



# GEOGRAPHY

## Core Curriculum Programme



# Core Curriculum Programme

# Geography

## Table of Contents

Introduction .....	5
Approaches and Methodologies.....	6
Assessment for Learning.....	8
Assessment Structure Year 9 .....	10
February Grade .....	13
Total annual grade .....	14
Assessment Structure Years 10 and 11 .....	12
Core Curriculum Learning and Assessment Programme – Geography - Year 9.....	19
Core Curriculum Learning and Assessment Programme – Geography - Year 10 .....	26
Core Curriculum Learning and Assessment Programme – Geography - Year 11 .....	30
Appendix 1 - Optional: Fieldwork session 1.....	39
Appendix 2 - Optional: Fieldwork session 2.....	43
Appendix 3 - Optional: Fieldwork session 3.....	47
Appendix 4 - Annual Specimen Paper – Year 9.....	49
Appendix 5 - Annual Specimen Paper – Year 10.....	56
Appendix 6 - Annual Specimen Paper – Year 11.....	63

## Introduction

These guidelines are designed to support the geography teacher to plan for students *who are at imminent risk of educational failure*. The materials prepared facilitate teachers of students with certain learning disabilities to access the core components of the geography curriculum. The course provides a strong element of continuous assessment and emphasis is placed on active learning approaches and real-life experiences.

## Approaches and Methodologies

To make geography accessible to these students it is necessary to provide learning experiences that are meaningful and appropriate to students' needs, abilities and experiences. One way of making learning more meaningful to these students is to connect students' learning to their real-life experiences and help them derive meaning from them. It is also advisable to centre the learning process more on students' activities such as group work, than on the passive reception of knowledge and understanding through teacher exposition. Students should be active in the learning process thus acquiring the knowledge and skills through a range of activities such as out of class learning and fieldwork, research and project work, through the use of Information Technology, resources including maps, images and videos, as well as games, simulations and role-play. An enquiry can be based on a single resource such as a map, a photograph, an item from the internet, a newspaper heading or extract, a table containing statistics or a graph from which students extract data, ideas and facts to solve a problem. Care must be taken to provide students with sufficient guidance and adequate resources to enable them to complete the tasks which they are given. In line with the NCF, the programme devised here promotes the development of a learner-centred approach to learning and teaching.

Students attending core competence classes may face a number of problems, such as

- slow reading and writing;
- a limited concentration span;
- poor retention ability;
- poor self-esteem and a fear of failure;
- visual sequencing;
- limited ability to abstract broad concepts;
- inappropriate or immature personal behaviour.

To attain success it is important for the geography teacher to find ways to address such learning difficulties. Thus, learning experiences need to be characterised by:

- tasks that are appropriate to student's ability;
- tasks that can be completed in the time available;
- tasks that are organised in small, manageable stages;
- tasks that are short and varied;

- tasks that have achievable targets;
- tasks that are relevant to the students' day-to-day experience and have a clear purpose;
- the use of language pitched at the student's level of understanding and that will not hinder his/her understanding of the activity;
- a range of activities that will interest and motivate students;
- tasks that are graded so that they make increasing demands on the student;
- instructions that are explicit.

The teaching objectives of the learning programmes provided here can be achieved through a variety of teaching approaches and resources.

**Fieldwork** for example, provides opportunities for the first-hand investigation of people in their environment and as such awakens students to a diversity of environments and cultures, in their local area. It teaches students to collect and present information and sharpens their observation, measuring, recording and evaluation skills. As such, fieldwork has important contributions to make geography real and enjoyable and as a result every geography student, even those attending core competences classes, should be entitled to have a reasonable amount of exposure to fieldwork experiences through the geography course. Fieldwork should not be limited to visits and guided tours, whereby students are involved only in passive activities such as listening, observing and note-taking. It should be enquiry-based in-line with the aims and objectives of this learning programme. Appendix 1 provides examples of first-hand fieldwork sessions that can be conducted with such pupils.

**Information technologies** available in the classroom such as the IWB and internet access can also be useful to adjust learning to the learners. Information and Communications technology whether it is a personal computer, an interactive whiteboard, or a digital camera influences how students make sense of their world today and at the same time offers a range of tools to support their geographical understanding. Specific programs such as *Google Earth* and *MEPA Map Server* can improve spatial thinking and electronic media and the internet enable students to gain up-to-date information and access to a vast range of images, videos, data and other sources which can greatly enrich geographical understanding. By the use of IT teachers have the power to make lessons livelier and enjoyable thus enhancing students' learning motivation. Geography teachers should provide adequate opportunities for their students to apply IT in their enquiry-based approach to the teaching of the subject.

A good geographical enquiry should also involve the use and analysis of a rich variety of **resources** including maps, globes, textbooks, maps, models, computer software, interactive games, the internet, newspaper extracts, weather instruments, specific items (rock samples and tools) and many others. The resources arouse students' motivation and engage them in active learning situations that meet their varied needs. Besides this, such an extensive range of resources enhance students' learning experiences and are seen by many as a key attraction of the subject.

The Geography department has just produced and uploaded on VLE a bank of resources containing stimulus materials which vary in difficulty and accessibility. This extensive pack of resources covering all the themes and learning objectives of the syllabus can now be accessed on Fronter from the Geography EO's subject room at: <https://ilearn.edu.mt/malta/main.phtml>

## Assessment for Learning

Assessment is an integral part of the learning and teaching process. The 'educational' purpose of assessment is to give feedback to students to help them progress in their learning. Formative assessment in contrast to assessment of learning is concerned with helping teachers and students monitor and make judgments about their progress identifying the next small steps necessary for improvement. In other words assessment for learning helps both students and teachers realise what has been learned, what problems there are in the current learning process and which areas of study may need further work. It is something that should be on-going in order to provide feedback to teachers and their students to make the necessary changes in their teaching and learning activities to promote improvement thus making learning more effective. By introducing Assessment for Learning strategies, teachers can help students to critically analyse the quality of their work and how this can be improved. In this way assessment is used to raise attainment levels and widening opportunities for learning rather than to grade the levels of students' attainments.

In everyday geography lessons, assessment for learning can be implemented through a number of tried and tested practices namely:

- expected learning outcomes and goals shared and discussed at the beginning of each lesson;



- teachers sharing the learning requirements with their students helping them know and recognise the standards they are aiming for;
- provide opportunities for self- and peer assessment;
- improved feedback, focused on the value of what has been achieved:
- improved feedback so that the students know what should be done next for improvement;
- a collaborative approach to learning with a strong emphasis on analysis, discussion and reflection.

Assessment in geography must measure the student's understanding and application of the main geographical concepts and knowledge, the acquisition of basic geographical skills and the development of attitudes and values contributing to sustainable development. A range of assessment techniques will be necessary and all of these approaches should arise as naturally as possible for students to perform to their true ability. Much of the most valuable information about students' achievements comes from day-to-day observations, especially through effective questioning and discussions as the students work. Such information is necessary to make judgments of what they know, what are their strengths, weaknesses and misconceptions, thus adjusting the pace and choosing the most appropriate teaching strategies to reach the learning objectives. This can be achieved through:

- observation and listening to students as they work;
- the responses the students make to questions set;
- participation of the student in class discussions;
- marking and providing quality feedback to student's work;
- reflecting on and critically evaluating their own work as well as through the involvement of students in peer assessment processes.

Valuable information about students' attainment can also be observed and assessed while students are engaged in a range of classroom situations. These activities may include:

- collecting information from primary and secondary sources;
- direct observation in the field;
- predicting outcomes after conducting simple experiments;
- completing work cards or handouts;
- oral presentations;
- written work or class tests;

- drawing and analysing maps;
- using and interpreting graphs;
- collecting information from electronic media;
- carrying out independently geographical research and recording and presenting results in project work.

These types of formative assessment procedures give teachers the most valuable information about students' attainments and have the most impact on their progress. However, **summative assessments** such as yearly examinations set by the Education Assessment Unit should not be used merely to rank students' performance or perhaps to inform parents about students' attainment. Such examinations can also have a formative element by encouraging students to reflect on their performance, and at the same time helping teachers evaluate the success of their teaching and setting targets for improvements.

## Assessment Structure YEAR 9

The final mark at the end of the three-year Core Curriculum Programme, which will lead to a MQF Level 1 certification, will be decided on the basis of a continuous and summative assessment format. Continuous assessment in the form of a portfolio will ensure that both product and process are being given their due importance.

The Geography Core Curriculum Programme assessment will include a portfolio and a summative test consisting of an end-of-year oral test set by the Directorate for Learning and Assessment Programmes and administered by the class teacher.

Year 9	February	June		% total for each year
	<b>Continuous Formative Assessment</b> Assessed till end of January (% for each year)	<b>Continuous Formative Assessment</b> Assessed between February till end of scholastic year (% for each year)	<b>Summative Assessment (oral test)</b> (% for each year)	
	<b>50%</b>	<b>30%</b>	<b>20%</b>	<b>100%</b>

## February Grade

The February grade will consist of continuous assessment carrying 50% of the total end-of-year mark which has to be doubled to obtain the final February mark. This mark is then converted into a grade as indicated in the table below.

Mark	Grade	Criteria
80 - 100	<b>MO</b>	Mastered expected learning outcomes
51 - 79	<b>P</b>	Partially achieved expected learning outcomes
31 - 50	<b>S</b>	Starting to work towards expected learning outcomes
1 - 30	<b>WB</b>	Working below the expected learning outcomes

The continuous formative component will include a portfolio compiled by the student between September till the end of January. It may include a range of activities/evidence, such as written tasks, drawings of maps, charts and graphs, field notes, photographs (as evidence) of students carrying out experiments or out-of-class activities, documentation of artefacts, student reflections, models, ICT work, etc.

## Total annual grade

The total annual grade will consist of a summative oral test (20%) and a continuous assessment component (30%) based on the outcomes covered between February and June, added to the 50% February assessment. This mark, out of a total of 100%, is then converted to a grade as indicated in the table below.

Mark	Grade	Criteria
80 - 100	<b>MO</b>	Mastered expected learning outcomes
51 - 79	<b>P</b>	Partially achieved expected learning outcomes
31 - 50	<b>S</b>	Starting to work towards expected learning outcomes
1 - 30	<b>WB</b>	Working below the expected learning outcomes

The annual summative oral test will be centrally set by the Directorate for Learning and Assessment Programmes and will take around 10 minutes. It should be conducted during the final CCP lesson/s of the scholastic year. Statemented learners are to be provided with the support that they are entitled to.

The continuous formative assessment will consist of a portfolio compiled by the student between February to the end of the scholastic year.

For the annual assessment students following the CCP are to have the following data inputted in the in the Secondary Assessment Marksheet:

S1/S3 – N/A

Track – CCP

Assessment – E (Exempted)

Exam – MO or P or S or WB

The teacher needs also to keep a record of the marks obtained by each individual student. At the end of the scholastic year the marks and the portfolios are to be handed to the head of school for future reference.

For the purpose of achieving MQF level 1 Certification at the end of Year 11, learners need to accumulate an overall grade **MO** between Year 9 and Year 11.

## Assessment Structure Years 10 and 11

The final mark at the end of the three-year Core Curriculum Programme, which will lead to a MQF Level 1 certification, will be decided on the basis of a continuous and summative assessment format. Continuous assessment in the form of a portfolio will ensure that both product and process are being given their due importance.

The Geography Core Curriculum Programme assessment will include a portfolio and two summative tests which include:

- a half-yearly oral test set and administered by the class teacher; and
- an end-of year oral test set by the Department of Curriculum Management and administered by the class teacher.

Year	Half-Yearly		Annual		% total for each year
	Continuous Formative Assessment Assessed till end of January (% for each year)	Summative Assessment (oral test) (% for each year)	Continuous Formative Assessment Assessed between February till end of scholastic year (% for each year)	Summative Assessment (oral test) (% for each year)	
Year 10	30%	20%	30%	20%	100%
Year 11	30%	20%	30%	20%	100%

## The Half-Yearly Assessment

The half-yearly assessment grade will consist of a summative oral test and a continuous assessment component. The oral test will carry 20% of the total yearly mark. The continuous assessment will carry 30% of the total yearly mark. As this will amount to 50% it has to be doubled to obtain the final half yearly mark. This mark is then converted into a grade as indicated in the table below.

Mark	Grade	Criteria
80 - 100	<b>MO</b>	Mastered expected learning outcomes
51 - 79	<b>P</b>	Partially achieved expected learning outcomes
31 - 50	<b>S</b>	Starting to work towards expected learning outcomes
1 - 30	<b>WB</b>	Working below the expected learning outcomes

The half-yearly oral test will be set by the school or college. It will take around 10 to 12 minutes consisting of oral tasks. The half-yearly test should be conducted by the class teacher either during normal days allotted for oral examinations or during the CCP lesson/s prior to the half-yearly exam. This test carries 20% of the total marks for the year.

The continuous formative component will include a portfolio compiled by the student between September till the end of January. It may include a range of activities/evidence, such as written tasks, drawings of maps, charts and graphs, field notes, photographs (as evidence) of students

carrying out experiments or out-of-class activities, documentation of artefacts, student reflections, models, ICT work, etc.

For the half-yearly assessment, the following data should be inputted for each field in the e1 Secondary Assessment Marksheet:

S1/S3 – N/A

Track – CCP

Assessment – MO or P or S or WB

Exam – N/A

## Total annual grade

The total annual grade will consist of a summative oral test (20%) and a continuous assessment component (30%) based on the outcomes covered between February and June, added to the 50% half yearly assessment. This mark, out of a total of 100%, is then converted to a grade as indicated in the table below.

Mark	Grade	Criteria
80 - 100	<b>MO</b>	Mastered expected learning outcomes
51 - 79	<b>P</b>	Partially achieved expected learning outcomes
31 - 50	<b>S</b>	Starting to work towards expected learning outcomes
1 - 30	<b>WB</b>	Working below the expected learning outcomes

The annual summative oral test will be centrally set by the Department of Curriculum Management and will take around 10 minutes. It should be conducted during the final CCP lesson/s of the scholastic year. Statemented learners are to be provided with the support that they are entitled to.

The continuous formative assessment will consist of a portfolio compiled by the student between February to the end of the scholastic year.

For the annual assessment students following the CCP are to have the following data inputted in the in the e1 Secondary Assessment Marksheet:

S1/S3 – N/A

Track – CCP

Assessment – E (Exempted)

Exam – MO or P or S or WB

The teacher needs also to keep a record of the marks obtained by each individual student. At the end of the scholastic year the marks and the portfolios are to be handed to the head of school for future reference.

For the purpose of achieving MQF level 1 Certification at the end of Year 11, learners need to accumulate an overall grade **MO** between Year 9 and Year 11.

## GEOGRAPHY - ASSESSMENT STRUCTURE

### Year 9

#### Core Curriculum Programme

<b>CONTINUOUS FORMATIVE ASSESSMENT</b>  <b>80%</b>	<b>SUMMATIVE ASSESSMENT</b>  <b>(Oral Component)</b>  <b>20%</b>
<p>This will include a portfolio compiled by the student over the course of the scholastic year (50% from September till end of January and 30% from February till end of scholastic year). The portfolio may include a range of the following activities/evidence:</p> <ul style="list-style-type: none"><li>• simple written tasks</li><li>• maps, charts, graphs and tables</li><li>• photographs (as evidence) of students carrying out class or out-of-class activities (e.g. carrying out experiments)</li><li>• field activities</li><li>• documentation of artefacts</li><li>• student reflections</li><li>• ICT work</li><li>• models</li></ul>	<p>An end of year oral test where students are asked to:</p> <ul style="list-style-type: none"><li>• explain and talk about a selection of work included in their portfolio</li><li>• speak about a picture, graph or map related to the syllabus</li><li>• answer questions on themes related to the syllabus.</li></ul>



## GEOGRAPHY - ASSESSMENT STRUCTURE

### Year 10

#### Core Curriculum Programme

<b>CONTINUOUS FORMATIVE ASSESSMENT</b>  <b>30% + 30%</b>	<b>SUMMATIVE ASSESSMENT</b>  <b>(Oral Component)</b>  <b>20% + 20%</b>
<p>This will include a portfolio compiled by the student over the course of the scholastic year (30% from September till end of January and 30% from February till end of scholastic year). The portfolio may include a range of the following activities/evidence:</p> <ul style="list-style-type: none"><li>• simple written tasks</li><li>• maps, charts, graphs and tables</li><li>• photographs (as evidence) of students carrying out class or out-of-class activities (e.g. carrying out experiments)</li><li>• field activities</li><li>• documentation of artefacts</li><li>• student reflections</li><li>• ICT work</li><li>• models</li></ul>	<p>A half-yearly oral test (20%) and an end of year oral test (20%) where students are asked to:</p> <ul style="list-style-type: none"><li>• explain and talk about a selection of work included in their portfolio</li><li>• speak about a picture, graph or map related to the syllabus</li><li>• answer questions on themes related to the syllabus.</li></ul>

## GEOGRAPHY - ASSESSMENT STRUCTURE

### Year 11

#### Core Curriculum Programme

<b>CONTINUOUS FORMATIVE ASSESSMENT</b>  <b>30% + 30%</b>	<b>SUMMATIVE ASSESSMENT</b>  <b>(Oral Component)</b>  <b>20% + 20%</b>
<p>This will include a portfolio compiled by the student over the course of the scholastic year (30% from September till end of January and 30% from February till end of scholastic year). The portfolio may include a range of the following activities/evidence:</p> <ul style="list-style-type: none"><li>• simple written tasks</li><li>• maps, charts, graphs and tables</li><li>• photographs (as evidence) of students carrying out class or out-of-class activities (e.g. carrying out experiments)</li><li>• field activities</li><li>• documentation of artefacts</li><li>• student reflections</li><li>• ICT work</li><li>• models</li></ul>	<p>A half-yearly oral test (20%) and an end of year oral test (20%) where students are asked to:</p> <ul style="list-style-type: none"><li>• explain and talk about a selection of work included in their portfolio</li><li>• speak about a picture, graph or map related to the syllabus</li><li>• answer questions on themes related to the syllabus.</li></ul>

## Core Curriculum Learning and Assessment Programme – Geography - Year 9

<b>Unit Title: The Sea</b>		
<b>Key Words:</b> headland, cliff, cave, arch, stack, pollution, sewage outflow, fertilisers, insecticides, oil spill, industrial waste, sewage treatment plant		
<b>Teaching Objective</b>	<b>Learning Outcomes</b>	<b>Suggested activities/task</b>
The teacher will help students understand the action of waves to erode the coast.	<ul style="list-style-type: none"> <li>• I can recognise the shape and name coastal landforms on a headland.</li> <li>• I can name examples of headlands, caves, arches and stacks.</li> <li>• I can describe how caves, arches and stacks are formed.</li> </ul>	<ul style="list-style-type: none"> <li>• Build a model individually or in a group showing coastal landforms on a headland.</li> <li>• Label the model with flashcards to include headland, cave, arch and stack.</li> <li>• Recognise the above named landforms from photographs, drawings, diagrams and models.</li> <li>• Use photographs and or videos to recognise and name well known coastal features.</li> <li>• Describe orally and/or through simple guided tasks how caves, arches and stacks are formed.</li> </ul>
The teacher will help students explore the negative impacts of humans on the sea environment and some conservation strategies.	<ul style="list-style-type: none"> <li>• I can recognise and label sources of sea pollution.</li> <li>• I can describe briefly the sources of sea pollution.</li> <li>• I can briefly explain the effects of some sources of sea pollution.</li> <li>• I can briefly explain how sewage treatment plants can help to improve the quality of the sea.</li> <li>• I can list and comment on the advantages and uses of</li> </ul>	<ul style="list-style-type: none"> <li>• Use diagrams and photographs to recognise and label different sources of sea pollution.</li> <li>• From the internet or other sources search for pictures of sea pollution and write simple sentences underneath each describing the source of pollution.</li> <li>• Draw up a poster to show the effect of some sources of sea pollution (e.g. sewage outflow – beach unfit for</li> </ul>

	sewage treatment plants.	swimming; dumping of plastic bags – marine turtle suffocated). <ul style="list-style-type: none"><li>• Watch video clip on sewage treatment plants <a href="https://www.youtube.com/watch?v=lutuo6cXKX4">https://www.youtube.com/watch?v=lutuo6cXKX4</a> and comment on the importance of sewage treatment for different categories of people.</li></ul>
--	--------------------------	--

<b>Unit Title: Water a vital resource</b>		
<b>Key Words:</b> porous rock, impermeable rock, water table, clay, sedimentary rocks, wind pump, rainfall, bar graph, wet, dry, audit, conservation		
<b>Teaching Objective</b>	<b>Learning Outcomes</b>	<b>Suggested activities/task</b>
The teacher will help students explore what happens to water when it falls to the ground.	<ul style="list-style-type: none"> <li>I can explore what happens to rain when it falls on different surfaces in the school premises. (e.g. sand, soil, tarmac, grass).</li> </ul>	<ul style="list-style-type: none"> <li>Investigate what happens to rain water when it falls on different surfaces, such as sand, soil, tarmac, grass.</li> <li>Explain orally how water is harvested in the school.</li> </ul>
The teacher will help students find out how water penetrates through porous rocks.	<ul style="list-style-type: none"> <li>I can explain the process of how water can infiltrate through rocks.</li> <li>I can explain how the aquifer is formed.</li> <li>I can describe how water is recovered from the aquifers.</li> </ul>	<ul style="list-style-type: none"> <li>Carry out experiment by using a jar filled with layers of sand, soil, gravel and clay/play dough to show and explain the process of how water can infiltrate through rocks.</li> <li>Arrange the sequence of a set of mixed sentences to show how water passes through rocks and forms the aquifer.</li> <li>Suggest ways of recovering the water stored in the rocks and recognise pictures of wind pump and electric water pump. Add captions to such pictures.</li> </ul>
The teacher will help students draw and interpret rainfall graphs.	<ul style="list-style-type: none"> <li>I can draw and interpret an annual rainfall bar graph for Malta from data provided.</li> <li>I can compare the rainfall graph of the Maltese Islands with that of a wetter country.</li> </ul>	<ul style="list-style-type: none"> <li>Draw a bar chart for rainfall and give a simple interpretation of the data/figures.</li> <li>Answer written/oral questions about the annual distribution of rainfall (e.g. which is the wettest/driest month of the year?)</li> </ul>

		<ul style="list-style-type: none"> <li>• Write or explain orally the differences between the amount and distribution of rainfall by interpreting rainfall graphs (e.g. Malta and Ireland).</li> </ul>
<p>The teacher will help students investigate the use and misuse of water and devise ways for its proper conservation.</p>	<ul style="list-style-type: none"> <li>• I can investigate the use of water in the school and/or at home.</li> <li>• I can list ways how to reduce water consumption both at home and at school.</li> <li>• I can participate in a discussion on ways to reduce water consumption at school or at home.</li> </ul>	<ul style="list-style-type: none"> <li>• Carry-out an audit to see how water is used in the school or at home.</li> <li>• Investigate how rain water is harvested in the school.</li> <li>• Devise an action plan to reduce water consumption and ways how to store rain water in the school.</li> <li>• Devise stickers and/or posters encouraging other students to reduce water waste.</li> <li>• Present the audit results and action plan during school assembly or on a special school activity.</li> </ul>

<b>Unit Title: Investigating Soil</b>		
<b>Key Words:</b> soil, humus, natural resource, indigenous, alien tree/plant		
<b>Teaching Objective</b>	<b>Learning Outcomes</b>	<b>Suggested activities/task</b>
The teacher will help students examine the main components of soil.	<ul style="list-style-type: none"> <li>I can describe the main components of soil.</li> </ul>	<ul style="list-style-type: none"> <li>Note certain differences (e.g. in colour, texture, content - size of grains) among different soil samples.</li> <li>Explain either orally or through drawings the main components of soil.</li> <li>Choose the correct components of the soil from a number of text labels and pictures including distractors.</li> </ul>
The teacher will help students recognise the vital importance of soil.	<ul style="list-style-type: none"> <li>I can explain briefly the importance of soil.</li> </ul>	<ul style="list-style-type: none"> <li>Explain orally or in writing why we need soil.</li> <li>List plants and trees that require soil to grow.</li> </ul>
The teacher will help students identify trees grown in and around the school.	<ul style="list-style-type: none"> <li>I can define and give examples of indigenous and alien species of trees.</li> <li>I can name some indigenous and alien trees growing at school or in the surrounding area.</li> <li>I can give reasons why planting indigenous trees is preferable to planting alien species.</li> </ul>	<ul style="list-style-type: none"> <li>Fill in a simple checklist of trees growing at school by recording different species compared to a species list.</li> <li>Identify the name of trees in the school and put up identification tags with Maltese and English names and whether indigenous to Malta or not.</li> <li>Record the actual height and the diameter (diameter at breast height, i.e. 130 cm) of certain trees grown in the school grounds.</li> <li>Explain orally the meaning of the terms indigenous and alien species.</li> <li>Plant seeds of indigenous species such as Aleppo pine (Żnuber), Spanish Broom (Ġenista safra), Cypress (Ċipressa), Chaste tree (Sığra tal-Virgi) and Juda's Tree</li> </ul>



		<p>(Siġra ta' Ġuda). Such seed are available by contacting <a href="mailto:sigaruskejjel@gov.mt">sigaruskejjel@gov.mt</a> (Tel.22924154, 22920280)</p> <ul style="list-style-type: none"> <li>• Look after these seedlings and decide whether to transplant them in the school ground or donate them to the local council.</li> <li>• Identify alien trees that should not have been planted in and around the school according to Legal Notice 200 of 2011, Schedule 3. Students take action by asking SMT/local council to replace such trees with indigenous ones.</li> </ul>
--	--	--

# Core Curriculum Learning and Assessment Programme – Geography - Year 10

<b>Unit Title: Energy Resources and Climate Change</b>		
<b>Key Words:</b> renewable resource, non-renewable energy resource, coal, oil, natural gas, hydro-electric power, geothermal electricity, wind energy, tidal/wave energy, solar water heater, photovoltaic /solar panels, power station, global warming, rise in sea-level		
<b>Teaching Objective</b>	<b>Learning Outcomes</b>	<b>Suggested activities/task</b>
The teacher will help students understand the difference between a renewable and a non-renewable energy resource.	<ul style="list-style-type: none"> <li>I can differentiate between renewable and non-renewable energy resources.</li> <li>I can identify sources of energy in the local environment.</li> <li>I can name the source of energy used by each apparatus (e.g. solar panel, solar water heater, wind turbine).</li> </ul>	<ul style="list-style-type: none"> <li>Students use of images to classify under renewable and non-renewable energy resources. Students place the correct term under each respective image.</li> <li>Students place pictures of different energy sources under the correct heading.</li> <li>Students take photos of renewable sources found in the school /home area and associate each with the source and type of energy produced (e.g. solar water heater to heat water, PVC panel to generate electricity).</li> </ul>
The teacher will help students explore the advantages of using renewable energy resources.	<ul style="list-style-type: none"> <li>I can list the advantages of renewable sources of energy.</li> </ul>	<ul style="list-style-type: none"> <li>Through role play, students imagine to be the minister for the environment addressing residents about the advantages of adopting renewable sources of energy at home.</li> </ul>
The teacher will help students examine how electricity is generated locally in a power station and evaluate the problems created.	<ul style="list-style-type: none"> <li>I can describe how electricity is produced locally in a thermal power station</li> <li>I can give reasons why the Malta power stations changed the source of fuel over time.</li> <li>I can put sources of fossil fuels in rank order according to the level of carbon emissions.</li> </ul>	<ul style="list-style-type: none"> <li>Students describe orally or through pictures/diagrams how electricity is produced locally in a thermal power station.</li> <li>Students explain orally why the source of energy has been changed over the years from coal to oil and now to natural gas.</li> <li>Students produce a chart/pictogram illustrating</li> </ul>

	<ul style="list-style-type: none"> <li>I can name the negative effects on people and the environment brought about by the burning of fossil fuels.</li> </ul>	<p>carbon emissions emitted when oil, coal and gas are burnt.</p> <ul style="list-style-type: none"> <li>Students produce posters showing the negative effects created with the burning of fossil fuels on people and the environment. (e.g. respiratory problems, global warming, rise in sea-level, oil spillage, flooding, severe weather)</li> </ul>
--	---	--

<b>Unit Title: Rock detectives</b>		
<b>Key Words:</b> layer, fossil, sedimentary, igneous, metamorphic, igneous rock, lava, marble, limestone, Upper Coralline Limestone, Greensand, Blue Clay, Globigerina Limestone, Lower Coralline Limestone, quarry		
<b>Teaching Objective</b>	<b>Learning Outcomes</b>	<b>Suggested activities/task</b>
The teacher will help students discover how sedimentary rocks are formed.	<ul style="list-style-type: none"> <li>I can explain how sedimentary rock layers are formed and identify the oldest and youngest layer from diagrams.</li> </ul>	<ul style="list-style-type: none"> <li>Students produce their own sedimentary block of rock using a variety of materials such as sand, gravel, soil, pebbles, sea shells, fish bones etc.</li> <li>Students label the model with flash cards to indicate the following; horizontal layers, fossils, youngest layer, oldest layer.</li> <li>Students draw an annotated diagram of their model.</li> <li>Students explain orally how sedimentary rocks are formed.</li> </ul>
The teacher will help students explore how fossils came about.	<ul style="list-style-type: none"> <li>I can give reasons why sedimentary rocks above sea-level contain fossils of marine creatures.</li> </ul>	<ul style="list-style-type: none"> <li>Students create fossil imprints of sea-shells and explain how they are formed in sedimentary rocks.</li> </ul>
The teacher will help students distinguish between the three main categories of rock.	<ul style="list-style-type: none"> <li>I can briefly explain the formation of the two remaining categories of rock (metamorphic and igneous).</li> <li>Students classify named rock samples according to their formation.</li> <li>I can give examples of igneous, sedimentary and metamorphic rocks.</li> <li>I can describe the use of named types of rock.</li> </ul>	<ul style="list-style-type: none"> <li>Students watch video clips (e.g. volcanic eruption leading to the formation of a volcanic island) and examine rock samples to explain briefly how these main types of rocks (metamorphic and igneous) are formed.</li> <li>Students classify named rock samples according to the main type of rock (e.g. igneous: lava/granite; metamorphic: marble; sedimentary: limestone/clay).</li> <li>Students create a chart with pictures and simple sentences to illustrate the various uses of rocks, locally and abroad.</li> </ul>

<p>The teacher will help students understand the formation, characteristics and main uses of the sedimentary rocks of the Maltese Islands.</p>	<ul style="list-style-type: none"> <li>• I can name the five major rock formations in the Maltese Islands.</li> <li>• I can identify the five major rock formations in the Maltese islands.</li> <li>• I can explain briefly the importance of quarrying for the building industry.</li> <li>• I can name two locations associated with quarrying in Malta.</li> <li>• I can list some negative effects of quarrying.</li> </ul>	<ul style="list-style-type: none"> <li>• Students identify the five major rock types found locally using samples of rocks and available econtent material.</li> <li>• Students describe, either by visiting a quarry (used or disused) or through videos/images the different products obtained and the effects of this activity on the environment and residents living nearby.</li> </ul>
--	--	---

<b>Unit Title: The Dynamic Earth</b>		
<ul style="list-style-type: none"> <li><b>Key Words:</b> core, mantle, crust, plate, volcano, earthquake, lava, magma, mountains, crater, vent, layers of lava and ash</li> </ul>		
<b>Teaching Objective</b>	<b>Learning Outcomes</b>	<b>Suggested activities/task</b>
<p>The teacher will help students understand the cause of tectonic activity including plate movements.</p>	<ul style="list-style-type: none"> <li>I can identify on a diagram the three layers of the earth's interior.</li> <li>I can explain briefly that the crust is broken into large landmasses called plates.</li> <li>I can briefly describe why plates move.</li> <li>I can locate and name places which are prone to seismic and volcanic activity.</li> <li>I can relate areas with frequent tectonic activity with plate boundaries.</li> </ul>	<ul style="list-style-type: none"> <li>Students produce a model of Earth showing the three layers, namely core, mantle and crust. Students label the model accordingly.</li> <li>Students carry out simple experiments (e.g. using a boiled egg) to explore how the crust is divided into large blocks called plates.</li> <li>Using different media (blocks, folding paper, fabric) students explain orally the movement of plates involved in the case study.</li> <li>Through a case study (e.g. video clip entitled <i>Last Days of Pompeii</i> <a href="https://www.youtube.com/watch?v=dY_3ggKg0Bc">https://www.youtube.com/watch?v=dY_3ggKg0Bc</a>) or a recent volcanic/tectonic activity, students locate the position of the area under study on a globe (or Google Earth) and relate it to its position on a plate.</li> <li>Use real time earthquake maps such as <a href="http://www.emsc-csem.org/#5w">http://www.emsc-csem.org/#5w</a> to observe places of recent earthquake activity.</li> </ul>
<p>The teacher will help students examine what can happen during a volcanic eruption and an earthquake.</p>	<ul style="list-style-type: none"> <li>Students define orally the main features of a volcano and label a cross-section diagram of a volcano.</li> <li>I can differentiate between lava and magma.</li> <li>I can use the internet to search information</li> </ul>	<ul style="list-style-type: none"> <li>Students construct their own model of a volcano and label the main features including crater, vent, layers of lava and ash.</li> <li>Students carry out an experiment using baking soda and other ingredients showing a volcanic eruption. Students take photographs or film the experiment</li> </ul>

	<p>about a particular earthquake or a volcano.</p> <ul style="list-style-type: none"> <li>• I can list the effects of a particular volcano or earthquake.</li> </ul>	<p>and report the event through role play. (Students take different roles e.g. journalist, tourist, volcanologist, victims)</p> <ul style="list-style-type: none"> <li>• Students search the internet for images showing the effects of seismic activity (earthquake/volcano). Students write captions to explain what is happening.</li> </ul>
--	--	---



# Core Curriculum Learning and Assessment Programme – Geography - Year 11

<b>Unit Title: Weather and Climate</b>		
<b>Key Words:</b> hot, cold, cloudy, partly cloudy, storm, thunder, rainy, dry, weather forecast, weather report		
<b>Teaching Objective</b>	<b>Learning Outcomes</b>	<b>Suggested activities/task</b>
The teacher will help students observe and describe the weather.	<ul style="list-style-type: none"> <li>I can describe the weather condition for a particular day.</li> </ul>	<ul style="list-style-type: none"> <li>List adjectives that describe the weather (e.g. sunny, windy, rainy, cold, hot).</li> <li>Students come up with their own weather symbols to describe different weather conditions (e.g. cloudy, partly sunny, rainy).</li> <li>Prepare a legend where the meaning of each weather symbol is explained.</li> <li>Set up a weather calendar to illustrate the daily weather conditions using their own symbols.</li> </ul>
The teacher will help students observe and describe the effect of daily weather on people.	<ul style="list-style-type: none"> <li>I can describe the effect of the daily weather on our daily activities (e.g. different types of clothes, hanging the washing in or out, watering the plants, using the umbrella).</li> </ul>	<ul style="list-style-type: none"> <li>Students link pictures of particular activities (swimming, people using umbrellas) to different weather conditions.</li> <li>Categorise pictures showing different activities and celebrations (e.g. Christmas, village feast, carnival, swimming) on a chart divided into four sections according to the seasons.</li> </ul>
The teacher will help students understand the weather forecast/report.	<ul style="list-style-type: none"> <li>I can use the internet to find the weather conditions and forecast in Malta and other countries.</li> </ul>	<ul style="list-style-type: none"> <li>Students can find and read the weather report and forecast as shown on the Malta International Airport website.</li> <li>Students use search engines to find out the weather forecast for cities in different parts of the world.</li> </ul>

<p>The teacher will help students describe an extreme weather condition and its impact.</p>	<ul style="list-style-type: none"> <li>• I can briefly describe the effects of an extreme weather event (by choosing from hurricane, severe storm, drought, hail storm) by referring to a specific case study.</li> </ul>	<ul style="list-style-type: none"> <li>• Students use the internet to collect information on any example of severe weather phenomena (e.g. hurricane, storm, drought, hail storm) locally or abroad.</li> <li>• Describe orally or by writing simple sentences or by writing captions underneath pictures the effects of the chosen weather phenomenon.</li> </ul>
---	---	--

<b>Unit Title: The Living Planet</b>		
<b>Key Words:</b> flora, fauna, food chain, endangered species, extinct, nature reserve, hot desert, tropical rainforest, savannah, tundra, deforestation		
<b>Teaching Objective</b>	<b>Learning Outcomes</b>	<b>Suggested activities/task</b>
The teacher will help students find out how an ecosystem works.	<ul style="list-style-type: none"> <li>• I can identify different forms of life at a micro level (e.g. on a tree, inside a rubble wall).</li> <li>• I can list what these different forms of life need to survive (e.g. sun, light, water, soil).</li> <li>• I can briefly explain orally or graphically how a very simple food chain works.</li> </ul>	<ul style="list-style-type: none"> <li>• Sort pictures of flora and fauna to complete a simple food chain (e.g. wheat, mouse, snake and eagle).</li> </ul>
The teacher will help students examine why certain species have become endangered.	<ul style="list-style-type: none"> <li>• I can define and list some endangered species.</li> <li>• I can explain the threats facing two endangered species: one terrestrial and one marine.</li> <li>• I can suggest how these species can be protected and saved from extinction.</li> <li>• I can describe a natural conservation project or a protected natural site.</li> </ul>	<ul style="list-style-type: none"> <li>• Use internet sites such as WWF to search for endangered species.</li> <li>• Create a chart with pictures of such endangered species with labels including name, how many left and cause of threat.</li> <li>• Participate in a natural conservation project and /or visit one natural protected site designed to provide sanctuary to endangered species.</li> </ul>
The teacher will help students explore the natural vegetation of the tropical rainforest.	<ul style="list-style-type: none"> <li>• I can identify different types of environments, namely hot deserts, tropical rainforest, Mediterranean, savannah and tundra.</li> <li>• I can list the main features of a tropical rainforest environment.</li> <li>• I can list some causes and effects of deforestation.</li> <li>• I can suggest ways how the forest can be saved.</li> </ul>	<ul style="list-style-type: none"> <li>• Identify different types of environments shown on pictures or videos, namely hot deserts, tropical rainforest, Mediterranean, savannah and tundra.</li> <li>• After watching a video, write labels indicating the main features of a tropical rainforest.</li> <li>• Place these labels on a picture or diagram of the rainforest.</li> <li>• Search the Internet for pictures of some animals</li> </ul>

		<p>that live in the tropical rainforest.</p> <ul style="list-style-type: none"><li>• From given sentences classify the causes and effects of deforestation.</li><li>• Design a poster on the theme <i>Saving the Forest</i>.</li></ul>
--	--	--

<b>Unit Title: Managing Waste</b>		
<b>Key Words:</b> waste, reduce, reuse, recycle, landfill, over packaging		
<b>Teaching Objective</b>	<b>Learning Outcomes</b>	<b>Suggested activities/task</b>
The teacher will help students explore ways to reduce, reuse and recycle waste.	<ul style="list-style-type: none"> <li>• I can describe different waste disposal options.</li> <li>• I can give reasons for the need to separate waste.</li> <li>• I can sort waste items according to the appropriate bin or bag.</li> <li>• I can suggest ways how I can reduce and reuse waste at home.</li> </ul>	<ul style="list-style-type: none"> <li>• Build a flow diagram to show the various waste disposal options.</li> <li>• Participate in projects aimed at reducing waste (e.g. battery buster campaign, European Week for waste reduction).</li> <li>• Give ways how they can dispose of unwanted items (e.g. charity shops).</li> <li>• Identify food items that have over packaging and suggest ways how this can be reduced.</li> <li>• Produce recycled paper from waste paper.</li> </ul>

# Appendix 1 - Optional: Fieldwork session 1

## Theme: Investigating the Coast

### Objectives:

- The teacher will help students examine the landforms resulting from coastal erosion and deposition.
- The teacher will help students examine the human impact on the coast.

### Suggested Learning Outcomes:

- Students will locate their position on a satellite image of the area and mark the route followed during the field trip.
- Students will identify and investigate some coastal and depositional features visible along the coast and explain orally how these were formed.
- Students will devise their own rules to protect coastal environment.
- Students will sketch and label some coastal and depositional features.
- Students will notice and explain orally how waves are created and why their strength varies.
- Students will investigate the profile of the beach and list ways how the beach can be used or misused by people.

### Supporting Activities:

1. Students may be taken to a stretch of coastline according to the activities that are planned, for example;
  - i. evidence of coastal erosion (e.g. Delimara peninsula, Għajn Tuffieħa, Xwejni, Dwejra)
  - ii. evidence of coastal deposition (e.g. Ġnejna Bay, St Thomas Bay, Ramla l-Ħamra)

### Investigating the break-up of coastal rocks

- Students are provided with an aerial view from Google Earth satellite images of the area chosen. Students will be asked to locate their position on the image and mark the route taken by means of arrows.
- Students will be asked to observe different landforms,

*1. Can you name any of the landforms that can be seen? (e.g. caves, cliffs, pot-holes, boulders, arch).*

The teacher can add other landforms such as wave-cut platforms, headlands, notches, scree and inlets not mentioned by the students. Pairs of students will

be provided with transparencies in a thick cardboard frame (e.g. cut-out from a cereal box) and felt pens. They will be asked to focus on a particular feature; one student will hold the transparency in order to frame the landform while the other student draws the outline of the feature on the transparency. They label the sketch drawing to include more details.

*2. How did the shape of each feature come about?*

Each pair of students presents their sketch to the rest of the class and tries to suggest reasons to explain how the feature/landscape was formed. The teacher provides feedback through questions.

1. *Are the waves breaking up the coast today? Why?* (The teacher points out the effects of waves in shaping the coast)
2. *When is the breaking up of the rocks along the coast most rapid?* (The teacher points out to the strength of waves to break up rocks during stormy weather)
3. *What causes higher waves?* (The teacher points out the link between waves and the wind)

- Students are provided with an outline map of the Maltese Islands including the north point and the area chosen marked clearly. Students will be asked to indicate and mark the winds to which the coast is either exposed or sheltered as in the following table,

Wind	Exposed	Sheltered
<b>North</b>		
<b>South</b>		
<b>West</b>		
<b>East</b>		
<b>North-east</b>		
<b>South-east</b>		
<b>South-west</b>		
<b>South-east</b>		

- Provide students with an outline map of the area. Ask them to note, mark and label the salient features on the map. Students can be encouraged to use a digital camera to photograph the coastal features. They can also classify the features into physical and human.
- Ask students to find examples of pot-holes along the coast. Ask them to draw a simple sketch of the pot-holes and to use a measuring tape to find out the diameter and depth of these hollows.

*1. What do you usually find in the bottom of these hollows? (pebbles)*



2. *How do you think these hollows are formed and enlarged?*

- Ask students to look at different types of rock along the route.

1. *How do these differ in colour and texture?*

2. *Can you name any of these rocks?*

3. *Are there any fossils in the rocks?*

4. *Why do we have fossils in our rocks?*

Students will be asked to look for fossils, take photographs and make simple sketches. They can also stick a sheet of paper to the fossils and rub a crayon gently over the paper to make an image.

### **Investigating the beach**

Introduce the idea that beaches are the most common depositional landform, where material has been transported from elsewhere on the coastline and deposited to form a beach.

1. *What is the beach made up of? (e.g. sand, shingle, pebbles, Neptune's grass)*

2. *What is the colour of the beach material?*

3. *Where did this material come from?*

Students will be asked to look around them to find out the parent rock of this beach material.

- Students will be asked to draw and label a particular beach material, (e.g. sand or pebble) and to write about its story from origin to its present state. They can also collect samples of beach material in small plastic bags.
- Students are divided into three groups spaced 2 metres apart perpendicularly to the coast. They are given the task to dig with small plastic spades through the sand until the sea-water level is reached. They measure the depth of their hole with the measuring tape in order to draw a simple profile of the beach. They are asked to suggest the reason why they found water at an increasing depth further away from the seashore. Following this activity, students will be asked to restore the sand to its former place as a practical example of the beach code. Students will then draw up a list of rules to protect this type of environment. Provided with plastic gloves and dustbin bags they will be encouraged to collect plastic/paper litter scattered around.

Students may list human activities and use they can observe on the beach pointing out any inappropriate and abuse practices and buildings. They can also audit the environment asking them to identify places along the beach which they find attractive or unattractive. They can also propose ways for improvement.

### Assessment strategies:

- Students complete worksheet during fieldwork.
- Students can explain to teacher/class how some coastal features are formed.
- The teacher observes whether students can locate and pin point their position on a *Google Earth* map of the area.
- Students mark by arrows the route taken during the fieldwork and locate and label important coastal features on a *Google Earth* map of the area.
- The teacher observes students drawing simple sketches of coastal features.
- Students work in pairs to list rules in order to protect the coast.
- Students can explain to teacher how waves are formed and mention the factors that can influence wave height and force.
- Student completes table indicating whether the coast under study is sheltered or exposed to particular winds.
- Teacher observes students measuring and drawing pot-holes. Student explains to teacher how these pot-holes are formed and how they can be further enlarged.
- Students name rocks and fossils found in the area. Student explains orally why fossils are embedded in the rocks.
- Teacher observes students drawing and naming fossils.
- The teacher observes whether students can speak about the environment of the area identifying ways how this could be improved.

## Appendix 2 - Optional: Fieldwork session 2

Theme: **Water Investigation**

### Objectives:

- The teacher will help students examine the drainage of rain water in the school grounds.
- The teacher will help students investigate through fieldwork some features of a stream, including different ways how water is used and misused by people.
- The teacher will help students understand the purpose of small dams along streams.

### Suggested Learning Outcomes:

- Students will notice what happens to rain when it falls on different surfaces.
- Students will explain either orally or through drawings the movement of water within the school premises.
- Students will devise their own country code in order to protect the natural environment.
- Students will observe different landmarks on site along Chadwick lakes and classify them into human and physical.
- Students will investigate the flow of water along a stretch of stream where water flow changes.
- Students will explain orally, in writing or by the use of labelled diagrams the main purpose of dams built at Qlejgħa valley by Chadwick.

### Supporting Activities:

- Students taken out to carry practical work in the school ground. They are asked to investigate what happens when rain falls on various surfaces such as the yard, grassy area, path, tarmac patch, roof etc. Groups of children can replicate rainfall using a watering can and record the results. These can then be compared.
  - *What happens to water when it falls on the bare soil?*
  - *What happens to water when it falls on the tarmac?*
  - *What happens to water when it falls on the grass?*
  - *Why does water seem to disappear when it falls on bare soil?*
  - *Why does water remain on the surface when it falls over patches of tarmac?*
  - *Why does water pass slowly where there are patches of grass?*
- The school yard may provide opportunities for some simple investigation into the direction in which water flows in the area. Students will be provided with a plan of the school grounds and the main building blocks. They mark the down pipes, gutters

and gratings to show what happens to water when rain falls over the school (roof, yard, ground, patches of soil). They draw arrows to show how water drains into gullies when it rains from high to low areas.

- *What happens to the water once it flows through the gutter and it is no longer visible?*
- *Why is it better to collect the rain water instead of letting it flow into the sea through sewage pipes?*
- *Where can we collect this water?*
- *How can we make use of this water?*
- *What happens if the gutter is blocked with litter?*

### Fieldwork Activity (Chadwick Lakes or Marsalforn Valley)

It is recommended that this activity takes place after a spell of wet weather. Groups of students should be sufficiently small and work should be planned so that the students are under the direct supervision at all times. Use only safe, shallow streams for activities in which students have to carry out investigations.

- Students are presented with two examples from the list of the country code (e.g. *Enjoy the countryside and respect life and work; Leave crops, livestock and machinery alone.*) Students will be encouraged to complete the country code by adding more rules in order to protect this particular environment.
- Students are given an aerial view from *Google Earth* of the area. They will be asked to add arrows and labels to show the route taken along the fieldwork. They will mark and name particular landmarks, such as dams, lakes, streams, fields, trees, bridges, roads, wind pumps and rubble walls.
- Students working in groups will be asked to look around them and list all the features they can observe around them. They comment on which of these features are man-made or natural.
- Along a focal point along the valley students will be asked to comment on how the water has gathered in this area.
  - *Why is there a lot of water flowing in this area?*
  - *When will the water flow drop?*
  - *Will the water level remain the same in summer?*
- Students are asked to observe the water flowing along the stream to conclude that water always flows from high to low areas.
  - *What is the direction of the water flow?*

- *Is the land higher on the side from where the water is coming or where it is going?*
  - *Which way should I go to end up near the sea?*
  - *Is the flow of water always at the same speed?*
  - *Where does the flow of water slow down?*
  - *Where does the flow of water increase?*
- Students are taken near one of the dams holding water along Qlejgħa / Marsalforn Valley. They draw and label a simple sketch of the water catchment wall.
    - *Why were these walls built?*
    - *During which time of the year would you build such a dam? Why?*
    - *These walls were designed and built by an English engineer. Can you guess his name?*
    - *This project was intended only for farmers or for some other purpose?*
    - *Some of the water (surface water) stored behind the dam is being constantly lost through evaporation. Are there any other ways that lead to a drop in the water level? (e.g. irrigation, percolation)*
    - *What happens if the layer of rock underneath the water is impermeable (e.g. clay)?*
    - *What happens if the layer of rock underneath the water is permeable (e.g. Globigerina Limestone)?*
    - *The type of rock found here is in fact Globigerina Limestone, therefore what will happen to the water?*
    - *Why did Chadwick create this project knowing that the water will seep through the Globigerina layer?*

Students annotate the diagram drawn previously showing water percolating downwards through the Globigerina Limestone.

- *The main aim of the project designed by Chadwick was to fill in the underground storage of water known as the water table. How can this water be pumped up?*
- *What is this water used for?*

Ask students to audit the environment, asking them to identify places along the stream which they find attractive or unattractive. They can also propose ways for improvement.

### Follow-up Activity in class

Students will list any examples of water pollutants that they saw during the day and design a poster to encourage visitors to keep the area. They will also complete the country code.

### Assessment strategies:

- Students complete worksheet during fieldwork.
- Students can explain to teacher/class why water disappears or forms puddles when it falls on different surfaces.
- Students draw arrows on map indicating water movement in the school premises.
- The teacher observes whether students can locate and pin point their position on a *Google Earth* map of the area.
- Students mark by arrows the route taken during the fieldwork and locate and label important landmarks on a *Google Earth* map of the area.
- The teacher observes students drawing a simple diagram of a dam, labelling the wall, the lake and water percolating through the permeable rocks.
- Students work in pairs to list other rules to include in the country code.
- Students can explain to teacher/class two reasons why dams were built along the Qlejgħa valley.
- Students list 10 features they can observe around them and sort them into physical and human features.
- Students define orally the terms permeable rock, impermeable rock, water table and borehole.
- The teacher observes whether students can produce a simple poster demonstrating how to keep the area visited clean.
- The teacher observes whether students can speak about the environment of the area identifying ways how this could be improved.

## Appendix 3 - Optional: Fieldwork session 3

Theme: **Hands on Soil!**

### Objectives:

- The teacher will help students examine the main components and factors leading to soil formation.
- The teacher will help students explore the importance of soil.

### Suggested Learning Outcomes:

- Students will notice different types of soil according to colour.
- Students will explain either orally or through drawings the main components of soil.
- Students will choose the correct components of the soil from a number of text labels and pictures including distractors.
- Students will choose and display pictures of food products that are derived from soil.
- Students will explain orally or in writing why we need soil.
- Students will conduct a simple soil investigation.

### Supporting Activities:

- Students taken out near a patch of soil, either in the school grounds or in a public garden or in an abandoned field. They are asked to handle the soil and observe:
  - *Is the soil wet or dry?*
  - *What colour is the soil?*
  - *What is the soil made up of?*
  - *Are there any living things such as ants, worms or plants?*
  - *Are there any dead leaves, insects, roots, animals or worms?*

- **Follow-up class activity**

Small soil sample is taken to classroom, as well as other items collected during fieldwork.

Students mount a star diagram or chart displaying the composition of soil. This may include soil sample in a small plastic bag at centre, and the collected items displayed around it. Under each item a text-label/caption is written.

- *Have you seen soil of different colour elsewhere?*
- *What colour were they?*

The teacher projects images of different types of soil (available on DVD). Teacher will preferably produce samples of different soil types.

- *Why do these soils differ in colour?*

Rock samples as parent material are produced by the teacher and through appropriate questions help students relate the soil colour to the respective parent rock.

- Simple Experiment

Students are provided with pieces of rock. They are asked to break them down into small particles using appropriate tools.

- *Are these rock particles soil?*
- *What does it need to become soil?*

Students add the missing components such as dead leaves, shells of snails, dead roots, twigs to the particles.

- *Is this mixture soil as yet?*
- *What happens in nature for it to become soil?*
- Teacher projects a video-clip featuring the formation of soil (available on DVD) and students can comment on how soil is formed over a long period of time.
- Teacher displays food items such as students' lunch, vegetables, fruit, together with images of trees, fields, birds, animals etc.
  - *Where do we get these from?*
  - *What if there is no soil? Would we have crops, vegetables, cereals, bread, meat, eggs, milk, pasta?*

Through the discussion of these questions the students should conclude that soil is a vital resource and it should be protected.

#### Assessment strategies:

- Students complete worksheet during fieldwork.
- The teacher observes students working as a group while displaying materials collected in the field on a chart.
- Students can explain to teacher/class some of the components of soil.
- Students can comment on a video, giving reasons why soil takes a long time to form.
- Students match soil samples to their respective parent rock.
- Students write a list of 10 items that require soil to grow.
- The teacher observes whether students can speak about the importance of soil.



## Appendix 4 - Annual Specimen Paper – Year 9

**L-Eżamijiet Annwali tal-Iskejjel Sekondarji - Karta Mudell**

---

**ID-DISA' SENA**

**II-ĠEOGRAFIJA (I-Orali)**

**HIN: 10 minuti**

---

**II-Karta tal-Għalliema**

Struzzjonijiet għall-għalliema:

Dan l-eżami jrid isir għal kull student/a individwalment.

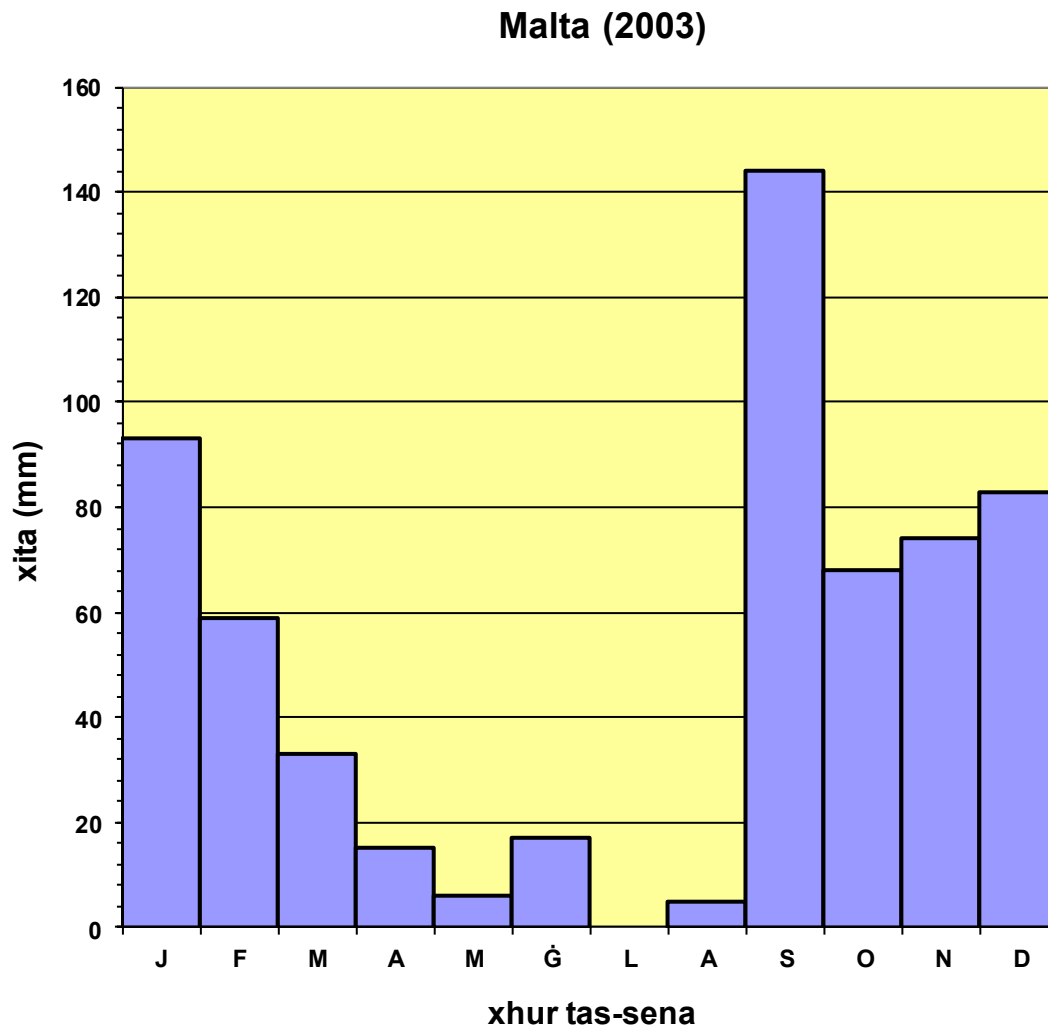
- a. Spjega lill-istudent/a kif se jkun l-eżami.
- b. Agħti l-ewwel stampa lill-istudent/a.
- ċ. Agħti lill-istudent/a ftit hin biex i/thares lejn l-istampa.
- d. Staqsi jew iddiskuti mal-istudent/a l-mistoqsijiet marbutin mal-istampa.
- e. Assigura li l-istudent/a għandu/ha hin biżżejjed biex j/tesprimi ruħu/ha sewwa u b'hekk inti tkun tista' tassessja sewwa.
- f. Kompli bil-bqija tal-mistoqsijiet b'dan l-istess mod.

1. Hares sewwa lejn din l-istampa.



- a. X'qed tara fl-istampa?
- b. Kif ifforma l-għar li jidher f'din l-istampa?
- ċ. Kemm taħseb li ha żmien dan l-għar biex ifforma (sena, 10 snin, aktar minn 100 sena)?
- d. X'jista' jiġri dan l-għar biż-żmien?

2. Hares sewwa lejn din il-graff.



- a. X'taħseb li qed turi din il-graff?
- b. Xi jfissru l-ittri minn J sa D?
- ċ. F'liema xahar tas-sena m'ghamlitx xita?
- d. F'liema xahar għamlet l-iktar?
- e. Veru jew le li f'Jannar għamlet aktar minn 100 mm xita?
- f. Għalxiex hi meħtieġa x-xita?

**L-Eżamijiet Annwali tal-Iskejjel Sekondarji – Karta Mudell**

**ID-DISA' SENA**

**II-ĠEOGRAFIJA**

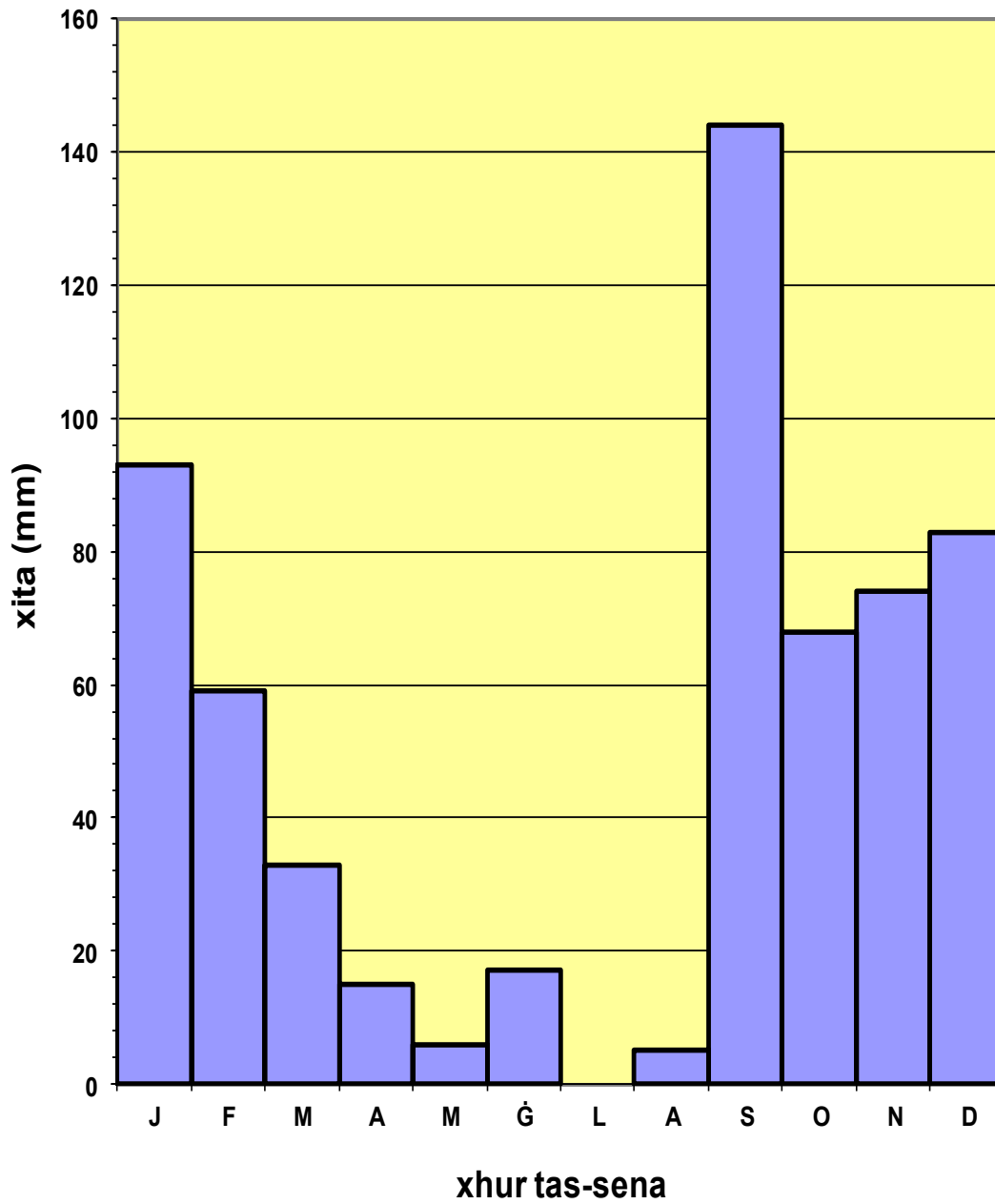
**IL-HIN: 10 minuti**

**II-Karta tal-Istudenti**

**L-ewwel stampa**



### Malta



**L-Eżamijiet Annwali tal-Iskejjel Sekondarji – Karta Mudell**

**ID-DISA' SENA                      II-ĠEOGRAFIJA                      L-ISKEMA TAL-MARKI**

<b>Linji gwida għat-tqassim tal-marki għal kull mistoqsija</b>	<b>Marki</b>
It-twegiba għall-mistoqsijiet kollha kienet sħiħa, mingħajr għajnuna u bi kliem ġeografiku.	<b>9 - 10</b>
It-twegiba għall-mistoqsijiet kollha kienet fil-qosor u mingħajr dettall.	<b>7 – 8</b>
Inghataw twegibiet tajba għal nofs id-domandi mingħajr ħafna għajnuna.	<b>5 – 6</b>
Inghataw twegibiet tajba għal nofs id-domandi, imma b'għajnuna.	<b>3 – 4</b>
Twiegbet biss waħda mill-mistoqsijiet.	<b>1 - 2</b>
It-twegibiet kollha ma kinux relevanti, minkejja għajnuna li nghatat.	<b>0</b>

## Appendix 5 - Annual Specimen Paper – Year 10



**L-Eżamijiet Annwali tal-Iskejjel Sekondarji – Karta Mudell**

---

**L-GHAXAR SENA**

**II-ĠEOGRAFIJA (I-Orali)**

**HIN: 10 minuti**

---

**II-Karta tal-Għalliema**

Struzzjonijiet għall-għalliema:

Dan l-eżami jrid isir għal kull student/a individwalment.

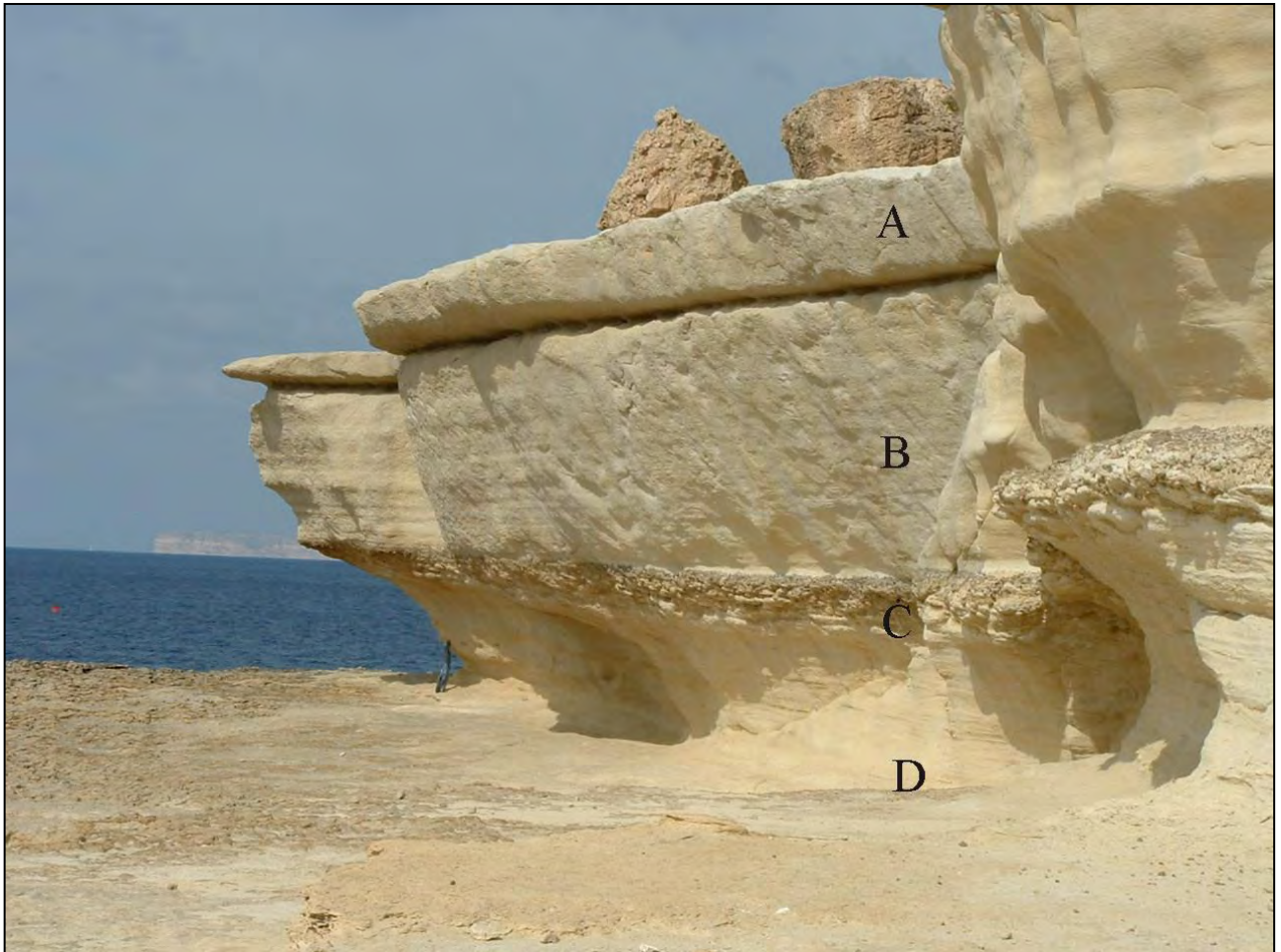
- a. Spjega lill-istudent/a kif se jkun l-eżami.
- b. Agħti l-ewwel stampa lill-istudent/a.
- ċ. Agħti lill-istudent/a ftit ħin biex i/thares lejn l-istampa.
- d. Staqsi jew iddiskuti mal-istudent/a l-mistoqsijiet marbutin mal-istampa.
- e. Assigura li l-istudent/a għandu/ha ħin biżżejjed biex j/tesprimi ruġu/ha sewwa u b'hekk inti tkun tista' tassessja sewwa.
- f. Kompli bil-bqija tal-mistoqsijiet b'dan l-istess mod.

1. Hares sewwa lejn din l-istampa.



- a. X'qed tara fl-istampa? Għalxiex jintużaw?
- b. Fejn iridu jitpoġġew dawn il-pannelli biex jagħtuna l-elettriku?
- ċ. Għaliex taħseb li dan is-sors ta' enerġija jissejjaħ sors rinnovabbli?
- d. Semmi sors rinnovabbli ieħor li nistgħu nużaw f'pajjiżna biex bih nagħmlu l-elettriku.
- e. X'inhuma l-vantaġġi ta' sorsi rinnovabbli bħalma qed naraw fl-istampa.

2. F'din l-istampa qed naraw saffi ta' blat li nsibu f'Malta.



- a. X'jissegjaħ il-blat li nsibu f'pajjiżna, blat ignijuż, blat metamorfiku jew blat sedimentarju?
- b. Spjega kif ifforma l-blat sedimentarju ta' pajjiżna.
- ċ. Fl-istampa qed tara erba' ittri hdejn kull saff ta' blat. Liema saff minn dawn ifforma l-aħħar? Għaliex taħseb hekk?
- d. Għalxiex taħseb li nistgħu nużaw il-blat li qed naraw fl-istampa.

**L-Eżamijiet Annwali tal-Iskejjel Sekondarji – Karta Mudell**

**L-GHAXAR SENA**

**II-ĠEOGRAFIJA (I-Orali)**

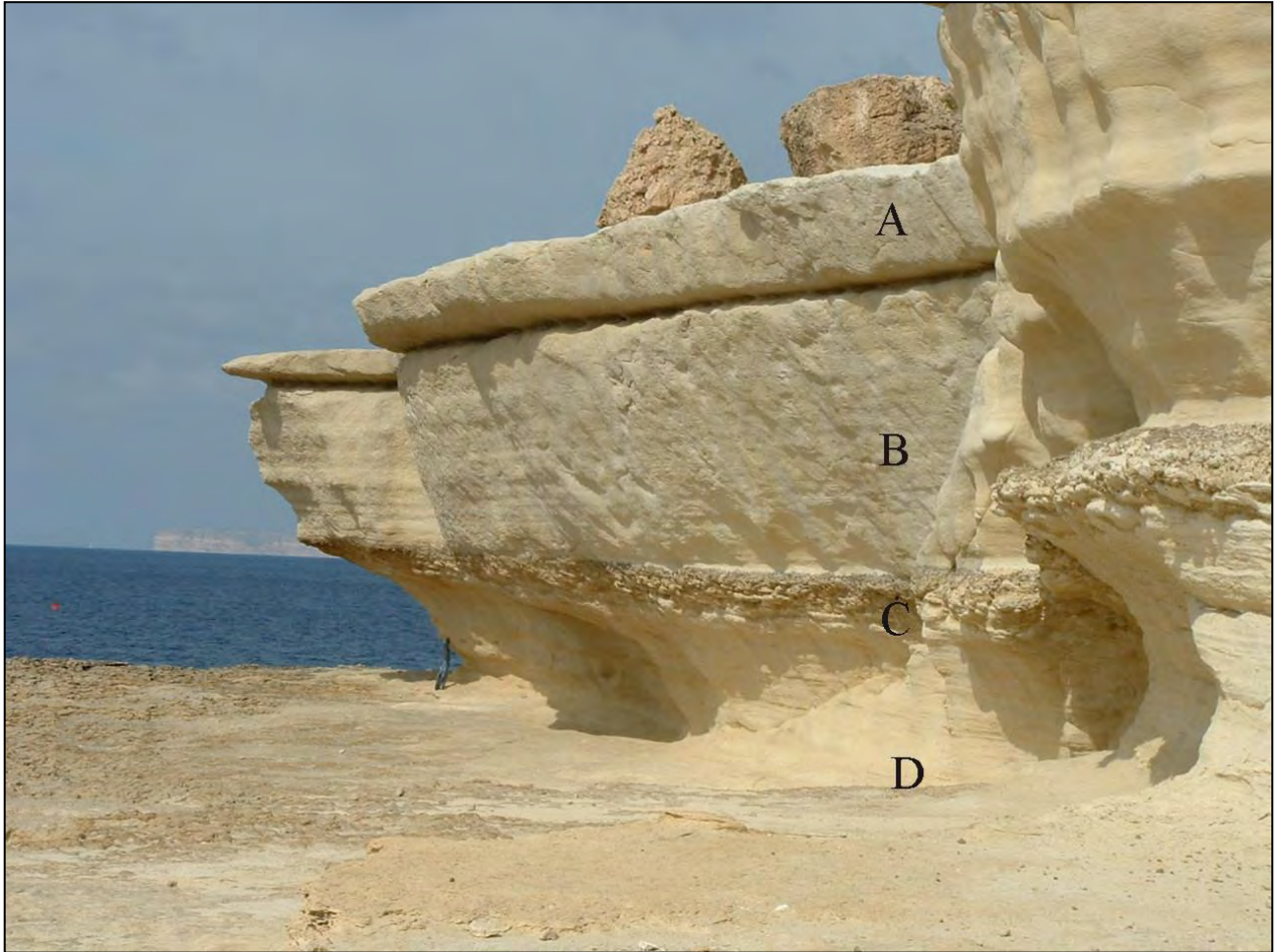
**II-ĦIN: 10 minuti**

**II-Karta tal-Istudenti**

**L-ewwel stampa**



**It-tieni stampa**



**L-Eżamijiet Annwali tal-Iskejjel Sekondarji – Karta Mudell**

**L-GĦAXAR SENA                      II-ĠEOGRAFIJA                      L-ISKEMA TAL-MARKI**

<b>Linji gwida għat-tqassim tal-marki għal kull mistoqsija</b>	<b>Marki</b>
It-twegiba għall-mistoqsijiet kollha kienet sħiħa, mingħajr għajnuna u bi kliem ġeografiku.	<b>9 - 10</b>
It-twegiba għall-mistoqsijiet kollha kienet fil-qosor u mingħajr dettall.	<b>7 – 8</b>
Inghataw twegibiet tajba għal nofs id-domandi mingħajr ħafna għajnuna.	<b>5 – 6</b>
Inghataw twegibiet tajba għal nofs id-domandi, imma b'għajnuna.	<b>3 – 4</b>
Twieġbet biss waħda mill-mistoqsijiet.	<b>1 - 2</b>
It-twegibiet kollha ma kinux relevanti, minkejja għajnuna li nghatat.	<b>0</b>

## Appendix 6 - Annual Specimen Paper – Year 11

**L-Eżamijiet Annwali tal-Iskejjel Sekondarji - Karta Mudell**

---

**HDAX-IL SENA**

**II-ĠEOGRAFIJA (l-Orali)**

**HIN: 10 minuti**

---

**II-Karta tal-Għalliema**











Struzzjonijiet għall-għalliema:

Dan l-eżami jrid isir għal kull student/a individwalment.

- a. Spjega lill-istudent/a kif se jkun l-eżami.
- b. Agħti l-ewwel stampa lill-istudent/a.
- ċ. Agħti lill-istudent/a ftit ħin biex i/thares lejn l-istampa.
- d. Staqsi jew iddiskuti mal-istudent/a l-mistoqsijiet marbutin mal-istampa.
- e. Assigura li l-istudent/a għandu/ha ħin biżżejjed biex j/tesprimi ruġu/ha sewwa u b'hekk inti tkun tista' tassessja sewwa.
- f. Kompli bil-bqija tal-mistoqsijiet b'dan l-istess mod.



1. Hares sewwa lejn din l-istampa.

TBASSIR GĦAL HAMEST IJIEM				
IS-SIBT 7	IL-ĦADD 8	IT-TNEJN 9	IT-TLIETA 10	L-ERBGĦA 11
				
HALBIET TAX-XITA	MALTEMPATA BIR-RAGĦAD	IL-BIĊĊA L-KBIRA XEMXI	XEMXI	IMSAĦĦAB
L-Ogħla 22 °C	XITA L-Ogħla 22 °C	L-Ogħla 23 °C	L-Ogħla 26 °C	L-Ogħla 23 °C
L-Inqas 18 °C	L-Inqas 18 °C	L-Inqas 15 °C	L-Inqas 16 °C	L-Inqas 16 °C
				
<b>ENE</b> Grieg Il-Lvant F4	<b>NE</b> Grigal F6	<b>NE</b> Grigal F3	<b>WNW</b> Punent Majjistru F3-4	<b>NW</b> Majjistral F3

- X'qed naraw fl-istampa?
- Meta se jkolli bżonn l-umbrella ?
- Meta jaqbili naħsel il-hwejjeġ biex innixxifhom barra?
- Kif se jkun it-temp nhar il-Ħadd?
- Meta se jkollna l-ogħla temperatura? Kemm se tkun it-temperatura? Xi hwejjeġ jaqbili nilbes dakinhar?

2. Hares sewwa lejn din l-istampa.



- a. X'qed naraw fl-istampa, deżert sħun, foresta fit-tundra, bosk Mediterranju jew Foresta Ekwatorjali?
- b. X'taf tgħidli dwar din il-foresta li tissejjaħ foresta Ekwatorjali? Semmi żewġ karatteristiċi.
- ċ. Semmi żewġ hlejjaq li jgħixu f'din il-foresta.
- d. Ta' kull sena f'din il-foresta qed jinqatgħu ħafna u ħafna siġar. Għalxiex qed jigri hekk?
- e. X'jista' jigri jekk jinqatgħu ħafna siġar mill-foresta? Semmi effett wieħed.

**L-Eżamijiet Annwali tal-Iskejjel Sekondarji – Karta Mudell**

**HDAX-IL SENA                      II-ĠEOGRAFIJA (l-Orali)    II-HIN: 10 minuti**

**II-Karta tal-Istudenti**

**L-ewwel stampa**

TBASSIR GĦAL HAMEST IJIEM				
IS-SIBT 7	IL-HADD 8	IT-TNEJN 9	IT-TLIETA 10	L-ERBGHA 11
HALBIET TAX-XITA	MALTEMPATA BIR-RAGHAD	IL-BIĊĊA L-KBIRA XEMXI	XEMXI	IMSAHHAB
L-Ogħla 22 °C	XITA L-Ogħla 22 °C	L-Ogħla 23 °C	L-Ogħla 26 °C	L-Ogħla 23 °C
L-Inqas 18 °C	L-Inqas 18 °C	L-Inqas 15 °C	L-Inqas 16 °C	L-Inqas 16 °C
<b>ENE</b> Grieg Il-Lvant F4	<b>NE</b> Grigal F6	<b>NE</b> Grigal F3	<b>WNW</b> Punent Majjistru F3-4	<b>NW</b> Majjistral F3

**It-tieni stampa**



**L-Eżamijiet Annwali tal-Iskejjel Sekondarji – Karta Mudell**

**HDAX-IL SENA**

**II-ĠEOGRAFIJA**

**L-ISKEMA TAL-MARKI**

<b>Linji gwida għat-tqassim tal-marki għal kull mistoqsija</b>	<b>Marki</b>
It-twegiba għall-mistoqsijiet kollha kienet sħiħa, mingħajr għajjnuna u bi kliem ġeografiku.	<b>9 - 10</b>
It-twegiba għall-mistoqsijiet kollha kienet fil-qosor u mingħajr dettall.	<b>7 – 8</b>
Inghataw twegibiet tajba għal nofs id-domandi mingħajr ħafna għajjnuna.	<b>5 – 6</b>
Inghataw twegibiet tajba għal nofs id-domandi, imma b'għajjnuna.	<b>3 – 4</b>
Twiegħbet biss waħda mill-mistoqsijiet.	<b>1 - 2</b>
It-twegibiet kollha ma kinux relevanti, minkejja għajjnuna li ngħatat.	<b>0</b>