

## CLIL LEARNING UNIT – Lower Secondary School

<b>Title</b>	The Cell and its structure		<b>Class</b> First grade Lower Secondary School
<b>Subject(s) involved</b>	Science and English		<b>Number of lessons</b> 5 lessons (one hour each, except the second and third lesson which lasted 2 hours).
<b>Teaching aims</b>	<p>To successfully teach a CLIL-science in English to 11 year-old students about the cell and its structure.</p> <p>To make students aware of the cells and their components; differentiate animal and plant cells; learn about cellular nutrition and respiration.</p> <p>To make students aware of how cellular division occurs.</p>		
<b>Learning outcomes</b>	What learners will be able <b>to know</b> by the end of the unit	Learners will be able to know about – the microscopic function of living things – the differences between animal and plant cells – the different shapes and sizes.	
	What learners will be able <b>to do</b> by the end of the unit	Learners will be able to – describe the structure and the functions of the cells – explain the microscopic functions of living things – participate to class activities and share their ideas with other students.	
	What learners will be able <b>to be aware of</b> by the end of the unit	Learners will be able to be aware of – observe and find similarities and differences among different types of cells and wonder about what they are observing - modeling the cell and its structure through what they have learned.	
<b>Content</b>	CLIL theme with possible crosscurricular links	<p>From their body to the cell – prokaryotes and eukaryotes cell structure – function and structure of different organelles – differences between animal cell and plant cell emphasizing on the differences between autotroph and heterotroph organisms.</p> <p><b>Technology</b> drawing diagrams</p>	
<b>Communication</b>	Language <b>of</b> learning	<p>Vocabulary: introductory data, cells, cell membrane, cytoplasm, nucleus, cellular nutrition, cellular respiration, cellular division, different kinds of cells, different parts inside a cell, the core of the nucleus.</p> <p>Structures: complex sentence structures.</p> <p>Functions: describing cells.</p>	
		Language <b>for</b> learning	Structures: simple sentence structures.

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		Functions: Asking questions, summarizing, comparing Italian and English.
<b>Cognition</b>	Thinking skills development (LOTS and HOTS)	<b>LOTS:</b> identify the different cells, recognize the main features of an animal cell and those of a plant cell  <b>Hots:</b> classify cells, select the main information to describe and analyse cells, written production of the description of a cell.
<b>Culture</b>	Awareness of topic relevance to daily life	Recognize macroscopic and microscopic structures and functions in order to be aware of the importance of a healthy life style.
<b>Materials and resources</b>	Video taken from you tube – photocopies, power point and learning platform Edmodo. Photocopies taken by <i>The Usborne Complete Book of the Human Body</i> - Edited by Felicity Books.	
<b>Assessment</b>	Formative: on-going process each lesson students are asked some questions about the topics analysed in the previous lesson We also take into account the effort, the attention given and the team work skill.  Summative: team group production of cellular models and presentation to the class; written final test.	

### LESSON PLAN

#### Lesson 1

#### Title Introduction to Cell

#### Timing 1 h

<b>Activation of the unit</b>	Brainstorming: Students are asked what the cell is to understand what their pre-requisites are.	<b>Interactional Pattern*</b>	<b>Resources and Materials</b>
<b>Core activities</b>	Watching a video to make them understand their body and all living things are made up of cells. Students are asked to take notes and for homework they have to draw flashcards with the specific lexis they have learned.		<b>Video:</b> <b>The Cell – an intro for kids –</b>

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	<p>Students with DSA, that have difficulty in taking notes, will be given a differentiated worksheet with a summary of the most important contents of the whole unit.</p> <p>Formative assessment about completeness of content, images and use of language.</p>		<b>Sanger Academy</b>
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### LESSON PLAN

Lesson 2

Title **Cell Structure**

Timing 2 h

<b>Lead in of the lesson (warm up)</b>	Review through oral interaction of the previous lesson.	<b>Interactive Pattern*</b>	<b>Resources and Materials</b>
<b>Core activities</b>	<p>Watching a video about the structure of the cell and its organelles. Make students understand the difference between prokaryotic and eukaryotic cell and between animal and plant cell. Students are asked to take notes and for homework they have to draw flashcards with the specific lexis they have learned.</p> <p>Students with DSA, that have difficulty in taking notes, will be given a differentiated worksheet with a summary of the most important contents of the whole unit.</p> <p>Formative assessment about completeness of content, images and use of language.</p>		<b>Video: All about cell and cell structure: parts of the cell for kids - Freeschool. Flashcards.</b>

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### LESSON PLAN

Lesson 3

Title **Modelling the cell**

Timing 2 h

<b>Lead in of the lesson (warm up)</b>	Review through oral interaction of the previous lesson. Summary of the previous lessons through power point presentation (Attachment A).	<b>Interactional Pattern*</b>	<b>Resources and Materials</b>
<b>Core activities</b>	Students are divided in group work and discuss about which materials they are going to use to model an animal or plant cell. Students with DSA are supported by other pupils in a peer to peer approach. Group work homework: prepare a poster or a 3-D model of the cell. Formative assessment about completeness of content, images and use of language.		<b>Power point and photocopies</b>

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### LESSON PLAN

**Lesson 4**                      **Title Group work presentation**

**Timing 1 h**

<b>Lead in of the lesson (warm up)</b>	Students are going to watch the posters and the models that they are presenting in the lesson. (Attachment B)	<b>Interactional Pattern*</b>	<b>Resources and Materials</b>
<b>Output</b>	Summative assessment: presentation of group work posters and models they did for homework.		<b>Posters and cell models</b>

### LESSON PLAN

**Lesson 5**                      **Title Written Final Test**

**Timing 1 h**

<b>Lead in of the lesson (warm up)</b>		<b>Interactional Pattern*</b>	<b>Resources and Materials</b>
<b>Output</b>	Summative assessment: written final test (see attachment C).  Formative and summative evaluation grid (see attachment D).		<b>Posters and cell models</b>

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<b>Assessment</b>	<i>Summative assessment of the whole learning unit Types of written / oral tests</i>
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*\*Whole class: W, groupwork: G, pairwork: P, individual work: I*