

GEP 1

# SCIENCE IN GRADE 6 REPRODUCTION

ANNA CAÑETE & SARA TRILLO

VINYA DEL SASTRET SCHOOL

MARCH 2019





<b>GEP 1</b>	<b>Task 1 : Input &amp; Cooperative /Collaborative learning in CLIL</b>	
<b>Title of the lesson or topic</b>	Human reproduction	
<b>Course / year / age</b>	6th grade	
<b>Timing</b>	2 sessions, 1h 30 min each	
<b>Collaboration between</b>	Sara Trillo and Ana Cañete	
<b>Short description of the session/s</b>	Students will be learning about the human reproductive system. In these two lessons we will focus on primary and secondary sex characteristics, puberty and male and female reproductive cells.	
<b>S E S S I O N</b>	<b>Activity 1 (5')</b>	<b>Goal of the session</b> Using the WBT ( <a href="#">Whole Brain Teaching</a> ) methodology "Mirror" and "Teach-Okay", the teacher introduces the goal of the session integrating movement and speech: "Today, in the science class, we are going to learn about puberty". Once they teach the goal to their partner, they must write it down in their scientific journal.
	<b>Activity 2 (15')</b>	<b>Introduction to the unit</b> <i>Instructions:</i> The teacher introduces the new unit to the students, and in order to <i>explore previous knowledge</i> , proposes starting an interactive KWL chart using <a href="#">Padlet</a> . Students jot down what they know



1		<p>and what they want to learn.</p> <p><u>Questions:</u> What do you already know about reproduction? What would you like to learn during this unit?</p> <p><u>Input:</u> spoken</p> <p><u>Materials:</u> tablets, Google Classroom, Padlet</p>
	<b>Activity 3 (20')</b>	<p><b>Puberty dictogloss and discussion</b></p> <p><u>Instructions:</u> the teacher provides each team of 4 a set of pictures related to primary and secondary sex characteristics and puberty. The teacher will play an audio reading a text aloud on that topic and students will put the pictures in order. The audio will be repeated twice. Once students are done, the teacher will play a video solving the dictogloss for students to check their own work. After that, the teacher and students will have a whole class discussion on the topics introduced.</p> <p><u>Questions:</u> After listening to this audio, what do you think puberty is? Do you think puberty is the same for everybody? How? Do you know anybody that has already entered puberty? How do you think you will notice when you are entering puberty?</p> <p><u>Input:</u> spoken, visual.</p> <p><u>Materials:</u> <a href="#">text audio</a>, self correction video, <a href="#">image set</a>.</p>
	<b>Activity 4 (20')</b>	<p><b>Characteristics classification (Fishbowl for modelling)</b></p> <p><u>Instructions:</u> students have to classify a set of images that picture primary/secondary sex characteristics. The teacher will model the activity using the <i>Fish Bowl</i> with a pair of students, the modelling will focus on language for cooperation and work organization. Once the students know how to proceed, each pair will get a set of pictures and will have to classify them if they are 1st or 2nd sex characteristics.</p> <p><u>Questions:</u> are these characteristics the same for boys and girls? Has any of you experienced any of these things already?</p> <p><u>Input:</u> visual, written</p>



		<p><i>Materials:</i> <a href="#">image set</a>, <a href="#">classification mats</a>, <a href="#">substitution tables to support language production</a></p>
	<b>Activity 5 (20')</b>	<p><b>Venn diagram</b></p> <p><i>Instructions:</i> the teacher provides each group with a piece of paper with a Venn Diagram in it, as well as a set of sentences listing different secondary sex characteristics. Students will have to classify each characteristic either on the BOYS, GIRLS or BOTH area of the diagram and add one more characteristic on each area when done. Once finished, there will be a teacher-led class discussion on the topic.</p> <p><i>Questions:</i> why is _____ for boys/girls? What do you think that causes the appearance of these characteristics? Why do humans have to go through these changes?</p> <p><i>Input:</i> visual, written</p> <p><i>Materials:</i> <a href="#">sentence set</a>, <a href="#">venn diagram</a>, <a href="#">substitution tables to support language production</a></p>
	<b>Activity 6 (5')</b>	<p><b>Exit ticket</b></p> <p><i>Instructions:</i> the teacher provides each student with a sticky note and instructs them to write the three most important words from today's lesson.</p> <p><i>Questions:</i> which were the 3 most important words from today's lesson?</p> <p><i>Materials:</i> sticky notes, exit ticket area in the classroom</p> <p><i>Input:</i> Spoken</p>
S E	<b>Activity 7 (5')</b>	<p><b>Goal of the session</b></p> <p>Using the WBT (<a href="#">Whole Brain Teaching</a>) methodology techniques "Mirror" and "Teach-Okay", the teacher introduces the goal of the session integrating movement and speech: "Today, in the science class, we are going to learn about reproductive cells". Once they teach the goal to their partner, they must write it down in their scientific journal.</p>
	<b>Activity 8 (5')</b>	<p><b>Rally Robin</b></p> <p><i>Instructions:</i> As a warm up activity, students engage in the <b>Rally Robin</b> cooperative structure to work on</p>



S S I O N  2		<p>secondary characteristics of puberty. In groups of 4, students alternate to verbally list vocabulary they remember from last session.</p> <p><u>Questions:</u> Do you remember how to share with your partner using <i>Rally Robin</i>? Are you ready?</p> <p><u>Input:</u> Spoken</p>
	<b>Activity 9 (10')</b>	<p><b>Total physical response</b></p> <p><u>Instructions:</u> TPR, the teacher reads sentences regarding the secondary characteristics of puberty of both male and female. Girls stand up when they hear their puberty characteristics and so do boys.</p> <p><u>Questions:</u></p> <p><i>Who has an enlargement of the testes, penis, prostate gland, and seminal vesicles?</i></p> <p><i>Who ejaculates?</i></p> <p><i>Whose uterus starts to build a lining that will later be shed through the process of menstruation?</i></p> <p><i>Whose vagina begins to produce a vaginal lubrication?</i></p> <p><i>Who has the menstrual period?</i></p> <p><i>Who starts getting an intense body smell?</i></p> <p><u>Input:</u> spoken</p> <p><u>Material:</u> Sentences written in a piece of paper (for the teacher)</p>
	<b>Activity 10 (25')</b>	<p><b>Three column sort</b></p> <p><u>Instructions:</u> <i>Turn and talk</i>. The teachers show photos of eggs. Then, in pairs, they guess what that is. Later, the teachers give them photos of the parts of an egg, with the vocabulary and a description of each to do the <b>Three column sort</b>. After we correct the activity, we use the <i>Mirror</i> strategy to know the parts of an egg. We do exactly the same with the sperm.</p> <p><u>Questions:</u></p> <p><i>What do you think it is?</i></p> <p><i>How do you know it?</i></p>



	<p><i>What parts does it have?</i></p> <p><u>Input:</u> visual, written, spoken, hands-on</p> <p><u>Materials:</u> photos of eggs and sperm, vocabulary of the eggs and sperm parts and description of each part</p>
<b>Activity 11 (35')</b>	<p><b>Lab observation</b></p> <p><u>Instructions:</u> In this activity, students go to the lab to examine a sperm with a microscope in pairs. Then, they fill up a form with some questions related to the sperm. Then, they compare it to other sperms.</p> <p><u>Questions:</u></p> <p><i>What is a microscope?</i></p> <p><i>What can you see?</i></p> <p><i>Has the sperm got a big or a small head?</i></p> <p><u>Input:</u> visual, written, hands-on</p> <p><u>Material:</u> microscope, sperm samples, <a href="#">lab observation guide with questions regarding sperm samples</a></p>
<b>Activity 12 (5')</b>	<p><b>Exit ticket</b></p> <p><u>Instructions:</u> the teacher provides each student with a sticky note and instructs them to write a sentence stating the most important thing they learned in today's lesson.</p> <p><u>Questions:</u> What was the most important thing you learned in today's lesson?</p> <p><u>Materials:</u> sticky notes, exit ticket area in the classroom</p> <p><u>Input:</u> Spoken</p>
<b>In terms of academic content, what are the students learning and what are they</b>	<p>Pupils are learning the reproductive system in general terms. More specifically, they are working on puberty, primary and secondary characteristics of it, differences between boys and girls characteristics, and some concepts and features about eggs and sperm.</p>



Generalitat de Catalunya  
Departament d'Ensenyament

<b>learning to do?</b>	
<b>In terms of language, what are the students practicing or learning to do?</b>	In terms of language, students are working on present simple structures, verb to be, adjectives to describe puberty or other reproductive concepts.
<b>In what way is this lesson plan a good example of what we learnt in the GEP course session?</b>	This lesson plan is a good example of what we are learning in the GEP sessions because students are working both in content and language in the Science class. All the activities are presented with varied input to scaffold them and taking into account the different multiple intelligences. We also make use of collaborative and cooperative learning strategies during the different sessions and they are guided with different supports and modelling. Finally, there is a great variety of ICT tools in the different activities to help motivate them.
Other important information	During the two sessions, we make use of different learning strategies, including the Dr. Kagan's.
<b>ANNEXES (materials, handout, pictures... if not possible to include in the activity section.)</b>	See linked items in the <i>materials</i> section of each activity.



### Self assessment Checklist

Task 1 : Input & Cooperative /Collaborative learning in CLIL	YES/NO
1. Students are presented with <b>multimodal</b> and <b>varied</b> input (spoken, written, visual, hands-on...)	YES
2. The input presented is used to <b>help</b> learners <b>understand</b> ideas and <b>construct</b> meaning	YES
3. The input is presented at the right <b>cognitive level</b> and the right <b>language level</b> , i.e. it is neither too challenging in terms of content nor too difficult in terms of language.	YES
4. Students are <b>helped</b> in some way to <b>understand</b> , i.e. input is made comprehensible	YES
5. Students are <b>helped</b> in some way to <b>process</b> the input presented, i.e. activities or questions make students think and construct meaning.	YES
6. The input and activities presented cater to <b>multiple intelligences</b>	YES
7. Students are presented with <b>good questions</b> (explicit, implicit and referential) that help them process input and that challenge them not only to understand, but to think, create...	YES
8. A variety of <b>collaborative learning strategies</b> are used throughout the session.	YES



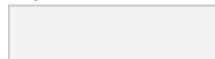


Generalitat de Catalunya  
**Departament d'Ensenyament**

9. At least one of the activities presented requires <b>cooperation</b> among students.	<b>YES</b>
10. Students are <b>explicitly taught</b> how to work in groups (or pairs).	<b>YES</b>
11. Students are <b>explicitly guided</b> to succeed in group/pair work <b>discussions</b> and <b>interactions</b> . Clear <b>support</b> to guide their interactions is provided.	<b>YES</b>
12. At least one <b>ICT tool</b> is used to promote <b>digital collaborative learning</b> .	<b>YES</b>

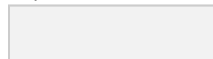


GEP 1	Task 2: Reading, writing and Assessment in CLIL
Title of the lesson or topic	Human reproduction
Author	Ana Cañete, Sara Trillo
Course / year / age	6th grade
Number of sessions	2 sessions, 1h and 30 min. each
Collaboration with...	Ana Cañete and Sara Trillo
Main objectives of the sessions	To talk about birth and medical advances and to assess the learning outcomes of the unit
Short description of the sessions	In these two sessions students will be learning what is birth and its phases, as well as some of the most common medical advances giving birth. Finally, there will be different activities for students to assess their own learning process.



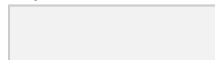


<i>The descriptions of the activities below should contain:</i>			
<ol style="list-style-type: none"><li>1. collaborative and cooperative activities instructions (including the timing and the language support)</li><li>2. type of support,</li><li>3. readings and writings planned,</li><li>4. assessment tools</li><li>5. materials used</li></ol>		Timing	
S E S S  I O N  I	<b>Activity 1</b>	<b>Goal of the session</b> Using the WBT ( <a href="#">Whole Brain Teaching</a> ) methodology “Mirror” and “Teach-Okay”, the teacher introduces the goal of the session integrating movement and speech: “Today, in the science class, we are going to learn about birth and medical advances”. Later, they teach the goal to their partner.	5'
	<b>Activity 2</b>	<b>Birth placemats</b> <u>Instructions:</u> The teacher introduce the activity telling the students to look at a picture (a woman giving birth) and answer different questions. The teacher gives each group a placemat with a different question in each one and the same picture to everyone. They have to look at the photo and answer the question in 2 minutes. Later, the students have to pass their placemat to the next group and answer another question related to the photo. At the end,	20'



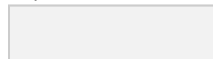


		<p>they will have answered 6 different questions. (in groups of 4)</p> <p><u>Questions:</u></p> <p>The questions that students will have to answer in the different placemats are:</p> <ul style="list-style-type: none"><li>- What is happening in this picture?</li><li>- What is the woman doing?</li><li>- How do you think the woman is feeling?</li><li>- How do you think the baby is feeling?</li><li>- Where was this photo taken?</li><li>- What happened before this photo was taken?</li></ul> <p><u>Materials:</u></p> <p><a href="#">A photo of a woman giving birth</a>, <a href="#">6 placemats with questions in each one</a></p> <p><u>Input:</u></p> <p>Visual, spoken</p>	
	<b>Activity 3</b>	<p><b>Phases of birth</b></p> <p><u>Instructions:</u></p> <p>After activating their knowledge on the previous activity, the teacher will distribute <a href="#">a set of sentences</a> and pictures illustrating the different phases of the birth process. The students will have to put in order the different phases in collaboration with their groups. Once done, the teacher will revise the task with the whole group and ask some guiding questions while doing so.</p> <p><u>Questions:</u></p> <p>The questions that students will have to answer in the different placemats are:</p> <ul style="list-style-type: none"><li>- Why do you think this phase goes first?</li><li>- What is the reproductive system doing in this phase?</li></ul>	<b>20'</b>



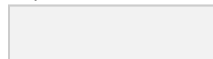


	<ul style="list-style-type: none"><li>- How do you think the woman is feeling here? And the baby?</li><li>- How do women know labor has started?</li></ul> <p><u>Materials:</u> <a href="#">A set of pictures</a> with sentences explaining the different phases of birth.</p> <p><u>Input:</u> Visual, spoken, written</p>	
Activity 4	<p><b>Timed pair share</b></p> <p><u>Instructions:</u> Using the “Timed pair share” structure, the teacher asks the class two guiding questions (see below) to activate their knowledge on medical advances related to reproduction.</p> <p><u>Questions:</u></p> <ul style="list-style-type: none"><li>- Why do some people need help to have babies?</li><li>- How does medicine help?</li></ul> <p><u>Materials:</u> <a href="#">Substitution tables</a> with key words</p> <p><u>Input:</u> Spoken, written</p>	10'
Activity 5	<p><b>Running reading</b></p> <p><u>Instructions:</u> Once the previous knowledge has been activated with activity 4, the teacher provides each group an article about assisted reproduction, that will be hung outside of the class. Groups will also have an answer sheet where they will have to record the information from the text. Students will distribute roles (writer, runner, helper). Once they finish answering the</p>	30'



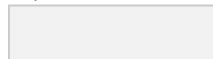


		<p>questions, they will use the information gathered to write a short, scaffolded text about assisted reproduction.</p> <p><u>Questions:</u></p> <ul style="list-style-type: none"><li>- Why do some people need help to have babies?</li><li>- How does medicine help?</li></ul> <p><u>Materials:</u></p> <p><a href="#">Reproduction article</a>, <a href="#">article task</a></p> <p><u>Input:</u></p> <p>Spoken, written</p>	
	Activity 6	<p><b>Exit ticket</b></p> <p><u>Instructions:</u></p> <p>The teacher provides each student with a sticky note and instructs them to write a question about what we have learned so far (in pairs)</p> <p><u>Questions:</u> Can you please write a questions about something that we learnt in this unit?</p> <p><u>Materials:</u></p> <p>Sticky notes, exit ticket area in the classroom</p> <p><u>Input:</u></p> <p>Spoken</p>	5'
S E	Activity 7	<p><b>Goal of the session</b></p> <p>Using the WBT (<a href="#">Whole Brain Teaching</a>) methodology “Mirror” and “Teach-Okay”, the teacher introduces the goal of the session integrating movement and speech: “Today, in the</p>	5'



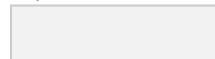


S S I O N 2		science class, we are going to review and assess the unit about human reproduction". Later, they teach the goal to their partner.	
	Activity 8	<p><b>Warm up</b></p> <p><u>Instructions:</u> Students sit down on the floor making a big circle. In the middle, there will be a box with the questions they wrote the past session in the "exit ticket" activity. Students make groups of 4. Randomly, they grab a question and quiz the other groups.</p> <p><u>Questions:</u> Can you please make a circle on the floor? Can you grab a question from the box? Can you read the question out loud?</p> <p><u>Materials:</u> Questions from the students A small box</p> <p><u>Input:</u> Written, spoken</p>	30'
	Activity 9	<p><b>All write round robin - Bridge* - WordArt</b></p> <p><u>Instructions:</u> Students will write as many words as they remember from the unit in a piece of paper. Later, we will do the <u>bridge</u> to translate them and see the similarities and differences</p>	20'





		<p>between catalan and English, cognates and false cognates. At the same time we will do a <u>wordart</u> with all the words and we will decide the shape of it to stick it in the classroom.</p> <p><u>Questions:</u> Can you write words you remember from the unit in English? Is it a cognate or a false cognate? why? What is the difference between (one word) and (the same in catalan)? What is the similarity between (one word) and (the same in catalan)?</p> <p><u>Materials:</u> Pieces of paper Poster with the bridge Computer-IWB-Word art <a href="#">Language frames</a></p> <p><u>Input:</u> Spoken, written, visual</p>	
	Activity 10	<p><b>KWL - assessment</b></p> <p><u>Instructions:</u> In a piece of paper, students have to complete the "L" from <u>Know, Want and LEARN</u> individually.</p> <p><u>Questions:</u></p>	25'

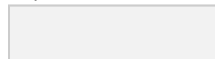






Generalitat de Catalunya  
**Departament d'Ensenyament**

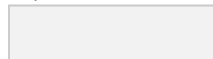
	<p>Can you write in a piece of paper what you remember from the unit about human reproduction?</p> <p><u>Materials:</u> Piece of paper Vocabulary bank (bridge from activity 8)</p> <p><u>Input:</u> Spoken, written</p>	
<p>In terms of academic content, what are the students learning and what are they learning to do?</p>	<p>Vocabulary of human reproduction (sperm, egg, fertilization, testicles, penis, semen, reproduction, etc) and birth (labor, contractions, push, hormones, dilating...)</p> <p>Basic function: reproduction</p> <p>Personal development</p> <p>Semantic relations between English and Catalan words (cognates and false cognates)</p> <p>Writing of a text explaining what they have learnt during the unit about human reproduction.</p>	
<p>In terms of language, what are the students practicing or</p>	<p>Writing of questions in present simple (what is the meaning of...)</p> <p>Read out loud, with intonation</p> <p>Class instructions</p>	





Generalitat de Catalunya  
**Departament d'Ensenyament**

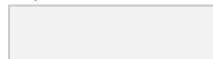
learning to do?	Text structures and connectors (Firstly, secondly, later, also, but...) Spelling Pronunciation of different words and sentences	
In what way is this lesson plan a good example of what we learnt in the GEP course session?	These two lessons are the last from the human reproduction unit. From session 1 to session 6 we have seen different activities learnt in the GEP course. In this case, we can see that activities such as <u>photo and placemat with questions</u> , <u>dictogloss</u> , or <u>running reading</u> to promote the learning of the unit contents while practising the reading and writing skills in the English language, the main goal in CLIL.	
Other important information	--	
ANNEXES (materials, handout, pictures... if not possible to include in the activity section.)	See links in the activities.	





### Self assessment checklist

Task 2 : Reading, writing in CLIL and Assessment	YES/NO
1. <b>Support</b> is provided to help students read and understand texts.	X
2. <b>Before-, during- and after-</b> reading activities are prepared.	X
3. The materials use <b>visuals</b> to support comprehension.	X
4. The writing process takes place in <b>joint collaboration</b> with the teacher (modelling)	X
5. <b>Support</b> is provided to help students write (the students are provided with language patterns, language frames, vocabulary banks···)	X
6. The teacher uses different strategies to help students <b>throughout the process</b> of reading and writing	X
7. The teacher has <b>previously predicted the language</b> the students will need when carrying out the different tasks successfully and, therefore, is aware of the <b>content-obligatory language</b> .	X





Generalitat de Catalunya  
**Departament d'Ensenyament**

8. At least the teacher uses 1 type of <b>assessment</b> (self-assessment, teacher assessment or co- assessment)	x
9. At least teacher used 1 type of <b>designed assessment tool</b> during the sessions (rubric, digital app, checklist, personal dossier...)	x

\* The Bridge is one of the plurilingual tools proposed by Beeman and Urow (2011) in their book "Teaching for biliteracy" to strengthen the connections between the students' languages.

