



GEOGRAPHY SYLLABUS (GENERAL CLASSES)

YEAR 10

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L-Għaxar Sena

Sillabu tal-Ġeografija (Ġenerali)

Titlu tal-Unità: GEO 10.1 Is-Sorsi ta' Energija u t-Tibdil fil-Klima	
L-Ewwel Mira Ewlenija: L-Ambjent – Fiziku u Uman	
It-Tieni Mira Ewlenija: L-Immaniġġjar, il-Ħarsien u s-Sostenibbiltà tal-Ambjent	
Kliem ewlieni: enerġija tiġġedded, enerġija ma tiġġeddidx, enerġija alternattiva, fjuwil fossili, emissjonijiet karboniċi, taħlita ta' enerġija, gassijiet serra, enerġija ġeotermali, enerġija idroelettrika, enerġija nukleari, turbini tar-riħ, enerġija solari, effett serra, tišhin globali, tibdil fil-klima, diossidu tal-karbonju, deforestazzjoni, gass metanu, kloroflorokarbons, saff tal-ożonu, therrija tal-ożonu, raġġi ultarvjola, indiċi UV	
Objettivi tat-Tagħlim	Riżultati fil-Mira
<p>10.1.1</p> <p>L-għalliema jgħinu lill-istudenti jifhmu l-użu, il-benefiċċji u l-problemi ta' sorsi ta' enerġija li jiġġeddu u ta' sorsi li ma jiġġeddux.</p>	<ul style="list-style-type: none"> • Jagħrfu d-differenza bejn sors ta' enerġija li jiġġedded u sors li ma jiġġeddidx. • Isemmu eżempji ta' sorsi ta' enerġija li jiġġeddu u sorsi li ma jiġġeddux. • Jikkonsidraw il-vantaġġi u l-effett tal-faħam, taż-żejt u l-gass naturali fuq l-ambjent. • Jeżaminaw il-benefiċċji u d-diffikultajiet biex tiġi ġġenerata enerġija rinnovabbli bl-użu tax-xemx, ir-riħ, il-mewġ, frugħ il-baħar, enerġija idroelettrika u ġeotermali. • Jagħrfu l-benefiċċji u l-perikli tal-enerġija nukleari bħala sors alternattiv. • Jqabblu pajjiżi differenti ma' sors partikolari ta' enerġija, pereżempju l-Iżlanda - enerġija ġeotermali. • Jiddiskutu l-vijabilità ta' sorsi differenti ta' enerġija għall-gżejjer Maltin. • Jqabblu s-sorsi differenti ta' enerġija wżati bħalissa f'Malta mal-miri stabbiliti tal-UE għas-sena 2020. • Jqabblu l-ammont ta' emissjonijiet ta' diossidu tal-karbonju mitfugħa fl-atmosfera bejn Malta u l-pajjiżi oħra tal-UE.

<p>10.1.2</p> <p>L-għalliema jipprovdu riżorsi lill-istudenti biex jistħarrġu l-kawżi u l-effetti tat-tiżnin globali.</p>	<ul style="list-style-type: none"> • Jifhmu kif l-effett serra huwa proċess naturali li jseħħ fl-atmosfera. • Jaqraw u jinterpretaw graff li turi ż-żieda tad-diossidu tal-karbonju (CO₂) f'dawn l-aħħar snin u permezz tagħha jifhmu li l-bniedem hu responsabbli għat-tiżnin globali. • Jiddeskrivu r-raġunijiet li qed iwasslu għat-tiżnin fit-temperatura globali (CO₂, deforestazzjoni, gass metanu, kloroflorokarbons). • Jagħtu evidenza li t-tiżnin globali qiegħed verament iseħħ. • Janalizzaw l-impatt u l-konsegwenzi tat-tiżnin globali u t-tibdil fil-klima kemm fuq Malta kif ukoll f'inħawi oħra tad-dinja. • Jissuġġerixxu modi li bis-saħħa tagħhom nistgħu nnaqqsu t-tiżnin globali. • Jissuġġerixxu għadd ta' miżuri li ż-żgħażaġh jistgħu jwettqu li permezz tagħhom jnaqqsu l-impatt tat-tiżnin globali.
<p>10.1.3</p> <p>L-għalliema jgħinu lill-istudenti jiskopru l-kawżi ewlenin u l-ħsara li seħħet lis-saff tal-ożonu.</p>	<ul style="list-style-type: none"> • Jifhmu l-ħtieġa tas-saff tal-ożonu biex immanjni l-ħajja fuq l-art. • Jispjegaw xi fatturi li qed iwasslu biex dan is-saff jitherra u jidjieq. • Jistħarrġu dwar il-konsegwenzi li jinħolqu jekk dan is-saff ikompli jitherra. • Jiddiskutu il-mod kif din il-problema giet indirizzata mill-komunità internazzjonali. • Jsemmu kif in-nies jistgħu jħarsu lilhom infushom mir-raġġi perikolużi ultravjola.

Titlu tal-Unità: GEO 10.2 Ninvestigaw il-Blat	
L-Ewwel Mira Ewlenija: L-Ambjent – Fiziku u Uman	
It-Tieni Mira Ewlenija: L-Immaniġġjar, il-Ħarsien u s-Sostenibbiltà tal-Ambjent	
Kliem ewlieni: blat ignijuż, blat sedimentarju, blat metamorfiku, qawwi ta' fuq, rina, tafal, globiġerina, qawwi ta' taħt, depożiti kwaternarji, Baħar Tethys, it-taqsim tal-globiġerina ta' fuq, tan-nofs u ta' taħt (franka), żrar, fossili, strata, permeabbli, impermeabbli, blat poruż, qiegħ ta' blat, xaqq fond (dagħbien), barriera, franka għall-bini, blattal-qawwi, barrieri sostenibbli, restawr u riabilitazzjoni tal-barrieri, tmermir tal-blat, erożjoni, tmermir tal-blat bil-ġlata, tmermir tal-blat folja folja, tmermir bijoloġiku, tmermir kimiku	
Objettivi tat-Tagħlim	Riżultati fil-Mira
10.2.1 L-għalliema jgħinu lill-istudenti jagħrfu d-differenzi bejn it-tliet tipi ewlenin ta' blat.	<ul style="list-style-type: none"> • Jagħrfu t-tliet kategoriji ewlenin ta' blat skont kif dawn iffurmaw: blat ignijuż, blat sedimentarju u blat metamorfiku. • Jsemmu eżempji ta' tipi differenti ta' blat, pereżempju ignijuż (bażalt u granit), sedimentarju (blat kalkarju u tafal), metamorfiku (irħam u lavanja). Jsemmu wkoll użu għal kull tip ta' blat.
10.2.2 L-għalliema jgħinu lill-istudenti jifhmu kif issawwar il-blat sedimentarju tal-gżejjer Maltin, kif ukoll il-karatteristiċi u l-użu tiegħu.	<ul style="list-style-type: none"> • Jagħrfu l-5 saffi ta' blat li nsibu fil-gżejjer Maltin: qawwi ta' fuq, rina, tafal, globiġerina, qawwi ta' taħt, kif ukoll id-depożiti Kwaternarji. • Jifhmu kif issawru dawn is-saffi miljuni ta' snin ilu taħt il-Baħar Tethys. • Jagħrfu fossili komuni, jifhmu kif iffurmaw u li dawn jagħmlu parti mill-wirt nazzjonali. • Jispjegaw il-karatteristiċi ta' kull saff ta' blat li nsibu f'Malta, fosthom il-permeabbiltà, is-saħħa u l-kulur. • Jfittxu u jeżaminaw l-użu ekonomiku ta' kull saff ta' blat li nsibu fil-gżejjer Maltin. • Jagħrfu t-tliet taqsimiet sekondarji tal-globiġerina, jiġifieri it-taqsim ta' fuq, tan-nofs u ta' taħt (franka).

<p>10.2.3</p> <p>L-għalliema jgħinu lill-istudenti jistharrġu l-impatt tal-barrieri fuq l-ambjent.</p>	<ul style="list-style-type: none"> • Jagħrfu l-importanza tal-qtugħ tal-blat kalkarju mill-barrieri bħala attività ekonomika meħtieġa għall-pajjiż. • Jagħrfu d-differenzi bejn il-qtugħ tal-blat tal-qawwi u dak tal-franka billi jirreferu għal eżempji partikolari. • Jiddeskrivu l-impatt tal-barrieri fuq in-nies u l-ambjent Malti. • Jagħrfu mezzi li permezz tagħhom nassiguraw is-sostenibbiltà tal-ġebbla Maltija fl-industrija tal-bini u fil-barrieri. • Jiddeskrivu metodi ta' kif il-barrieri mhux użati aktar jistgħu jiġu restawrati u riabilitati.
<p>10.2.4</p> <p>L-għalliema jgħinu lill-istudenti jifhmu il-proċess li bih il-blat titmermer.</p>	<ul style="list-style-type: none"> • Jagħrfu d-differenza bejn il-proċess ta' tmermir tal-blat u dak tal-erożjoni. • Jagħrfu u jispjegaw l-erba' modi differenti li bihom jitmermer il-blat; tmermir tal-blat bil-ġlata, tmermir tal-blat folja folja, tmermir bijoloġiku u tmermir tal-blat b' mod kimiku. • Iqabblu ambjenti partikolari mal-aktar tip ta' tmermir ta' blat komuni. • Ipingu illustrazzjonijiet immarkati sewwa tal-erba' tipi differenti ta' tmermir ta' blat.

Titlu tal-Unità: GEO 10.3 Ċaqliq Tettoniku	
L-Ewwel Mira Ewlenija: L-Ambjent – Fiziku u Uman	
<p>Kliemewlieni: qalba ta' ġewwa tad-dinja, qalba ta' barra tad-dinja, mantell, qoxra tad-dinja, magma, lava, qoxra tettonika, xifer ta' qoxra tettonika, kurrenti konvezzjonali, xifer kostruttiv, xifer distruttiv, xifer ta' kollizzjoni, xifer konservattiv, qoxra Afrikana, qoxra Ewroasjatika, katina ta' muntanji Alpina, epiċentru, mewġa sismika, skala Richter, sismografu, vulkan ħaj/attiv, rieqed/inattiv, mejjet/estint, nixxieġha ta' lava, daġna piroklastika, sħaba ta' irmied, arterja vulkanika, ħawt tal-magma, vulkan sekondarju, enerġija ġeotermali</p>	
Objettivi tat-Tagħlim	Riżultati fil-Mira
<p>10.3.1 L-għalliema jgħinu lill-istudenti jifhem kif iseħħu l-vulkani u t-terremoti.</p>	<ul style="list-style-type: none"> • Jpinġu illustrazzjoni mmarkata sewwa tal-istruttura tad-dinja minn ġewwa, li turi l-qalba ta' ġewwa u ta' barra, il-mantell u l-qoxra tad-dinja. • Jiddeskrivu b'mod ġenerali l-karatteristiċi ewlenin tal-qalba ta' ġewwa u ta' barra, il-mantell u l-qoxra tad-dinja. • Jagħrfu u jsemmu l-qoxra tettoniċi ewlenin tad-dinja. • Jistħarrġu u jeżaminaw kif il-kurrenti konvezzjonali għandhom il-qawwa jcaqalqu u jmexxu l-qoxra tettoniċi. • Jeżaminaw ix-xebħ li jeżisti bejn il-pożizzjoni tax-xfar tal-qoxra tettoniċi, il-vulkani u l-epiċentri ta' terremoti riċenti. • Jispjegaw fil-qosor il-mod kif il-qoxra tettoniċi jiċcaqalqu fi xfar differenti, billi jsemmu x'jiġri f'xifer kostruttiv, xifer distruttiv, xifer ta' kollizzjoni u xifer konservattiv.
<p>10.3.2 L-għalliema jgħinu lill-istudenti jgħarfli li l-Mediterran jinsab f'riskju kontinwu peress li jinsab f'zona sismika.</p>	<ul style="list-style-type: none"> • Jagħrfu l-qoxra tettonika tal-Afrika u l-qoxra Ewroasjatika fuq mappa tal-Mediterran. Ikunu jafu wkoll id-direzzjoni tal-moviment ta' dawn iż-żewġ qoxra tettoniċi. • Jispjegaw kif issawret il-katina ta' muntanji Alpina bħala riżultat ta' kollizzjoni bejn żewġ qoxra tettoniċi.

	<ul style="list-style-type: none"> • Jimmarkaw fuq mappa tal-Mediterran il-ktajjen ewlenin ta' muntanji, fosthom il-Pirinej, l-Alpi, l-Appennini, l-Alpi Dinariċi, il-Pindus, it-Taurus u l-Atlas. • Jimmarkaw fuq mappa tal-Mediterran numru ta' vulkani, fosthom il-Vessuvju, Stromboli, Vulcano, l-Etna u Santorini. • Jimmarkaw zoni fil-Mediterran li jinsabu f'riskju li jintlaqtu minn terremoti qawwija, bħall- Greċja, l-Italja u t-Turkija.
<p>10.3.3</p> <p>I-għalliema jgħinu lill-istudenti jeżaminaw bir-reqqa l-perikli li jgħib miegħu terremot.</p>	<ul style="list-style-type: none"> • Jagħtu tifsira tal-kliem terremot, epiċentru u mewġa sismika. • Jiddeskrivu kif il-qawwa ta' terremot titkejjel bis-sismografu skont l-iskala Richter. • Jistħarrġu l-kawżi u perikli assoċjati ma' terremot permezz ta' studju bir-reqqa ta' terremot li seħħ fil-Mediterran.
<p>10.3.4</p> <p>Bl-għajjn ta' għadd ta' riżorsi l-għalliema jgħinu lill-istudenti jiskopru l-perikli u l-benefiċċji ta' żbroff ta' vulkan.</p>	<ul style="list-style-type: none"> • Jagħrfu d-differenza bejn vulkan ħaj, rieqed u mejjet. • Jagħrfu d-differenza bejn lava u magma. • Jimmarkaw fuq illustrazzjoni, il-karatteristiċi ewlenin ta' vulkan, bħall-bokka, nixxieġha ta' lava, daġna piroklastika, sħaba ta' irmied, arterja vulkanika, ħawt tal-magma, vulkan sekondarju. • Jsemmu u jiddeskrivu l-ħsara kbira li sseħħ lill-propjetà, lin-nies u lill-ambjent u waqt żbroff ta' vulkan. • Jistudjaw dwar l-effetti ta' żbroff ta' vulkan billi jistħarrġu eżempju mill-Mediterran. • Jiddeskrivu l-benefiċċji marbuta mal-attività vulkanika li jinkludu fost affarijiet oħra, il-formazzjoni ta' ħamrija għammiela u ġebel prezzjuż, l-enerġija ġeotermali u attrazzjonijiet turistiċi.

L-Iskema ta' Assessjar

L-assessjar summattiv għall-Ġeografija għall-Għaxar Sena jikkonsisti minn eżami bil-miktub li jiġbor flimkien is-suġġetti tal-Ġeografija, l-Istorja u l-Istudji Soċjali u li jsir fl-aħħar tas-sena skolastika. Dan l-eżami għandu 100 marka u jkopri 60% tal-marka globali.

L-assessjar kontinwu jsir matul is-sena kollha u jikkonsisti minn xogħol li jsir fil-klassi u dak li jsir id-dar. L-assessjar għandu 100 marka u jgħorr 40% tal-marka globali.

Assessjar Summattiv

Eżami bil-kitba (100 marka, ta' sagħtejn li jiġbor fih il-Ġeografija, l-Istorja u l-Istudji Soċjali)

L-assessjar summattiv jikkonsisti minn eżami ta' sagħtejn li jkopri **60% tal-marka globali** u jiġbor flimkien it-tliet suġġetti - il-Ġeografija, l-Istudju Soċjali u l-Istorja. Il-karta annwali maħruġa mid-Direttorat għall-Programmi ta' Tagħlim u Assessjar tkun maqsuma fi tliet taqsimiet, jiġifieri taqsima għal kull suġġett (Ġeografija, Storja u Studji Soċjali). Kull taqsima ikollha **100 marka** u l-istudenti jirċievu tliet marki separati. Il-karta tal-eżami tkun imqasma b'tali mod li kull għalliem ikun jista' jiġbor u jikkoreġi t-taqsimi tas-suġġett tiegħu.

It-taqsimi tal-Ġeografija tikkonsisti minn karta gradata u l-mistoqsijiet ikunu bil-Malti fuq **l-objettivi tat-tagħlim li jidhru f'tabella A**. Tiġi pprovduta wkoll verżjoni bil-Ingliż tal-istess karta. Il-karta tal-eżami tkun magħmula minn għadd ta' mistoqsijiet f'għamla strutturata li jinħtieġu twegiba tajba waħda biss (eż. imla l-vojt, qabbel, veru jew falz, agħzel it-tajba) u oħrajn li jinħtieġu twegibiet qosra ta' natura deskrittiva jew fattwali. Ikun hemm mistoqsijiet oħra li jitolbu aktar hsieb mibnija fuq ħiliet analitiċi (stħarrig ta' statistika u ta' riżorsi oħra) kif ukoll dawk li jeżaminaw il-ħila tal-istudenti biex isolvu problemi. Hawn l-istudenti jkunu mitluba jiktbu aktar fit-tul. Il-mistoqsijiet imfassla jassessjaw il-fehim u l-applikazzjoni ta' tagħrif u kuncetti ġeografiċi u l-kisba ta' ħiliet ġeografiċi. Il-mistoqsijiet iridu jiġu mwieġba kollha fuq il-karta stess tal-eżami.

Tabella A

L-GĦAXAR SENA - Eżami Annwali	
L-Objettivi tat-Tagħlim għall-Eżami Annwali	
10.1.2	L-għalliema jipprovdu riżorsi lill-istudenti biex jistħarrġu l-kawżi u l-effetti tat-tishin globali.
10.1.3	L-għalliema jgħinu lill-istudenti jiskopru l-kawżi ewlenin u l-ħsara li seħħet lis-saff tal-ożonu.
10.3.1	L-għalliema jgħinu lill-istudenti jifhmu kif iseħħu t-terremoti u jiżbruffaw il-vulkani.
10.3.2	L-għalliema jgħinu lill-istudenti jagħrfu li l-Mediterran jinsab f'riskju kontinwu peress li jinsab f'zona siżmika.
10.3.3	L-għalliema jgħinu lill-istudenti jeżaminaw bir-reqqa l-perikli li jiġib miegħu terremot.
10.3.4	Bl-għajnuna ta' għadd ta' riżorsi l-għalliema jgħinu lill-istudenti jiskopru l-perikli u l-benefiċċji ta' żbroff ta' vulkan.

Assessjar Kontinwu

L-għalliema huma mhegga jivvalutaw l-istudenti permezz ta' modi differenti ta' assessjar, inklużi qari u interpretazzjoni ta' mapep, preżentazzjonijiet, kwizzijiet, mistoqsijiet orali u bil-miktub, logħob, diskussjonijiet, ricerka mill-Internet u minn kotba, tpingija u llejbiljar ta' disinji, esperimenti, revizjonijiet ta' kotba, diskussjonijiet dwar filmati qosra, stħarriġ u analiżi ta' artikli minn gazzetti, rapporti dwar żjarat eċċ. It-testijiet bil-miktub ma għandhomx ikunu l-uniku format jew il-format ewlieni tal-assessjar kontinwu u ma għandhomx jintużaw b'mod aktar frekwenti minn kwalunkwe għodda oħra ta' assessjar. L-użu ta' diversi modi ta' assessjar huwa mod ġust biex tintwera l-kisba tar- riżultati minn studenti differenti b'ħiliet u kompetenzi differenti.

Appendiċi 1 tipprovdi xi eżempji ta' tasks li jistgħu jsiru mill-istudenti matul is-sena skolastika. L- għalliema jafu l-aħjar il-klassi tagħhom u għalhekk jistgħu jieħdu ddeċiżjoni finali dwar l-għadd u t-tip ta' tasks li għandhom jitwettqu fil-kuntest tal-klassi tagħhom, filwaqt li jiżguraw li l-marka tingħata b'mod professjonali, skont Prattika ta' assessjar tajba. It-tasks ta' assessjar kontinwu għandhom ikunu parti naturali mill-lezzjoni u jiġu integrati fl-attivitajiet ta' tagħlim imwettqa kemm fil-klassi kif ukoll id- dar.

My Schools Portal

It-tabella t'hawn taħt tindika l-marki kollha li l-għalliema jridu jdaħħlu fil-portal My Schools matul is-sena skolastika. Il-marka globali tinħadem b'mod awtomatiku bir-ratio ta' 40% assessjar kontinwu u 60% assessjar summattiv.

L-Għaxar Sena	Ġunju		Marka Globali
	Assessjar Kontinwu Assessjar ta' matul is-sena kollha	Eżami Summattiv	Marka ġġenerata mill-Kompjuter 40% Assessjar Kontinwu 60% Assessjar Summattiv
	100 marka	100 marka	100%

Appendiċi 1

TAHRIĠ 1	<p>Objettiv ta' Tagħlim 10.1.1</p> <p>L-għalliema jgħinu lill-istudenti jifhmu l-użu, il-benefiċċji u l-problemi ta' sorsi ta' enerġija li jiġġeddu u ta' sorsi li ma jiġġeddux.</p>																																																																																																																																																						
	<p>L-istudenti jridu:</p> <ul style="list-style-type: none"> • jagħtu d-differenza bejn sors ta' enerġija li jiġġedded u sors li ma jiġġeddidx; • jgħidu liema huma l-fjuwils fossili; • jagħmlu tabella b'ERBA' eżempji ta' sorsi ta' enerġija li jiġġeddu u ERBA' sorsi li ma jiġġeddux; • jagħtu ftit tagħrif dwar sors WIEHED ta' enerġija li ma jiġġeddidx billi jsemmu wkoll il-vantaġġi u l-effetti tiegħu fuq l-ambjent; • jagħtu ftit tagħrif dwar ŻEWĠ sors ta' enerġija li jiġġeddu u jispjegaw il-benefiċċji u d-diffikultajiet biex tiġi ġġenerata enerġija b'hal din. <p>Jingħataw graff li turi s-sehem l-enerġija rinnovabbli b'hal perċentaġġ tal-enerġija kollha li tintuża f'kull pajjiżi tal-UE.</p> <div data-bbox="416 943 1366 1608"> <p>Share of energy from renewable sources in the EU Member States (in % of gross final energy consumption)</p> <p>Legend: 2020 target reached (yellow dot), 2020 target (orange dot), 2016 (dark blue), 2004 (light blue).</p> <table border="1"> <thead> <tr> <th>Country</th> <th>2004 (%)</th> <th>2016 (%)</th> <th>2020 Target (%)</th> <th>2020 Target Reached</th> </tr> </thead> <tbody> <tr><td>European Union</td><td>16</td><td>17</td><td>18</td><td>No</td></tr> <tr><td>Sweden</td><td>48</td><td>53</td><td>49</td><td>Yes</td></tr> <tr><td>Finland</td><td>38</td><td>39</td><td>38</td><td>Yes</td></tr> <tr><td>Latvia</td><td>33</td><td>37</td><td>40</td><td>No</td></tr> <tr><td>Austria</td><td>32</td><td>33</td><td>34</td><td>No</td></tr> <tr><td>Denmark</td><td>29</td><td>30</td><td>31</td><td>No</td></tr> <tr><td>Estonia</td><td>25</td><td>26</td><td>27</td><td>No</td></tr> <tr><td>Portugal</td><td>24</td><td>25</td><td>26</td><td>No</td></tr> <tr><td>Croatia</td><td>23</td><td>24</td><td>25</td><td>No</td></tr> <tr><td>Lithuania</td><td>22</td><td>23</td><td>24</td><td>No</td></tr> <tr><td>Romania</td><td>21</td><td>22</td><td>23</td><td>No</td></tr> <tr><td>Slovenia</td><td>20</td><td>21</td><td>22</td><td>No</td></tr> <tr><td>Bulgaria</td><td>19</td><td>20</td><td>21</td><td>No</td></tr> <tr><td>Italy</td><td>18</td><td>19</td><td>20</td><td>No</td></tr> <tr><td>Spain</td><td>17</td><td>18</td><td>19</td><td>No</td></tr> <tr><td>France</td><td>16</td><td>17</td><td>18</td><td>No</td></tr> <tr><td>Greece</td><td>15</td><td>16</td><td>17</td><td>No</td></tr> <tr><td>Czech Republic</td><td>14</td><td>15</td><td>16</td><td>No</td></tr> <tr><td>Germany</td><td>13</td><td>14</td><td>15</td><td>No</td></tr> <tr><td>Hungary</td><td>12</td><td>13</td><td>14</td><td>No</td></tr> <tr><td>Slovakia</td><td>11</td><td>12</td><td>13</td><td>No</td></tr> <tr><td>Poland</td><td>10</td><td>11</td><td>12</td><td>No</td></tr> <tr><td>Ireland</td><td>9</td><td>10</td><td>11</td><td>No</td></tr> <tr><td>Cyprus</td><td>8</td><td>9</td><td>10</td><td>No</td></tr> <tr><td>United Kingdom</td><td>7</td><td>8</td><td>9</td><td>No</td></tr> <tr><td>Belgium</td><td>6</td><td>7</td><td>8</td><td>No</td></tr> <tr><td>Malta</td><td>5</td><td>6</td><td>7</td><td>No</td></tr> <tr><td>Netherlands</td><td>4</td><td>5</td><td>6</td><td>No</td></tr> <tr><td>Luxembourg</td><td>3</td><td>4</td><td>5</td><td>No</td></tr> </tbody> </table> </div> <p>https://ec.europa.eu/eurostat/statistics-explained/index.php/Renewable_energy_statistics</p> <p>L-istudenti jridu jispjegaw il-graff billi:</p> <ul style="list-style-type: none"> • jispjegaw x'inhuma l-miri tal-Unjoni Ewropea dwar l-enerġija rinnovabbli għal Malta; • jsemmu ERBA' pajjiżi li laħqu dawn il-miri u ERBA' oħra li għadhom ma laħquhomx; • jgħidu x'qiegħed isir f'pajjiżna biex dawn il-miri jintlaħqu. (Isemmu ERBA' misuri). 	Country	2004 (%)	2016 (%)	2020 Target (%)	2020 Target Reached	European Union	16	17	18	No	Sweden	48	53	49	Yes	Finland	38	39	38	Yes	Latvia	33	37	40	No	Austria	32	33	34	No	Denmark	29	30	31	No	Estonia	25	26	27	No	Portugal	24	25	26	No	Croatia	23	24	25	No	Lithuania	22	23	24	No	Romania	21	22	23	No	Slovenia	20	21	22	No	Bulgaria	19	20	21	No	Italy	18	19	20	No	Spain	17	18	19	No	France	16	17	18	No	Greece	15	16	17	No	Czech Republic	14	15	16	No	Germany	13	14	15	No	Hungary	12	13	14	No	Slovakia	11	12	13	No	Poland	10	11	12	No	Ireland	9	10	11	No	Cyprus	8	9	10	No	United Kingdom	7	8	9	No	Belgium	6	7	8	No	Malta	5	6	7	No	Netherlands	4	5	6	No	Luxembourg	3	4	5	No
Country	2004 (%)	2016 (%)	2020 Target (%)	2020 Target Reached																																																																																																																																																			
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TAHRIG 2

Objettivi ta' Tagħlim 10.2.1 u 10.2.4

L-għalliema jgħinu lill-istudenti jagħrfud-differenzi bejn it-tliet tip ewlenin ta' blat.

L-għalliema jgħinu lill-istudenti jifhem il-proċess li bih il-blat titmermer.

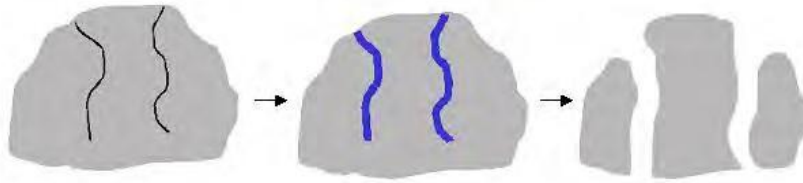
L-għalliem jipprezenta tliet ritratti li juru t-tliet tipi differenti ta' blat, Sedimentarju, Metamorfiku u Ignijuż. Dawn ir-ritratti jinsabu fil-kamra tal-Fronter tad-Dipartiment.



L-istudenti jridu:

- jidentifikaw il-blat muri f'kull ritratt billi jiktbu l-isem it-tajjeb taħt kull wieħed;
- taħt kull ritratt jiktbu fil-qosor kif dan il-blat ifforma;
- jagħtu żewġ eżempji ta' kull tip ta' blat billi jagħzlu minn dawn: bażalt, irħam, tafal, blat kalkarju (limestone), lavanja u granit.

L-istudenti jingħataw tpingġija li turi tliet disinji li wkoll tinsab fil-kamra tal-Fronter li turi l-proċess li bih il-blat jitmermer bil-proċess tal-ġlata.



L-istudenti jridu:

- ipinġu d-disinji u taħt kull tpingġija jiktbu x'qiegħed jiġri;
- isemmu post fejn dan it-tip ta' tmermer huwa komuni.

L-istudenti jingħataw stampa ta' statwa li turi kif din tmermer matul is-snin, li tidher hawn taħt.



L-istudenti jridu:

- jiddeskrivu l-ħsara li qed iseħħ lill-istatwa;
- jispjegaw fil-qosor għaliex qed jiġri dan.

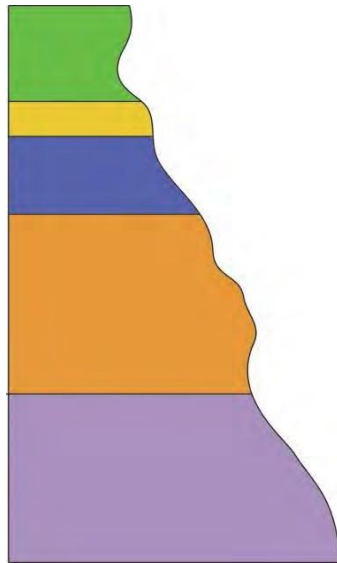
TAĦRIĠ 3

Objettiv ta' Tagħlim 10.2.2

L-għalliema jgħinu lill-istudenti jifhmu kif issawwar il-blat sedimentarju tal-gżejjer Maltin, kif ukoll il-karatteristiċi u l-użu tiegħu.

Fuq karta A3 l-istudenti jridu jagħtu tagħrif dwar il-karatteristiċi ewlenin tas-saffi tal-blat li nsibu f'pajjiżna. L-istudenti jridu:

- jagħmlu kopja tad-disinn muri hawn taħtu jpinguh skont il-kuluri murija;



- jiktbu l-isem ta' kull saff ta' blat fuq jew ħdejn id-disinn;
- jaqsmu s-saff tal-globiġerina fi tlieta u jagħtu l-isem għal kull diviżjoni;
- ħdejn kull saff jiktbu jekk hux poruż, permeabbli jew impermeabbli;
- ħdejn is-saff li huwa impermeabbli jiktbu fil-qosor l-importanza ta' dan is-saff;
- jagħmlu tabella bl-użu ekonomiku ta' kull saff ta' blat;
- jiktbu kif ifforma l-blat sedimentarju miljuni ta' snin ilu fil-qiegħ tal-baħar Tethys;
- ipinġu **TLIET** fossili li nsibu fil-blat ta' pajjiżna u jispjegaw kif il-fdalijiet ta' dawn il-ħlejjaq illum insibuhom mirdumin fil-blat tagħna;
- iwaħħlu stampa ta' kull saff ta' blat li nsibu f'pajjiżna u taħt kull stampa jiktbu ftit tagħrif u karatteristiċi ewlenin tiegħu. Numru ta' stampi meħtieġa jinsabu fil-kamra tal-Fronter tad-dipartiment.

TAHRIG 4

Objettiv ta' Tagħlim 10.2.3

L-għalliema jgħinu lill-istudenti jistharrġu l-impatt tal-barrieri fuq l-ambjent.

L-għalliem jippreżenta dawn ir-riżorsi lill-istudenti li jinkludu ritratti ta' knaten tal-franka u briks tal-qawwi flimkien ma' artiklu meħud minn gazzetta lokali. Dawn r-ritratti u ritratti simili jinsabu fuq il-kamra tal-Fronter tad-dipartiment.



L-Użu tal-Ġebbla Maltija Wasal FI-Aħħar

Waqt li l-industrija tal-bini qed tikber, l-użu tal-ġebbla tal-franka tista' tgħid li sparixxat għal kollox. Mikiel Buttigieg magħruf bħala tal-Qartas u li ilu jonqox u jiskultura l-ġebbla tal-franka għal dawn l-aħħar 40 sena qalilna li s-sengħa tal-lavur bil-ġebbla tal-franka qed tintnesa' peress ħafna djar qed jitwaqqgħu u flokhom qed jinbnew appartamenti bil-briks. 'Ix-xogħol li fadlilna huwa dak meta l-MEPA tordna li l-faċċata ta' xi dar tiġi restawrata. Il-balavostri ma jidhru mkien fil-bini tal-lum, nagħmlulhom biss meta jitmermru bl-element naturali tat-temp. Il-franka tinħadem faċilment u tista' tagħmel li trid biha. Ħares biss lejn il-knejjes tagħna, ma fihomx konkrit, iżda ħafna u ħafna lavur u arkati'.

Kola Farrugia ilu jqiegħed il-ġebel għal dawn l-aħħar 30 sena. Qalilna il-ġebbla tal-franka m'għadhiex imfittxija għal numru ta' raġunijiet. 'L-ewwel ma fadlilnix wisq barrieri minn fejn naqtgħu l-franka u t-tieni ma ssibx ħaddiema li kapaci jaqtgħu u jaħdmu l-franka. Il-franka taqsamlek dahrek. Kola qal li kantun tal-franka jiżen daqs erba' briksiet. 'Bil-briks ix-xogħol isir malajr u faċli issib ħaddiema lesti jaħdmu bil-briks milli jaħdmu bil-ġebbla Maltija. Barra min hekk briksa terfaghha wahdek filwaqt li kantun tal-franka jridu jkun tnejn jgħinu lil xulxin.

L-istudenti jridu:

- isemmu ż-żewġ tipi ta' barrieri li nsibu f'pajjiżna;
- isemmu x'materjal jiġi pproċessat fihom;
- jispjegaw fil-qosor kif jinqata' l-blat fiż-żewġ tipi ta' barrieri;
- jispjegaw l-importanza ta' din l-industrija għal pajjiżna;
- jispjegaw għaliex l-użu tal-ġebbla tal-franka qed jonqos (Jagħtu **ŻEWĠ** raġunijiet);
- jsemmu tal-anqas **ERBA'** impatti tal-barrieri fuq in-nies u l-ambjent;
- jispjegaw x'jista' jsir mill-iskart iġġenerat mill-bini. (isemmu **HAMES** ideat).

KARTA MUDELL



L-Eżamijiet Annwali tal-Iskejjel Sekondarji
Karta Mudell

L-Għaxar Sena

ĠEOGRAFIJA (Ġenerali)
STORJA
STUDJU SOĊJALI

HIN: Saghtejn

Isem: _____

Klassi: _____

Taqsima A: IL-ĠEOGRAFIJA

1. Ikteb ismek u l-klassi fuq kull karta.
2. Wieġeb il-mistoqsijiet kollha fuq il-karta tal-eżami.
3. Għandek madwar **40 minuta** biex twieġeb din il-karta.
4. Din il-karta fiha 100 marka.

1. Fares sewwa lejn l-istampa f'disinn 1.



Disinn 1

Ittikkja (□) t-tajba.

- a. Dan il-vulkan huwa

(i)	mejjet	
(ii)	rieqed (inattiv)	
(iii)	ħaj (attiv)	

- b. Minn dan il-vulkan ħerġin ammonti kbar ta'

(i)	deheb	
(ii)	lava	
(iii)	aluminju	
(iv)	ħgieġ	

ċ. Wieħed mill-vulkani kbar qrib tal-gżejjer Maltin hu

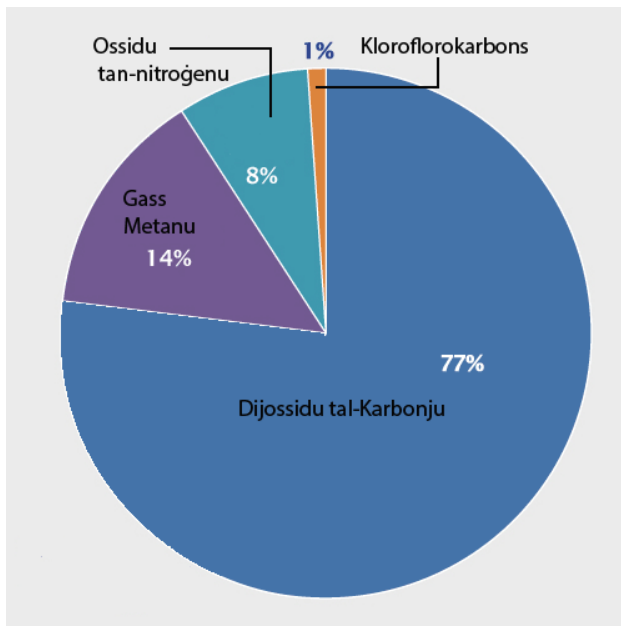
(i)	I-Everest	
(ii)	I-Alpi	
(iii)	I-Ingilterra	
(iv)	I-Etna	

d. Liema minn dawn iż-żewġ vulkani jinsabu fil-Mediterran?

(i)	Vessuvju u Santorini	
(ii)	Krakatoa u Tambora	
(iii)	Fuyijami u Merapi	
(iv)	Mt St Helens u Pinatubo	

(8)

2. Hares sewwa lejn disinn 2 li qed turi l-gassijiet li qed ibiddu l-klima globali.



Disinn 2

a. Imla vojt fit-tabella t'hawn taħt billi tuża t-tagħrif mogħti f'disinn 2.

Gassijiet li qed jikkawżaw it-Tiŝhin Globali	
Isem tal-gass	%
	77
Ossidu tan-nitroġenu	
Kloroflorokarbons	
	14

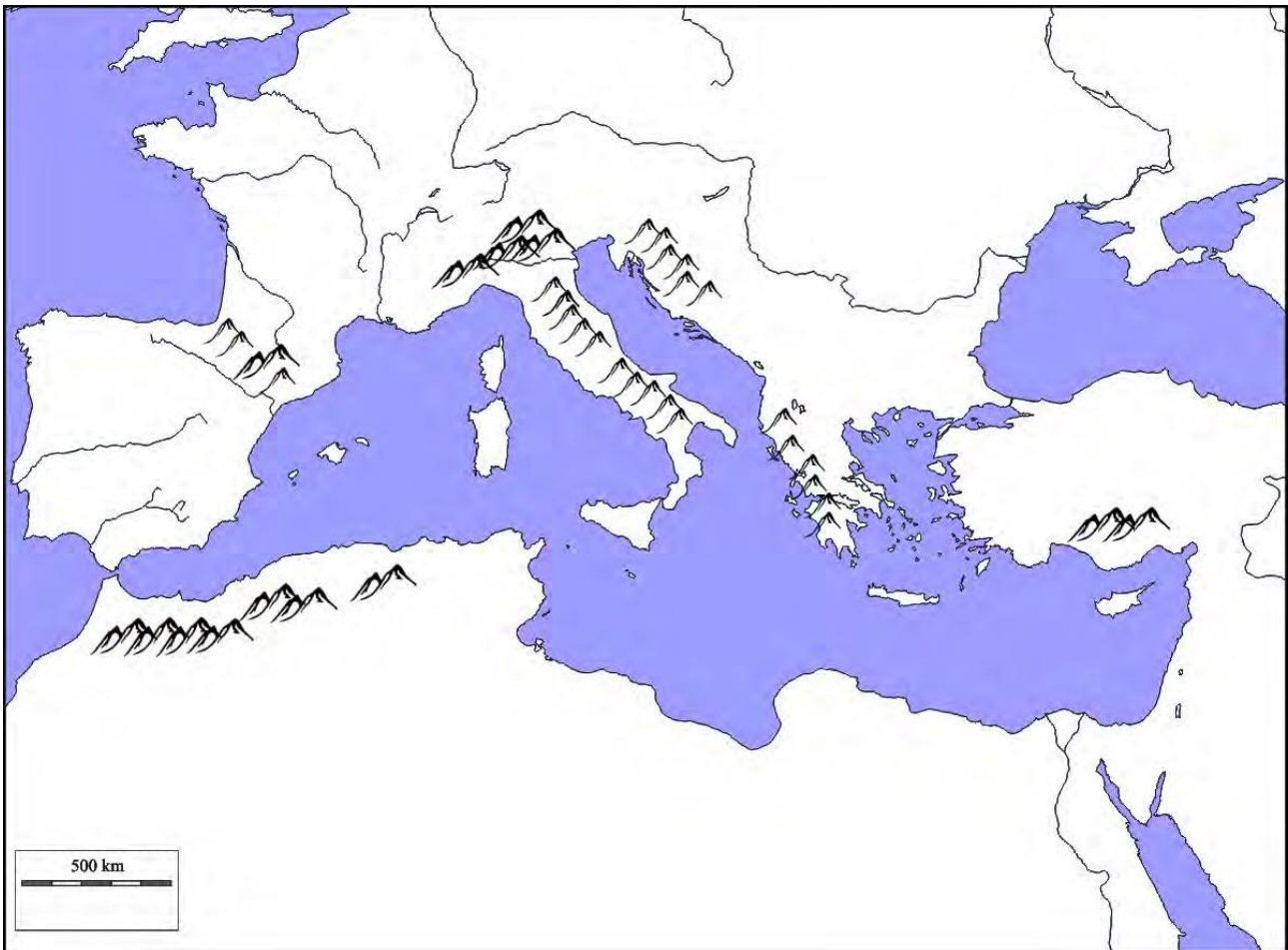
(4)

b. Aqta' sing taht it-tajba.

- (i) L-aktar gass li qed jikkawza bdil fit-temperatura globali huwa (**I-ossidu tan-nitroġenu, d-dioossidu tal-karbonju, I-kloroflorkarbons, I-gass metanu**).
- (ii) Dawn il-gassijiet jissejġu gassijiet (**vulkaniċi, petrokimiċi, fossili, serra**).
- (iii) Joħroġ ħafna dioossidu tal-karbonju (**minn power stations, mill-iskejjel, mill-ġonna u I-ġħelieqi, mis-serer**).

(6)

3. Hares sewwa lejn il-mappa tal-Mediterran f'disinn 3.



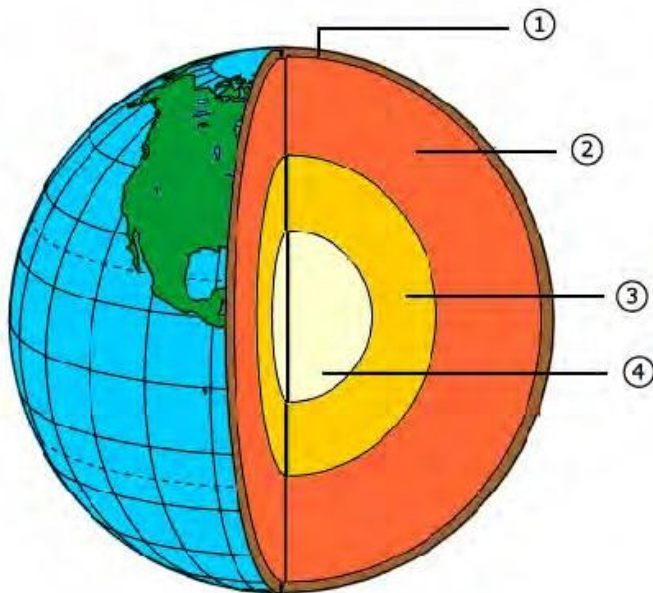
Disinn 3

Ikteb l-isem it-tajjeb, fuq il-mappa stess, ta' **erba'** ktajjen ta' muntanji li jidhru mmarkati fuq il-mappa.

Agħzel minn: **I-Alpi, il-Pirinej, it-Taurus, I-Appennini, il-muntanji Atlas, I-Alpi Awstraljani, I-Andes, il-Pindus, il-Himalayas, I-Alpi Dinariċi.**

(8)

4. Disinn 4 qed jurina kif inhi maqsuma d-dinja tagħna minn ġewwa.



Disinn 4

a. Ikteb l-isem ta' kull saff fil-post it-tajjeb hawn taħt.

1 2

3 4

(8)

b. F'liema saff minn dawn insibu il-kurrenti konvezzjonali?

.....

(2)

ċ. X'jistgħu jkunu l-effetti ta' dawn il-kurrenti konvezzjonali ġewwa d-dinja?

.....

(6)

5. Aqra l-artiklu li deher f'gazzetta lokali dan l-aħħar.

Gassijiet Misterjużi Jheddu s-Saff tal-Ożonu

Ix-xjenzati huma mħassba bis-sejba ta' erba' gassijiet ġodda maħluqa mill-bniedem li qed jherru s-saff tal-ożonu. Sa ftit ilu x-xjenzati kellhom moħħhom mistrieħ li din il-problema kienet issolviet darba għal dejjem wara li l-pajjiżi kollha kienu ffirmaw il-Protokoll ta' Montreal fl-1987. Hawn kien ġie miftiehem li l-kimiċi kollha fosthom il-kloroflorokarbons li dak iż-żmien kienu qed jherru s-saff tal-ożonu jitwaqqfu sas-sena 2010. "Issa sibna dawn il-kimiċi ġodda, u għadna m'aħniex ċerti minn fejn ġejjin", qal il-Professor Forster mill-Università ta' Leeds. Ix-xjenzati qed jistħarrġu għadd kbir ta' kimiċi u solventi ġodda bħal-likwidi wżati fid-tindif ta' partijiet elettronici, u l-produzzjoni ta' fertilizzanti u insettiċidi wżati fis-settur tal-biedja.

a. X'inhu s-saff tal-ożonu?

.....
.....
.....
.....

(4)

b. X'jissegħu l-kimiċi li ma baqgħux jintużaw skont il-ftehim ta' Montreal? Għalfejn kienu jintużaw?

.....
.....
.....

(5)

ċ. X'ikunu l-effetti fuq il-bniedem u l-ħlejjaq jekk is-saff tal-ożonu jitherra u jiċkien?

.....
.....
.....

(6)

6. a. X'jissegjah il-post fuq wiċċ l-art fejn tibda l-mewġa sismika ta' terremot?

.....

(2)

b. Semmi pajjiż Mediterranju li jinsab f'riskju li jintlaqat minn terremot qawwi.

.....

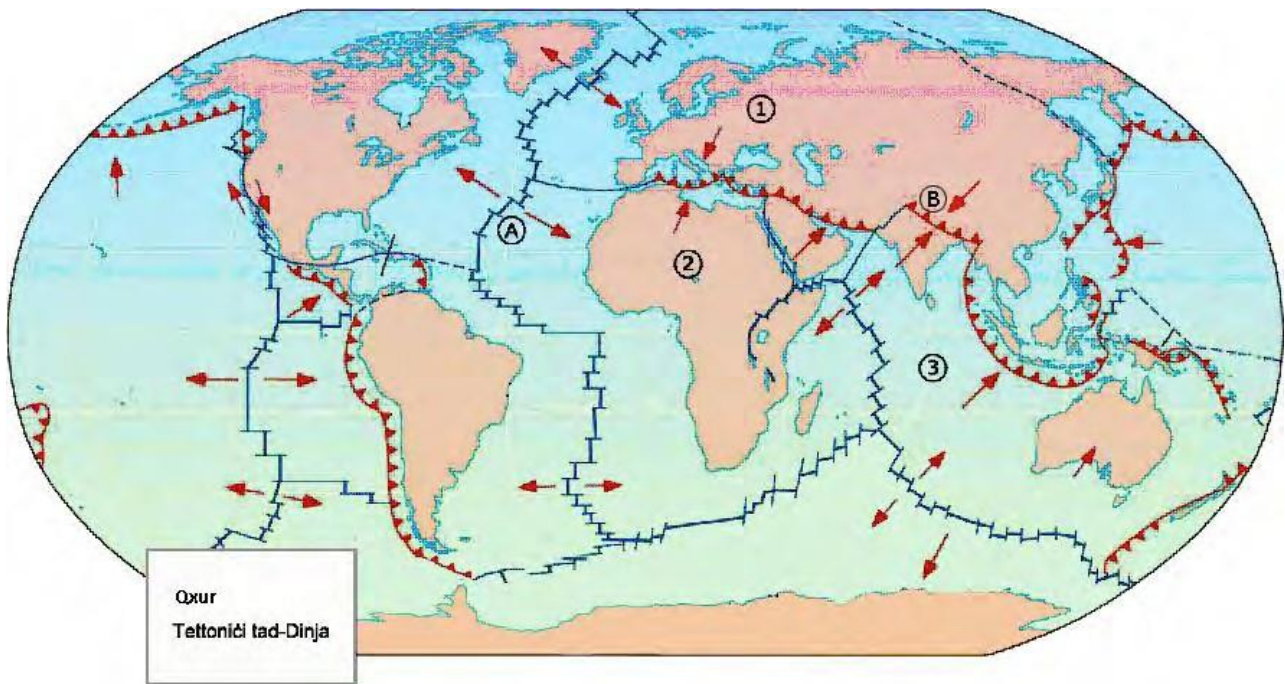
(2)

ċ. Ikteb dwar il-ħsara li tista' ssir f'post jekk dan jintlaqat minn terremot ta' skala 8 fuq l-iskala Richter.

.....
.....
.....
.....
.....
.....

(6)

7. Fares sewwa lejn disinn 5 li juri x-xfar tal-qxur tettoniċi.



Disinn 5

a. Agħti l-isem tal-qxur tettoniċi mmarkati bin-numri **1**, **2** u **3**.

1

2

3

(3)

b. Ix-xifer tettoniku mmarkat bl-ittra **A** huwa xifer konservattiv. Għid x'qed jgħri f'dan ix-xifer tettoniku.

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(6)

ċ. Ix-xifer tettoniku mmarkat bl-ittra **B** huwa xifer ta' kollizjoni. Għid x'qed jgħri f'dan ix-xifer tettoniku.

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(6)

8. a. Pingi disinn ta' vulkan kif jidher minn ġewwa. Fuqu mmarka sewwa dawn il-karatteristiċi ewlenin: **bokka ewlenija, arterja vulkanika, ħawt tal-magma, saffi ta' lava u rmied.**



(8)

- b. Spjega **tnejn** mill-karatteristiċi ewlenin imsemmija f'taħriġ 8a.

Karatteristika tal-vulkan:

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Karatteristika tal-vulkan:

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(4)

ċ. Agħti **tliet** raġunijiet għaliex numru kbir ta' nies xorta waħda jgħixu f'zoni vulkaniċi.

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(6)

YEAR 10

Geography (General) Syllabus

Unit code and title: GEO 10.1 Energy Resources and Climate Change	
Strand 1: The Environment – Physical and Human	
Strand 2: Management, Conservation and Sustainability	
Keywords: renewable, non-renewable, alternative, fossil fuels, carbon emissions, energy mix, greenhouse gases, geothermal, hydro-electric power, nuclear, wind farm, solar, greenhouse effect, global warming, climate change, carbon dioxide, deforestation, methane, chlorofluorocarbons, ozone layer, ozone depletion, ultra violet rays, UV index	
Teaching Objective	Learning Outcomes
10.1.1 The teacher will help students evaluate the benefits and problems of non-renewable and renewable energy resources.	<ul style="list-style-type: none"> • Differentiate between a non-renewable and a renewable energy resource. • Give examples of renewable and non-renewable energy resources. • Evaluate the advantages and the disadvantages of the use of coal, petroleum (oil) and natural gas on the environment. • Explore the use, advantages and difficulties of generating energy through renewable sources namely solar, wind, HEP, geothermal, wave and tidal. • Distinguish the pros and cons of nuclear energy as an alternative source. • Associate several countries with a particular source of energy. (Iceland – Geothermal) • Discuss the viability of different sources of energy for the Maltese Islands.

	<ul style="list-style-type: none"> • Compare the present state of Malta's energy mix in relation to the targets set by the EU of 2020. • Compare Malta's carbon emissions with that of other EU countries.
<p>10.1.2</p> <p>The teacher will provide resources for students to analyse the causes and effects of Global Warming.</p>	<ul style="list-style-type: none"> • Understand the greenhouse effect as a natural process of the atmosphere. • Interpret graph of CO₂ emission increase to date to show the effect of human activity in accentuating the greenhouse effect. • Describe the main causes of global warming (CO₂, deforestation, methane, CFCs). • Describe the evidence that global warming is actually happening. • Analyse some of the possible consequences of global warming and further climate change with reference to Malta and other examples. • Suggest possible ways of reducing global warming. • List measures which young people can take to reduce the impact of global warming.
<p>10.1.3</p> <p>The teacher will help students discover the main causes and effects of the depletion of the ozone layer.</p>	<ul style="list-style-type: none"> • Understand the vital function of the ozone layer in protecting life on earth. • Explain the factors causing the depletion of the ozone layer. • Analyse some of the possible consequences of ozone depletion. • Discuss the way and extent ozone depletion has been reduced through international collaboration. • List how people can protect themselves from harmful UV rays.

Unit code and title: GEO 10.2 Rock Detectives

Strand 1: The Environment – Physical and Human

Strand 2: Management, Conservation and Sustainability

Key words: igneous, sedimentary, metamorphic, Upper Coralline Limestone, Greensand, Blue Clay, Globigerina Limestone, Lower Coralline Limestone, Quaternary deposits, Sea of Tethys, Upper, Middle and Lower Globigerina, spalls, fossils, strata, permeable, impermeable, porous, bedding planes, joints, quarry, building stone, hard and soft stone, sustainable quarrying, restoration, rehabilitation, weathering, erosion, freeze thaw, frost shattering, onion-skin, exfoliation, biological weathering, chemical weathering

Teaching Objective	Learning Outcomes
10.2.1 The teacher will help students distinguish between the three main categories of rock.	<ul style="list-style-type: none">• Distinguish the three different categories of rock according to their formation namely: Igneous, Sedimentary and Metamorphic.• Name examples of rock types, e.g. Igneous (Basalt and Granite), Sedimentary (Limestone and Clay), Metamorphic (Marble and Slate) and give one particular use for each example.
10.2.2 The teacher will help students understand the formation, characteristics and the main uses of the sedimentary rocks of the Maltese Islands.	<ul style="list-style-type: none">• Identify the 5 main layers of rocks of the Maltese Islands, namely: Upper Coralline Limestone, Greensand, Blue Clay, Globigerina Limestone, Lower Coralline Limestone as well as the Quaternary deposits.• Understand how these layers were formed millions of years ago under the sea of Tethys.• Recognise some common fossils, understand how they are formed and that these form part of our national heritage.• Describe the basic properties of the different strata of rock in Malta, including permeability, resistance and colour.

	<ul style="list-style-type: none"> • Explore the economic use of each type of rock of the Maltese Islands. • Identify the three sub-type members of globigerina limestone i.e. upper, middle and lower.
<p>10.2.3</p> <p>The teacher will help students examine the impact of quarrying on the environment.</p>	<ul style="list-style-type: none"> • Recognise the importance of limestone quarrying as an economic activity for the country. • Distinguish the differences between the quarrying of hard rock and soft stone by referring to particular examples in Malta. • Describe the effects of quarrying on the Maltese people and environment. • Identify some possible measures to ensure sustainability of the Maltese building stone and the quarrying and construction industries. • Describe ways of restoring and rehabilitating disused quarries.
<p>10.2.4</p> <p>The teacher will help students understand the processes of weathering of rocks.</p>	<ul style="list-style-type: none"> • Distinguish between the processes of weathering and erosion. • Identify and define the four types of weathering namely frost shattering (freeze and thaw), onion-skin (exfoliation), biological and chemical weathering. • Associate particular environments with the most common type of weathering. • Draw labelled diagrams describing the four types of weathering.

Unit code and title: GEO 10.3 The Dynamic Earth

Strand 1: The Environment – Physical and Human

- **Key words:** inner core, outer core, mantle, crust, magma, lava, plate, plate boundary, convection currents, constructive plate boundary, destructive plate boundary, collision plate boundary, conservative plate boundary, African Plate, Eurasian plate, Alpine fold mountain, epicentre, shockwave, Richter Scale, seismograph, active, dormant, extinct, lava flow, pyroclastic flow, ash cloud, main vent, magma chamber, secondary cone, geothermal energy

Teaching Objective	Learning Outcomes
10.3.1 The teacher will help students understand the causes of earthquakes and volcanoes.	<ul style="list-style-type: none">• Draw and label a cross-sectional diagram of the interior of the Earth representing the inner and outer core, mantle and crust.• Describe the general characteristics of inner and outer core, mantle and crust.• Identify and name the different plates of the Earth's crust.• Examine how convection currents are responsible for the movement of plates.• Identify links between the location of plate boundaries, volcanoes and recent major earthquakes.• Explain briefly the movement of plates at different plate boundaries namely constructive, destructive, collision and conservative.
10.3.2 The teacher will help students recognise that the Mediterranean Region is a seismic prone zone.	<ul style="list-style-type: none">• Identify the African and Eurasian plates on a map of the Mediterranean as well as their movement.• Explain the formation of the Alpine fold mountain system as a result of the collision zone

	<p>between the two tectonic plates.</p> <ul style="list-style-type: none"> • Locate the main fold mountains around the Mediterranean Basin namely the Pyrenees, Alps, Apennines, Dinaric Alps, Pindus, Taurus and Atlas Mountains. • Locate on a map of the Mediterranean a number of volcanoes including Vesuvius, Stromboli, Vulcano, Mt.Etna and Santorini. • Locate sites within the Mediterranean prone to earthquakes namely Greece, Italy and Turkey.
<p>10.3.3 The teacher will help students explore the effects of an earthquake.</p>	<ul style="list-style-type: none"> • Define the terms earthquake, epicentre and shockwave • Describe how the strength of earthquakes is measured by means of a seismograph according to the Richter Scale. • Identify the cause and effects of an earthquake by the use of a case study taken from the Mediterranean Region.
<p>10.3.4 The teacher will provide resources for the students to discover the hazards and benefits of volcanic eruptions.</p>	<ul style="list-style-type: none"> • Classify the three main types of volcanoes; active, dormant and extinct. • Differentiate between lava and magma. • Draw and label the main features of a volcano, including crater, lava flow, pyroclastic flow, ash cloud, main vent, magma chamber, secondary cone. • List and describe the severe damage caused by volcanic eruptions to people, property and the environment. • Outline the effects of an eruption focusing on an example from the Mediterranean. • Describe the benefits associated with volcanoes including the formation of fertile soils and precious stones, geothermal energy and tourist attractions.

Scheme of assessment

Summative assessment in geography (general) at year 10 consists of a written exam made up of three papers in each of the subjects of Geography, History and Social Studies set at the end of the scholastic year. The exam is made up of 100 marks and carries 60% of the global mark.

Continuous assessment consists of a number of tasks (classwork and homework) completed by students during the year. The continuous assessment is given out of 100 marks and carries 40% of the global mark.

Summative Assessment

Written Examination (100 marks; 2 hours including Geography, History and Social Studies)

The summative assessment will consist of a paper of two hours duration carrying **60% of the total mark** combining the three subjects of Geography, History and Social Studies together. The annual exam paper set by the Directorate for Learning and Assessment Programmes is going to be made up of three sections, a section for each subject (Geography, History and Social Studies). Each section will carry **100 marks** and students will receive a mark for each subject. The exam paper will be designed in a way that each subject teacher collects and marks his/her section.

The geography section will consist of a common graded paper and questions will be set in Maltese on **the objectives indicated in Table A**. An English version of the paper will also be provided. Questions will be structured with gradients of difficulty, including objective questions (e.g. completion, true/false, multiple choice questions, cloze questions), resource based questions involving data response and problem solving as well as free response writing. The questions set will assess the students' understanding and application of the main geographical concepts and knowledge, the acquisition of basic geographic skills and the development of attitudes and values in all the strands of learning. All questions are compulsory and need to be answered in the space provided in the exam paper.

Table A

YEAR 10 – Annual Examination	
Teaching Objectives that are going to be assessed in the Annual Exam	
10.1.2	The teacher will provide resources for students to analyse the causes and effects of Global Warming
10.1.3	The teacher will help students discover the main causes and effects of the depletion of the ozone layer
10.3.1	The teacher will help students understand the causes of earthquakes and volcanoes
10.3.2	The teacher will help students recognise that the Mediterranean Region is a seismic prone zone.
10.3.3	The teacher will help students explore the effects of an earthquake
10.3.4	The teacher will provide resources for the students to discover the hazards and benefits of volcanic eruptions.

Continuous Assessment

Teachers are encouraged to assess learners through different modes of assessment, including map reading exercises, presentations, quizzes, oral and written questions, games, discussions, research work from Internet and books, labelling and sketching of diagrams, experiments, commenting on videos, analysis of newspaper articles, reporting on site visits, active participation in a co-curricular project, data-response tasks, tests, resource-based questions etc. Written tests should not be the only or main format of school-based assessment and should not be used more frequently than any other assessment tool. Using various modes of assessment is a fair way to demonstrate the achievement of outcomes by the different learners with different skills and competencies.

Appendix 1 provides some examples of tasks that can be conducted by students throughout the scholastic year. Teachers know their class best and can therefore take the final decision on the number and type of tasks to be conducted within the context of their class, while ensuring that the mark is given in a professional manner, according to good assessment practice. Continuous assessment tasks should be a natural part of the lesson and integrated into the teaching and learning activities carried out both in class and at home.

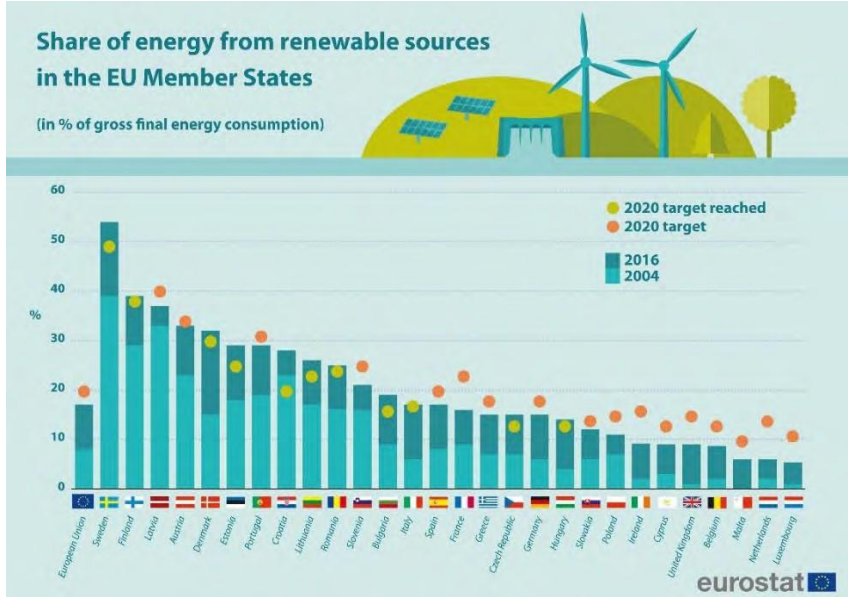
Reporting on My Schools Portal

The table below indicates the marks teachers need to input on My School portal during the scholastic year. The global mark field worked on the ratio 40% continuous assessment and 60% summative assessment is computer generated.

Year 10	June		Global Mark
	Continuous Assessment Assessment for the whole scholastic year	Summative Assessment Written Annual Exam	Computer generated 40% Continuous Assessment 60% Summative Assessment
	100 marks	100 marks	100%

Appendix 1

Model Continuous Assessment Tasks

TASK 1	Learning Objective 10.1.1 The teacher will help students evaluate the benefits and problems of non-renewable and renewable energy resources.																																																																																																																																																						
	<p>Students need to:</p> <ul style="list-style-type: none"> • give the difference between non-renewable and renewable sources of energy; • name the fossil fuels; • draw a table with FOUR examples of renewable sources of energy and FOUR examples of non-renewable sources of energy; • provide some information on ONE non-renewable energy resource by naming also the advantages and the disadvantages of the source on the environment; • provide some information on TWO renewable sources of energy by explaining the advantages and difficulties of generating such forms of energy. <p>Students will be provided by a graph showing the share of energy from renewable sources in the EU.</p>  <p>Share of energy from renewable sources in the EU Member States (in % of gross final energy consumption)</p> <p>Legend: ● 2020 target reached (yellow), ● 2020 target (orange), ■ 2016 (teal), ■ 2004 (light blue)</p> <table border="1"> <thead> <tr> <th>Country</th> <th>2004 (%)</th> <th>2016 (%)</th> <th>2020 Target (%)</th> <th>2020 Target Reached (Yes/No)</th> </tr> </thead> <tbody> <tr><td>European Union</td><td>17</td><td>18</td><td>18</td><td>No</td></tr> <tr><td>Sweden</td><td>38</td><td>53</td><td>49</td><td>Yes</td></tr> <tr><td>Finland</td><td>35</td><td>38</td><td>38</td><td>Yes</td></tr> <tr><td>Denmark</td><td>25</td><td>35</td><td>35</td><td>Yes</td></tr> <tr><td>Denmark</td><td>15</td><td>30</td><td>33</td><td>No</td></tr> <tr><td>Estonia</td><td>15</td><td>28</td><td>30</td><td>No</td></tr> <tr><td>Portugal</td><td>15</td><td>28</td><td>30</td><td>No</td></tr> <tr><td>Croatia</td><td>15</td><td>25</td><td>25</td><td>No</td></tr> <tr><td>Lithuania</td><td>15</td><td>25</td><td>25</td><td>No</td></tr> <tr><td>Romania</td><td>15</td><td>25</td><td>25</td><td>No</td></tr> <tr><td>Slovenia</td><td>15</td><td>25</td><td>25</td><td>No</td></tr> <tr><td>Bulgaria</td><td>15</td><td>20</td><td>25</td><td>No</td></tr> <tr><td>Italy</td><td>15</td><td>18</td><td>18</td><td>No</td></tr> <tr><td>Spain</td><td>15</td><td>18</td><td>20</td><td>No</td></tr> <tr><td>France</td><td>15</td><td>18</td><td>20</td><td>No</td></tr> <tr><td>Greece</td><td>15</td><td>18</td><td>20</td><td>No</td></tr> <tr><td>Czech Republic</td><td>15</td><td>18</td><td>20</td><td>No</td></tr> <tr><td>Germany</td><td>15</td><td>18</td><td>20</td><td>No</td></tr> <tr><td>Hungary</td><td>15</td><td>18</td><td>20</td><td>No</td></tr> <tr><td>Slovakia</td><td>15</td><td>18</td><td>20</td><td>No</td></tr> <tr><td>Poland</td><td>15</td><td>18</td><td>20</td><td>No</td></tr> <tr><td>Ireland</td><td>15</td><td>18</td><td>20</td><td>No</td></tr> <tr><td>Cyprus</td><td>15</td><td>18</td><td>20</td><td>No</td></tr> <tr><td>United Kingdom</td><td>15</td><td>18</td><td>20</td><td>No</td></tr> <tr><td>Belgium</td><td>15</td><td>18</td><td>20</td><td>No</td></tr> <tr><td>Malta</td><td>15</td><td>18</td><td>20</td><td>No</td></tr> <tr><td>Netherlands</td><td>15</td><td>18</td><td>20</td><td>No</td></tr> <tr><td>Latvia</td><td>15</td><td>18</td><td>20</td><td>No</td></tr> <tr><td>Luxembourg</td><td>15</td><td>18</td><td>20</td><td>Yes</td></tr> </tbody> </table> <p>https://ec.europa.eu/eurostat/statistics-explained/index.php/Renewable_energy_statistics</p> <p>Students need to explain the graph by:</p> <ul style="list-style-type: none"> • explaining the EU targets on renewable energy sources for Malta; • name at least FOUR countries that already reached the targets set and others FOUR that still need to reach the targets; • name what is being done in Malta to reach these targets. (Name at least FOUR points). 	Country	2004 (%)	2016 (%)	2020 Target (%)	2020 Target Reached (Yes/No)	European Union	17	18	18	No	Sweden	38	53	49	Yes	Finland	35	38	38	Yes	Denmark	25	35	35	Yes	Denmark	15	30	33	No	Estonia	15	28	30	No	Portugal	15	28	30	No	Croatia	15	25	25	No	Lithuania	15	25	25	No	Romania	15	25	25	No	Slovenia	15	25	25	No	Bulgaria	15	20	25	No	Italy	15	18	18	No	Spain	15	18	20	No	France	15	18	20	No	Greece	15	18	20	No	Czech Republic	15	18	20	No	Germany	15	18	20	No	Hungary	15	18	20	No	Slovakia	15	18	20	No	Poland	15	18	20	No	Ireland	15	18	20	No	Cyprus	15	18	20	No	United Kingdom	15	18	20	No	Belgium	15	18	20	No	Malta	15	18	20	No	Netherlands	15	18	20	No	Latvia	15	18	20	No	Luxembourg	15	18	20	Yes
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TASK 2

Learning Objective 10.2.1 and 10.2.4

The teacher will help students distinguish between the three main categories of rock.

The teacher will help students understand the processes of weathering of rocks.

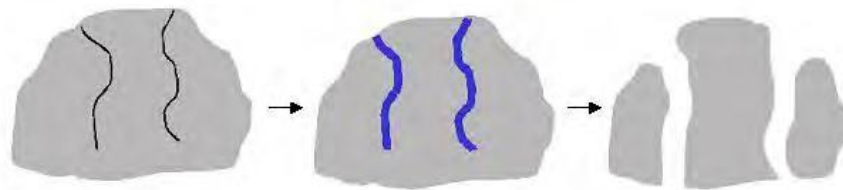
Students are presented with three photos showing the three main categories of rocks, Sedimentary, Igneous and Metamorphic. These photos are available on the department's Fronter Room.



Students need to:

- identify the rock type in each photo by writing the correct name under each image;
- write briefly, under each photo how each rock type was formed;
- provide two examples for each rock type choosing from: basalt, marble, clay, limestone, slate and granite.

Students are also presented with a drawing showing the process of frost shattering or freeze-thaw weathering. This image is also available on Fronter.



Students need to;

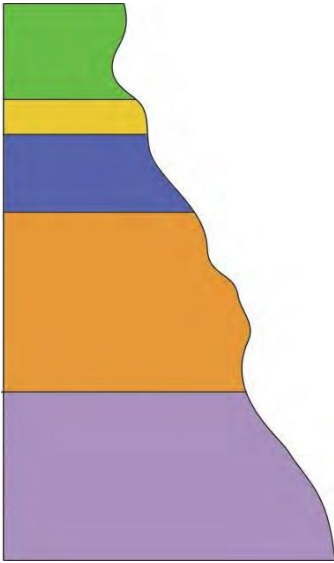
- draw the diagrams and underneath each one explain briefly what is happening;
- name a place/area where this type of weathering is common.

Students are finally presented with a picture of a statue seen underneath.



Students need to:

- describe the damage being caused to the statue; and
- explain briefly why this is taking place.

<p>TASK 3</p>	<p>Learning Objective 10.2.2 The teacher will help students understand the formation, characteristics and the main uses of the sedimentary rocks of the Maltese Islands.</p>
	<p>On an A3 paper students need to provide information on the main characteristics of the rock layers of Malta. Students need to:</p> <ul style="list-style-type: none"> • make a copy of the drawing below using the same colour scheme;  <ul style="list-style-type: none"> • name each layer of rock; • divide and name the globigerina limestone layer into three subdivisions; • next to each layer state if it is porous, permeable or impermeable; • next to the impermeable layer explain briefly the importance of this rock layer; • draw a table with the economic use of each rock; • explain briefly how these sedimentary layers were formed millions of years ago under the Sea of Tethys; • draw THREE different fossils found in local rocks and explain why the remains of these creatures are now embedded in the rocks; • fix pictures of every rock layer and under each picture write some main characteristics of each layer. A number of such pictures are available on the EO's Fronter room.

TASK 4

Learning Objective 10.2.3

The teacher will help students examine the impact of quarrying on the environment.

Teachers present these resources to students including images of local Maltese stone make from lower globigerina limestone and bricks together with an extract from a local newspaper. All these resources are available on the EO's Fronter Room.

**Use of Maltese limestone has decreased**

While the construction industry is booming, the use of soft Maltese limestone has almost completely disappeared. Mikiel Buttigieg known as "tal-Qartas" has been working with limestone for the last 40 years. Mikel said that much of the carving skills which use the Maltese stone are being lost because many homes are being torn down to build blocks of apartments using bricks. "Those who have an old house are told by MEPA to restore the facade to its original state, and that is our type of work. Balustrades do not feature in new buildings, we only make them these days when they have been eroded by the elements and we restore them. He said that limestone is very malleable. "With limestone you can do whatever you want. If you look at our old Churches, there was no concrete, and you can see arches and so on. Kola Farrugia who has been a stonemason for the last 30 years said that buildings using limestone have decreased for various reasons. "First of all because we do not have many quarries left to cut limestone out from, and secondly you do not find enough people who know how to cut this stone." This is because working with limestone is backbreaking work. Kola said that one block of limestone weighs approximately as much as four bricks. "With bricks the work gets done more quickly, that is obvious. You will probably find people more willing to carry bricks than carry a block of limestone. And you can carry a brick by yourself but with limestone there have to be two people to help each other."

Students need to:

- name the two different types of quarries found in Malta;
- name what each quarry produces;
- explain in short how the rock is cut in both types of quarries;
- explain the importance of this industry to the economy of our country;
- explain why the use of the local stone from the Lower Globigerina Limestone is declining (name **TWO** reasons);
- name **FOUR** impacts of quarrying on people and the environment;
- name what can be done with the waste generated from the building industry. (List at least **FIVE** different ways)

Sample Paper



**Annual Examinations for Secondary Schools
Sample paper**

Year 10

Geography (General)
History
Social Studies

Time: 2 hours

Name: _____

Class: _____

Section A: GEOGRAPHY

1. Write your name and class on each paper.
2. Answer all questions on the examination paper.
3. Answer the questions of this paper in about **40 minutes**.
4. This paper carries 100 marks.

1. Look carefully at the picture in figure 1.



Figure 1

Mark the correct answer with a .

- a.** This volcano is

(i)	extinct	<input type="checkbox"/>
(ii)	dormant	<input type="checkbox"/>
(iii)	active	<input type="checkbox"/>

- b.** This volcano is ejecting huge amounts of

(i)	gold	<input type="checkbox"/>
(ii)	lava	<input type="checkbox"/>
(iii)	aluminium	<input type="checkbox"/>
(iv)	glass	<input type="checkbox"/>

c. A big volcano found next to the Maltese islands is:

(i)	Everest	
(ii)	Alps	
(iii)	England	
(iv)	Etna	

d. Which two volcanoes are found in the Mediterranean?

(i)	Vesuvius and Santorini	
(ii)	Krakatoa and Tambora	
(iii)	Fuyijami and Merapi	
(iv)	Mt St Helens and Pinatubo	

(8)

2. Look carefully at figure 2 which shows the gases responsible for global climate change.

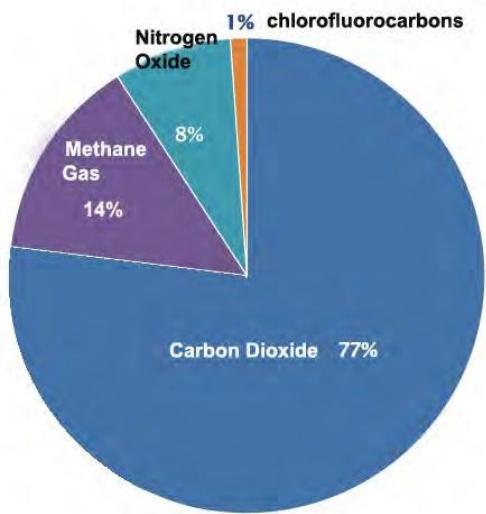


Figure 2

a. Fill in the table below by using the information provided in figure 2.

Gases causing global warming	
Name of gas	%
	77
Nitrous oxide	
Chlorofluorocarbons	
	14

(4)

b. Underline the correct answer.

- (i) The principal gas responsible for a change in global temperatures is (**nitrous oxide**, **carbon dioxide**, **chlorofluorocarbons**, **methane gas**).
- (ii) These gases are called (**volcanic**, **petrochemical**, **fossil**, **greenhouse**) gases.
- (iii) Carbon dioxide is mostly emitted from (**power stations**, **schools**, **gardens and fields**, **greenhouses**).

(6)

3. Look carefully at the map of the Mediterranean in figure 3.



Figure 3

On the map itself write down the correct name of **four** mountain ranges marked on the map in figure 3.

Choose from: **Alps**, **Pyrenees**, **Taurus**, **Apennines**, **Atlas**, **Australian Alps**, **Andes**, **Pindus**, **Himalayas**, **Dinaric Alps**.

(8)

4. Figure 4 shows the internal structure of the earth.

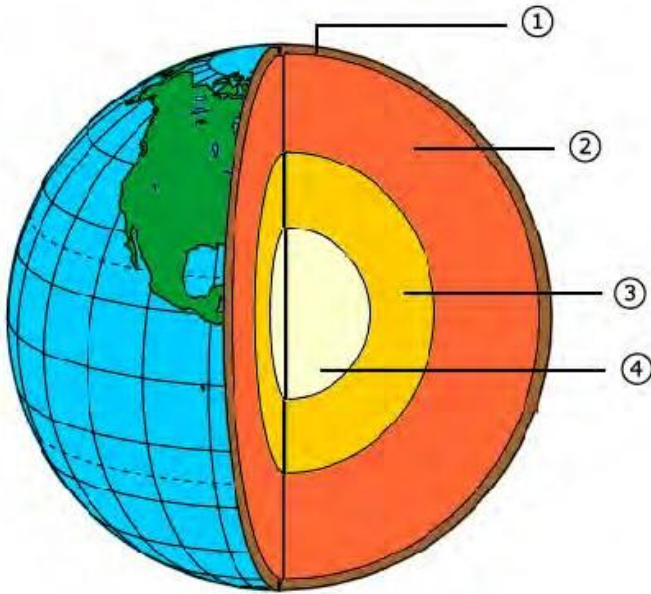


Figure 4

a. Write down the name of each layer in the correct place below.

1 2

3 4

(8)

b. In which layer are the convection currents found ?

.....

(2)

c. What might be the effects of these convection currents inside the earth?

.....
.....
.....
.....
.....

(6)

5. Read the following article which was recently featured in a local newspaper.

Mysterious gases pose threat to ozone layer

Scientists are concerned at the discovery of four new man-made gases that are depleting the ozone layer. Until recently, scientists were reassured that the problem was definitely solved after countries signed the Montreal Protocol in 1987. Here it was agreed that all chemicals which were depleting the ozone layer including chlorofluorocarbons should be banned by the year 2010. "We found these new chemicals, and we are not sure from where the new gases are being emitted", Professor Forster from the University of Leeds said. The scientists are investigating a number of chemicals and new solvents such as liquids used in the cleaning of electronic parts, and the production of fertilisers and insecticides used in the agricultural sector.

a. What is the ozone layer?

.....
.....
.....
.....

(4)

b. What are the chemicals banned under the Montreal agreement called? What were these used for?

.....
.....
.....

(5)

c. What would be the effects of the thinning and destruction of the ozone layer on people and on all creatures living on earth?

.....
.....
.....

(6)

6. a. What is the place on the earth's surface where the seismic wave starts called?

.....

(2)

b. Mention **one** Mediterranean country that is at risk of being hit by a strong earthquake.

.....

(2)

c. Explain the damage that may occur in the area if it would be hit by an earthquake measuring 8 on the Richter Scale.

.....
.....
.....
.....
.....
.....

(6)

7. Look carefully at figure 5 showing tectonic plate margins.

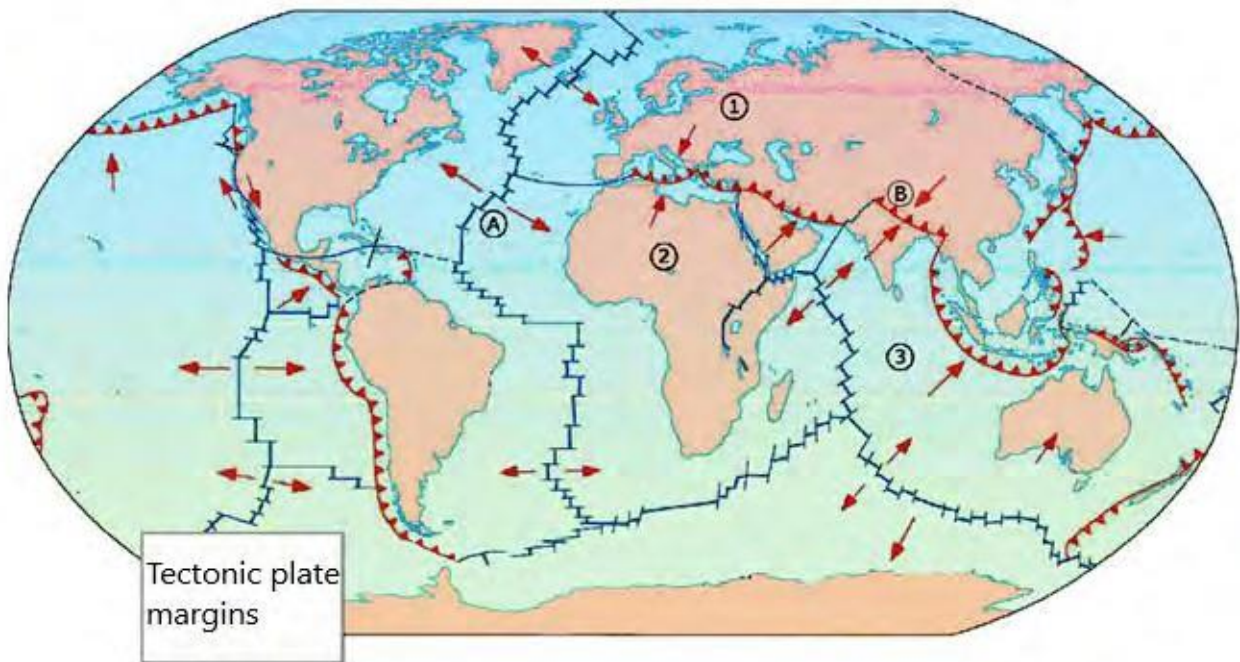


Figure 5

a. Give the name of the tectonic plates marked as **1**, **2** and **3** on figure 5.

1

2

3

(3)

b. The tectonic margin marked by the letter **A** is a conservative boundary. Explain what is happening in this plate margin.

.....
.....
.....
.....
.....
.....

(6)

c. The tectonic margin marked by the letter **B** is a collision margin. Explain what is happening in this plate margin.

.....
.....
.....
.....
.....
.....

(6)

8. a. Draw a diagram showing the interior of a volcano. On the diagram itself mark correctly the following main characteristics:

main crater, main vent, magma chamber, layers of ash and lava



(8)

b. Explain **two** main features mentioned in question 8a.

Volcanic feature:

.....
.....
.....
.....

Volcanic feature:

.....
.....
.....
.....

(4)

c. Give **three** reasons to explain why many people still live in volcanic areas.

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(6)