

CLIL Module Plan

Author(s)	Silvia Defrancesco				
School	Liceo Galilei				
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	Electromagnetism		
CLIL Language	<input checked="" type="radio"/> English			<input type="radio"/> Deutsch	

Personal and social-cultural preconditions of all people involved	<p>The class is formed by students with an almost homogeneous background, both from a social-cultural point of view and from the learning point of view. Students motivation and willingness to study are in average satisfactory. Subject taught by the teacher both in Italian and in CLIL: physics Learning spaces are excellent (classes, laboratories (physics and computer labs available). Language level of the students B2. Number of students: 17.</p>
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Students' prior knowledge, skills, competencies	Subject	Language
	<p>Class had physics lesson in CLIL the previous year, therefore students already know a basic vocabulary of technical terms. Students' knowledge acquired in the previous 4 school years allows them to understand the new ideas and concepts presented in this Module. This educational path has been carefully chosen among many other possibilities, because of a straightforward theory and a consistent part of experimental work . All the students can therefore face both the content and the language involved in the module. I would like to point out that this module is coherent with the two other modules proposed for the classes 3 and 4; all the three modules are meant to introduce the idea of "field" (gravitational, electric and electromagnetic respectively) in a soft, experimental way; moreover, all the three modules give basic information about history of science.</p>	<p>In their written tests, the students use an adequate range of structure and vocabulary, even if a number of errors may be present. Ideas are adequately organised, with simple linking devices. The task is usually reasonably achieved with all major points included in spite of some omissions. Generally speaking, they show a good degree of control of simple grammatical forms, even if they may make frequent mistakes with complex structures. In oral tests, they make meaning clear in spite of inappropriacies. They can produce stretches of language despite some hesitation, although at times they may not use connectives and discourse markers always appropriately.</p>

Timetable fit	● Module	Length 21 lessons (55 min each)
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Description of teaching and learning strategies

Various strategies are used: Communicative approach; laboratory work; cooperative learning; team work; pairs work; task based learning; discussions with the whole class; ICT tools; IBSE

Overall Module Plan

Unit: 1 1. Presenting the scientist Unit length: 2	Lesson 1 Michael Faraday
Unit: 2 Popularization of science Unit length: 2	Lesson 1 History
	Lesson 2 Be a scientific popularizer!
Unit: 3 Faraday's lecture -Science in a candle Unit length: 8	Lesson 1 The chemical history of a candle
	Lesson 2 Faraday's lecture_1
	Lesson 3 Faraday's lecture-2
	Lesson 4 Laboratory: Faraday's experiments
	Lesson 5 Discussion
	Lesson 6 TEST
	Lesson 7 discussion of the test

Unit: 4

Electromagnetic induction

Unit length: 9

Lesson 1

Faraday's experiments on electromagnetic induction

Lesson 2

Magnetic flux

Lesson 3

Faraday-Neumann-Lenz law

Lesson 4

exercises

Lesson 5

Kahoot!

Lesson 6

test

Lesson 7

test discussion

CLIL Lesson Plan

Unit number	1	Lesson number	1	Title	Michael Faraday
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Activity	Timing	Learning Outcomes	Activity Procedure	Language	Interaction	Materials	Assessment
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1	15 MIN	<p>To know the status of physics in Faraday's time To be aware of how science develops To be able to understand the difficulties surrounding the acceptance of new ideas. To know the role of Michael Faraday in the development of science Activating prior knowledge and revision of known content, vocabulary and concepts</p>	<p>Students are asked to describe the status of physics in the XIX century. Teacher writes key words and concepts on the blackboard</p>	<p>Skills</p> <table border="1" data-bbox="891 167 1232 215"> <tr> <td>L</td> <td>S</td> <td>R</td> <td>W</td> </tr> </table> <p>Key vocabulary Energy Magnetism Electric force experiment</p> <p>Communicative structures Can you sketch the status of science ...? Could you tell me some major discoveries....? Outline the main ideas....</p>	L	S	R	W	<p><input checked="" type="checkbox"/> Whole class <input type="checkbox"/> Group work <input type="checkbox"/> Pair work <input type="checkbox"/> Individual work</p>		Teacher's feedback
L	S	R	W								

2	20 MIN	Introducing one of the most important scientists from the XIX century. Developing interest and curiosity about the history of science	The teacher provides each pair with a brief written biography of Michael Faraday. Students read the text. Students are asked to begin building their own glossary with new words (personalized learning)	<p>Skills</p> <table border="1" data-bbox="891 167 1232 215"> <tr> <td>L</td> <td>S</td> <td>R</td> <td>W</td> </tr> </table> <p>Key vocabulary Royal Institution; research assistant; magnetism, electricity bookbinder blacksmith experiment compass electric wire lines of forces laughing gas</p> <p>Communicative structures Can you list some of ...Faraday's discoveries? Could you tell me anything about... Faraday's life?</p>	L	S	R	W	<input type="checkbox"/> Whole class <input type="checkbox"/> Group work <input checked="" type="checkbox"/> Pair work <input type="checkbox"/> Individual work	<ul style="list-style-type: none"> • brief_biography.pdf 	Peer assessment
L	S	R	W								

3	20	Developing questioning skills. Developing communication skills Learning specific vocabulary	Discussion of the text. Interaction teacher-students	<p>Skills</p> <table border="1" data-bbox="891 167 1232 212"> <tr> <td>L</td> <td>S</td> <td>R</td> <td>W</td> </tr> </table> <p>Key vocabulary same as above</p> <p>Communicative structures Can you list some of ...Faraday's discoveries? Could you tell me anything about... Faradays life?</p>	L	S	R	W	<input checked="" type="checkbox"/> Whole class <input type="checkbox"/> Group work <input type="checkbox"/> Pair work <input type="checkbox"/> Individual work		Ongoing assessment
L	S	R	W								

4	25	Developing knowledge about Faraday's time Developing listening skills	Students are asked to watch a video in pairs. They will stop the video whenever something is not clear.	<p>Skills</p> <table border="1" data-bbox="891 826 1232 871"> <tr> <td>L</td> <td>S</td> <td>R</td> <td>W</td> </tr> </table> <p>Key vocabulary Pattern Lines of force Compass Electric motor Battery Interaction</p> <p>Communicative structures</p>	L	S	R	W	<input type="checkbox"/> Whole class <input type="checkbox"/> Group work <input checked="" type="checkbox"/> Pair work <input type="checkbox"/> Individual work	link link	Peer assessment
L	S	R	W								

5	35	<p>Developing communication skills: posing and answering questions Extend key vocabulary Develop communicative skills Organize new content</p>	<p>Discussion about the video content. Students are asked to take notes Round up activity. Students work with teacher to pool knowledge Students revise key words and concepts of activity # 1 and compare with what they elaborated after the following activities Teacher assigned a written homework</p>	<p>Skills</p> <table border="1" data-bbox="891 167 1232 215"> <tr> <td>L</td> <td>S</td> <td>R</td> <td>W</td> </tr> </table> <p>Key vocabulary Royal Institution; research assistant; magnetism, electricity bookbinder blacksmith experiment</p> <p>Communicative structures When Faraday lived...? What do you think about...? Which are the main topics in science topics during the XIX century...? How did Farady became a scientist....? Reporting verbs; to say, to ask, to tell; to agree....</p>	L	S	R	W	<p><input checked="" type="checkbox"/> Whole class <input type="checkbox"/> Group work <input type="checkbox"/> Pair work <input type="checkbox"/> Individual work</p>	<p>• Questions_PBS_videos.pdf (homework)</p>	<p>Teacher assessment: -Has each student asked questions? Has each student answered questions? - Have students organized their notes? - Can students pose questions using proper language? - Have the students listened to each other ?</p>
L	S	R	W								

CLIL Lesson Plan

Unit number	2	Lesson number	1	Title	History
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Activity	Timing	Learning Outcomes	Activity Procedure	Language	Interaction	Materials	Assessment				
1	15 MIN	to Identify the main strategies used nowadays in science popularization; - to guess the main strategies used 150 years ago - to acquire a general knowledge of popularization of science - revision of known content, vocabulary and concepts	Teacher asks about Faraday's biography . Students read the answers written in the task sheet given as homework	<p>Skills</p> <table border="1"> <tr> <td>L</td> <td>S</td> <td>R</td> <td>W</td> </tr> </table> <p>Key vocabulary see lesson 1</p> <p>Communicative structures Four W and 1H What do you remember... When did Faraday live... Who were the main scientists at Faraday's time.. Why was science research important... How was science research carried on...</p>	L	S	R	W	<input checked="" type="checkbox"/> Whole class <input type="checkbox"/> Group work <input type="checkbox"/> Pair work <input type="checkbox"/> Individual work	<ul style="list-style-type: none"> • Questions_PBS_videos.pdf 	Teacher's feedback. Can students use the appropriate key words? Can students summarize the learning up to this point?
L	S	R	W								

2	15 MIN	<p>- To foster a friendly and stimulating learning environment - to acquire real insight into a brief piece of history of science; - to become self-confident in communicating ideas - same as in activity 1)</p>	<p>Students are encouraged to tell their ideas about popularization of science. They are also asked to talk about the history of communication of science</p>	<p>Skills</p> <p>L S R W</p> <p>Key vocabulary popularization of science communication of science</p> <p>Communicative structures In my opinion... I don't completely agree...</p>	<p><input checked="" type="checkbox"/> Whole class <input type="checkbox"/> Group work <input type="checkbox"/> Pair work <input type="checkbox"/> Individual work</p>		teacher feedback
3	25	<p>To provide support to the discussion previously held</p>	<p>Teacher introduces a brief history of science popularization. Slides are read and discussed together with students. Homework: Choose and watch a video proposed by the following site: link</p>	<p>Skills</p> <p>L S R W</p> <p>Key vocabulary Royal Institution; research assistant; magnetism, electricity</p> <p>Communicative structures In my opinion... I don't completely agree</p>	<p><input checked="" type="checkbox"/> Whole class <input type="checkbox"/> Group work <input type="checkbox"/> Pair work <input type="checkbox"/> Individual work</p>	<p>• Popularization_of_science_CLIL.pdf link</p>	ongoing assessment

CLIL Lesson Plan

Unit number	2	Lesson number	2	Title	Be a scientific popularizer!
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Activity	Timing	Learning Outcomes	Activity Procedure	Language	Interaction	Materials	Assessment				
1	55	To be able to summarize a video To be able to focus and communicate main ideas To be aware of the strategies of science communication	Students present and discuss the videos seen at home. Teacher listens and, if necessary, organizes the various speeches Strategy of flipped class used	<p>Skills</p> <table border="1"> <tr> <td>L</td> <td>S</td> <td>R</td> <td>W</td> </tr> </table> <p>Key vocabulary Depends on the chosen topic. Key vocabulary is identified by each student/group</p> <p>Communicative structures The topic I want to discuss is... The main issue is... To understand this concept... Before I start...let me summarize</p>	L	S	R	W	<input checked="" type="checkbox"/> Whole class <input type="checkbox"/> Group work <input type="checkbox"/> Pair work <input type="checkbox"/> Individual work		Teacher supervision
L	S	R	W								

CLIL Lesson Plan

Unit number	3	Lesson number	1	Title	The chemical history of a candle
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Activity	Timing	Learning Outcomes	Activity Procedure	Language	Interaction	Materials	Assessment				
1	5 MIN	Revision (See unit 2 lesson 1)	Warming up: students are asked to talk about the role of the "Christmas lectures"	<p>Skills</p> <table border="1"> <tr> <td>L</td> <td>S</td> <td>R</td> <td>W</td> </tr> </table> <p>Key vocabulary</p> <p>Communicative structures</p>	L	S	R	W	<input checked="" type="checkbox"/> Whole class <input type="checkbox"/> Group work <input type="checkbox"/> Pair work <input type="checkbox"/> Individual work		
L	S	R	W								

2	50 MIN	to be aware of the role of Michael Faraday in the popularization of science to acquire knowledge through an example of best practice in science communication	Teacher presents Faraday's lecture "A chemical history of a candle" Teacher and students identify key vocabulary Students take notes	<p>Skills</p> <p>L S R W</p> <p>Key vocabulary candle-wax-flame-chemical reaction -wick-capillarity-combustion</p> <p>Communicative structures Qualitative description. What can we tell about shape, colour, smell...?</p>	<input checked="" type="checkbox"/> Whole class <input type="checkbox"/> Group work <input type="checkbox"/> Pair work <input type="checkbox"/> Individual work	<ul style="list-style-type: none"> • The_chemocal_history_of_a_candle_Faraday.pdf <p>PDF: The chemical history of a candle</p>	ongoing assessment
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CLIL Lesson Plan

Unit number	3	Lesson number	2	Title	Faraday's lecture_1
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Activity	Timing	Learning Outcomes	Activity Procedure	Language	Interaction	Materials	Assessment				
1	45 MIN	-to be able to recognize the main features of a scientific written test - to be able to interpret a scientific written test - to understand Faraday's procedure to explain science. - to understand the scientific process occurring in a burning candle	Students are given an extract of Faraday's book "A chemical history of a candle". They read the text in pairs. They underline the unknown terms.	<p>Skills</p> <table border="1"> <tr> <td>L</td> <td>S</td> <td>R</td> <td>W</td> </tr> </table> <p>Key vocabulary Soot-wire gauze-flask-capillarity-to put out-smoke</p> <p>Communicative structures If....then... If it were...it would... Curiously enough...</p>	L	S	R	W	<input type="checkbox"/> Whole class <input type="checkbox"/> Group work <input checked="" type="checkbox"/> Pair work <input type="checkbox"/> Individual work	<ul style="list-style-type: none"> • candle_extract_1.pdf 	Teachers monitor pairs
L	S	R	W								

2	10	see activity 1	<p>Discussion Teachers helps students to identify the main ideas Homework: new contents have to be revised at home Students are given a question sheet; they are asked to write the answers at home</p>	<p>Skills</p> <table border="1" data-bbox="922 164 1263 212"> <tr> <td>L</td> <td>S</td> <td>R</td> <td>W</td> </tr> </table> <p>Key vocabulary</p> <p>Communicative structures</p>	L	S	R	W	<p><input type="checkbox"/> Whole class <input type="checkbox"/> Group work <input type="checkbox"/> Pair work <input type="checkbox"/> Individual work</p>	<ul style="list-style-type: none"> • questions_extract_1.pdf 	teacher's feedback
L	S	R	W								

CLIL Lesson Plan

Unit number	3	Lesson number	3	Title	Faraday's lecture-2
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Activity	Timing	Learning Outcomes	Activity Procedure	Language	Interaction	Materials	Assessment				
1	10 min	Revision of content and vocabulary of unit 3-lesson 1	Homework is discussed in pairs	Skills <table border="1"> <tr> <td>L</td> <td>S</td> <td>R</td> <td>W</td> </tr> </table> Key vocabulary Communicative structures	L	S	R	W	<input type="checkbox"/> Whole class <input type="checkbox"/> Group work <input checked="" type="checkbox"/> Pair work <input type="checkbox"/> Individual work	<ul style="list-style-type: none"> • questions_extract_1.pdf 	Pair assessment
L	S	R	W								

2	45	<p>same as in lesson_1: -be able to recognize the main features of a scientific written test - be able to interpret a scientific written test - Understand Faraday's procedure to explain science. - Understand the scientific process occurring in a burning candle</p>	<p>Students are given an extract of Faraday's book "A chemical history of a candle". They read the text in pairs. They underline the unknown terms.</p>	<p>Skills</p> <table border="1" data-bbox="922 165 1263 210"> <tr> <td>L</td> <td>S</td> <td>R</td> <td>W</td> </tr> </table> <p>Key vocabulary same as in lesson 1</p> <p>Communicative structures How comes the black substance out of the candle? Why the candle smokes?</p>	L	S	R	W	<p><input type="checkbox"/> Whole class <input type="checkbox"/> Group work <input type="checkbox"/> Pair work <input type="checkbox"/> Individual work</p>	<p>• extract_2.pdf extact_2</p>	<p>Teacher monitors pairs</p>
L	S	R	W								

CLIL Lesson Plan

Unit number	3	Lesson number	4	Title	Laboratory: Faraday's experiments
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Activity	Timing	Learning Outcomes	Activity Procedure	Language	Interaction	Materials	Assessment
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1	110	<p>- To apply the scientific method: from theory to experiments (verification) - To be able to organize an experimental activity -To be aware of the difficulties in organizing an experimental activity - to be able to explain the experimental results -to reproduce Faraday's experiments - to understand the role of such experiments - Observing and understanding several phenomena concerning the burning of a candle.</p>	<p>Teacher divides students in groups following the cooperative learning strategies Students organize the experimental work following the instructions of the text read during the previous lessons. Each group performs all the assigned experiments Teacher helps the groups when needed. Homework: Students are asked to write a report about two experiments (see file "laboratory-report")</p>	<p>Skills</p> <table border="1" data-bbox="869 165 1205 213"> <tr> <td>L</td> <td>S</td> <td>R</td> <td>W</td> </tr> </table> <p>Key vocabulary see lesson 1 and 2</p> <p>Communicative structures Command verb. imperative form</p>	L	S	R	W	<p><input type="checkbox"/> Whole class <input checked="" type="checkbox"/> Group work <input type="checkbox"/> Pair work <input type="checkbox"/> Individual work</p>	<ul style="list-style-type: none"> • candle_extract_1.pdf • extract_2.pdf • LABORATORY_REPORTS.pdf <p>. What is needed to carry out the experiments (salt, candles, water, bent tubes, meshes or forks, paper, projector, flasks, flour or lycopodium or flour). . Experiments are based on "extract 1" and "extract 2"</p>	<p>Teacher monitors groups</p>
L	S	R	W								

CLIL Lesson Plan

Unit number	3	Lesson number	5	Title	Discussion
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Activity	Timing	Learning Outcomes	Activity Procedure	Language	Interaction	Materials	Assessment
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1	55 min	<p>- To acquire knowledge about the analyzed phenomenon</p> <p>- To strengthen the ability to write a report (students acquired the techniques to write a lab report in the previous years) - to be able to analyze the experimental results -to be able to compare results with the theory and with the results found in literature - To be able to present and discuss a report</p>	<p>- Teacher asks students to read their laboratory reports - teacher and students discuss the procedure - teacher and students analyze and discuss results - teacher and students check if the procedure given in file "Laboratory_reports" has been correctly followed</p>	<p>Skills</p> <p>L S R W</p> <p>Key vocabulary see file "laboratory reports"</p> <p>Communicative structures</p>	<p><input type="checkbox"/> Whole class</p> <p><input checked="" type="checkbox"/> Group work</p> <p><input type="checkbox"/> Pair work</p> <p><input checked="" type="checkbox"/> Individual work</p>	<p>• LABORATORY_REPORTS.pdf</p>	<p>Teacher supervises Teacher grades the written reports</p>
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CLIL Lesson Plan

Unit number	3	Lesson number	6	Title	TEST
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Activity	Timing	Learning Outcomes	Activity Procedure	Language	Interaction	Materials	Assessment				
1	55 min	- to demonstrate to understand the scientific issues of the considered phenomenon - to distinguish the main characteristics of the burning of a candle - to describe the evidences of the experiment - to use appropriate vocabulary	Students are given a test sheet They work individually	Skills <table border="1" style="margin-left: 20px;"> <tr> <td>L</td> <td>S</td> <td style="background-color: black; color: white;">R</td> <td style="background-color: black; color: white;">W</td> </tr> </table> Key vocabulary see lessons 1-5 Communicative structures	L	S	R	W	<input type="checkbox"/> Whole class <input type="checkbox"/> Group work <input type="checkbox"/> Pair work <input checked="" type="checkbox"/> Individual work	<ul style="list-style-type: none"> • test_1.pdf test_1 (this test contains a high number of questions; teacher will select and choose the appropriate number for his/her class)	Teacher grades the test. Test could also be self-assessed
L	S	R	W								

CLIL Lesson Plan

Unit number	3	Lesson number	7	Title	discussion of the test
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Activity	Timing	Learning Outcomes	Activity Procedure	Language	Interaction	Materials	Assessment				
1	55	see lesson 6	Graded tests are given to the students. Students discuss in pair their tests. They try to complete information gaps. If necessary, teacher completes information gaps	Skills <table border="1"> <tr> <td>L</td> <td>S</td> <td>R</td> <td>W</td> </tr> </table> Key vocabulary Communicative structures	L	S	R	W	<input type="checkbox"/> Whole class <input type="checkbox"/> Group work <input checked="" type="checkbox"/> Pair work <input type="checkbox"/> Individual work		Pair assessment: students can compare their tests and grades.
L	S	R	W								

CLIL Lesson Plan

Unit number	4	Lesson number	1	Title	Faraday's experiments on electromagnetic induction		
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Activity	Timing	Learning Outcomes	Activity Procedure	Language	Interaction	Materials	Assessment
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1	110	<p>-To apply the scientific method: from experiments to theory -To be able to organize an experimental activity -To be aware of the difficulties in organizing an experimental activity - to be able to explain the experimental results -to reproduce Faraday's experiments -to understand the role of such experiments - to observe and understand several situations regarding a new phenomenon (electromagnetic induction)</p>	<p>Teacher introduces the class to a new phenomenon discovered by Faraday: e.m. induction. Teacher gives students a worksheet. Teacher divides students into groups following the cooperative learning strategies Students organize the experimental work following the instructions written in the text. Each group performs all the assigned experiments Teacher helps the groups when needed.</p>	<p>Skills</p> <table border="1" data-bbox="1010 165 1352 212"> <tr> <td>L</td> <td>S</td> <td>R</td> <td>W</td> </tr> </table> <p>Key vocabulary Coil-circuit- loop-turn-ammeter-electric current-voltmeter</p> <p>Communicative structures Command verb. imperative form</p>	L	S	R	W	<p><input type="checkbox"/> Whole class <input checked="" type="checkbox"/> Group work <input type="checkbox"/> Pair work <input type="checkbox"/> Individual work</p>	<ul style="list-style-type: none"> • Faraday's discovery of e.m.induction.pdf 	<p>Teacher monitors groups</p>
L	S	R	W								

CLIL Lesson Plan

Unit number	4	Lesson number	2	Title	Magnetic flux
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Activity	Timing	Learning Outcomes	Activity Procedure	Language	Interaction	Materials	Assessment				
1	20	- To understand that the known physical quantities are not enough to explain the observed phenomena - To understand a new physical quantity - To be able to discuss the experiments - To revise all the known physical quantities (electric current, magnetic field)	Plenary: Revision of the experiments. Students are asked to describe the observed phenomena . Students try to focus on the possible physical quantities involved in the process	<p>Skills</p> <table border="1"> <tr> <td>L</td> <td>S</td> <td>R</td> <td>W</td> </tr> </table> <p>Key vocabulary</p> <p>Communicative structures What does this observation imply... What would you expect if... What happens if</p>	L	S	R	W	<input checked="" type="checkbox"/> Whole class <input type="checkbox"/> Group work <input type="checkbox"/> Pair work <input type="checkbox"/> Individual work		
L	S	R	W								

2	35	<p>- to be aware of the necessity of a new physical quantity - to be able to understand a new physical quantity - to describe new situations</p>	<p>Theoretical activity: Teacher defines the magnetic flux. Teacher produces examples. Students take notes. Teacher gives a task sheet to be discussed and completed in pairs</p>	<p>Skills</p> <table border="1" data-bbox="1010 164 1350 212"> <tr> <td>L</td> <td>S</td> <td>R</td> <td>W</td> </tr> </table> <p>Key vocabulary magnetic flux scalar product</p> <p>Communicative structures Let's define...</p>	L	S	R	W	<p><input checked="" type="checkbox"/> Whole class <input type="checkbox"/> Group work <input checked="" type="checkbox"/> Pair work <input type="checkbox"/> Individual work</p>	<ul style="list-style-type: none"> • Magnetic_flux.pdf • task_sheet.pdf 	<p>Pair assessment</p>
L	S	R	W								

CLIL Lesson Plan

Unit number	4	Lesson number	3	Title	Faraday-Neumann-Lenz law
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Activity	Timing	Learning Outcomes	Activity Procedure	Language	Interaction	Materials	Assessment				
1	15 MIN	- to Infer theory from experimental observations - to explain electromagnetic induction using Faraday-Neumann-Lenz's law - to understand the rate of change - to develop questioning skills. -to develop communication skills	Teacher asks students to discuss and explain the experiments. Teacher helps them to infer that the experimental results can be explained on the basis of a change in time of the magnetic flux .	<p>Skills</p> <table border="1"> <tr> <td>L</td> <td>S</td> <td>R</td> <td>W</td> </tr> </table> <p>Key vocabulary see previous lesson</p> <p>Communicative structures</p>	L	S	R	W	<input checked="" type="checkbox"/> Whole class <input type="checkbox"/> Group work <input type="checkbox"/> Pair work <input type="checkbox"/> Individual work		teacher feedback
L	S	R	W								

2	40	<p>- to be able to prove Faraday-Neumann-Lenz's law --understand the rate of change - to learn specific vocabulary - to understand a typical procedure to prove a law of physics</p>	<p>Teacher proofs Faraday-Neumann-Lenz's law Students take notes</p>	<p>Skills</p> <table border="1" data-bbox="909 165 1254 212"> <tr> <td style="background-color: black; color: white;">L</td> <td>S</td> <td>R</td> <td>W</td> </tr> </table> <p>Key vocabulary Rate of change</p> <p>Communicative structures Consider... Take... Since...Hence... Because...so</p>	L	S	R	W	<p><input checked="" type="checkbox"/> Whole class <input type="checkbox"/> Group work <input type="checkbox"/> Pair work <input type="checkbox"/> Individual work</p>	<p>• e.m.induction_proof_.pdf (The proof of Faraday-Neumann -Lenz's law can easily be found on several texts and website)</p>	<p>teacher feedback</p>
L	S	R	W								

CLIL Lesson Plan

Unit number	4	Lesson number	4	Title	exercises
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Activity	Timing	Learning Outcomes	Activity Procedure	Language	Interaction	Materials	Assessment				
1	110	- To be able to apply Faraday-Neumann-Lenz law - To be aware of the situations where FNL's law can be applied - to develop specific skills in problem solving (the questions proposed in the worksheet differ in typology) - To develop specific language	Teacher provides each pair with a task sheet. Students solve problems and answer questions. They discuss the chosen procedure. Teacher monitors students' work	<p>Skills</p> <table border="1"> <tr> <td>L</td> <td>S</td> <td>R</td> <td>W</td> </tr> </table> <p>Key vocabulary see previous lessons</p> <p>Communicative structures</p>	L	S	R	W	<input type="checkbox"/> Whole class <input type="checkbox"/> Group work <input checked="" type="checkbox"/> Pair work <input type="checkbox"/> Individual work	<ul style="list-style-type: none"> • exercises.pdf 	pair assessment
L	S	R	W								

CLIL Lesson Plan

Unit number	4	Lesson number	5	Title	Kahoot!
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Activity	Timing	Learning Outcomes	Activity Procedure	Language	Interaction	Materials	Assessment				
1	55	- to review ideas acquired so far - to motivate students - to revise contents	Students are asked to connect their mobiles to KAHOOT! site. Questions are projected on a screen and students answer by clicking on their device	<p>Skills</p> <table border="1"> <tr> <td>L</td> <td>S</td> <td>R</td> <td>W</td> </tr> </table> <p>Key vocabulary see previous lessons</p> <p>Communicative structures</p>	L	S	R	W	<input type="checkbox"/> Whole class <input type="checkbox"/> Group work <input type="checkbox"/> Pair work <input checked="" type="checkbox"/> Individual work	link the title of the game is "Faraday Neumann Lenz law"	Self assessment Performance ranking is produced by the software
L	S	R	W								

CLIL Lesson Plan

Unit number	4	Lesson number	6	Title	test
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Activity	Timing	Learning Outcomes	Activity Procedure	Language	Interaction	Materials	Assessment				
1	55	- To demonstrate proper understanding of the scientific issues associated with the discussed phenomenon - to distinguish the main features of electromagnetic induction - To describe the experimental evidences showing electromagnetic induction - Use appropriate vocabulary - Testing contents and language acquired so far	Each student is given a test sheet. Students answer individually	<p>Skills</p> <table border="1"> <tr> <td>L</td> <td>S</td> <td>R</td> <td>W</td> </tr> </table> <p>Key vocabulary see previous lessons</p> <p>Communicative structures</p>	L	S	R	W	<input type="checkbox"/> Whole class <input type="checkbox"/> Group work <input type="checkbox"/> Pair work <input checked="" type="checkbox"/> Individual work	<ul style="list-style-type: none"> • TEST_2.pdf Test_2	Teacher grades the test.
L	S	R	W								

CLIL Lesson Plan

Unit number	4	Lesson number	7	Title	test discussion
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Activity	Timing	Learning Outcomes	Activity Procedure	Language	Interaction	Materials	Assessment				
1	55	see previous lesson	Graded tests are given to the students. Students discuss in pair their tests. Students try to complete information gaps If needed, teacher completes information gaps	Skills <table border="1"> <tr> <td>L</td> <td>S</td> <td>R</td> <td>W</td> </tr> </table> Key vocabulary see previous lessons Communicative structures	L	S	R	W	<input type="checkbox"/> Whole class <input type="checkbox"/> Group work <input checked="" type="checkbox"/> Pair work <input type="checkbox"/> Individual work	<ul style="list-style-type: none"> • test_1.pdf test_1	Pair assessment. Students can compare their tests and grades.
L	S	R	W								