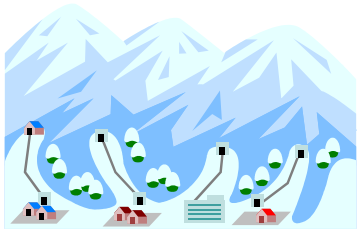
SSIS 2004/2006 – ESP course



Trainee: Maria Elena Lilliu

GLACIERS

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Purpose

The purpose of this CLIL lesson is to introduce students to what glaciers are, how glaciers are formed and how they change the physical features of the land they pass over. CLIL refers to a dual-focused educational context in which an additional language, thus not usually the first language of the learners involved, is used as a medium in the teaching and learning of non-language content. So the present lesson will be developed thanks to a collaboration between the English and the Physical geography teachers. The whole lesson will be in English but obviously, the language level chosen is appropriated to students' linguistic competence.

Specific Objectives

As a result of this learning, students will:

- Know what a glacier is, where they can be found and they origins.
- Recognize that there are different types of glaciers by viewing a power point presentation and compare them
- Know how glaciers transform the shape of Earth's surface

General Objectives

- Locate, describe and explain places, regions and features on the Earth.
- Analyze and explain characteristics and interactions of the Earth's physical systems.
- Understand historical significance of geography.
- Acquiring geographic information.
- Analyzing geographic information.

Linguistic and Cultural Objectives

- Build intercultural knowledge
- Develop intercultural communication skills

- Improve overall target language competence
- Develop oral communication skills
- Deepen awareness of both mother tongue and target language
- Develop plurilingual interests and attitudes
- Introduce a target language
- Provide opportunities to study content through different perspectives
- Access subject-specific target language terminology
- Prepare for future studies and working life
- Complement individual learning strategies
- Diversify methods and forms of classroom practice
- Increase learner motivation.

Specific linguistic objectives

- Review of simple past, simple present and present continuous
- Introduce the passive form with an inductive approach (no stressing on the rule or focusing on verbs)
- Make comparisons between facts or situations in the past, the present and the future, stressing their development or change.
- Acquire or improve students vocabulary specifically for Physical geography and Earth Science.

Grade Level

First or Second Class of a Scuola Superiore, according to Geography and Science of Earth standard programs. English level: A1+/A2 of the “Common European Framework of References”

Time:

2 hours

Physical geography/ Earth Science pre-requisites:

Students already know:

- The three state of the matter: solid, liquid and gas
- Concepts of latitude, longitude and altitude
- Water life cycle: evaporation, precipitation, transport etc…

Students, after this topic, will study:

- Erosion and its effects.

Linguistic pre-requisites:

Students already know:

- The use of tenses like: present simple, past simple (regular and irregular verbs), present continuous and the passive form;
- Basic vocabulary about Physical geography and Earth science particularly if it is referred to matter in its forms, water and its life cycle, topic like latitude, longitude and altitude.
- How to form adjectives starting from a noun.

Materials needed

Maps (hard copy and overheads)
Glaciers of the World: pictures on a PowerPoint slideshow
Notebook to record summary of daily lesson
Pictures showing glacier formations
Power point presentation
Vocabulary list

Assessment:: Coloured paper, colours, clay and other materials to make a model/drawing.

Timetable of time management:

Minutes	***Teacher***	***Content***
20 ‘	English	**Opening:** brainstorm questions
30’	Geography	**Developing:** Specific information; pictures and diagrams; glossary (English teacher) **Closing:** problem-solving task
5’	Geography	**Opening:** review
10’	English	**Developing:** report of the work done in the previous lesson
45’	Geography/English	**Closing:** evaluation and assessment: questions/practical group activity

Lesson one: Laboratory

Time: 20 minutes

Opening the lesson: the English teacher starts introducing the topic with brainstorm ideas, asking questions like the following ones.

- What is a glacier?
- How is a glacier formed?
- Where do you find glaciers today?
- How are glaciers different?

When the topic is clear to everybody, he/she shows pictures and diagrams about glaciers. Then he/she introduces the vocabulary needed to express their own ideas about glaciers, while the English teacher is giving them also a glossary prepared according to his/her personal corpora/words list.

Time: 30 minutes

Developing the lesson: the Geography teacher provides the students glacier information through use of picture and diagram. Then he/she specifies that there are different types of glaciers in the world and why. Then he/she explains what happens to the land, plants and animals when a glacier covers a land. Every explanation is supported by slides.

Closing the lesson: problem solving task

- Students will colour the regions of glaciers today and glaciers of long ago on a map designed for this purpose. The teacher will remind them that a map must have a title, a key, and must be neatly completed.
- Students will write in their journal a summary of what they learned about the location of glaciers.

Lesson Two: Laboratory

Time: 5 minutes

Opening the lesson: the Geography teacher reviews how a glacier is formed and using the completed map of the previous lesson, reviews the location of the glaciers today and explains why the glaciers are located mostly in Alaska and Greenland (Latitude). In particular the Geography teacher shows the “Glacier Bay” phenomenon in Alaska.

Time: 10 minutes

Developing the lesson: the English teacher asks students to describe the work done in the previous lesson, and which difficulties they had. This is also an easy way to understand if students know the basic vocabulary, the use of tenses and functions needed to explain their ideas about glaciers, maps and geography in general. Students show their works and explain how they have completed the map. For those who already have to finish, this time is very important to be used to complete their works or to compare them.

Time: 45 minutes

Closing the lesson: evaluation and assessment. Students have to answer to the following questions (only three or four line for each one).

- What is a glacier? How is it formed/composed?
- What changes occur to the land when a glacier covers it?
- How have these changes affected the growth of lands like Alaska, Vermont or Illinois?
- How many types of glaciers do you know? Which are their main characteristics?

Best expected answers:

1)Glaciers are large masses of snow, recrystallized ice and rock debris that accumulate in great quantities and begin to flow outwards and downwards under the pressure of their own weight.

2)The land is pressured under the glacier weight which is in a constant movement. Physical effect of the moving glacier is to scour and grind the bedrock surface over which it travels as it advances, and then to redeposit vast quantities of sand, gravel and silt as it retreats. Further advances and

retreats of subsequent ice sheets continue to rework these accumulated glacial sediments.

3)In those countries we can find glacial polish, striations, roches moutonnees and an occasional perched erratic boulder. In the valleys and lowlands we find sand and gravel deposits from ancient river beds and deltas, near-ice deposits like moraines, kames, eskers and kettle holes, and the extensive clays and silts and yearly varves that accumulated at the bottoms of ancient glacial lakes. Glaciers usually advance with "glacial speed", often a few inches or a few feet per day. Occasionally a glacier will "surge", or flow upward at a much more rapid rate, sometimes 100-200 feet per day; some have been known to surge at more than a thousand feet per day. If a glacier advances in this way it could also create a lake (e.g. "Russell Lake", Yakutat Bay, Alaska).

4)There are two main kinds of glaciers, continental glaciers and valley glaciers. They differ in size, shape, and location. Continental glaciers are broad, extremely thick ice sheets, (as thick as 15,000 feet) that cover vast areas of land near the polar regions. The continental glaciers covering Greenland and Antarctica, for example, bury mountain ranges and plateaus and conceal the entire landscape except for the highest peaks. Valley glaciers are long, narrow bodies of ice high mountain valleys. They move down sloping valleys to lower, warmer elevations where melting occurs. Some of these, including many Alaskan glaciers, reach sea level and are termed tidewater glaciers.

Students hand their answers to the teachers, then they are divided in small groups of three or four. The groups will create little models/drawings that illustrate the glacial topography of Alaska in various stages: 1: before the glacier, 2: an expanding glacier, 3: a retreating glacier, and 4: the remaining topography after the glacier is gone. They must write under every model/picture the main characteristics/differences.

The marks will be assigned following two assessment grids: one for the English teacher and one for the Geography teacher. In the first one (English) the criterion of the form/language is considered by the teacher, while the second grid regards the content/production criterion (Geography). For the first criterion, the teachers will assign a maximum of 4 points, and for the second a maximum of 6. The minimum point is 0 (zero) for each criterion. The final mark is given by the sum of the two criteria. Each partial mark is assigned according to the following descriptors grids. If a descriptor doesn’t suit to a task, the English teacher can consult “The Common European Framework of References”. Anyway, descriptors should be used in a flexible way, adapting them to particular, unexpected cases. The teachers choose to assign more

points to the content/production criterion because the language is quite simple for students at this level (A1+/A2), especially if they are trained to use the needed lexis and the verbal forms, as written in the pre-requisites. As seen, there aren't particular grammar structure to be pre-taught. On the other hand, they should know more than a few information about glaciers, concepts of latitude, longitude and altitude, and the water life cycle: evaporation, precipitation, transport etc…, and they should be able to apply them to create this kind of document, focalising them in a clear, schematic way. Furthermore, the second criterion includes both the content of the answers and the realization of the document/map, which is considered the "material" production, a practical activity which is able to integrate the written test and really show students' comprehension of the topic.

English Grid:

Form/language

Points	Descriptors
4	The student is able to use appropriate structures, verbs and vocabulary, and in general the appropriate language in terms of the content. The answer are clear and exhaustive, and the form of the map/drawing is respected in all its communicative characteristics.
3	The student is able to use appropriate structures, verbs and vocabulary, even if in infrequent cases he/she uses them in a wrong way. In spite of some errors, answers are clear and exhaustive. The form of the map/drawing is respected but a few unessential parts are missing or in a wrong order.
2	The student is able to use only a few appropriate structures, verbs and vocabulary, with frequent errors. The form of the map/drawing is respected but many unessential parts are missing or the order is scrambled. The outline is not perfectly respected but the document still maintains its outlining and capability of communication.
1	The student isn't able to use any appropriate structure, verb or vocabulary in terms of the content. The form of the map/drawing is not respected, many essential parts are missing and the indications are inappropriate. The map can't be used to communicate because it is completely inappropriate for its purpose.
0	The student doesn't write anything / doesn't hand the task

Geography Grid:

Content/production

Points	Descriptors
6	The student follows exactly the rubric of the two tasks and all the 4 points in both requested. The content of the map (drawing, colours, descriptions and indications) is perfectly appropriate to the task the student is supposed to perform. The answers are correct in their

	content (see the expected answers above).
5	The student follows the rubric of the two tasks but he/she isn't able to display the content of the map (drawing, colours, descriptions and indications) in a perfectly and appropriate way according to the task he/she is supposed to perform. Even if some aspects in the content are lost, the whole work gives a clear image of what happened in that country after glaciations. The answer are correct in their content even if in a few occasions they are imprecise or inaccurate.
4	The student follows the rubric of the two tasks but he/she isn't completely able to display the content of the map (drawing, colours, descriptions and indications) in an appropriate way according to the task he/she is supposed to perform. Some aspects are lost, and the whole work gives a confused image of what happened in that country after glaciations. A few aspects are mixed together or forgotten. Most of the answers are correct, even if imprecise or inaccurate.
3	The student follows the rubric of the two tasks but he/she isn't able to display the content of he map (drawing, colours, descriptions and indications) in an appropriate way according to the task he/she is supposed to perform. Many aspects are lost, and the whole work gives a very confused image of what happened in that country after glaciations. Many aspects are mixed together or forgotten. Most of the answers are imprecise and inaccurate, but they demonstrate a global comprehension of the topic/content.
2	The student doesn't follow correctly the rubric of the two tasks. He/she isn't able to display entirely the content requested (drawing, colours, descriptions and indications) according to the task he/she is supposed to perform. Many aspects are lost, and the whole work can't give a right image of what happened in that country after glaciations. Many aspects are forgotten. Only a few of the answers are correct or suitable to the topic/content.
1	The student doesn't follow correctly the rubric of the two tasks. He/she isn't absolutely able to display the content requested (drawing, colours, descriptions and indications) according to the country chosen. All the aspects are lost or confused with those of other countries/maps, and there isn't accord or unity in the work. All the main aspects are forgotten. There are no correct answers, or all of them are inappropriate to the topic/content.
0	The student doesn't write anything / doesn't hand the task