



Author: Mariaviola Grigolli



Ecosystems, an introduction

School	<input checked="" type="radio"/> Primary	<input type="radio"/> Middle	<input type="radio"/> High		
Year / Class	<input type="radio"/> 1	<input type="radio"/> 2	<input type="radio"/> 3	<input checked="" type="radio"/> 4	<input type="radio"/> 5
Subject : Science	Topic: Ecosystems: an introduction				
CLIL language	English				
Teacher / Teaching team profile	Teacher's role:	<input checked="" type="radio"/> Main Teacher	Subject taught: _____		
		<input type="radio"/> Co-teacher			
		<input type="radio"/> Other: _____			
Student group profile (general)	CEFR Level:	<input checked="" type="radio"/> A1	<input type="radio"/> A2	<input type="radio"/> C1	
		<input type="radio"/> B1	<input type="radio"/> B2	<input type="radio"/> C2	
	<input type="radio"/> Experiences of CLIL	<input type="radio"/> Migrant background			
	<input type="radio"/> English mother tongue	<input type="radio"/> Special Educational Needs : not in the classroom.			
	<input type="radio"/> Other mother tongue	<input checked="" type="radio"/> Other: No CLIL experience, second year studying English. _____			
Timetable fit	<input type="radio"/> Module <input type="radio"/> Lesson	Previous lessons: some animals and their characteristics.			
		Future lessons: Food chains and food webs. Changes in an ecosystem.			
Resources & tools	Power point presentation (PPP, All1), grid (All2), pictures of plants and animals (All3), Grid “producer, consumers and decomposers” (All4), assesment table (All5), lapbook (All6).				
Students' prior knowledge, skills, competencies	Subject		Language		
	Knowledge: Photosynthesis, some animals' characteristics.		Vocabulary: animals, nature		
	Skills: classifying, using a grid, working in groups.		Skills: interacting orally to share ideas, answering simple questions.		
			Structures: “there is/there are”, to be, “Why/Because”.		
			“What do XXX eat? XXX eat...”.		
			Classroom language: Look, think, divide, answer, classify, in groups...		

Author: Mariaviola Grigolli

Learning Outcomes expected for this lesson	Classifying living and non living things using a grid. Classifying living things into producers, composers and decomposers. Understand the relationships between living and non living things and among living things in an ecosystem. Use language structures and vocabulary related to the topic. Improve ability to work in groups (respect turn, share ideas, communicate)
Methodology	Group working Scaffolding, co-building meaning. Hands-on activities. L1 allowed when needed.

Activity	Activity aims	Activity Procedure	Language	Interaction	Materials (please cite all sources)	Timing	Assessment
1	<p>Introduction Activating prior knowledge</p>	<p>T: introduces the topic and links it to previous knowledge. Brainstorming: C recall animals they have learned or know. T: invites to reflect and think about the animals' habitat.</p>	<p>T: <i>"Today we are going to discover what an ecosystem is. You have been working a lot on animals lately. Which animals do you know?"</i> T: <i>"Where do these animals live?"</i> ie. Lions, foxes... <i>"Do they live in a forest? In the desert? In the ocean?"</i></p>	<ul style="list-style-type: none"> ○ Whole class ○ Individual work 		5-10 min	<p>Monitoring students' participation and ability to respect turns. Checking students' capability to recall vocabulary. Checking students' capability to think about what they already know (animal characteristics) to build new knowledge (habitat).</p>
2	<p>Recalling information from observing and remembering a wood.</p> <p>Presenting information</p>	<p>T: shows PPP with pictures of a wood located in Trentino and ask C to spot what they can see or remember in a wood. C: First they work in groups using the given language structures. Then they present what they recalled, one sentence each child. T: focusing on what children said, briefly presents what an ecosystem is.</p>	<p>T: <i>"This picture shows a trentinian wood. What can you find in the woods? Look at the pictures and think about a wood you know. Name also other elements you know"</i> (trees, animals, benches...).</p> <p>C: <i>In the woods there are /there is...</i></p> <p>T: <i>"Ecosystems are made of animals, plants and rocks, water..."</i> (T recalls living and non living things that the children had previously mentioned) interacting in an environment.</p>	<ul style="list-style-type: none"> ○ Group work: recall information regarding what they already know. 	The teacher prepares a Power Point presentation: pictures of a trentinian wood	15+5 min	<p>Monitoring students' participation and ability to respect turns. Checking ability to use language structures and vocabulary.</p>

3	<p>Classifying living and non living things</p>	<p>T: Shows PPP and explains that scientists ask the following questions to decide if something is living or non living: PP page with the questions and pictures.</p> <p>T: hands out a grid with the questions to check and scaffold the process by supplying an example. Provides cards with animals, grass, rain, man-made objects cards to be divided in living and non living. C: negotiate and divide between living and non living things using the grid.</p>	<p>T : <i>“Scientists ask the following questions to decide what is a living thing and what is a non living thing:</i></p> <ol style="list-style-type: none"> 1. <i>Does it move?</i> 2. <i>Does it grow and change?</i> 3. <i>Does it breathe?</i> 4. <i>Does it need food and water?</i> 5. <i>Does it reproduce?</i> <p><i>Let’s think like a scientist and decide together if a tree is a living thing using this grid.</i></p> <p><i>Now work in group and decide if the things in these pictures are living or non living.”</i></p>	<ul style="list-style-type: none"> ○ Group work 	<p>Power Point presentation with the 5 questions and pictures to explain.</p> <p>Scientist’s grid (<i>Attachment2</i>).</p> <p>Pictures of living and non living things you can find in the woods (the teacher can choose according to her preferences).</p>	15 min	<p>Checking comprehension of the questions and learners ability to use the grid and the visual organizer (table).</p> <p>Monitoring group work: turns and participation.</p>
4	<p>Talking about our classification</p>	<p>T: provides language structures.</p> <p>C: explain what is and isn’t a living thing and stick pictures on the board. Give more examples.</p>	<p>C: <i>“Lions are living things, rocks are non living things...”</i></p> <p>T: <i>“Can you give me more examples of living and non living things?”</i></p>	<ul style="list-style-type: none"> ○ Group work: in groups they practice ○ Individual work: children say if something is a living things or not, one sentence each. 		10 min	<p>Observing practice time and public speaking (Are there any differences? Is practice time useful? Is it enough to build confidence?)</p> <p>Checking ability to use structures and vocabulary.</p>

5	Reasoning on interdependence	<p>T: asks questions to drive the reflection. Use the chart done by the students and class –level reflection to clarify that living things depend both on non living things and on each other to survive.</p>	<p>T: provides language framework (<i>because..., A rabbit eats...</i>)</p> <p>T: “<i>Can a wood flower survive in the desert? And in the Antarctic? Why?</i>”</p> <p>C: answer “<i>Because...</i>”.</p> <p>T summarizes: “<i>Non living things are important for the survival of living things. Living things also depend on each other to survive: what do we need to survive?</i>”</p> <p>C: “<i>Food, water, air, sun...</i>”</p> <p>T: “<i>What does a rabbit eat? And foxes? and fungi? And trees?</i>”</p> <p>C: answers “<i>A rabbit eats...</i>”.</p>	<ul style="list-style-type: none"> ○ Whole class: C reason as a whole class and listen to each other. 	Pictures from Activity 3	10 min	<p>Observing students’ ability to listen to each other.</p> <p>Observing if pupils can think about the reasons of something.</p>
---	------------------------------	---	--	--	--------------------------	--------	--

<p style="text-align: center;">6</p>	<p style="text-align: center;">Reasoning</p> <p style="text-align: center;">Building new knowledge from previous knowledge</p>	<p>T and C build the new knowledge together. T explains that living things are divided into <u>Producers</u>, <u>Consumers</u> and <u>Decomposers</u> and guides the thinking flow.</p>	<p>T: <i>“Living things are divided in three groups depending on how they get their energy to survive: PRODUCERS, COMPOSERS and DECOMPOSERS</i></p> <p><i>We said that a tree gets its energy from the sun through photosynthesis. Plants are called PRODUCER. Why?”</i></p> <p>C: try and answers.</p> <p>T summarizes: <i>“...because they produce their own energy. Does a rabbit produce its own energy? What does it eat? And a wolf?”</i></p> <p>C: answer</p> <p>T : <i>“So animals are....?”</i></p> <p>C: <i>“CONSUMERS”</i>.</p> <p>T: <i>“Why?”</i></p> <p>C: formulize hypothesis.</p> <p>T summarizes: <i>“...because they get their energy from plants and/or from other animals they eat. What does a fungus eat? Look at the pictures.”</i></p> <p>C: answer</p> <p>T summarizes: <i>“Fungus and bacteria eat organic material and destroy it, so they are called DECOMPOSERS. What they decompose gets back to the soil becomes food for plants.”</i></p>	<ul style="list-style-type: none"> ○ Whole class: brainstorming and reasoning as a whole class. 	<p>PPP with definitions and pictures of PRODUCERS, COMPOSERS and DECOMPOSERS</p>	<p>20 min</p>	<p>Monitoring understanding in order to provide support. Monitoring participation.</p> <p>Special need students are encouraged throughout the lesson and visually and verbally supported by the teacher particularly at this stage.</p>
---	--	---	--	--	--	---------------	---

7	Giving examples of types of living things	In groups children think about examples of the three groups. They can refer to the picture used before and also add new examples. T: provides simple language structures: "X and Y are..."	T: provides simple language structures: "X and Y are..."	<ul style="list-style-type: none"> ○ Group work: in groups children provides example of types of living things 	Grid "producer, consumers and decomposers" to fill in (<i>Attachment4</i>).	5-10 min	Monitoring group work. Monitoring subject understanding, checking children output.
8	Assessing what we have learnt	T: provides lapbook structures to complete: living/non living things; 3 types of living things. Children keep the lapbook for further reference on the topic.	T: " <i>An ecosystem is made of living and non living things. Please give examples and draw them</i> ". T: " <i>Producers, composers and decomposers are three types? Please draw them on the front side and write examples on the back.</i> "	<ul style="list-style-type: none"> ○ Individual work ○ Group work <p>S: work individually and then proceed to a peer review.</p>	Lapbook structures (<i>Attachment4 and 5</i>).	10-15 min	Monitoring individual work and peer review. Special needs students and students that need more time to feel comfortable about their learning are allowed to spend more time if needed. It is possible for them to only draw instead of writing if necessary.