

LEARNING UNIT

Title: BUILD THE WORLD - The Wonders of the World

Type of school / class	Lower Secondary School - Class 2D (12y)
Teachers	Maria Grazia Cardani: English teacher - coordination - video editing and Prezi presentation Maria Monterosso: Geography teacher - Prezi presentation Diana Nanos: Clil activities - native language teacher
Subjects involved	Geography - Science
Duration of unit / number of lessons	20 lessons - 55min x lesson

TEACHING AIMS

- Travelling the world and visiting its landmarks
- Learning concepts about natural and urban environment
- Be aware of the complexity of the environment and develop the respect for the natural world
- Experimenting the transformation of the matter: creating borax and bismuth crystals in the science lab
- Learning how to reuse and recycle the matter: art and crafts with leftover crystals
- Imagining the world: planning an ideal city
- Learning the specific vocabulary related to geography
- Finding information and cooperating to create a presentation about the topics

Learning outcomes (students will)

KNOW	BE ABLE TO	BE AWARE OF
<ul style="list-style-type: none"> • Key words about different kinds of natural and urban landscapes • Basic concepts about environmental education • Behaviour rules to respect the natural environment • How to make mineral crystals • How to make handcrafts • How to plan and present an ideal city or environment 	<ul style="list-style-type: none"> • Describe, compare and classify different natural and urban environments • Use scientific vocabulary to give definitions • Understand instructions and perform the proper procedure to make a scientific experiment (bismuth and borax crystals) • Understand and give instructions to make a jewel with leftover crystals • Plan, design, describe and present an ideal environment 	<ul style="list-style-type: none"> • The variety and diversity of natural environment • the fragility of natural environment • The effects of human behaviour on natural environment • the link between human societies (their culture, habits, traditions) and the natural environment that hosts them

	<ul style="list-style-type: none"> • Make a PowerPoint/Prezi presentation and present contents to schoolmates and parents 	
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Communication (vocabulary, structures, functions)		
LANGUAGE OF LEARNING	LANGUAGE FOR LEARNING	LANGUAGE THROUGH LEARNING
<p>Key vocabulary:</p> <ul style="list-style-type: none"> - Words to describe the natural environment and landscapes (oceans and seas, lakes, the rainforest, plains, mountains). - Words to describe the urban environment: villages and towns, facilities, shops - Words to describe rocks and crystals - Words to identify science lab tools - Art and crafts lab vocabulary <p>Structures:</p> <ul style="list-style-type: none"> • Interrogative form, wh-questions • Simple present • Imperative • Simple past • Future (will) • Modals (can/could) • If clauses 1st type • Prepositions of place • Comparatives <p>Functions:</p> <ul style="list-style-type: none"> • Describing • Giving instructions 	<p>Functions - Language support</p> <p>Identifying, classifying and describing natural environments and events</p> <ul style="list-style-type: none"> • Asking for the meaning of new words • Describing places and events • Comparing • Making predictions • Making suggestions • Giving instructions • Following instructions • Suggesting solutions 	<p>Dictionary use for vocabulary extension</p> <p>Language to carry out worksheets and oral tasks</p> <ul style="list-style-type: none"> • Asking and answering questions • Asking for the meaning • Expressing opinions • Discussing • Classroom language • Videos, Songs, on-Line presentations about the contents • On-line dictionary /Textbook/worksheets

<ul style="list-style-type: none"> • Giving opinions • Agreeing/disagreeing • Comparing • Making plans 		
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Cognition

Videos and images make the processes clear and the students can relate words directly to concepts without translating them. Activities led through open questions and discussions arouse their need for words to express concepts and definitions. Warm-ups of previous lessons through spidergrams to elicit previous knowledge. Learning by doing activities (science experiments - art and craft activities - drawings maps and plans) support language instructions and make process and concepts clear.

Culture

The students approach the natural environment, compare its diversity at different latitudes, analyse and understand the causes and consequences of human behaviour on natural environment. They relate natural phenomena to their territory and they understand the importance of sustainable procedures. They experience the transformation of minerals through scientific experiments and reuse the leftover material to create new objects. They imagine and plan their ideal city and environment.

Resources

Presentation of topics and class activities:

Computer, whiteboard, textbook and photocopies, Internet, presentations from Thinglink / Slideshare / Blendspace / ...;

Photos, drawings and infographics of natural environments, landscapes, cities, countries around the world, crystals;

Copy right policy: all the pictures inserted in the final Prezi presentation are our own property or have been searched and filtered selecting the option "for non-commercial use only".

Videos "The Wonders of the World" : <https://www.youtube.com/watch?v=wX7ehYPWBtk>
https://www.youtube.com/watch?v=_00CC7BIHhg
<https://www.youtube.com/watch?v=nFdBNJsW46Y>

PPTX "World landmarks": <https://drive.google.com/file/d/0B1tkj8CnU5VtVHh3UHMmWwWXIRWjg/view>

Soundtrack: <https://www.youtube.com/watch?v=21LGv8Cf0us>

Scientific experiments:

- **Borax crystal:** 1 pound of Borax (crystals or powder), scissors, hot water, a jar, a pipe cleaner, two plastic knives, a string, food colorant (optional).

- **Bismuth crystal:** 1 pound of Bismuth, a cooker, a small pot, a steel fork, gloves, goggles.

Art and crafts activity: leftover borax crystals, a small jar with a cork top, a screw eye, a string.

Drawing activity: pencil, drawing paper, ruler, rubber, crayons, felt tips.

Tests and assessment: worksheets (in attachment).

Assessment					
Aim	Procedure	Language structures and vocabulary	Materials	Interaction	Timing
Formative assessment:	Students show their		(See resources)	Whole class	1. Presenting the wonders of the world. (1 lesson)

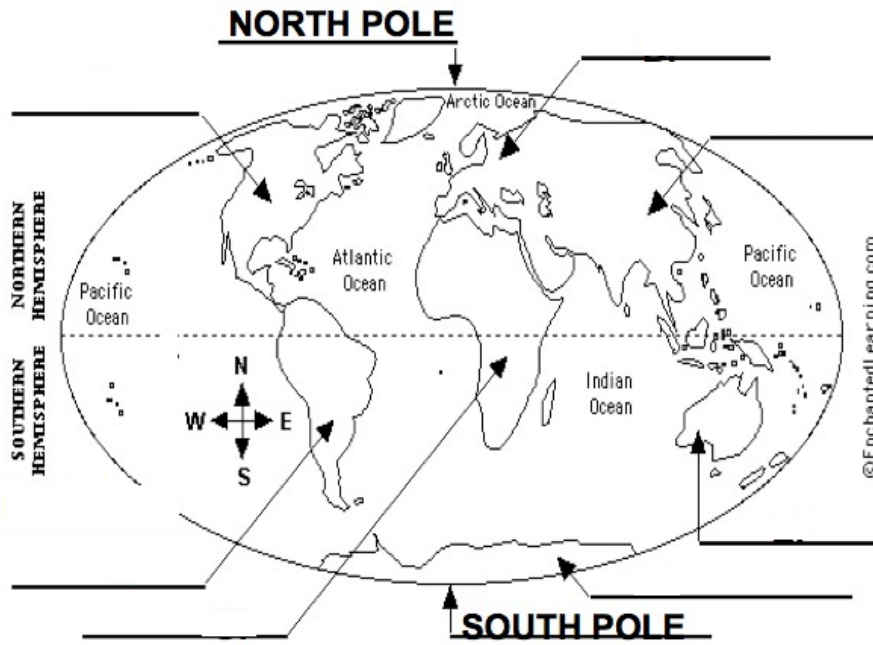
Progress tests for steps 2-3-5-6 (in attachment)* Teacher's observation for steps 1-4-6-7. Summative assessment: Tests results + teacher's observations.	interest and what they acquired. Teacher observes, checks, gets and gives feedback about learning.	(See language of learning)		Whole class/in small groups	2. Exploring the natural world/Comparing landscapes. (6 lessons)
				Whole class	3. Experiments in the science lab. (4 lessons)
				In small groups	4. Art and crafts lab. (1 lesson)
				Whole class/in small groups	5. Exploring the urban world. (3 lessons)
				In pairs	6. Planning and drawing a new town. (2 lessons)
				Whole class /Individual/ in small groups	7. Making videos and the final Prezi presentation: script writing / shooting / voice-over recording /editing (3 lessons)

*** Progress Tests in attachment**

1. Continents and Oceans
2. Rainforest
3. Waterfalls
4. Crystals
5. Cities

Name _____ Surname _____ Date _____

Progress test n. 1: Continents and oceans



Choose the right answer.

1. How many are the oceans of the earth?
 - a. 5
 - b. 6
 - c. 7

2. How many are the continents of the earth?
 - a. 5
 - b. 6
 - c. 7

3. In which continent is Italy?
 - a. Africa
 - b. Australia
 - c. Europe

4. What is a continent?
 - a. a large continuous mass of land
 - b. a large area of water

5. What is an ocean?
 - a. a large area of water that covers the majority of the hydrosphere
 - b. a large continuous mass of land

6. What is a sea?
 - a. all the oceans together
 - b. a smaller part of an ocean

7. What is a hydrosphere?
 - a. hundreds of seas
 - b. the mass of water above the surface of the earth

8. Which is the sea closest to Italy?
 - a. the Mediterranean Sea
 - b. the South China Sea
 - c. the Caribbean Sea

Name _____ Surname _____ Date _____

Progress test n. 2: Rainforest

- 1. What is a rainforest?
a) A tall, dense jungle b) a big forest

- 2. Why is it called 'rain' forest?
a) Because it rains a lot b) because it rains every day?

- 3. The climate of a rainforest is...
a) Very hot and humid b) very cold and dry

- 4. Who was Luna?
a) a person b) a tree

- 5. For how long did Julia stay on the tree?
a) For a year b) for two years c) for 2 days

- 6. How old is Luna?
a) 150 years old b) 1500 years old

Did Julia help Luna? If yes, how did she manage to help her?

Name _____ Surname _____ Date _____

Progress test n. 3: Waterfalls

A waterfall is a place in a river where water spills suddenly downward.

Waterfalls are known for their beauty and awesome power.

The world's tallest waterfall is Angel Falls, in Venezuela. Its water plunges 979 meters.

Large waterfalls are sometimes called cataracts. Cataracts often drop straight down.

Smaller or less steep waterfalls may be called cascades.

The action of flowing river water is one of the most common causes of waterfalls.

Flowing water wears away the rock in a riverbed. Riverbeds sometimes contain areas of hard rock and areas of soft rock. In these cases the river wears away the soft rock before the hard rock. The hard rock that is left creates a steep wall. The river water plunges over the rock wall, forming a waterfall.

Waterfalls also form as a result of movements in Earth's crust. These movements can cause huge blocks of rock to rise or drop. This creates rock walls over which rivers may fall. Large, moving sheets of ice called glaciers also can cut away rock to form waterfalls.

Questions

1. What is a waterfall?
2. What is the name of the world's tallest waterfall?
3. Where in the world is the world's tallest waterfall?
4. What is a cataract?
5. What is a cascade?
6. What is the most common cause of waterfalls?

Name _____ Surname _____ Date _____

Progress test n. 4: CRYSTALS

1. Name three crystals that you know

A _____

B _____

C _____

2. Answer the following question: what is a crystal?

3. Tick true or false

	TRUE	FALSE
a. All crystals have same shape	<input type="checkbox"/>	<input type="checkbox"/>
b. Many crystals have beautiful colours	<input type="checkbox"/>	<input type="checkbox"/>
c. Many crystals are formed through evaporation	<input type="checkbox"/>	<input type="checkbox"/>
d. Crystals are also used in TVs and computers	<input type="checkbox"/>	<input type="checkbox"/>
e. Crystals are very small	<input type="checkbox"/>	<input type="checkbox"/>

Name _____ Surname _____ Date _____

Progress test n.5: CITIES

1. Write the names of 5 cities that are in Europe.

- 1.1) _____ 1.2) _____
- 1.3) _____ 1.4) _____
- 1.5) _____

2. How many people live in cities? Write the minimum number of inhabitants.

3. How many out of ten people live in cities today?

4. Where do you live?

5. What is urbanization?

- a) more people move to live in towns and cities b) more people move to live in villages

6. What is counter urbanization?

- a) more people move to live in towns and cities b) more people move to live in villages

7. What is a rural area?

- a) countryside b) towns c) cities

8. What is an urban area?

- a) countryside b) towns c) cities

9. How many people live in a million city?

10. Name a million city in your country.