

A large teal circle with a thin black outline, containing the text "LEARNING UNIT 5 SUSTAINABLE DEVELOPMENT AND CLIMATE CHANGE".

# LEARNING UNIT

## 5

SUSTAINABLE  
DEVELOPMENT AND  
CLIMATE CHANGE



# 5


## LESSON

### Activity 1: Sustainable Development main Characteristics

#### KEY WORDS:

- Sustainable Development

#### DURATION:

- 1 hour
- 

#### OBJECTIVES:

- To explain the sustainable development approach
- To detail standard ways of measuring income and economic growth and progress globally

#### MATERIALS:

- Pens and Paper
- Activity Sheets, Chart and images from below
- Training Course Manual - Unit 5 Sustainable Development

The Glossary can be filled in at any point during the lesson!

**DESCRIPTION:**

1. Cultural similarities hunt- icebreaker (Worksheet 1)
  - a. Ask the learners the questions on your table to find people who meet the criteria
  - b. Once they have found someone who meets a criterion, they must get them to sign the box on your table,
  - b) then they move onto a different person.
  - c) note: they cannot ask the same person 2 questions in a row.
  - d) The aim is to complete a line of questions - either vertically, horizontally or diagonally.
  - e) The first person to complete a line wins.
  - f) The game ends when everyone has at least one complete line.
  
2. Discuss the concept of **sustainable development** with the learners. Ask learners to individually brainstorm and make a list of what features are the most important to consider when talking about sustainable development (Worksheet 2). Then divide them in pairs and ask them to compare their answers. Finally, let the whole group discuss and come up with a final list.
  
3. Learners will have to select from a list what are the four major dimensions of Sustainable Development and talk about them (Worksheet 3).
  
4. Discuss with the learners what Continuing Poverty means. Compare the 2 images from below. Ask them to write down their own definitions first and then share with the rest of the group.
  
5. Generate a discussion about where is the highest standard of life in the world, where do the richest people live and what characteristics do those countries have.

## Worksheet 1:

### 1. Cultural similarities hunt- icebreaker

<p>Someone who is the <b>same astrological star sign</b> as you</p> <p>_____</p>	<p>Someone who <b>plays a musical instrument</b></p> <p>_____</p> <p>Instrument: _____</p>	<p>Someone who <b>has a dog AND the dog's name</b></p> <p>_____</p> <p>Dog's name: _____</p>
<p>Someone who has <b>regularly meditates or has tried...</b></p> <p>_____</p>	<p>Someone who speaks <b>the same foreign language</b> as you</p> <p>_____</p>	<p>Someone who <b>is a vegetarian or vegan</b></p> <p>_____</p>

<p>Someone who has an <b>unusual hobby and what the hobby is...</b></p> <p>_____</p> <p>Hobby: _____</p>	<p>Someone who <b>travelled in at least the same 3 European countries</b> as you</p> <p>_____</p>	<p>Someone who was <b>born on the same DAY of the week</b> as you</p> <p>_____</p> <p>Day: _____</p>
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<p>Someone who was <b>born in the same month</b> as you</p> <p>_____</p>	<p>Someone who was <b>born in the same country /province</b> as you</p> <p>_____</p> <p>Where: _____</p>	<p>Someone who <b>has a cat AND the cat's name</b></p> <p>_____</p> <p>Cat's name: _____</p>
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<p>Someone who <b>regularly goes to Yoga</b></p> <hr/>	<p>Someone who <b>IS on Facebook</b></p> <hr/>	<p>Someone who <b>works(worked) in another language than their native one</b></p> <hr/>
<p>Someone who <b>participated to an Erasmus project before</b></p> <hr/> <p>Year: _____</p>	<p>Someone who <b>has a mentor</b></p> <hr/>	<p>Someone who has <b>met someone famous from another country (include who they met)</b></p> <hr/> <p>Who they met: _____</p>



## Worksheet 2:

2. See Chapter 1. Introduction to Sustainable Development from the Unit 5 course.

### Sustainable development characteristics:

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### Worksheet 3:

3. What are the four major dimensions of Sustainable Development? [Choose 4]
- Economic dimensions
  - Cultural dimensions
  - Environmental dimensions
  - Social dimensions
  - Political dimensions
  - Religious dimensions

### Worksheet 4:

4. Continuing Poverty- images to compare and discuss



#### Continuing Poverty characteristics:





A large rectangular box containing ten horizontal dotted lines, intended for writing or drawing.



## Worksheet 5:

### 5. Where do the richest people live - chart



CHART OF THE WEEK

## Where Do the Richest People Live?

Ranking the world's most affluent countries by average and median wealth

Countries often compete over who's the richest, and rely on economic indicators such as average wealth to make their case.

But some argue that this simple metric doesn't factor in the gap between the richest and poorest in a nation—also known as income inequality.



#### Average wealth:

Calculated by dividing a country's overall wealth (gross assets) by its total adult population.



#### Median wealth:

Calculated by dividing wealth distribution into two equal groups—those with more above, and those with less below, the middle wealth value.

Using data from the Credit Suisse Global Wealth Report 2018, we break down the top 10 countries by average wealth per adult, and who's really the richest when median wealth is accounted for.

Top 10 (Average)				Top 10 (Median)			
1		SWITZERLAND	\$530,244		AUSTRALIA	\$191,453	
2		AUSTRALIA	\$411,060		SWITZERLAND	\$183,339	
3		UNITED STATES	\$403,974		BELGIUM	\$163,429	
		BELGIUM	\$313,045		NETHERLANDS	\$114,935	
		NORWAY	\$291,103		FRANCE	\$106,827	
		NEW ZEALAND	\$289,798		CANADA	\$106,342	
		CANADA	\$288,263		JAPAN	\$103,861	
		DENMARK	\$286,712		NEW ZEALAND	\$98,613	
		SINGAPORE	\$283,118		UNITED KINGDOM	\$97,169	
		FRANCE	\$280,580		SINGAPORE	\$91,656	

Data estimates are for mid-2018 values  
Source: Credit Suisse Global Wealth Report 2018, Global Wealth Databook 2018



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## Self-assessment

Exceeds	Proficient	Developing	Novice
I can define the most important of Sustainable Development concept			
<b>4</b>	<b>3</b>	<b>2</b>	<b>1</b>
I can define the 4 major dimensions of Sustainable Development			
<b>4</b>	<b>3</b>	<b>2</b>	<b>1</b>
I can describe what Continuing Poverty means			
<b>4</b>	<b>3</b>	<b>2</b>	<b>1</b>
I can list the 10 of the countries with the best economic indicators and explain their characteristics			
<b>4</b>	<b>3</b>	<b>2</b>	<b>1</b>

## TEACHER'S GUIDE

6. What are the four major dimensions of Sustainable Development? [Choose 4]
- g) Economic dimensions
  - h) Cultural dimensions
  - i) Environmental dimensions
  - j) Social dimensions
  - k) Political dimensions
  - l) Religious dimensions

*Correct answer: a+ c+ d+ e*

# 5

## LESSON

### Activity 2: Well-being

#### KEY WORDS:

- Sustainable Development

#### DURATION:

- 1 hour



#### OBJECTIVES:

- To enumerate the Goals of the Sustainable development Agenda 2030
- To detail what well-being means and how it is measured

#### MATERIALS:

- Pens and paper
- Activity sheets, Chart and images from below
- Training course manual – Unit 5 Sustainable development

The Glossary can be filled in at any point during the lesson!

**DESCRIPTION:**

6. Discuss the history of sustainable development official position papers with the learners. Talk about the 17 goals of the Agenda 2030. Ask them to describe each goal. Then divide them in pairs and ask them to compare their answers. Finally, let the whole group discuss and come up with a final list.
  
7. Learners will have to select from a list how is the "Standard of Living" typically measured in mainstream economics and talk about it.
  
8. Discuss with the learners what well-being means. Talk about each section from the image below and ask them to set a list with what wellbeing means for them personally- when they consider they have everything they need and ask them to select 5 things they are grateful for.

## Worksheet 1:

### 1. Agenda 2030- chart





**Describe the goals of the Agenda 2030:**

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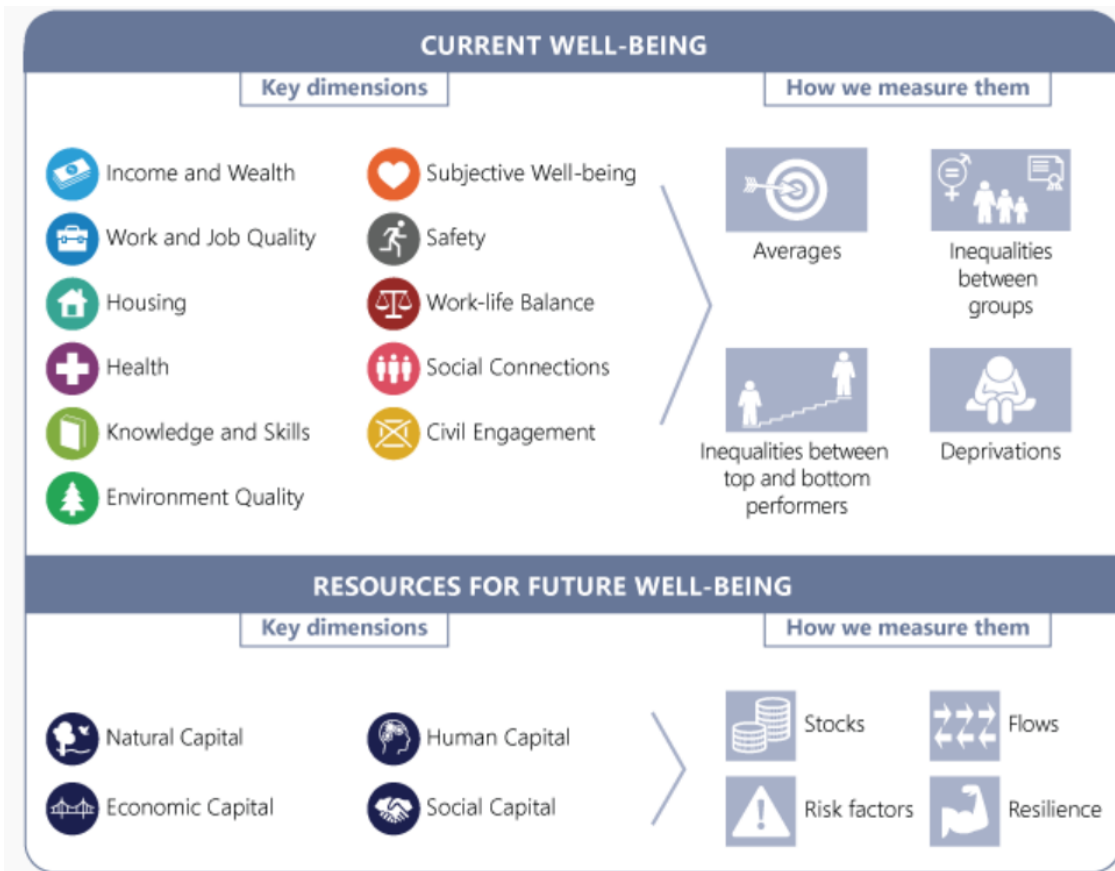
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## Worksheet 2:

### 2. Well-being- chart



**What wellbeing means for me- when I consider I have everything I that need:**

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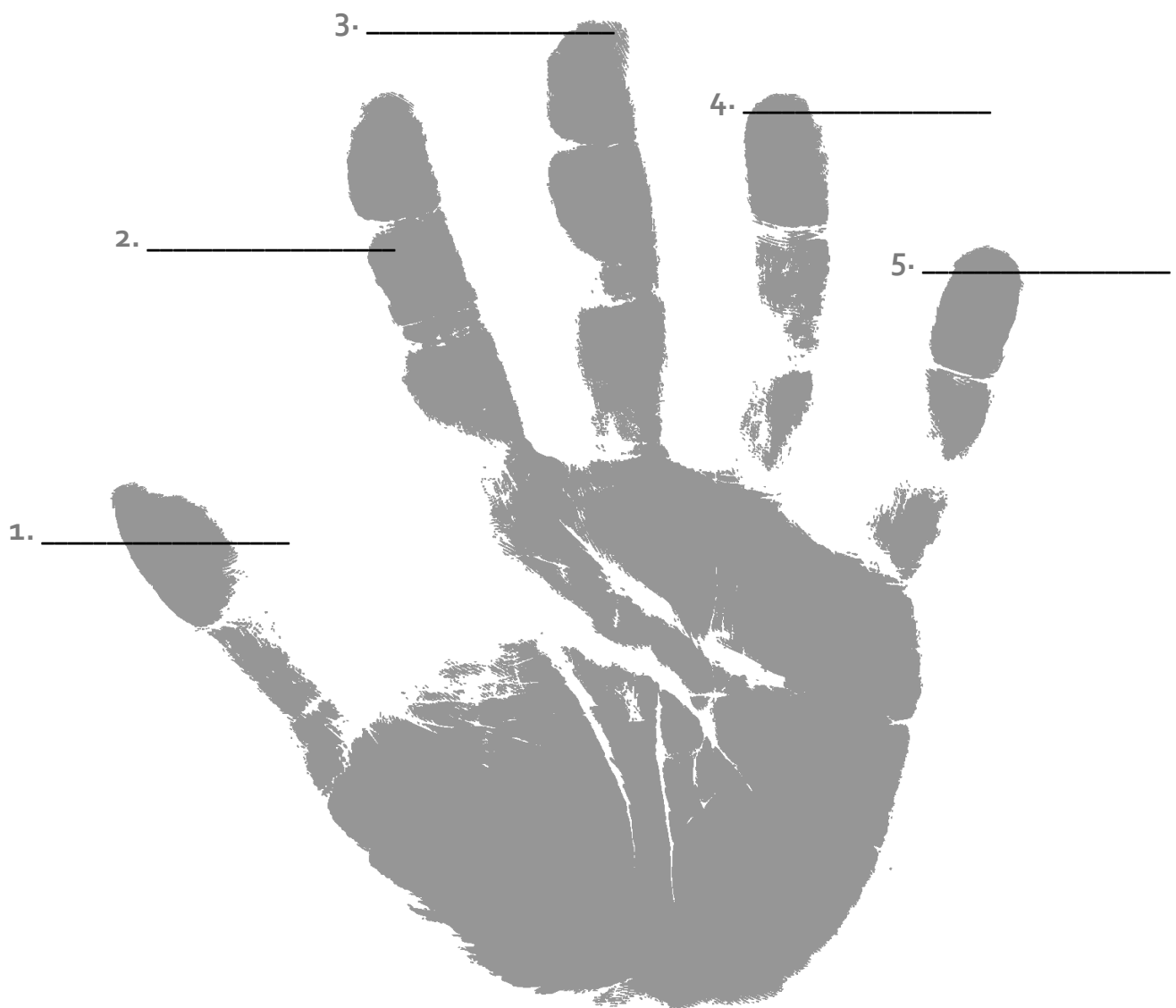
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## Worksheet 3:

### 5 Things Gratitude Tool

Having in mind what wellbeing means, now think of just 5 things to be genuinely thankful or grateful for and write them on the hand below.

Studies that have proven that gratitude makes us happier and healthier. Like any emotion, gratitude can't be forced but we can cultivate our thoughts so that gratitude is more likely to arise. Practicing gratitude helps create a habit where we focus on the positive in life.



**Self-assessment**

<b>Exceeds</b>	<b>Proficient</b>	<b>Developing</b>	<b>Novice</b>
I can define Agenda 2030's 17 goals			
<b>4</b>	<b>3</b>	<b>2</b>	<b>1</b>
I know how the Standard of Living is typically measured in mainstream economics			
<b>4</b>	<b>3</b>	<b>2</b>	<b>1</b>
I can detail what well-being means and how it is measured			
<b>4</b>	<b>3</b>	<b>2</b>	<b>1</b>

# 5

## LESSON

### Activity 3: End to Hunger

#### KEY WORDS:

- Eating Habits
- World Hunger
- Malnutrition
- Sustainability

#### DURATION:

- 1 hour



#### OBJECTIVES:

- to explain the complex concept of malnutrition in a global context
- to detail the relationship between climate change and food systems

#### MATERIALS:

- Pens and paper
- Training course manual – Unit 5 Sustainable development

The Glossary can be filled in at any point during the lesson!

**DESCRIPTION:**
**Activity 1: One-Word Icebreaker**

9. Divide the meeting participants into groups of four or five people by having them number off. You do this so that your participants get to know fellow attendees. People generally begin a meeting by sitting with the people they already know best, when your goal is normally team-building across a group.
10. Tell the newly formed groups that their assignment is to think for a minute and then to share with their group the one word that describes their **Eating habits**. This icebreaker helps the group explore their thoughts on a common issue. This icebreaker is a perfect segue into the topic of the meeting or training class.
11. This icebreaker sparked spontaneous conversation in every group as the participants questioned each other about the meaning of their one word. They asked for examples and found that the combination of the participants' chosen words did describe their current cultural lifestyle.
12. Upon completion of the initial spontaneous discussion, ask the participants to share their one word with the larger group. Ask for a volunteer to start and then, ask each participant to share their one word that described their culture.
13. Next, after the participants have listened to the variety of words from the larger group, ask them to explore several questions in their small group. In this instance, asking each participant to select one word to describe their organizational culture, the participants were then asked these follow-up questions:
  - a) *Is this approach consistent across your lifetime?*
  - b) *Is this the eating habit approach that you want to have in your life permanently?*
  - c) *Does this approach support the accomplishment of the environment you desire for your family health goals?*
14. Debrief the icebreaker by asking for a volunteer from each group to share a point or two that highlighted their discussion. You will find that many of the session attendees took notes.
15. Because your participants are almost always your best source of laughter and fun in a meeting or training session, each of these steps generated remarks, insights, and examples.



16. Upon completion, move into the rest of the material you have prepared for the session.

**Activity 2:**

2. Discuss the types of malnutrition with the learners. Ask them to describe the characteristics of each type (undernourishment, micro-nutrient deficiency, excessive consumption of calories).

**Activity 3:**

3. Learners will have to select from a list the percentage of world population that is malnourished.





### ICEBREAKER

Words that describe your eating habits:

Me	People in my Group



## Worksheet 1:

Activity 1:

### Eating habits description

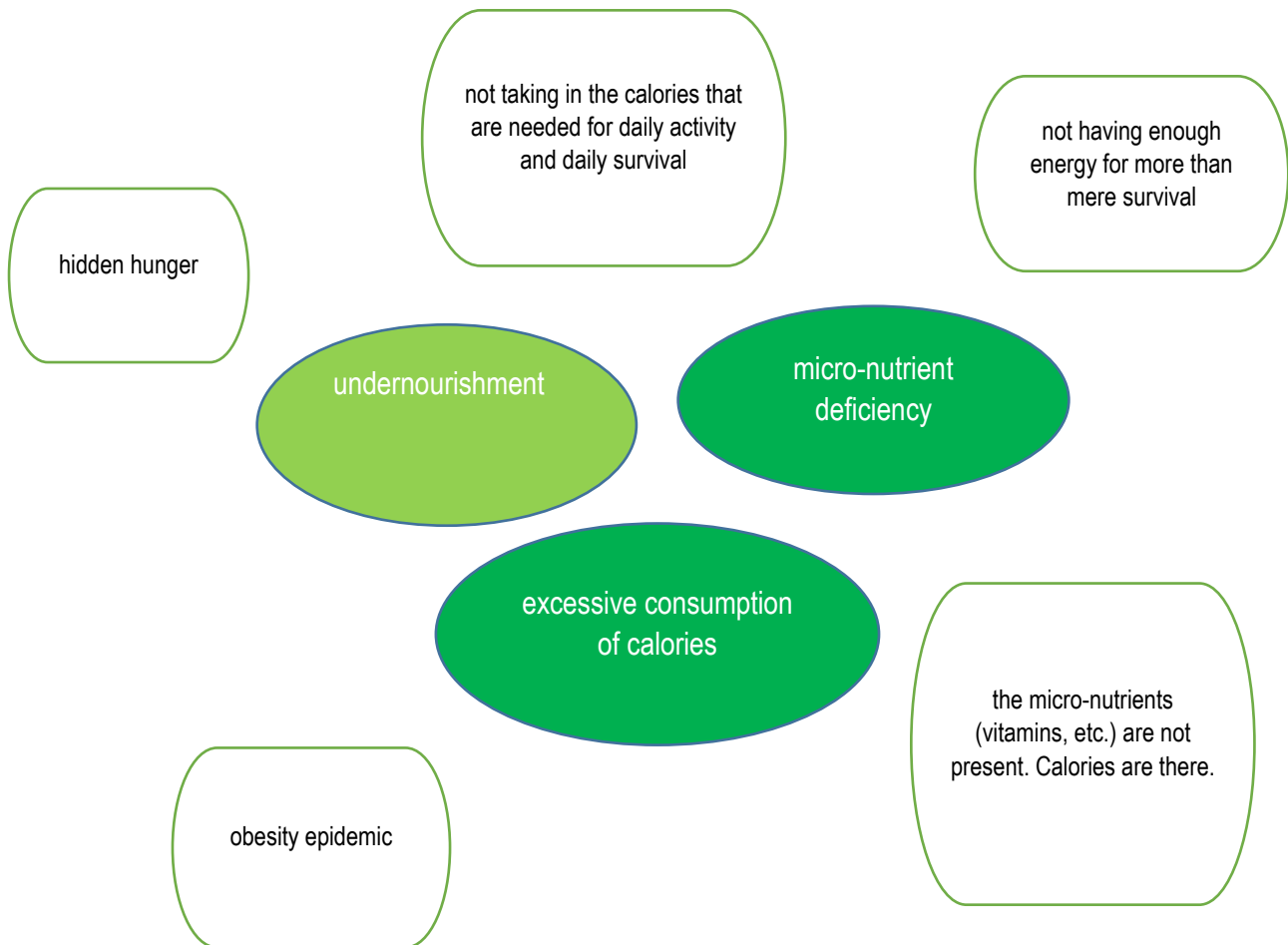
<b>Breakfast</b>	
<b>Lunch</b>	
<b>Dinner</b>	
<b>Snacks</b>	
<b>Religious holidays</b>	
<b>Week-end/ Other holidays</b>	
<b>Is this approach consistent across your lifetime?</b>	
<b>Is this the eating habit approach that you want to have in your life permanently?</b>	
<b>Does this approach support the accomplishment of the environment you desire for your family health goals?</b>	

## Worksheet 2:

Activity 2:



Select the correct characteristics correspondent to each type of malnutrition.



### Worksheet 3:

How many people are malnourished in the world?

- a) Around 0.8 billion people are malnourished, about 12% of the population;
- b) Around 2.8 billion people are malnourished, about 40% of the population;
- c) Around 3.5 billion people are malnourished, about 45% of the population;

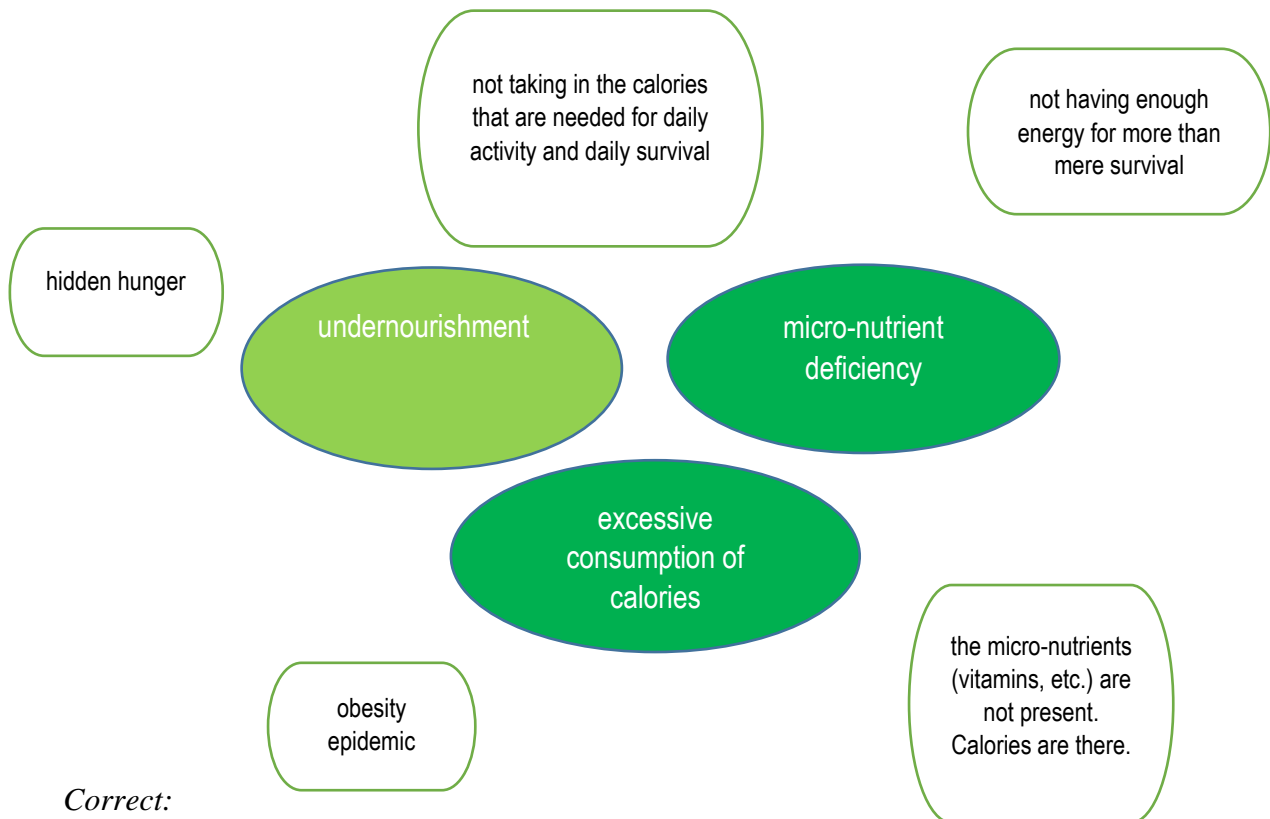
### Self-assessment

Exceeds	Proficient	Developing	Novice
I can describe the types of malnutrition there are			
<b>4</b>	<b>3</b>	<b>2</b>	<b>1</b>
I know the percentage of how many people are malnourished in the world			
<b>4</b>	<b>3</b>	<b>2</b>	<b>1</b>
I can detail how environmental change threatens the food system			
<b>4</b>	<b>3</b>	<b>2</b>	<b>1</b>

## TEACHER'S GUIDE

### Activity 2:

Select the correct characteristics correspondent to each type of malnutrition.



*Correct:*

*Undernourishment: not taking in the calories that are needed for daily activity and daily survival + not having enough energy for more than mere survival*

*Micro-nutrient deficiency: Hidden hunger + the micro-nutrients (vitamins, etc.) are not present. Calories are there.*

*Excessive consumption of calories: Obesity epidemic*

### Activity 3:

How many people are malnourished in the world?

- a) Around 0.8 billion people are malnourished, about 12% of the population;
- b) Around 2.8 billion people are malnourished, about 40% of the population;**
- c) Around 3.5 billion people are malnourished, about 45% of the population;

*Correct answer: b*



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# 5

LESSON

## Activity 4: Sustainable Cities

### KEY WORDS:

- Urbanization
- sustainability
- sustainable cities

### DURATION:

- 1 hour
- 

### OBJECTIVES:

- to identify the factors driving urbanization and its consequences
- to describe the characteristics of a sustainable city

### MATERIALS:

- Pens and paper
- Activity sheets, Chart and images from below
- Training course manual – Unit 5 Sustainable development

The Glossary can be filled in at any point during the lesson!

**DESCRIPTION:**

1. Identify favourite city icebreaker
2. Discuss with the learners about the regions with more population density in the world. Ask them to describe the characteristics of urban agglomerations.
3. Learners will have to select from a list the characteristics of a sustainable city and then talk about them.
4. Discuss with the learners the possible causes that make a city unsustainable. The learners are asked to select from a list the main characteristics and talk about them.



## Worksheet 1:

### 1. Identify favorite city icebreaker

- a) Divide the training participants into groups of four or five people by having them number off. (You do this because people generally begin a meeting by sitting with the people that they already know best - even when you ask them to sit with people they don't work with every day.)
- b) Tell the newly formed groups that their assignment is to identify and share their favorite city, favorite cultural place to go out in the city they live in, favorite spot in the city, favorite transport facility in the city.
- c) The second part of the icebreaker assignment is to share why the selected item is their personal favorite.
- d) Debrief the activity in the large group by asking each individual to share their favorite, but not why with the larger group. This moves quickly. It also generates laughter as participants get to hear what every other attendee selected.
- e) As a final step, ask participants to share with the larger group what they learned about their coworkers during the small group discussion. Ask what insights they obtained about their small group members, what features are loved in a city and why.
- f) This team building icebreaker takes 10 – 15 minutes, depending on the number of groups you have.



### FAVORITE CITY CHART

Favorite city	Why?
Favorite cultural place to go out in the city you live in	Why?
Favorite spot in the city	Why?
Favorite transport facility in the city	Why?





## Worksheet 2:





















2. See Chapter 4: Sustainable Cities from the Unit 5 course- chart









### World Population by Region

[back to top ↑](#)

#	Region	Population (2020)	Yearly Change	Net Change	Density (P/Km <sup>2</sup> )	Land Area (Km <sup>2</sup> )	Migrants (net)	Fert. Rate	Med. Age	Urban Pop %	World Share
1	Asia	4,641,054,775	0.86 %	39,683,577	150	31,033,131	-1,729,112	2.2	32	0 %	59.5 %
2	Africa	1,340,598,147	2.49 %	32,533,952	45	29,648,481	-463,024	4.4	20	0 %	17.2 %
3	Europe	747,636,026	0.06 %	453,275	34	22,134,900	1,361,011	1.6	43	0 %	9.6 %
4	Latin America and the Caribbean	653,962,331	0.9 %	5,841,374	32	20,139,378	-521,499	2	31	0 %	8.4 %
5	Northern America	368,869,647	0.62 %	2,268,683	20	18,651,660	1,196,400	1.8	39	0 %	4.7 %
6	Oceania	42,677,813	1.31 %	549,778	5	8,486,460	156,226	2.4	33	0 %	0.5 %

### TOP 20 LARGEST COUNTRIES BY POPULATION (LIVE)

1	 <u>China</u>	1,441,273,319	11	 <u>Japan</u>	126,342,016
2	 <u>India</u>	1,384,805,010	12	 <u>Ethiopia</u>	115,993,628
3	 <u>U.S.A.</u>	331,685,463	13	 <u>Philippines</u>	110,099,767
4	 <u>Indonesia</u>	274,548,117	14	 <u>Egypt</u>	103,026,440
5	 <u>Pakistan</u>	222,431,455	15	 <u>Vietnam</u>	97,648,089
6	 <u>Brazil</u>	213,091,919	16	 <u>D.R. Congo</u>	90,554,745
7	 <u>Nigeria</u>	207,987,699	17	 <u>Turkey</u>	84,660,613
8	 <u>Bangladesh</u>	165,270,042	18	 <u>Germany</u>	83,877,820
9	 <u>Russia</u>	145,956,301	19	 <u>Iran</u>	84,374,993
10	 <u>Mexico</u>	129,412,529	20	 <u>Thailand</u>	69,861,291

Rank	City	Population in Year 2018
#1	 Tokyo	38,194,000
#2	 Delhi	27,890,000
#3	 Shanghai	25,779,000
#4	 Beijing	22,674,000
#5	 Mumbai	22,120,000
#6	 Sao Paulo	21,698,000
#7	 Mexico City	21,520,000
#8	 Cairo	19,850,000
#9	 Dhaka	19,633,000
#10	 New York City	18,713,000

### Worksheet 3:

#### 3. Sustainable vs Unsustainable city

Select the correct characteristics correspondent to each type of city.



### Self-assessment

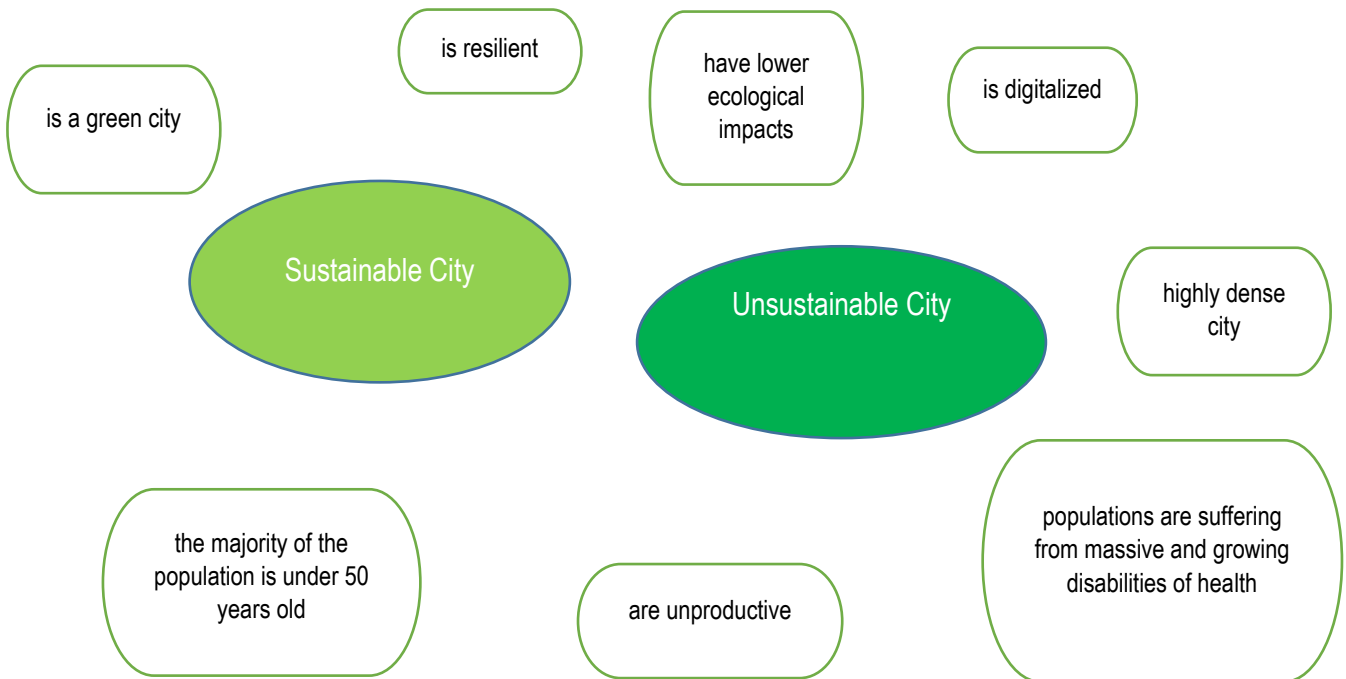
Exceeds	Proficient	Developing	Novice
I know which are the densest regions in the world			
4	3	2	1
I can describe the characteristics of a sustainable city			
4	3	2	1
I can describe the characteristics of an unsustainable city			
4	3	2	1

# TEACHER'S GUIDE

## Worksheet 3:

### 1. Sustainable vs Unsustainable city

Select the correct characteristics correspondent to each type of city.



*Correct:*

*Sustainable city: Green city+ Resilient*

*Unsustainable city: unproductive + populations are suffering from massive and growing disabilities of health*

# 5

## LESSON

### Activity 5: Climate Change

#### KEY WORDS:

- Climate Change
- Global Warming

#### DURATION:

- 1 hour
- 

#### OBJECTIVES:

- to identify the basic factors of climate change
- to visualise the effects of climate change on earth

#### MATERIALS:

- Pens and paper
- String, masking tape or chalk, around 100 pieces of scrap paper, timer
- Activity sheets, Flash cards, Chart and images from below
- Training course manual – Unit 5 Sustainable development

The Glossary can be filled in at any point during the lesson!

**DESCRIPTION:**

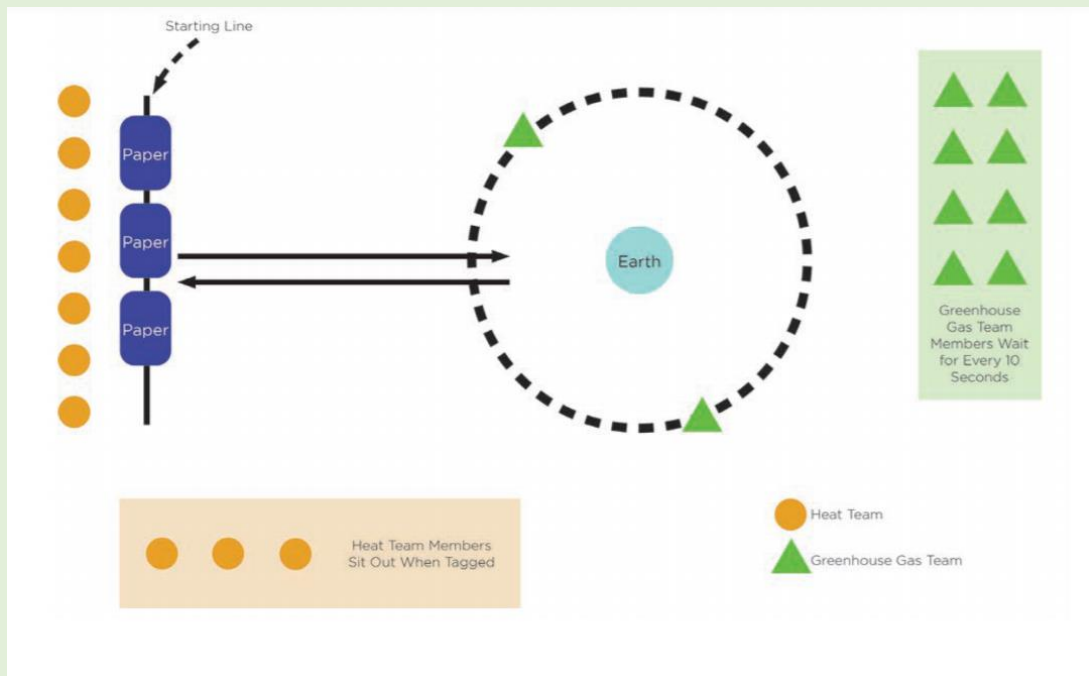
17. Discuss with the learners about The Basic Science of Climate Change and the greenhouse effect. Ask them to describe the characteristics of the greenhouse effect. Play The greenhouse game, an energetic, physical game in which participants simulate the greenhouse effect, becoming either heat from the sun or greenhouse gases.

Rules and game play:

Set up:

- 1) Holding hands, have everyone form the largest circle that they can without letting their hands go.
- 2) Release hands, and have everyone take two big steps back.
- 3) Mark a circle on the ground/floor around (just outside) the circle of people. If indoors, use a string or chalk. If outdoors on dirt, mark by having everyone drag their feet to make a circle.
- 4) Create a Starting Line Area (for Heat Team) 3-5 meters (10 to 15 feet) from the circle.
- 5) Place the scrap paper in 3 piles on the Starting Line for the Heat Team. You can use something safe to hold them down or put them in bags/buckets. **IMPORTANT:** Do not use objects that could hurt someone if they fell on them.
- 6) Divide all the players into two teams by having them count off A and B.
- 7) Make a circle of 1 meter across in the middle of the large circle.

- 8) Tell everyone the small circle represents the earth and the large circle represents the atmosphere and the starting line represents the sun.



Game play:

- 1) Start by making Team A the “Heat Team” and Team B the “Greenhouse Gas Team”.
- 2) The Greenhouse Gas Team should pick their two fastest players to start on the circle. For the entire game any player on the Greenhouse Gas Team **MUST** keep both feet on the circle. The rest of the Greenhouse Gas Team waits on the side until it is their turn.
- 3) The Heat Team starts behind the starting line.
- 4) The Heat players:
  - Grab a card from one of the three piles behind the starting line.
  - Run into the circle and touch the earth with one foot.
  - Return to the starting line area, and give that card to the facilitator.
  - Pick up a new card and repeat this as often as possible.
- 5) The Greenhouse Gas Team must run around on the circle and try to tag the Heat Team.
  - The Greenhouse Gas Team can only tag a heat player **AFTER** they have entered the circle and are trying to escape back out.
  - The Greenhouse Gas Team **MUST** keep both feet on the circle at all times and can move around the circle moving to the left, or to the right.

- 6) If a Heat player is tagged, they must give their card to the Greenhouse Gas Player that tagged them and then sit out
- 7) Demonstration: ask one player of each team to demonstrate the rules and clarify any questions.
- 8) At the start of game there are 2 Greenhouse Gas players.
- 9) Every 10 seconds you will add a Greenhouse Gas player to the circle. Note: be strict with the timing.
- 10) The game ends after 3 minutes.
- 11) At the end of 3 minutes add up the TOTAL number of cards that the Heat Team retrieved and gave to the facilitator. This is their score.
- 12) Have the teams switch roles and play for 3 minutes again.
- 13) Whichever team gets the most cards wins.

**Debrief:**

- Ask below questions. You can wrap up and share a brief explanation of what happened.
1. What did you experience playing this game?
  2. What do you think this game represents?

Explanation of what happened

In the game, the heat team run from the sun, through the atmosphere to the earth. They tap the earth and then run back out through the atmosphere. This represents what happens in real life. The sun's rays pass through the atmosphere to the earth. When they reach the earth's surface they are reflected and pass back out through the atmosphere to space.

However, sometimes when the heat team try to escape back out of the atmosphere, they are caught by the greenhouse gas team. This also represents real life. When the sun's rays are reflected from the earth, natural gases can trap this reflected heat in the atmosphere. These heat trapping gases are called GREENHOUSE GASES. Without Greenhouse gases the earth would be very cold – about minus 18 degrees Celsius. This would be too cold to sustain life as we know it. We call this process THE GREENHOUSE EFFECT because it is similar to what happens in a greenhouse. The sun's rays enter the greenhouse through the glass, but then get trapped inside. This keeps the greenhouse warm.

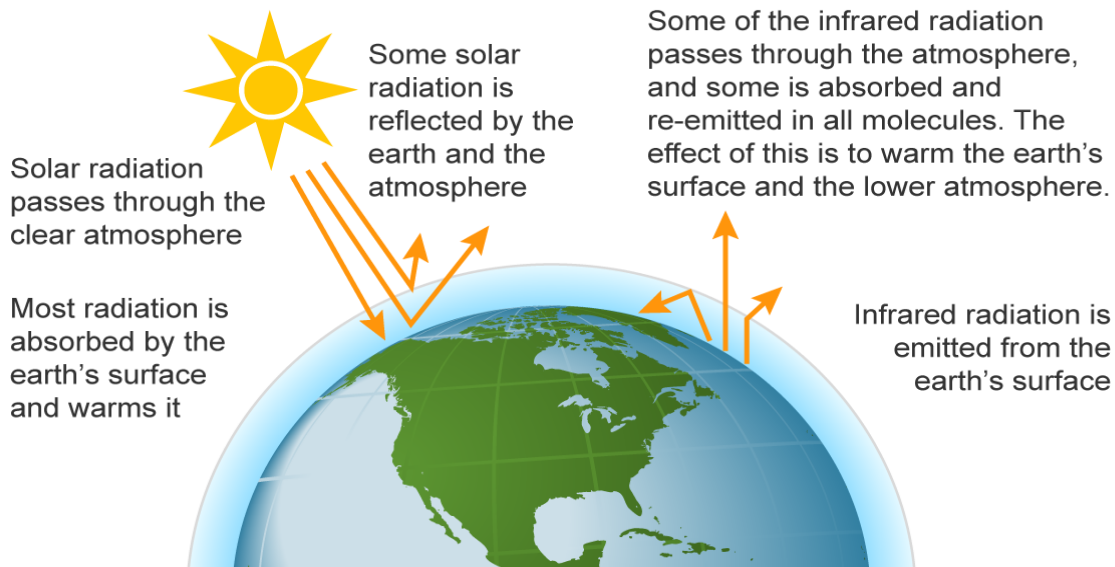
18. Discuss with the learners the climate change chart produced by Lord Stern in the United Kingdom a few years ago. The learners are asked to talk about the effects detailed in the chart.



## Worksheet 1:

2. See Chapter 5: Curbing Climate Change- chart

### The greenhouse effect



After the [Greenhouse Gas Game](#):

1. **Arrange** the 'Greenhouse Gas Debrief Cards' on a wall or table as per the image below.

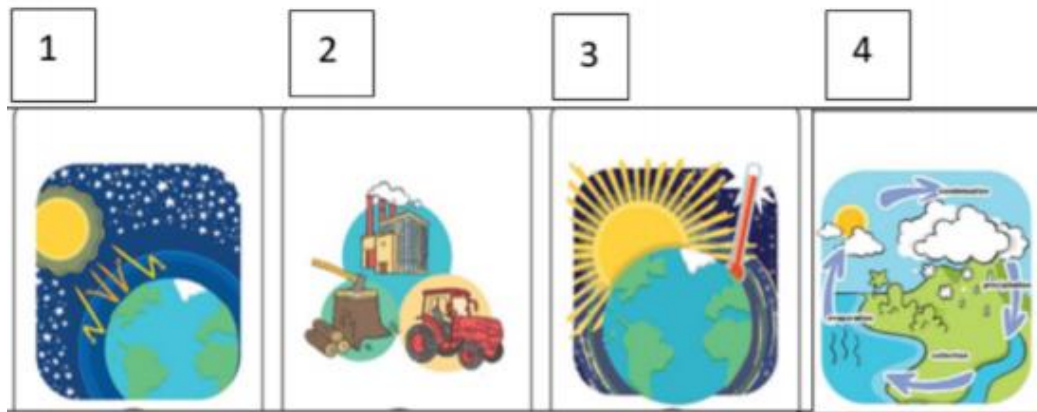
2. **Present cards** 1-4 in order: 1.The Greenhouse Effect; 2. Causes; 3. Global Warming; 4. The Water Cycle.

Tip! You can read the back of the cards to help you explain the cards.

3. **Ask** if anyone can name any of the impacts of climate change. They can look at the images for ideas.

4. **Distribute** the cards among the players and ask them to discuss and pick 1 interesting fact from the back.

5. **Recap** the sequence from the greenhouse effect to the hazards.



**Self-assessment**

Exceeds	Proficient	Developing	Novice
4	3	2	1

I can describe the greenhouse effect

# 5


## LESSON

### Activity 6: Biodiversity

#### KEY WORDS:

- Biodiversity
- Environment
- Natural Environment

#### DURATION:

- 1 hour
- 

#### OBJECTIVES:

- to describe what biodiversity is
- to describe the main threats to biodiversity

#### MATERIALS:

- Pens and paper
- Activity sheets, Chart and images from below
- Training course manual - Unit 5 Sustainable development

The Glossary can be filled in at any point during the lesson!

**DESCRIPTION:**

1. Discuss with the learners the concepts of ecosystem and biodiversity. Ask them to describe the characteristics of the biodiversity. Conduct the class activity *Be a Biodiversity auditor!*

In this activity, students will practice assessing biodiversity by performing an audit of the area around the training location or home. To assist with this, have students download the [SEEK app](#) from iNaturalist on phones or tablets. This app uses image recognition to identify the plants and animals in uploaded photos.

- Begin by having students create on graph paper a map of the area they plan to assess. Student maps should include an extended perimeter around their training location or home, identifying at least two to three spots that they will focus on in order to increase the validity of their results.
- Students should use the SEEK app (if available) to identify as many species as they can from each location. Students can form groups of 3-4, in order to ensure that at least one person from the group have access to the app. Using their data sheet, students should record the various biodiversity criteria in each of the locations they have selected.

### Discussion and Assessment

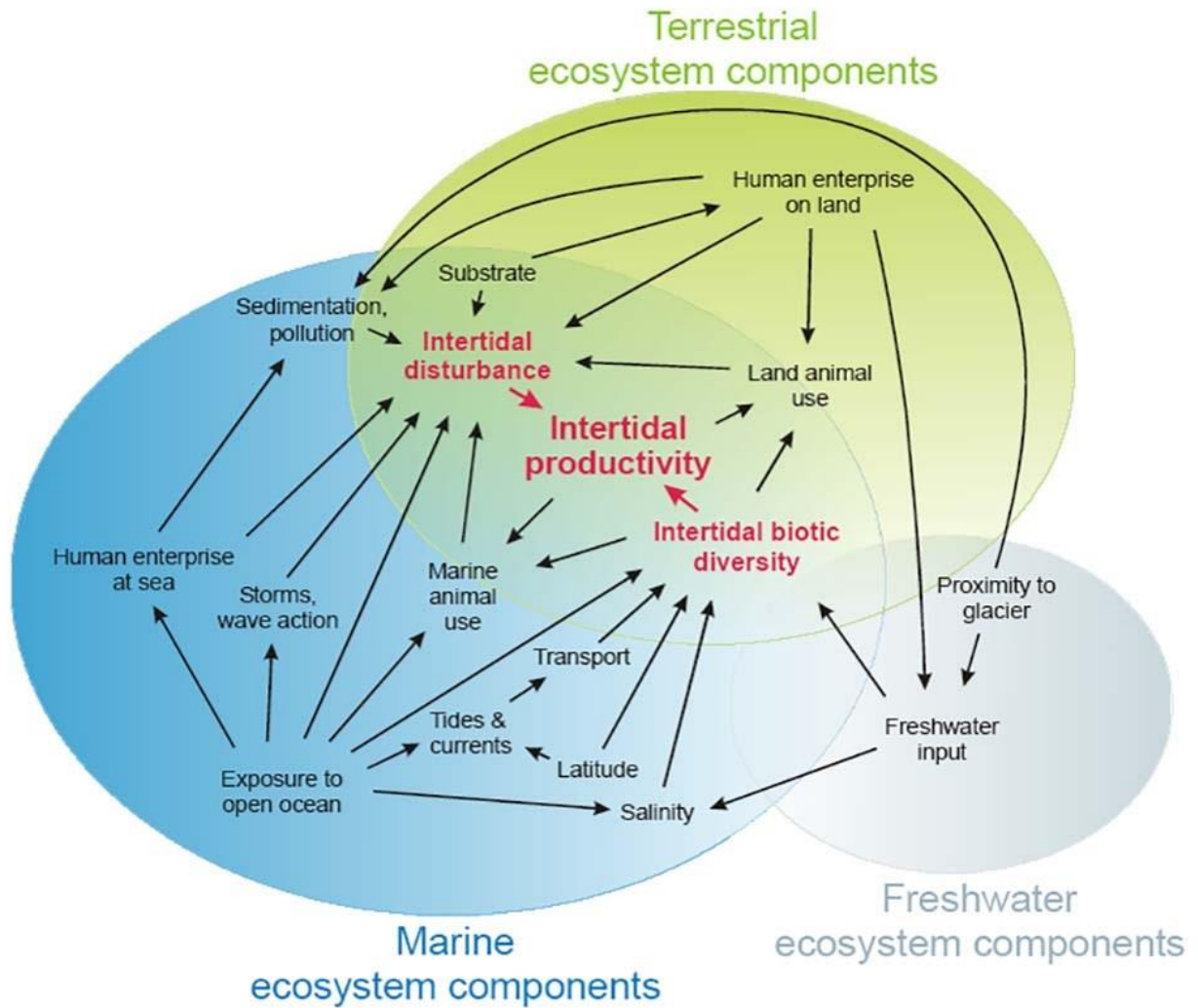
- Have students reflect on their results and complete the two questions found at the bottom of their audit sheet. Based on their findings, how would they evaluate the biodiversity in this area? What characteristics does the area have that support species living there?
- Reiterate the importance of biodiversity, and recap with students the current pressures affecting it.

Ask students whether they feel any of these threats are affecting the biodiversity in their local area or country. Encourage students to brainstorm ways to increase and protect the biodiversity in their area by attracting more wildlife. This could include planting trees, planting a pollinator garden, or building birdhouses and bug hotels.

2. The learners are asked to select from a list the main threats to biodiversity and talk about them.

## Worksheet 1:

Saving Biodiversity- chart



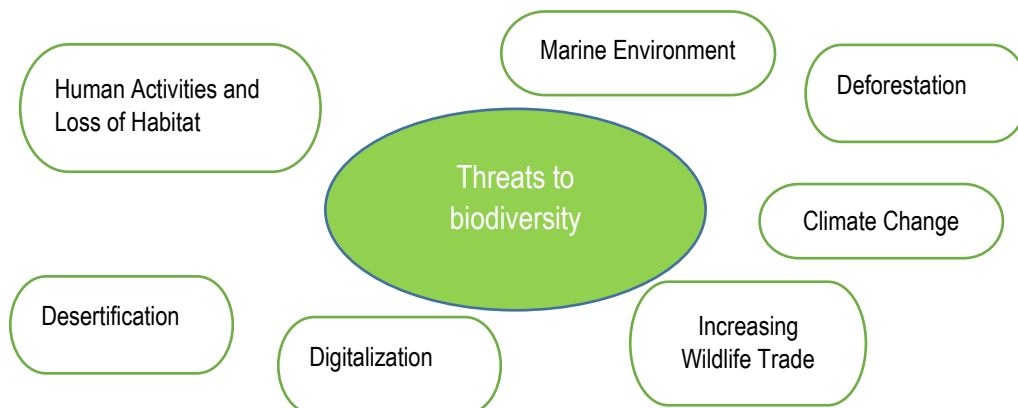
## Worksheet 2:

### Be a Biodiversity auditor!- Learner Data Sheet

Location (name or describe the area)	Composition (list the species found)	Abundance (number of individuals of each species you observed)	Distribution (how spread out the species are)
<b>If you were to give this area a biodiversity grade, what would it be? Why?</b>			
<b>What could be done to increase the area's biodiversity?</b>			

### Worksheet 3:

Select the the main threats to biodiversity



*Correct answer: Human Activities and Loss of Habitat, Deforestation, Desertification, Marine Environment, Increasing Wildlife Trade, Climate Change*

### Self-assessment

Exceeds	Proficient	Developing	Novice
I can describe the characteristics of the biodiversity			
4	3	2	1
I can describe the main threats to biodiversity			
4	3	2	1