

CLIL Module Plan

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School	IIS Martino Martini - Mezzolombardo (TN)				
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 checked="" type="radio"/> 3	<input type="radio"/> 4	<input type="radio"/> 5
Subject	Fisica		Topic	Universal Gravitation	
CLIL Language	<input checked="" type="radio"/> English			<input type="radio"/> Deutsch	

Personal and social-cultural preconditions of all people involved	<p>The class is made up of 20 students, 3 of which have a foreign family background (Bulgaria, Moldavia, Poland) and none with special needs. It is a lively and quite competitive group, with a vivacious intelligence, that needs to be motivated and guided to perform at their best in the various activities. Some might be not keen on novelties, but as a group they then embrace new projects and are always driven to improve their competence. The average CEFR level in English is a B2, although a couple of elements may still have some difficulties. The class has already done a CLIL module in Physics during the first year (10h on equilibrium, barycenter and levers) and have been doing Art History entirely in English since year 2.</p>
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Students' prior knowledge, skills, competencies	Subject	Language
	<p>In L1: • Quantities and measurement; • Forces and equilibrium; • Kinematics in one dimension; • Kinematics in two dimensions; • Newton's three laws of motion; • Work and energy; • Fluids; • Impulse and momentum.</p>	<p>• Present simple; Present continuous; • Present perfect; Present perfect continuous; • Past simple; Past continuous; • Past perfect; Past perfect continuous; • Futures; • Conditionals; • Passive; reported speech; • Modal verbs; • Superlative and comparatives; • Lexis and grammar expressing similarities and differences; • To describe, compare and contrast ideas; • To express opinions; • To provide evidence; • To support an argument; • To take part in a discussion; • Vocab and synonyms.</p>

Timetable fit	⦿ Module	Length 10 lessons, 10 hours
Description of teaching and learning strategies	<ul style="list-style-type: none"> • Methodological approaches (for example Task-Based Learning, Cooperative Learning) • Choices and strategies to promote interaction and communication during the lesson involving students, teachers and group work • Learning activities connected to expected learning outcomes • Content and language input • ICT learning tools (for example PPT, Padlet) • Choice of media • Materials to support content and language scaffolding • Time managing • Differentiating measures and additional forms of consolidation of outcomes • Problem solving 	

Overall Module Plan

Unit: 1 Universal Gravitation Unit length: 10 h	Lesson 1 Geocentric and heliocentric models; Kepler's 1st, 2nd and 3rd law.
	Lesson 2 Newton's law of Gravitation; Derivation of Kepler's 3rd law.
	Lesson 3 Cavendish's experiment; Weight and gravitational acceleration.
	Lesson 4 Exercises and problems; Gravitational potential energy.
	Lesson 5 Gravitational field; Exercises.
	Lesson 6 The conservation of mechanical gravitational field; Orbit classification.
	Lesson 7 Group work.
	Lesson 8 Group work (conclusion); Oral presentations.
	Lesson 9 Class test.
	Lesson 10 Class test checking.

CLIL Lesson Plan

Unit number	1	Lesson number	1	Title	Geocentric and heliocentric models; Kepler's 1st, 2nd and 3rd law.		
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Activity	Timing	Learning Outcomes	Activity Procedure	Language	Interaction	Materials	Assessment
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1	10 min	<ul style="list-style-type: none"> • Be aware of the different models of planets rotation • Know Kepler's three laws and be able to interpret them under mathematical aspects <p>Teaching aims:</p> <ul style="list-style-type: none"> • Presenting CLIL module to the class • Revising functional language to agree and disagree (previously seen by ss with the language T in preparation of the CLIL module) 	<p>The T gives some general information about this CLIL module: Universal Gravitation and divides ss in group of 4 (according to the methods T prefers). In preparation of the following activities the T shares chunks of language to agree and disagree in a discussion: T gives a set of 28 cards stating useful language chunks; T asks ss in group to classify them according to meaning (to agree; to disagree; to close the discussion; to express one's opinion). When ss finish, T hands out the correction sheet for each group to check.</p>	<p>Skills</p> <table border="1" data-bbox="996 167 1335 212"> <tr> <td>L</td> <td>S</td> <td>R</td> <td>W</td> </tr> </table> <p>Key vocabulary</p> <p>Communicative structures</p> <ul style="list-style-type: none"> • Functional language: see U1_L1_ALL1B 	L	S	R	W	<ul style="list-style-type: none"> <input checked="" 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_ALL1A.docx • U1_L1_ALL1A.pdf • U1_L1_ALL1B.docx • U1_L1_ALL1B.pdf <p>Ss gather information and notes provided. Padlet's web page: collection of all multimedia materials of the CLIL module.</p>	<p>T monitors and helps while ss do the activity</p>
L	S	R	W								

2	5 min	<p>Teaching aims:</p> <ul style="list-style-type: none"> • Activating prior knowledge of the discipline • Developing communication skills • Developing cognitive skills 	<p>T projects slide number 1 of the PPT and hands out worksheets for the next activity; ss work in group (4 ss for each one) and discuss the question proposed by the T: “What is the difference between geocentric and heliocentric models?” After that the T will provide formal definitions using PPT slide 2.</p>	<p>Skills</p> <table border="1" data-bbox="994 165 1335 210"> <tr> <td>L</td> <td>S</td> <td>R</td> <td>W</td> </tr> </table> <p>Key vocabulary</p> <ul style="list-style-type: none"> • Specific vocabulary: geocentric and heliocentric models <p>Communicative structures</p> <ul style="list-style-type: none"> • Use of simple present • Functional language: see U1_L1_ALL1B 	L	S	R	W	<ul style="list-style-type: none"> <input checked="" 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_ALL2.docx • U1_L1_ALL2.pdf • U1_L1_PPT.pdf • U1_L1_PPT.ppt 	
L	S	R	W								

3	13 min	<p>Teaching aims:</p> <ul style="list-style-type: none"> • Developing cognitive skills • Teaching the subject specific vocabulary: T asks ss to find key words in the text and their meanings to build a glossary 	<p>The T gives to the ss a puzzle-text. Ss work in group and discuss the correct order of the paragraphs provided. After, the T revises the exercise with the ss. The correction of this exercise will be focused on the chronological facts and on the specific language used.</p>	<p>Skills</p> <table border="1" data-bbox="994 917 1335 962"> <tr> <td>L</td> <td>S</td> <td>R</td> <td>W</td> </tr> </table> <p>Key vocabulary</p> <ul style="list-style-type: none"> • Specific vocabulary and functional language identified in the text <p>Communicative structures</p> <ul style="list-style-type: none"> • Use of simple present • Functional language: see U1_L1_ALL1B 	L	S	R	W	<ul style="list-style-type: none"> <input checked="" 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_ALL3.docx • U1_L1_ALL3.pdf <p>U1_L1_ALL3 (From link)</p>	
L	S	R	W								

4	4 min	Teaching aims: • Developing cognitive skills • Developing interactive skills and cooperation with others	Matching activity: ss work in group and discuss the correct relation between the statement of Kepler's law and the pictures provided. T asks ss to use at least two chunks of functional language from U1_L1_ALL1B.	Skills <div style="border: 1px solid black; padding: 2px; display: flex; justify-content: space-around; width: fit-content; margin: 5px auto;"> L S R W </div> Key vocabulary • Specific vocabulary and functional language Communicative structures • Use of simple present and conditionals • Functional language: see U1_L1_ALL1B	<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_ALL4.docx • U1_L1_ALL4.pdf 	
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5	5 min	Teaching aims: • Teaching the subject specific vocabulary • Developing language skills and classifying	T gives feedback on the previous activity projecting PPT slides 3, 4, 5 and 6. Ss will hear the explanation on "Kepler's three laws" focusing also on the specific language.	Skills <div style="border: 1px solid black; padding: 2px; display: flex; justify-content: space-around; width: fit-content; margin: 5px auto;"> L S R W </div> Key vocabulary • Specific vocabulary: elliptical orbits, sweeps out, period, radius, focus Communicative structures • Use of simple present	<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"> • U1_L1_PPT.pdf • U1_L1_PPT.ppt 	
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6	10 min	Teaching aims: • Teaching the subject specific vocabulary • Developing cognitive skills • Developing summarize skills	Reading comprehension and revision: ss will firstly read on their own, then in groups they will solve the exercises. T asks ss to use at least two chunks of functional language from U1_L1_ALL1B.	Skills	<input type="checkbox"/> Whole class <input checked="" type="checkbox"/> Group work <input type="checkbox"/> Pair work <input checked="" type="checkbox"/> Individual work	<ul style="list-style-type: none"> • U1_L1_ALL5A.docx • U1_L1_ALL5A.pdf U1_L1_ALL5A (Adapted from link)	Ongoing assessment: T walks around and intervenes on possible doubts or imprecisions.				
				<table border="1"> <tr> <td>L</td> <td>S</td> <td>R</td> <td>W</td> </tr> </table>				L	S	R	W
				L				S	R	W	
Key vocabulary <ul style="list-style-type: none"> • Specific vocabulary and functional language 											
				Communicative structures <ul style="list-style-type: none"> • Functional language: see U1_L1_ALL1B 							

7	3 min	Teaching aims: • Feedback	T asks one ss per group to read out aloud the solutions of the previous exercise and corrects with the class, clarifying doubts.	Skills	<input 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"> • U1_L1_ALL5B.docx • U1_L1_ALL5B.pdf 					
				<table border="1"> <tr> <td>L</td> <td>S</td> <td>R</td> <td>W</td> </tr> </table>				L	S	R	W
				L				S	R	W	
Key vocabulary <ul style="list-style-type: none"> • Specific vocabulary and functional language 											
				Communicative structures							

CLIL Lesson Plan

Unit number	1	Lesson number	2	Title	Newton's law of Gravitation; Derivation of Kepler's 3rd law.
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Activity	Timing	Learning Outcomes	Activity Procedure	Language	Interaction	Materials	Assessment				
1	5 min	<ul style="list-style-type: none"> Know Newton's law of Gravitation and be able to compute the quantities using also the reverse formulas Be aware the procedure to derive Kepler's 3rd law from Newton's law of Gravitation Teaching aims: <ul style="list-style-type: none"> Checking the learnings Developing summarizing skills 	Revision: ss work in group (4 ss for each one) to complete the worksheet provided. The first activity is a T/F test and the second one consists in matching the questions with the correct answers. At the end of the activity one student per group stands up and rotates in a new group where they check if they have the same answers.	<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> <ul style="list-style-type: none"> Revision of terminology <p>Communicative structures</p> <ul style="list-style-type: none"> Functional language: see U1_L1_ALL1B 	L	S	R	W	<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_L2_ALL1A.docx U1_L2_ALL1A.pdf U1_L2_ALL1B.docx U1_L2_ALL1B.pdf 	Ongoing assessment: T walks around and intervenes on possible doubts or imprecisions.
L	S	R	W								

2	15 min	Teaching aims: • Activating prior knowledge • Developing communication skills • Developing cognitive skills	T projects slide number 1 of the PPT with a list of scientists and data. Ss work in group and discuss about the correct order to build a timeline using the information provided and the inter-disciplinary connection with History and Philosophy. After that the T will provide the solution on the digital whiteboard.	<p>Skills</p> <table border="1" data-bbox="994 165 1335 210"> <tr> <td>L</td> <td>S</td> <td>R</td> <td>W</td> </tr> </table> <p>Key vocabulary</p> <p>Communicative structures</p> <ul style="list-style-type: none"> • Use of simple present • Functional language: see U1_L1_ALL1B 	L	S	R	W	<input checked="" 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_L2_ALL2A.docx • U1_L2_ALL2A.pdf • U1_L2_ALL2B.docx • U1_L2_ALL2B.pdf • U1_L2_PPT.pdf • U1_L2_PPT.ppt 	
L	S	R	W								

3	15 min	<p>Teaching aims:</p> <ul style="list-style-type: none"> • Teaching the subject specific vocabulary: T asks ss to find key words in the text and their meanings to build a glossary • Developing cognitive skills 	<p>Ss will firstly read on their own the document provided (scan from English for Science, Martellotta, Rizzo, ed. Zanichelli), then in group they will discuss about the question and the picture provided. After, the T explains the statement of the law of Universal Gravitation projecting PPT slides 2, 3 and 4.</p>	<p>Skills</p> <table border="1" data-bbox="994 165 1335 210"> <tr> <td>L</td> <td>S</td> <td>R</td> <td>W</td> </tr> </table> <p>Key vocabulary</p> <ul style="list-style-type: none"> • Specific vocabulary and functional language identified in the text <p>Communicative structures</p> <ul style="list-style-type: none"> • Use of simple present • HW: has/has not; same/opposite; first/third; some/any; smaller/greater; four/two; increases/decreases. 	L	S	R	W	<ul style="list-style-type: none"> <input checked="" type="checkbox"/> Whole class <input checked="" type="checkbox"/> Group work <input type="checkbox"/> Pair work <input checked="" type="checkbox"/> Individual work 	<ul style="list-style-type: none"> • U1_L2_ALL3.docx • U1_L2_ALL3.pdf • U1_L2_PPT.pdf • U1_L2_PPT.ppt <p>U1_L2_ALL3 (scan from English for Science, Martellotta, Rizzo, ed. Zanichelli)</p>	
L	S	R	W								

4	15 min	Teaching aims: • Developing cognitive skills • Developing interactive skills and cooperation with others	Language practice: T gives to the ss a puzzle text. Ss in group discuss the correct steps to derive the Kepler's 3rd law from Newton's law of Gravitation. After, the T revises the exercise with the ss focusing on the logical steps to demonstrate the derivation of Kepler's 3rd law, projecting PPT slide 5. T asks ss to use at least two chunks of functional language from U1_L1_ALL1B.	<p>Skills</p> <table border="1" data-bbox="996 167 1335 212"> <tr> <td>L</td> <td>S</td> <td>R</td> <td>W</td> </tr> </table> <p>Key vocabulary</p> <ul style="list-style-type: none"> • Specific vocabulary and functional language <p>Communicative structures</p> <ul style="list-style-type: none"> • Use of simple present and conditionals • Functional language: see U1_L1_ALL1B	L	S	R	W	<input checked="" 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_L2_ALL4.docx • U1_L2_ALL4.pdf • U1_L2_PPT.pdf • U1_L2_PPT.ppt U1_L2_PPT	Ongoing assessment: T walks around and intervenes on possible doubts or imprecisions.
L	S	R	W								

CLIL Lesson Plan

Unit number	1	Lesson number	3	Title	Cavendish's experiment; Weight and gravitational acceleration.
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Activity	Timing	Learning Outcomes	Activity Procedure	Language	Interaction	Materials	Assessment				
1	10 min	<ul style="list-style-type: none"> Be aware of the procedure used by Cavendish to compute the universal gravitational constant Know the difference between mass and weight Teaching aims: <ul style="list-style-type: none"> Checking the learnings Developing summarizing skills 	Revision: T asks one group of ss to come to the digital whiteboard to explain the results demonstrated during the previous lesson, projecting PPT slide 1. A second group comes out to check the homework; the solution of this exercise is on PPT slide 2.	<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> <ul style="list-style-type: none"> All the specific vocabulary and functional language previously learned <p>Communicative structures</p> <ul style="list-style-type: none"> Use of simple present and past 	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"> U1_L3_PPT.pdf U1_L3_PPT.ppt 	Formative assessment: T takes notes on difficulties or doubts and gives feedback.
L	S	R	W								

2	5 min	<p>Teaching aims:</p> <ul style="list-style-type: none"> • Activating prior knowledge • Developing communication skills • Developing cognitive skills: inferring 	<p>T projecting PPT slide 3 to recall the value of universal gravitational constant G; after, using PPT slide 4, ss work in group to hypothesize the process of the Cavendish's torsion balance to calculate the constant G. T asks ss to use at least two chunks of functional language from U1_L1_ALL1B.</p>	<p>Skills</p> <table border="1" data-bbox="994 165 1337 212"> <tr> <td>L</td> <td>S</td> <td>R</td> <td>W</td> </tr> </table> <p>Key vocabulary</p> <p>Communicative structures</p> <ul style="list-style-type: none"> • Use of simple present • Functional language: see U1_L1_ALL1B 	L	S	R	W	<ul style="list-style-type: none"> <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_L3_PPT.pdf • U1_L3_PPT.ppt 	
L	S	R	W								

3	15 min	<p>Teaching aims: • Teaching the subject specific vocabulary: T asks ss to find key words in the text and their meanings to build a glossary</p> <ul style="list-style-type: none"> • Developing cognitive skills • Developing interactive skills and cooperation with others 	<p>Language practice: ss in group will complete the text provided using the keywords in the box on the smartboard (PPT slide 5). After T asks one student per group to check the exercise.</p>	<p>Skills</p> <table border="1" data-bbox="994 165 1335 210"> <tr> <td>L</td> <td>S</td> <td>R</td> <td>W</td> </tr> </table> <p>Key vocabulary</p> <ul style="list-style-type: none"> • Specific vocabulary: centers, torsion, balanced, angle, spheres, constant, instrument, attraction <p>Communicative structures</p> <ul style="list-style-type: none"> • Use of simple present • Functional language: see U1_L1_ALL1B 	L	S	R	W	<ul style="list-style-type: none"> <input checked="" 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_L3_ALL1A.docx • U1_L3_ALL1A.pdf • U1_L3_ALL1B.docx • U1_L3_ALL1B.pdf • U1_L3_PPT.pdf • U1_L3_PPT.ppt <p>U1_L3_ALL1A (Adapted from link)</p>	<p>Ongoing assessment: T walks around and intervenes on possible doubts or imprecisions.</p>
L	S	R	W								

4	15 min	Teaching aims: • Developing cognitive skills • Developing listening skills	Listening activity: for gist the T asks ss which object is nominated several times in the audio and plays the recording once. Then T gives to the ss some questions about Gravitation (projecting PPT slide 6) and plays the recording again. Ss will answer the questions using the information contained in the audio file provided. After, the T gives to the ss the text of file audio to check the answers and eventually correct them.	Skills <div style="display: flex; justify-content: space-around; border: 1px solid black; background-color: #f0f0f0; padding: 2px;"> L S R W </div> Key vocabulary Communicative structures <ul style="list-style-type: none"> • Use of simple present and conditionals • Functional language: see U1_L1_ALL1B	<input checked="" 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"> • U1_L3_ALL3.docx • U1_L3_ALL3.pdf • U1_L3_PPT.pdf • U1_L3_PPT.ppt • U1_L3_ALL2.zip U1_L3_ALL2 (from Phoenomena LS1, Fabbri, Masini, ed. Sei) U1_L3_ALL3 (scan from Phoenomena LS1, Fabbri, Masini, ed. Sei)	
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5	5 min	Teaching aims: • Feedback	T asks one student per group to discuss with the rest of the class about the results demonstrated during the lesson, looking PPT slide 7.	<p>Skills</p> <table border="1" data-bbox="994 165 1337 212"> <tr> <td>L</td> <td>S</td> <td>R</td> <td>W</td> </tr> </table> <p>Key vocabulary</p> <ul style="list-style-type: none"> • Specific vocabulary: magnitude of the gravitational force, weight, newton, acceleration of gravity, mass and radius of the Earth. <p>Communicative structures</p> <ul style="list-style-type: none"> • Use of simple present and past 	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"> • U1_L3_PPT.pdf • U1_L3_PPT.ppt 	
L	S	R	W								

CLIL Lesson Plan

Unit number	1	Lesson number	4	Title	Exercises and problems; Gravitational potential energy.
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Activity	Timing	Learning Outcomes	Activity Procedure	Language	Interaction	Materials	Assessment				
1	30 min	<ul style="list-style-type: none"> • Be aware of the procedure to compute in different ways the quantities studied in the previous lessons • Know the meaning of gravitational potential energy Teaching aims: <ul style="list-style-type: none"> • Learning specific vocabulary • Developing cognitive skills 	Exercises and problems: ss in group (4 ss for each one) will solve the exercises with the support of the T. After, the T asks one member of each group to come to the digital whiteboard to check the exercises (using PPT slides 1 and 2). In the meantime, T revises the exercises with the ss focusing on the specific language and vocabulary.	Skills <table border="1"> <tr> <td>L</td> <td>S</td> <td>R</td> <td>W</td> </tr> </table> Key vocabulary <ul style="list-style-type: none"> • All the specific vocabulary and functional language previously learned Communicative structures <ul style="list-style-type: none"> • Use of simple present and conditionals • Functional language: see U1_L1_ALL1B 	L	S	R	W	<input checked="" 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_L4_ALL1A.docx • U1_L4_ALL1A.pdf • U1_L4_ALL1B.docx • U1_L4_ALL1B.pdf • U1_L4_PPT.pdf • U1_L4_PPT.ppt Calculator	Formative assessment: T takes notes on difficulties or doubts and gives feedback.
L	S	R	W								

2	3 min	Teaching aims: <ul style="list-style-type: none"> • Activating prior knowledge • Developing communication skills • Developing cognitive skills 	T projecting PPT slide 3: ss work in group (4 ss for each one) and discuss, using the Physics concept studied in L1, the question proposed by the T: “What is the gravitational potential energy?” T asks ss to use at least two chunks of functional language from U1_L1_ALL1B.	Skills <div style="border: 1px solid black; padding: 2px; display: flex; justify-content: space-around; width: fit-content; margin: 5px auto;"> L S R W </div> Key vocabulary <ul style="list-style-type: none"> • No focus on specific terminology that will be introduced in the next activity Communicative structures <ul style="list-style-type: none"> • Use of simple present • Functional language: see U1_L1_ALL1B 	<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_L4_PPT.pdf • U1_L4_PPT.ppt 	
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3	14 min	Teaching aims: <ul style="list-style-type: none"> • Teaching the subject specific vocabulary: T asks ss to find key words in the text and their meanings to build a glossary • Developing cognitive skills • Developing interactive skills and cooperation with others 	Language practice: T gives to the ss a puzzle-text. Ss work in group and discuss the correct order of the paragraphs provided. When all the groups have finished T provides them the complete text.	Skills <div style="border: 1px solid black; padding: 2px; display: flex; justify-content: space-around; width: fit-content; margin: 5px auto;"> L S R W </div> Key vocabulary <ul style="list-style-type: none"> • Specific vocabulary and functional language identified in the text Communicative structures <ul style="list-style-type: none"> • Use of simple present • Functional language: see U1_L1_ALL1B 	<input checked="" 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_L4_ALL2.docx • U1_L4_ALL2.pdf U1_L4_ALL2 (Adapted from link)	
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4	3 min	Teaching aims: • Feedback	T revises the exercise with the ss focusing on the physical meaning of gravitational potential energy, using PPT slide 4.	<p>Skills</p> <table border="1" data-bbox="994 165 1335 210"> <tr> <td>L</td> <td>S</td> <td>R</td> <td>W</td> </tr> </table> <p>Key vocabulary</p> <ul style="list-style-type: none"> • Specific vocabulary and functional language <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	<ul style="list-style-type: none"> • U1_L4_PPT.pdf • U1_L4_PPT.ppt 	
L	S	R	W								

CLIL Lesson Plan

Unit number	1	Lesson number	5	Title	Gravitational field; Exercises.
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Activity	Timing	Learning Outcomes	Activity Procedure	Language	Interaction	Materials	Assessment				
1	18 min	<ul style="list-style-type: none"> Know the meaning of gravitational field Be aware of the difference between gravitational energy and gravitational field Be aware of and learn the procedure to compute in different ways the quantities studied in the previous lessons Revise and re-elaborate the concepts and vocab seen Teaching aims: <ul style="list-style-type: none"> Checking the learnings Developing summarizing skills 	<p>Homework checking and revision: ss discuss with the T about the results demonstrated during the lesson and checking the problems given for homework. If this correction activity takes less time, T can give extra problems to solve.</p>	<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> <ul style="list-style-type: none"> Use of simple present and past 	L	S	R	W	<input checked="" 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"> U1_L4_ALL1B.docx U1_L4_ALL1B.pdf U1_L5_ALL1A.docx U1_L5_ALL1A.pdf U1_L5_ALL1B.docx U1_L5_ALL1B.pdf <p>Blackboard</p>	<p>Formative assessment: T takes notes on difficulties or doubts and gives feedback.</p>
L	S	R	W								

2	13 min	Teaching aims: • Developing cognitive skills • Developing interactive skills and cooperation with others	Language practice: ss in group (4 ss for each one) will complete the text using the keywords in the box on the smartboard. T asks ss to use at least two chunks of functional language from U1_L1_ALL1B.	<p>Skills</p> <table border="1" data-bbox="994 165 1335 210"> <tr> <td>L</td> <td>S</td> <td>R</td> <td>W</td> </tr> </table> <p>Key vocabulary</p> <ul style="list-style-type: none"> • Specific vocabulary: around, attraction, weaker, region, 9.81 newtons per kilogram, 9.81 meters per second² <p>Communicative structures</p> <ul style="list-style-type: none"> • Focus on the difference between weight(n.) and weigh(v.) • Use of simple present • Functional language: see U1_L1_ALL1B 	L	S	R	W	<input checked="" 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_L5_ALL2A.docx • U1_L5_ALL2A.pdf • U1_L5_ALL2B.docx • U1_L5_ALL2B.pdf • U1_L5_PPT.pdf • U1_L5_PPT.ppt <p>U1_L5_ALL2A (Adapted from Complete Physics for Cambridge IGCSE®, S. Pople. Oxford)</p>	Ongoing assessment: T walks around and intervenes on possible doubts or imprecisions.
L	S	R	W								

3	4 min	Teaching aims: • Developing cognitive skills • Developing interactive skills and cooperation with others	Terminology practice (matching activity): ss work in group and discuss the correct relation between the data and the pictures provided.	<p>Skills</p> <table border="1" data-bbox="994 1061 1335 1106"> <tr> <td>L</td> <td>S</td> <td>R</td> <td>W</td> </tr> </table> <p>Key vocabulary</p> <ul style="list-style-type: none"> • Revision of quantities <p>Communicative structures</p> <ul style="list-style-type: none"> • Use of simple present • Functional language: see U1_L1_ALL1B 	L	S	R	W	<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_L5_ALL3A.docx • U1_L5_ALL3A.pdf • U1_L5_ALL3B.docx • U1_L5_ALL3B.pdf 	
L	S	R	W								

4	15 min	Teaching aims: • Learning specific vocabulary • Developing cognitive skills • Feedback	Exercises: ss will solve the exercises with the support of the T.	<p>Skills</p> <p>L S R W</p> <p>Key vocabulary</p> <ul style="list-style-type: none"> • All the specific vocabulary and functional language previously learned <p>Communicative structures</p> <ul style="list-style-type: none"> • Use of simple present and conditionals • Functional language: see U1_L1_ALL1B	<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"> • U1_L5_ALL4.docx • U1_L5_ALL4.pdf Calculator	Formative assessment: T takes notes on difficulties or doubts and gives feedback.
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CLIL Lesson Plan

Unit number	1	Lesson number	6	Title	The conservation of mechanical gravitational field; Orbit classification.
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Activity	Timing	Learning Outcomes	Activity Procedure	Language	Interaction	Materials	Assessment				
1	5 min	<ul style="list-style-type: none"> Know the law of energy conservation Be aware of the different orbits of a planet around the Sun Know the mathematical condition to have every orbit's type Teaching aims: <ul style="list-style-type: none"> Activating prior knowledge Developing communication skills Developing cognitive skills 	T shows the picture used in lesson 4 (using PPT slide 1). Individually each student finds the two mistakes in the picture. After, in group (4 ss for each one) they discuss, using the Physics concept studied in L1, the new question proposed by the T: "Do you remember the conservation of mechanical energy?"	Skills <table border="1"> <tr> <td>L</td> <td>S</td> <td>R</td> <td>W</td> </tr> </table> Key vocabulary Communicative structures <ul style="list-style-type: none"> Use of simple present and conditionals Functional language: see U1_L1_ALL1B	L	S	R	W	<input type="checkbox"/> Whole class <input checked="" type="checkbox"/> Group work <input type="checkbox"/> Pair work <input checked="" type="checkbox"/> Individual work	<ul style="list-style-type: none"> U1_L6_PPT.pdf U1_L6_PPT.ppt 	Formative assessment: T takes notes on difficulties or doubts and gives feedback.
L	S	R	W								

2	15 min	Teaching aims: • Learning specific vocabulary • Developing cognitive skills • Developing interactive skills and cooperation with others	Language practice: ss in group will complete the text using the keywords in the box on the smartboard (T projecting PPT slide 2). T asks ss to use at least two chunks of functional language from U1_L1_ALL1B.	<p>Skills</p> <table border="1" data-bbox="994 165 1337 209"> <tr> <td>L</td> <td>S</td> <td>R</td> <td>W</td> </tr> </table> <p>Key vocabulary</p> <ul style="list-style-type: none"> Specific vocabulary: potential and kinetic energy, mechanical energy, system, conservative force <p>Communicative structures</p> <ul style="list-style-type: none"> Use of simple present and conditionals • Functional language: see U1_L1_ALL1B 	L	S	R	W	<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_L6_ALL1A.docx U1_L6_ALL1A.pdf U1_L6_ALL1B.docx U1_L6_ALL1B.pdf U1_L6_PPT.pdf U1_L6_PPT.ppt U1_L6_ALL1A (Adapted from link)	Ongoing assessment: T walks around and intervenes on possible doubts or imprecisions.
L	S	R	W								

3	10 min	Teaching aims: • Learning specific vocabulary • Developing language skills	T elicits the formula of conservation of mechanical energy that ss have previously discussed in group and writes on the board. T then goes back to the PPT slide 3. Explaining: ss will listen to the explanation focusing also on the specific language.	<p>Skills</p> <table border="1" data-bbox="994 906 1337 949"> <tr> <td>L</td> <td>S</td> <td>R</td> <td>W</td> </tr> </table> <p>Key vocabulary</p> <ul style="list-style-type: none"> Specific vocabulary and functional language <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	<ul style="list-style-type: none"> U1_L6_PPT.pdf U1_L6_PPT.ppt 	
L	S	R	W								

4	5 min	Teaching aims: • Developing cognitive skills • Developing interactive skills and cooperation with others	Matching activity: ss work in group and discuss (using the Maths concept studied in L1) the correct relation between the statement that describes the orbit and the pictures provided. After the T shows the solution on the whiteboard using PPT slide 4.	<p>Skills</p> <table border="1" data-bbox="994 204 1337 252"> <tr> <td>L</td> <td>S</td> <td>R</td> <td>W</td> </tr> </table> <p>Key vocabulary</p> <ul style="list-style-type: none"> • Specific vocabulary: bounded elliptic, unbounded parabolic, unbounded hyperbolic <p>Communicative structures</p> <ul style="list-style-type: none"> • Use of simple present and conditionals • Functional language: see U1_L1_ALL1B	L	S	R	W	<input checked="" 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_L6_ALL2.docx • U1_L6_ALL2.pdf • U1_L6_PPT.pdf • U1_L6_PPT.ppt 	
L	S	R	W								
5	15 min	Teaching aims: • Learning specific vocabulary • Developing cognitive skills • Feedback	Exercises: ss in group will solve the exercises (project on the smartboard, PPT slides 5 and 6) with the support of the T.	<p>Skills</p> <table border="1" data-bbox="994 901 1337 949"> <tr> <td>L</td> <td>S</td> <td>R</td> <td>W</td> </tr> </table> <p>Key vocabulary</p> <p>Communicative structures</p> <ul style="list-style-type: none"> • Use of simple present and conditionals • Functional language: see U1_L1_ALL1B	L	S	R	W	<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_L6_ALL3.docx • U1_L6_ALL3.pdf • U1_L6_PPT.pdf • U1_L6_PPT.ppt Calculator	Ongoing assessment: T walks around and intervenes on possible doubts or imprecisions.
L	S	R	W								

CLIL Lesson Plan

Unit number	1	Lesson number	7	Title	Group work.
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Activity	Timing	Learning Outcomes	Activity Procedure	Language	Interaction	Materials	Assessment				
1	50 min	<ul style="list-style-type: none"> Know the concept studied in all the module Teaching aims: <ul style="list-style-type: none"> Developing summarize skills 	<p>Ss work in group (4 ss for each one) to create posters about Universal Gravitation. In particular, T gives out one of the following topics to each group: 1. Kepler's three laws; 2. Newton's law of Gravitation; 3. Mass and weight; 4. Gravitational potential energy; 5. Orbit classification.</p>	<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> <ul style="list-style-type: none"> Use of present, past and conditional tenses Functional language: see U1_L1_ALL1B 	L	S	R	W	<input type="checkbox"/> Whole class <input checked="" type="checkbox"/> Group work <input type="checkbox"/> Pair work <input type="checkbox"/> Individual work	Posters	T walks around the class and monitors the activity. T takes notes about items that need clarifications.
L	S	R	W								

CLIL Lesson Plan

Unit number	1	Lesson number	8	Title	Group work (conclusion); Oral presentations.
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Activity	Timing	Learning Outcomes	Activity Procedure	Language	Interaction	Materials	Assessment				
1	20 min	<ul style="list-style-type: none"> Be aware of the contents studied in all the module and be able to explain at least three topics about Universal Gravitation Teaching aims: <ul style="list-style-type: none"> Developing summarize skills 	Ss work in group to complete posters about Universal Gravitation started in the previous lesson.	Skills <table border="1"> <tr> <td>L</td> <td>S</td> <td>R</td> <td>W</td> </tr> </table> Key vocabulary Communicative structures <ul style="list-style-type: none"> Use of simple present and conditionals Functional language: see U1_L1_ALL1B 	L	S	R	W	<input type="checkbox"/> Whole class <input checked="" type="checkbox"/> Group work <input type="checkbox"/> Pair work <input type="checkbox"/> Individual work	Posters	T walks around the class and monitors the activity. T takes notes about items that need clarifications.
L	S	R	W								

2	25 min	Teaching aims: • Developing communication skills • Developing cognitive skills	Ss in group will explain their group work realized. T underlines that this activity is the final revision before the class test. At the end of the lesson, each group will put the photo of their poster on padlet.	<p>Skills</p> <table border="1" data-bbox="1039 165 1379 213"> <tr> <td>L</td> <td>S</td> <td>R</td> <td>W</td> </tr> </table> <p>Key vocabulary</p> <ul style="list-style-type: none"> • Specific vocabulary and functional language <p>Communicative structures</p>	L	S	R	W	<input type="checkbox"/> Whole class <input checked="" type="checkbox"/> Group work <input type="checkbox"/> Pair work <input checked="" type="checkbox"/> Individual work	<ul style="list-style-type: none"> • U1_L8_ALL1.jpg • U1_L8_ALL2.jpg • U1_L8_ALL3.jpg • U1_L8_ALL4.jpg • U1_L8_ALL5.jpg • Group presentation - Peer Marking Rubric.docx • Group presentation - Peer Marking Rubric.pdf • Teacher Rubric for Group Work.docx • Teacher Rubric for Group Work.pdf <p>Posters (see examples of posters attached: U1_L8_ALL1 U1_L8_ALL2 U1_L8_ALL3 U1_L8_ALL4 U1_L8_ALL5) Padlet (www.padlet.com)</p>	Formative assessment (see Teacher Rubric for Group Work). When each group presents their work other ss fill in the peer evaluation grid (see Group presentation - Peer Marking Rubric).
L	S	R	W								

3	5 min	Teaching aims: • Feedback	T recalls those concepts that have been confused and inaccurate during the oral presentations.	<p>Skills</p> <table border="1" data-bbox="1039 165 1379 210"> <tr> <td>L</td> <td>S</td> <td>R</td> <td>W</td> </tr> </table> <p>Key vocabulary</p> <ul style="list-style-type: none"> • Specific vocabulary and functional language <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								

CLIL Lesson Plan

Unit number	1	Lesson number	9	Title	Class test.
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Activity	Timing	Learning Outcomes	Activity Procedure	Language	Interaction	Materials	Assessment				
1	50 min	<ul style="list-style-type: none"> • Know the concept studied in all the module • Be aware of the different procedures to compute the quantities studied in all the module Teaching aims: <ul style="list-style-type: none"> • Checking the learnings 	Ss work individually to solve the exercises and the problems provided by the T.	<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> <ul style="list-style-type: none"> • Specific vocabulary and functional language <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"> • U1_L9_ALL1.docx • U1_L9_ALL1.pdf • U1_L10_ALL1.docx • U1_L10_ALL1.pdf Foolscaps Calculator	Summative assessment (see Keys and Evaluation grid)
L	S	R	W								

CLIL Lesson Plan

Unit number	1	Lesson number	10	Title	Class test checking.
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Activity	Timing	Learning Outcomes	Activity Procedure	Language	Interaction	Materials	Assessment				
1	50 min	<ul style="list-style-type: none"> Be aware of the mistakes and inaccuracies made during the class test Teaching aims: <ul style="list-style-type: none"> Checking the learnings 	Ss check the class test with the T, pinning up some information on their exercise book.	<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> <ul style="list-style-type: none"> Specific vocabulary and functional language <p>Communicative structures</p> <ul style="list-style-type: none"> Use of simple present and past Functional language: see U1_L1_ALL1B 	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"> U1_L10_ALL1.docx U1_L10_ALL1.pdf Blackboard	
L	S	R	W								