the little water we have to reach the crops. We need good sustainable irrigation systems linked to rivers and canals. The canals are used to transport goods and crops to places they are needed.

Clean water from the wells is essential for health and well-being. Many homes do not have running water, consequently water needs to be collected from the wells. This water is often also used for watering crops by hand using watering cans.

During the dry season farmers rely on the wells, and all year round families rely on the wells for drinking and washing.70% of the people in Tanzania are involved in agriculture in some way. Without water these people would not have work. We need to find ways to protect the water sources for the future development of Tanzania.

- Put the students into pairs to check their answers.

Consolidation/evaluation and assessment (5 mins)

- Divide students into pairs. Say*: 'Look at Activity 3.'*
- Ask the students to read the text again with the completed gaps and answer the questions.
- Put two pairs together to check the answers.
- Monitor, and when most of the students have finished, feedback the answers with the whole class.

Reflection

- In pairs the students list all the ways they use water in their life.

Answers

Activity 1

Watering can, tap, river, canal

Activity 2

a) Tanzania	**b)** often	**c)** water
d) rivers	**e)** crops	**f)** wells
g) homes	**h)** watering	**i)** farmers
j) families	**k)** work	**l)** people
m) water	**n)** Tanzania	

Activity 3

1. Taking care of water is very important as there is often drought and water is essential in many areas of life and work in Tanzania.

2. Water is needed for the crops to grow. Sometimes it is used to transport the crops.

3. The rivers are used to transport the crops and for irrigation of the fields.

4. Well water is mainly used for drinking and washing but sometimes it is used for watering small patches of land.

5. 70 % of the working people of Tanzania work in the agricultural industries.

Extension activity

- Ask students to design a system for moving water from one place to another.

Teacher's reflections

- How well did the substitution table work? Could you make a better substitution table for this lesson? Could you make a substitution table for revision in the next lesson?

Lesson 7: Weather

Vocabulary: Weather; wind; temperature; pressure; humidity; clouds; precipitation; hot; rainy; sunny; windy; cloudy; stormy; raining; snowing; cold; wet; dry

Structures: It is (It's)…

Lesson content objectives:

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

- state the weather conditions of the day
- guess the weather conditions in other parts of the world.

Learning strategy: Repetition to concentrate on the correct pronunciation.

Preparation: Cut out playing card size pieces of paper. You will need seven pieces per student.

Introduction (10 mins)

- Ask the students to look out of the window and tell you what the weather is like. Say: *'What's the weather like today?'* (Answer – It's sunny, hot or raining.)
- Write 'weather' on the board.
- Write the answers on the board in the top right hand corner and add any translations that are necessary. Ask: *'What other weather conditions do we have?'*
- Say that in other continents they have different weather conditions. Ask: *'Do any of you know what weather conditions they have in other countries that we may not see here?'*
- Try to elicit as much of the target vocabulary as you can.

Presentation (5 mins)

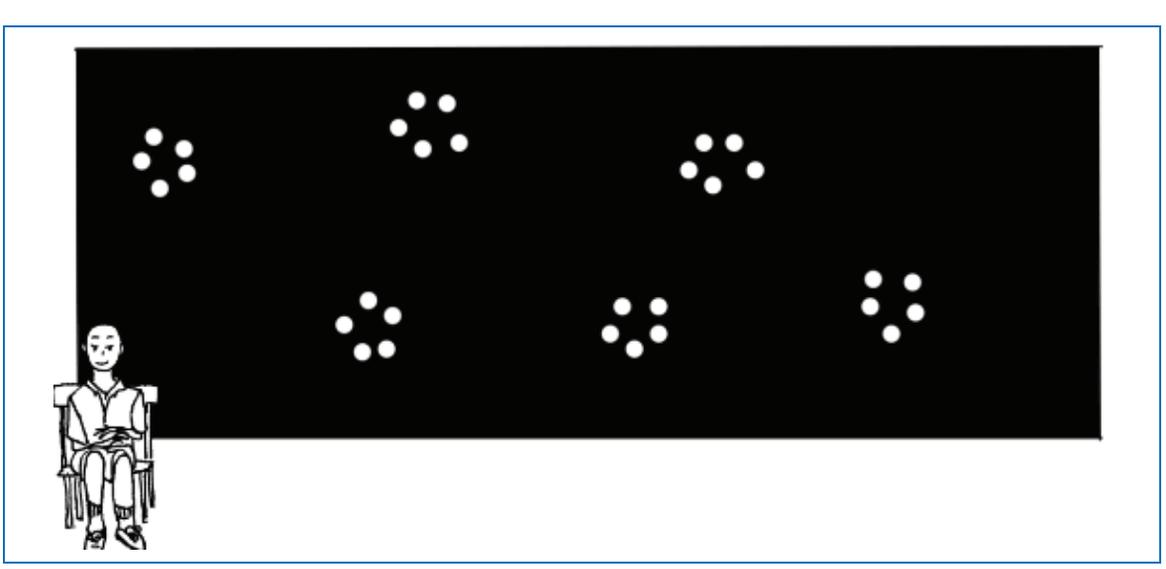
- Ask the students to open their books at Topic 4, Lesson 7. Point to the pictures in Activity 1.
- Ask: *'What's the weather like in a/b/c?'* Elicit the correct information from the students and model the correct pronunciation of the sentence. Model the difference between 'it is' and 'it's'. For example, 'It is sunny.' and 'It's sunny.' Ask the students to repeat each sentence after you.
- When you are happy that they have the correct pronunciation, of the sentences give out seven pieces of paper to each student and ask them to copy the pictures from Activity 1, one picture onto each piece of paper.

- Each student should now have seven cards with a weather condition drawn on each card.

Practice (10 mins)

Game - Snap

- Put the students into groups of five. Say: *'Shuffle your cards and hold them face down so that nobody can see the drawings.'*
- Say: *'Take turns to put a card down. Each time you put a card down you must say what the weather is like on that card. Taking turns, keep putting cards down until there are two the same. When there are two the same everybody must shout 'Snap!' and try to put their hand on top of the pile of cards. The person with their hand on the cards first keeps them. Start again now putting the cards down one by one.'*
- Tell them that the winner is the person who has cards left at the end.
- If it helps then one group can demonstrate as you give the instructions.
- Ask questions about the game to check your instructions:
  - *'How many play?'* (Answer – Five.)
  - *'What do you say each time you put a card down?'* (Answer – It's… depending on the picture on the card.)
  - *'What happens if the cards are different?'* (Answer – Nothing.)
  - *'What happens if the cards are the same?'* (Answer – Shout 'snap' and slam your hand over the cards.)
  - *'What does the first person to shout 'snap' get?'* (Answer – The cards.)
  - *'Who is the winner?'* (Answer – The person with cards left at the end.)



Consolidation/evaluation and assessment (5 mins)

- Say: *'Look at Activity 2.'*
- Students draw and write the names of the weather conditions in their exercise books.

Reflection

- Ask:
  - *'Did repeating the words many times help you to remember them?'*
  - *'Did you enjoy repeating the words more in the game? Was it a good way to learn the words?'*

Answers

Activity 2

a) It is sunny. **b)** It is cloudy with sunny spells.

c) It is cloudy. **d)** It is raining.

e) It is windy. **f)** It is stormy.

g) It is snowing.

Extension activity

- Ask the students to take turns to name a country and say what they think the weather is like today. For example, 'I think that the weather in England is stormy today.'

Teacher's reflections

- How did the game work? Successful game playing is often about giving good, clear instructions. Were your instructions clear? How might you change these next time?

Homework

- Ask the students to try to think of other games that they can play with the cards. You can spend time in another lesson playing these if you have time.

Lesson 8: Weather Forecasting

Vocabulary: Weather; forecast; predict; sunny; windy; cloudy; stormy; raining; snowing; cold; wet; dry, rain gauge; thermometer; manometer; barometer; windsock; direction; temperature; pressure; speed

Structures: I think it will be…; It will be…; What will the weather be like tomorrow?

Lesson content objectives:

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

- define weather forecasting
- name equipment used for weather forecasting.

Learning strategy: Substitution tables.

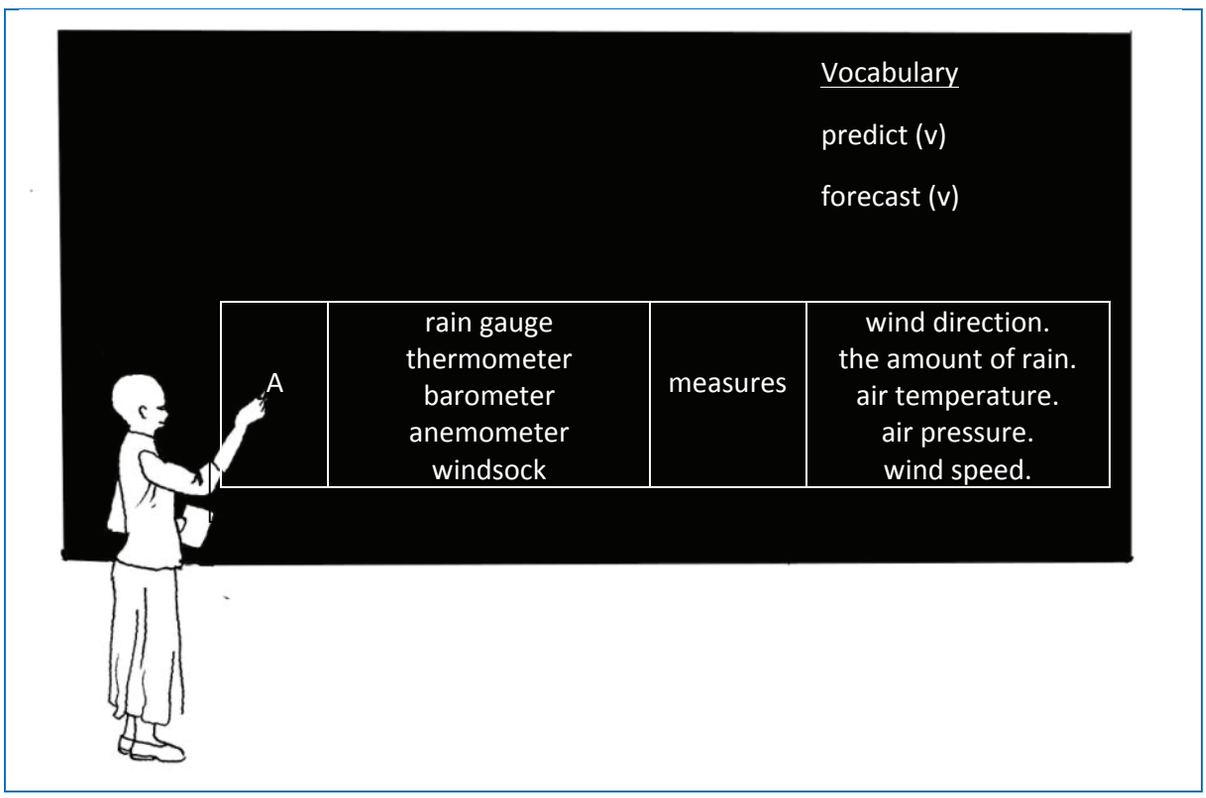
Introduction (10 mins)

- Say: '*Good morning/afternoon. How are you?*' Wait for the students to reply.
- Say: *'We studied the weather in the last lesson. What's the weather like today? Can you remember what the other weather conditions were?'* (Answer – sunny, windy, stormy, cloudy, cloudy with sunny spells, raining, snowing)
- Say: '*It is very important for many people to know the weather for the future. So we have to 'predict' the weather with weather forecasting.'*
- Put the students into groups of four and ask them to write a definition for weather forecasting. Then one member of each group presents their definition.
- As the students are presenting write any good points on the board.
- Ask the students to decide on the best definition, which might be bits from different groups. Ask them to write it down in their exercise books.

Presentation (10 mins)

- Say: '*Open your book at Topic 4, Lesson 8 and look at Activity 1.*' Hold up your Student book at the correct page and point to the activity.
- Say: *'This is a weather station.' It measures the weather. What instruments can you see?*
- Write these words on the board: 'rain gauge', 'thermometer', 'barometer', 'anemometer', 'windsock'.
- Ask the students if they can match the instruments to their name.

- Write the following on the board: 'wind direction', 'rain gauge', 'air temperature', 'air pressure', 'wind speed' in a substitution table as below.
- In pairs the students make sentences from the substitution table orally. Listen and correct.
- Tell the students that measuring the weather helps to predict the weather for the next day.



Practice (5 mins)

- Ask the students to predict the weather for the next day. Ask: *'What will the weather be like tomorrow?'* (Answer – Make sure that the students are using 'will be' and 'I think' in their sentences)
- Tell the students to look at Activity 2.
- Say: *'These are weather instruments that we can make to measure the weather.'* Put the students into groups of three and ask them to choose one of the measuring instruments to make. Ask them to plan what they will need to make their instrument. They are not going to make it, they are just going to plan *how* they will make it and what they will use and need.
- If they are really interested in this topic you can make this activity the start of a small scale project to measure the weather each day for a week or month at school.

Consolidation/evaluation and assessment (5 mins)

- Say: *'Look at Activity 3. With a partner complete the sentences by filling in the gaps.'*
- Leave the substitution table on the board if you feel the students need this. Take it away if you think they need a challenge.
- Monitor the students as they work.

Reflection

- Ask the students:
  - *'Would you like to measure the weather at school?'*
  - *'What kind of weather do you like best?'*

Answers

Presentation

Definition of forecasting – To predict, estimate, guess something that will happen in the future.

Activity 1

a) windsock **b)** thermometer

c) barometer **d)** rain gauge

e) anemometer

Activity 3

a) We measure rainfall using a **rain gauge.**

b) Wind **direction** is measured using a wind sock or windvane.

c) An anemometer measures wind **speed**.

d) **Pressure** is measured by a barometer.

e) A thermometer measures air **temperature**.

Practice

I think the weather will be sunny/windy/cloudy/stormy tomorrow.

It will be sunny/windy/cloudy/stormy.

I think it will be raining/snowing tomorrow.

It will rain/snow.

Extension activity 

- Ask the students to predict the weather in different countries for the next day in pairs.

Teacher's reflections 

- How interested were the students in the practical side of this lesson, making the weather instruments? Think about how you are going to exploit this interest in another lesson.

Possible homework 

The students can either collect together the materials they will need to make a weather instrument and make it in another lesson or they can make one at home and bring it in.

Lesson 9: Our climate

Vocabulary: Rainfall; temperature; average; Celsius; weather; climate; millimetres; hot; cool; wet; dry; bar charts

Structures: …is hotter/cooler/wetter/drier in … than in…; Because of…; As a result of…; As a consequence of…

Lesson content objectives:

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

- define climate and describe the climate in Tanzania
- discuss the causes of climate change.

Learning strategy: Inductive learning.

Introduction (5 mins)

- Say: '*Good morning/afternoon. How are you?*' Wait for the students to reply.
- Ask: *'What is the weather like today?'* Wait for an answer. (Answer – It is hot/cold/windy/cloudy/rainy today.)
- Say: *'We have talked about weather but the weather is different all over Tanzania in different months of the year. This is called* climate*. Climate is the average weather conditions recorded for a long period of time not less than thirty years.'*
- Say: *'Open your book at Topic 4, Lesson 9 and look at Activity 1'*. Hold up your Student book at the correct page and point to the activity. Ask: '*Which topic, lesson and activity do you need?'* Wait for the students to reply.
- Say: *'The climate in Dar es Salaam is different to the climate in Dodoma. Look at the bar charts. What do they show?'* (Answer – Temperature and rainfall.) Say: *'This is part of* climate*.'*

Presentation (10 mins)

- Ask: *'How do we measure temperature and rainfall?'* (Answer – Temperature is measured in degrees Celsius and rainfall in millimetres.)
- Ask: *'What can you tell me about the climate in Dodoma?'* (Answer – It is wet from December to April with almost no rainfall from May to October. The average temperature is 23 degrees.)

Note: The students are unlikely to produce all of this information but praise any correct answer and give prompts to help them along.

- Ask: *'What can you tell me about the climate in Dar es Salaam?'* (Answer – It has significant rainfall during March, April and May and is wet from October to December. The average temperature is 29 degrees.)
- As the students give you answers, write the new vocabulary in the top right hand corner of the board and add translations if necessary. Remember to give the type of word.
- Put the students in pairs and ask for two volunteers to come to the front of the class. Give the class an example sentence about the graphs. For example: '*In May it is wetter in Dar es Salaam than Dodoma*'. Ask the volunteers to give the class a sentence comparing the climates in Dodoma and Dar es Salaam by making statements from the information on the graphs.
- Praise the pair and ask the students to find more example sentences.

Practice (10 mins)

- Say: *'Look at Activity 1 again. Join another pair and discuss the missing words from the text.'*
- This will be a difficult task as there has been no pre-discussion or teaching of this subject. However, there are times when the students need to be cognitively challenged in order to stay motivated. Monitor and offer some help if absolutely needed.

Note: If they don't seem to be managing you can write the missing words on the board for them to choose from. They are in the blue box below the text also. These are: temperature, rainfall, degrees Celsius, millimetres (mm), east, change, hotter, wetter, Dodoma, global warming, greenhouse gases, CFCs, pollution.

- Allow enough time for the students to think hard about the topic. Then begin a discussion about the answers and the topic. Try to cover all areas from the text in the discussion.
- Read out the complete text to give the students another chance to get the text correct.
- When they have decided what the words are they can copy the text into their exercise books.

The graphs show the temperature and rainfall in both Dar es Salaam and Dodoma. Temperature is measured in degrees Celsius. Rainfall is measured in millimetres (mm). The climate in the East is a little different to Central, Western and Southern Tanzania. The temperature in most places in Tanzania does not change much during the year. It is a little hotter and much wetter in Dar es Salaam than in Dodoma. Our climate is changing because of global warming. Global warming is caused by emission of greenhouse gasses and the use of CFCs in aerosol cans. Pollution in the air causes acid rain which destroys the land and trees.

Consolidation/evaluation and assessment (5 mins)

- Say: *'Look at Activity 2.'* Hold up your Student book at the correct page and point to the activity.
- Say: *'Take your exercise books and complete the activity. Use the words in the blue box to help with your sentences.*
- Monitor the students as they work.

Reflection

- Ask the students: *'How important do you think it is to manage climate change? What would you do to save our planet?'*
- How easy was it to read the graphs? Did they help formulate sentences or would it have been better to have word clues?

Answers

Activity 1

- It is wetter in… than… in (month)
- It is drier in… than… in (month)
- It is hotter in … than… in (month)
- It is cooler in… than… in (month)

The graphs show the **a) temperature** and **b) rainfall** in both Dar es Salaam and Dodoma. Temperature is measured in **c) degrees Celsius**. Rainfall is measured in **d) millimetres (mm)**. The climate in the **e) East** is a little different to Central, Western and Southern Tanzania. The temperature in most places in Tanzania does not **f) change** much during the year. It is a little **g) hotter** and much **h) wetter** in Dar es Salaam than in **i) Dodoma**.

Our climate is changing because of **j) global warming**. Global warming is caused by emission of **k) greenhouse gases** and the use of **l) CFCs** in aerosol cans. **m) Pollution** in the air causes acid rain which destroys the land and trees.

Activity 2

Example sentences:

Picture A

- There are trees beacause of a good climate and plenty of water.
- Grass is growing as a consequence of good land management.
- The sky is clear and blue as a result of clean air.

Picture B

- Bare rock could be a result of overgrazing or deforestation. It could also be a consequence of a lack of rain caused by global warming.
- There is no grass possibly as a result of acid rain caused by CFCs and pollution.

Extension activity 

- Ask the students: *'How important do you think it is to manage climate change? What would you do to save our planet? List the actions in order of importance.'*

Teacher's reflections 

- The language and concepts of this lesson are quite sophisticated. How did you help the students to understand? Did you think of other ways you could help while the lesson was happening? If you did remember to make a note of these to try in another lesson.

Lesson 10: Conserving our environment

Vocabulary: Environment; degradation; conservation/conserve; bush fires; the environment; deforestation; pollution; recycle; poach; protect; overgraze; factory; cut down; waste; cattle; plant

Structures: We should (not)…; We must (not)…; We ought (not) to…; To prevent… we must…; If we…, we will…; …is harming environment by/through…

Lesson content objectives:

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

- explain the meaning of environment and conservation
- state the dangers to the environment
- state what can be done to conserve the environment.

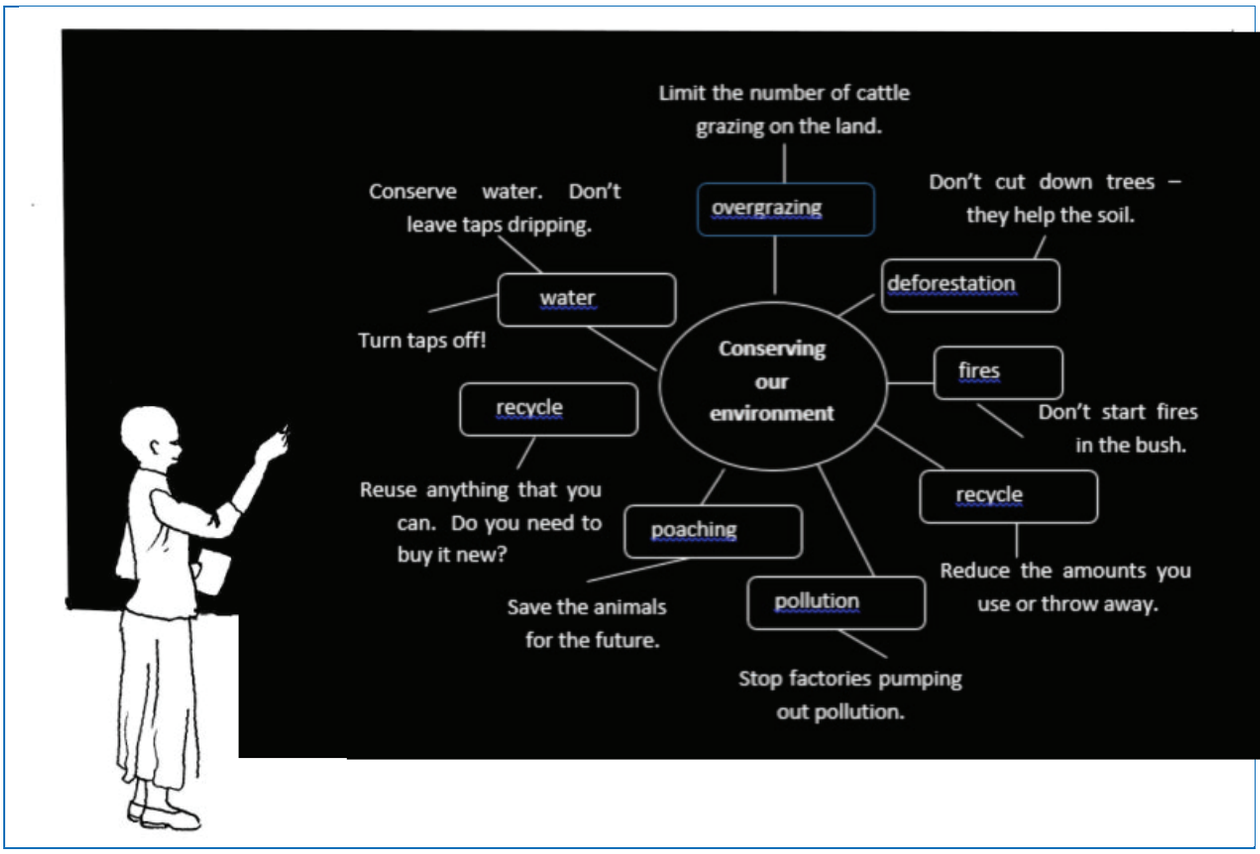
Learning strategies: Spider diagrams; using full sentences.

Introduction (5 mins)

- Say: '*Good morning/afternoon. How are you?*' Wait for the students to reply.
- Ask the students what they like about the world they live in. Accept any answers they give. Ask them to answer in full sentences.
- Correct any sentences that they give and ask them to repeat the correct sentences.
- Write any words that refer to the environment on the top right hand side of the board. Try to make the students talk about the good things around them then ask them to brainstorm what is the environment? Then sum up by giving the definition of environment.
- Environment is the surroundings in which living organisms are living.
- Conservation is the act of preserving or protecting from loss of rivers, forest, living organisms and other natural resources.
- Finish the discussion by telling them that it is our responsibility to (we must) conserve the environment for the future. Write 'conserving our environment' in the middle of the board and draw a circle around it. Draw lines coming out of the circle.

Presentation (10 mins) 

- Ask: *'What are the dangers to our environment?'* (Accept any possible answers.) If the students are not offering any answers give them a few prompts such as pollution, cutting down trees, etc.
- Write notes on any good points at the end of the lines coming out of the central circle on the board.
- Say: *'Open your book at Topic 4, Lesson 10, and look at Activity 1'*. Hold up your Student book at the correct page and point to the activity. Ask: '*Which topic, lesson and activity do you need?'* Wait for the students to reply.
- Put the students into groups of four and ask them to discuss each picture. They should decide what danger to the environment the pictures show. They can use the words in the box. They add what they discuss to the spider diagram.
- Invite a student from each group to feedback on each picture. (Answers below.) It is not important for them to get the exact answers but it is important to try to use full sentences. Another student from the group should add their note to the spider diagram.
- Keep the sentences short and simple and ask the class to repeat them after you. Use the target language (modals) in the sentences. Once they have repeated the sentences write them on the board near the spider diagram or ask students to write them on the board.



Practice (10 mins)

- Keep the students in the same groups. Say: *'Look at Activity 2.'* Hold up your Student book at the correct page and point to the activity.
- Say: *'To prevent waste we should recycle. If we recycle we will conserve our environment.'* Ask the students to repeat the sentence.
- Say: *'To prevent pollution, factories must clean up. If we clean our air we will conserve our environment.'* Ask the students to repeat the sentence.
- In groups, students write three sentences, one for each structure given in the activity.
- Ask groups to read their sentences aloud to the whole class.
- Ask the rest of the class to try to correct any incorrect sentences.

Consolidation/evaluation and assessment (5 mins)

- Ask the students to copy the spider diagram into their exercise books. Do this as a whole class. As the students copy each note choose students to use the words in full sentences.

Reflection

- Ask the students whether they enjoyed using the spider diagram and whether they think that it was useful for organising their ideas.
- Ask if they have any other ways that they find good for organising and remembering.

Answers

Activity 1

Example sentences:

a) We ought not to waste water. / We should conserve water.

b) We ought to be careful in the forest. We must not start fires.

c) We should reduce, reuse, recycle.

d) We should not pollute the air/environment.

e) We must stop poaching animals.

f) We must stop overgrazing and cutting down trees.

Activity 2

Example sentences:

- To prevent degradation of the land, we should plant trees.
- If we plant trees, we will preserve the environment. If we don't plant trees the environment will suffer.
- To prevent overgrazing we should put fewer animals on the land. If we limit the number of animals the land will be fertile.
- To prevent bush fires, we must not start fires in the forest.
- Cutting down trees damages the environment.
- If we don't stop poaching animals our environment will suffer.

Extension Activity

1. environment **2.** pollution **3.** overgraze **4.** deforestation **5.** Conservation

Extension activity 

- Clean the board and write the following jumbled up words:

1. tnrneeviomn	**2. lltipouno**	**3. vrrzoegae**	**4. noasrdfoeetti**
5. niarsocnevto			

- In pairs the students rearrange the order of the letters to get the words.

Teacher's reflections 

- Did your students enjoy the spider diagram? Do you think it helped them to organise their ideas?
- Do you have any other ideas for helping the students to learn?