

CLIL Module Plan

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School Grade	<input type="radio"/> Primary		<input type="radio"/> Middle		<input checked="" type="radio"/> High
School Year	<input type="radio"/> 1	<input type="radio"/> 2	<input type="radio"/> 3	<input type="radio"/> 4	<input checked="" type="radio"/> 5
Subject	Fisica		Topic	Meteorology	
CLIL Language	<input checked="" type="radio"/> English			<input type="radio"/> Deutsch	

Personal and social-cultural preconditions of all people involved	<p>Students (Ss) belong to two different courses of study, i.e. Means of Transport (2 people) and Logistics (5 people). Over the last five years they have been sharing most of their school time in the same workgroup, even if they follow slightly different study plans from one another. The first group only has some specific knowledge of Meteorology, and this could provide support to the development of the didactic work. In general, the Ss show motivation and interest by playing an active role in the lecture. This enables the teacher (T) to demonstrate high expectations of all learners, even if the learning level is not homogeneous. There are no special needs in the class and there are no Ss causing problems. Good interpersonal relations lay the foundations for effective cooperation between Ss in the educational activities; the T-S relationship is fluid and humanely equitable, too. Most of times Ss tend to split up in small groups and, for this reason, the T forms groups of work which differ from one activity to another. Not all Ss are glad to bring their culture to the class and hence so this is something the T should be searching for. Student group profile: all Ss are Italian mother tongue and their English language level is quite homogeneous (Average CEFR Level B1). No previous experience in CLIL is reported. Teacher profile: the T currently teaches Electronics and Physics. He obtained a C1 level (Cambridge CAE) last year. There is no need for a co-teacher.</p>
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Students' prior knowledge, skills, competencies	Subject	Language
	The course requires no prior specific skills related to the subject, since it was designed as an introduction to the topic. Students just need to have a solid background knowledge of Science about base Classical Physics (Newtonian mechanics, solid body Physics, conservation of matter and energy, gravitational law). Of course, Students should be familiar with Scientific Method: in their daily school activities, they are used to making observations, thinking of questions, developing predictions and explanations. A group of Ss benefits from the fact that it has got some specific knowledge of Meteorology.	No prior knowledge of micro-language concerning specific vocabulary and grammar is required for developing the lessons. Grammar structure: conditionals, present simple, present continuous, present perfect and present perfect continuous, past simple, past continuous, comparatives, superlatives, selected phrasal verbs.

Timetable fit	⦿ Lesson	Length 3
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Description of teaching and learning strategies	<ul style="list-style-type: none"> • The teacher (T) tries to apply the main principles of CLIL teaching and regards the 4 C's (Content, Communication, Cognition and Culture) as guidelines to design the lesson plans. He aims at establishing a balance between HOTS and LOTS, so that tasks result challenging but still not excessively demanding. • The T tries to create an interactive environment by planning activities to be carried out primarily in pairs or groups. He forms groups of work, which differ from one activity to another, and provides students (Ss) with the material and a clear explanation of the work to be done. He tries to be as clear as possible as regards to specific procedures, targets and expected outcomes. Unless otherwise specified, the educational material is delivered in digital form on a cloud platform. The T carefully prepares this material before each lesson: he prints the worksheets, arranges the experimental setup in lab activities, and checks the working of software and online platforms. • There is a common thread that connects the lessons; every single lesson, however, is designed to have its own autonomy, so that Ss might be able to follow a lesson even if they missed the previous one. • A wide range of teaching tools and materials are used to meet different learning methods: texts, graphical objects, open discussions, videos, open discussions, lab activities, presentations, online simulations, crossword puzzles, quizzes. To make the learning more attractive, activities in a lesson continuously switch from one type to another. For each activity, the T sets a time limit with which he tries to comply. Anyway, the time required to carry out the task strongly depend upon the Ss' ability, engagement, and, possibly, new ideas that deserve to be developed. When the work is particularly productive, the T does not stop the activity and increases the amount of time available to learners. • All lessons begin with an activation process aimed to light the spark of curiosity in the Ss. V
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Overall Module Plan

Unit: 1 Air motion and Meteorology Unit length: 3	Lesson 1 Air motion and Meteorology
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CLIL Lesson Plan

Unit number	1	Lesson number	1	Title	Air motion and Meteorology
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Activity	Timing	Learning Outcomes	Activity Procedure	Language	Interaction	Materials	Assessment
1	15	<ul style="list-style-type: none"> • Activate Thinking • Look at a physical situation from different perspectives and using Problem Solving. 	T forms groups (max 3 Ss) and projects a question on the board (...do you know how to measure the height of a tall building using a barometer?). The Ss reflect on the issue and draw pictures on a piece of paper to illustrate their findings. While they work out solutions, the T walks around and gives hints to Ss who get stuck.	Skills	<input type="checkbox"/> Whole class <input checked="" type="checkbox"/> Group work <input type="checkbox"/> Pair work <input type="checkbox"/> Individual work	<ul style="list-style-type: none"> • U1_L1_ALL1.jpg 	
				<div>L S R W</div>			
				Key vocabulary Barometer, height, building, pressure, trivial, perspectives.			
				Communicative structures Show how it is possible to determine ... What solution do you suggest for? I'm sure that each of you knows the most obvious... Use your imagination...			

2	5	<ul style="list-style-type: none"> • Get an idea of how the current lesson will develop and what the subject will be. • Get an idea of what Ss should know and be able to do as a result of the learning process. 	<p>T illustrates the plan of the current lesson and encourages Ss to ask for explanations and take note of the keywords over the next three hours. Then he outlines the main expected learning outcomes: - make use of imagination to solve a practical situation; - realize that unorthodox solutions can be the most effective ones; - use and appreciate the natural human method of Critical Thinking; - understand the main physical principles that generate weather phenomena; - explain the nature of local meteorology.</p>	<div> <div>Skills</div> <div> <div>L</div> <div>S</div> <div>R</div> <div>W</div> </div> <div> Key vocabulary Plan, schedule, learning outcomes, activity. </div> <div> Communicative structures Just to sort things out, this is our overall plan.. Today we focus on topics you all have already learned about... You have to keep taking notes.. If we do work properly, you will learn some things... </div> </div>	<div> <input checked="" type="checkbox"/> Whole class <input type="checkbox"/> Group work <input type="checkbox"/> Pair work <input type="checkbox"/> Individual work </div>		
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3	20	<ul style="list-style-type: none"> • Interpret information contained in graphical representation. • Discuss proposed solutions. • Stimulate use of creativity and imagination. • Adjust specific microlanguage. 	<p>A group exchanges its drawings with another group; Ss try to orally explain what is depicted in the graphical representations and make peer revision. After that, groups go to the board, write down their findings in few words and provide explanations to the class. At any moment, Ss may interrupt their classmates and express their opinions, agreement or disagreement. Some solutions are shared, some are not, and some are debated. The T supervises the activity and gives its personal view, eventually, trying to reward every attempt by the Ss to provide food for thoughts. At the end of the activity, the T may give some feedback on the language Ss have produced: he underlines Ss' mistakes with focus on pronunciation and use of appropriate terminology.</p>	<div> <div>Skills</div> <div> <div>L</div> <div>S</div> <div>R</div> <div>W</div> </div> <div> Key vocabulary Height, pressure, level, gradient, measure, shadow. </div> <div> Communicative structures Very good, that's a good point.. Have you thought to the possibility of...? </div> </div>	<div> <input checked="" type="checkbox"/> Whole class <input type="checkbox"/> Group work <input type="checkbox"/> Pair work <input type="checkbox"/> Individual work </div>	<ul style="list-style-type: none"> • U1_L1_ALL1.jpg 	<p>Formative: the T observes the Ss in the process of debating their solutions. He constructively assesses content and language.</p>
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4	20	<ul style="list-style-type: none">• Stretch out the set of answers given by the Ss.• Apply laws of physics to find different solutions.• Understand that, contrary to expectations, a series of non-obvious solutions is possible.• Realize that creativity manifests itself when you have problem to solve and look for unorthodox solutions.	<p>The T provides each S with a well-known text (The Barometer Story), which contains some answers to the above-mentioned questions given by some American Ss. One after another, Ss read out part of the text and then the whole group discusses it, making a comparison with their own findings. The T may help Ss to figure out which physical laws are involved in the answers (barometric pressure, accelerated motion, similar triangles, gravity and pendulum). While a S is reading aloud, other Ss and the T may notice pronunciation mistakes. The class outlines and discusses the new terms, too.</p>	<div><div>Skills</div><div><div>L</div><div>S</div><div>R</div><div>W</div></div><div><div>Key vocabulary</div><div>Solution, barometric pressure, roof, ground, acceleration, gravity, string, pendulum.</div></div><div><div>Communicative structures</div><div>There are many ways of getting the height.... It's sounds obvious, do you think this is a good way of...? This is out of ordinary... How do you think the T should evaluate such a ...?</div></div></div>	<div><div><div><input checked="" type="checkbox"/> Whole class</div><div><input checked="" type="checkbox"/> Group work</div><div><input checked="" type="checkbox"/> Pair work</div><div><input type="checkbox"/> Individual work</div></div><div><div>• U1_L1_ALL2.docx</div></div></div>	<p>Formative: T assesses how Ss have exploited their creativity. More, he provides feedback on reading skills and helps clarifying unknown words.</p>
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5	15	<ul style="list-style-type: none"> • Think critically at The Barometer Story. • Ponder an argument with a partner. 	<p>Ss are randomly grouped in pairs and are supplied with a question sheet (Who thinks critically?). Questions refer to the The Barometer Story. To write down answers, Ss can consult an online dictionary (Wordreference.com), without overdo it.</p>	<div> <div>Skills</div> <div> <div>L</div> <div>S</div> <div>R</div> <div>W</div> </div> <div> Key vocabulary Critical thinking, science, discoveries, moral. </div> <div> Communicative structures What does the story teach us? Answer these questions... You are allowed to use.. Try to use your own words as much as you can. </div> </div>	<div> <input type="checkbox"/> Whole class <input type="checkbox"/> Group work <input checked="" type="checkbox"/> Pair work <input type="checkbox"/> Individual work </div>	<ul style="list-style-type: none"> • U1_L1_ALL2.docx • U1_L1_ALL3.docx 	
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6	20	<ul style="list-style-type: none">• Share and compare ideas.• Combine a set of perspectives.• Use and appreciate the natural human method of Critical Thinking.	<p>The T's answers to the previous questions are projected on the board. T reads a question and groups' representatives, in turn, read out their own answers. T stimulates debate, given also that no single answer can be regarded as complete. In some way, answers are combined as tiles of a unique mosaic. The T also gives his own answers to enrich the debate. The process is repeated for all questions. Every student is encouraged to give its personal view and report personal experience. Language issues are highlighted, as well.</p>	<div><div>Skills</div><div><div>L</div><div>S</div><div>R</div><div>W</div></div><div><div>Key vocabulary</div><div>Critical Thinking, mental equipment, human method, scientific method, key ideas, progress, turning point, environment.</div></div><div><div>Communicative structures</div><div>He had not observed,... he wouldn't never have survived. A reasonable question to ask in this connection is... That's a good point... I agree with you...</div></div></div>	<div><div><input checked="" type="checkbox"/> Whole class</div><div><input type="checkbox"/> Group work</div><div><input type="checkbox"/> Pair work</div><div><input type="checkbox"/> Individual work</div></div>	<ul style="list-style-type: none">• U1_L1_ALL4.docx	<p>Formative: T monitors progress in thinking skills and provides ongoing feedback on content and language. Peer reviewing: Ss assess each other's viewpoints.</p>
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7	25	<ul style="list-style-type: none">• Understand the relationship among pressure, wind and Earth's rotation.• Apply physics laws to atmospheric phenomena.	<p>The T presents a slideshow (Air pressure and motion) to introduce some Physics concepts related to air motion. Ss follow the T's lecture and are free to interrupt at any time in order to ask questions and express opinions. In almost every slide some specific questions are outlined; cooperative replies these questions are expected. In one question, the task requires to read a synoptic chart, identify the hemisphere and then identify the area in a world map. In another query, Ss are exhorted to report some specific weather phenomena from the region they live in. As usually, throughout presentation, each student takes note of the keywords.</p>	<div><div>Skills</div><div><div>L</div><div>S</div><div>R</div><div>W</div></div><div><div>Key vocabulary</div><div>Average sea level, pressure system, cyclone, Coriolis force, converging, northern/southern hemisphere, wind, friction, isobars.</div></div><div><div>Communicative structures</div><div>It should be as interactive as possible.. What is the average..? Do you have an explanation for...? Wind develops because of.. Where is deflection strongest? Some examples from the region you live in?</div></div></div>	<div><div><div><input checked="" type="checkbox"/> Whole class</div><div><input type="checkbox"/> Group work</div><div><input type="checkbox"/> Pair work</div><div><input checked="" type="checkbox"/> Individual work</div></div></div>	<div><div><div>• U1_L1_ALL5.ppt</div><div>Internet</div></div></div>	<div>Formative: assessment is informal, the records what the Ss already know and how they reflect on the topic.</div>
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8	20	<ul style="list-style-type: none">• Develop a wide view about how air molecules behave in the atmosphere.• Analyse the phenomena that affect air pressure.	<p>The T shows the video Pressure and wind, which is an adaptation of a short instructional movie found on the Web (www.youtube.com/watch?v=eyjHpbYiRs4&t=2s, Standard Youtube licence, accessed February 2, 2018). Ss watch the video and try to catch information and record keywords. They shouldn't hesitate to ask for explanations. If needed, T stops the video and helps with the understanding of the content and unknown words.</p>	<div><div><div>Skills</div><div><div>L</div><div>S</div><div>R</div><div>W</div></div></div><div><div>Key vocabulary</div><div>Air molecule, hurricane, barometer, dense, cold/warm, convection cell, downdraft/updraft, water vapour.</div></div><div><div>Communicative structures</div><div>What makes the wind stronger? Air pressure is affected by... As the Earth spins, ..</div></div></div>	<div><div><input checked="" type="checkbox"/> Whole class</div><div><input type="checkbox"/> Group work</div><div><input type="checkbox"/> Pair work</div><div><input type="checkbox"/> Individual work</div></div>	<p>www.youtube.com/watch?v=eyjHpbYiRs4&t=2s, Standard Youtube licence, accessed February 2, 2018</p>	<p>Formative: focus on listening skills and microlanguage</p>
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9	20	<ul style="list-style-type: none">• Re-elaborate what they have learned from the video.	T provides students with a paper sheet (U1_L1_ALL6) with multiple-choice questions related to the video. Ss, individually, fill the sheet (time limit of 5 minutes); when they have finished, the T depicts the right answers (U1_L1_ALL7) on the board and stimulates debate. As much as possible, Ss should help their classmates to understand the answers. They may also play the video again at the exact moment when information were provided.	<div>Skills</div> <div><div>L</div><div>S</div><div>R</div><div>W</div></div> <div>Key vocabulary Air molecule, hurricane, barometer, dense, cold/warm, convection cell, downdraft/updraft, water vapour.</div> <div>Communicative structures After you have watched the video... What role does pressure play...?</div>	<div><input checked="" type="checkbox"/> Whole class</div> <div><input type="checkbox"/> Group work</div> <div><input type="checkbox"/> Pair work</div> <div><input checked="" type="checkbox"/> Individual work</div>	<ul style="list-style-type: none">• U1_L1_ALL6.docx• U1_L1_ALL7.docx	Formative: focus on content, Ss make peer-reviewing assess their own progress. Summative: T assess what the Ss have learned over the last two activities. No marks at this stage.
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10	20	<ul style="list-style-type: none">• Compare the expected learning outcomes with the actual outcomes.• Give feedback to the teacher.• Obtain feedback from the teacher.	<p>T projects a wordcloud (prepared with the link online tool) on the board. In plenary, Ss find out statements (using the coloured words as guidelines) to reveal what they have learned over the previous 3 hours. These statements are compared with the planned learning. Ss report strengths and weaknesses in the work they have done: their opinions will be useful to tailor teaching strategies to didactic purposes and actual learning skills in the class. The T expresses its view and strongly endorses the idea that everything can be questioned.</p>	<div>Skills</div> <div><div>L</div><div>S</div><div>R</div><div>W</div></div> <div>Key vocabulary Learning skills, outcomes, goal, reach</div> <div>Communicative structures It's time to settle things with you... Try to write down have achieved at the end of this lesson. Hopefully, they will match the Learning Outcomes written in the lesson plan.</div>	<div><input checked="" type="checkbox"/> Whole class</div> <div><input type="checkbox"/> Group work</div> <div><input type="checkbox"/> Pair work</div> <div><input type="checkbox"/> Individual work</div>	<ul style="list-style-type: none">• U1_L1_ALL8.jpg	Formative: Ss and T give an account of what and how they have learned.
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