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Learning natural science in a foreign language through the use of three cooperative learning techniques. An innovative proposal

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Degree final project

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Abstract

Cooperative learning is becoming more important in education because it differs from traditional learning. Its aim is to work together to achieve a common goal, as well as resulting in an increase of students' autonomy, motivation, interaction and accountability. This paper collects the main features of this approach and it presents an innovative proposal based on three cooperative learning techniques to learn about natural science. The proposal is aimed at fifth graders and has digital tools as a key component.

Keywords: cooperative learning, foreign language, roles, natural science, digital tools

Resum

L'aprenentatge cooperatiu està guanyant cabuda en l'educació perquè es diferencia de l'educació tradicional. Té l'objectiu d'aconseguir un objectiu en comú, i a més augmenta l'autonomia de l'alumnat, la motivació, la interacció i la responsabilitat. Aquest article exposa les característiques d'aquesta metodologia i presenta una proposta d'innovació que es basa en tres tècniques d'aprenentatge cooperatiu per aprendre medi natural. La proposta està adreçada a alumnes de Cinquè i té les eines digitals com a element clau.

Paraules clau: aprenentatge cooperatiu, llengua estrangera, rols, medi natural, eines digitals

INTRODUCTION

Teaching and learning approaches have truly evolved for the better. Because of this evolution in education, there is no longer room for an individual and competitive work structure in which the teacher is the only one who speaks, students are passive receivers of knowledge, and activities simply involve recalling and copying information.

One clear example that differs from traditional education and has gained importance in classrooms is Cooperative learning. This learning structure does not pursue a replacement of a teacher-student interaction and individual work, but to add to those more student-student interaction and teamwork. Furthermore, in Cooperative learning students are active participants and autonomous learners that work together in small groups, and it is clearly led by mutual help and cooperation, while the teacher acts as a guide, counsellor and organizer of group work.

The activities foster constant interaction and communication and have a common objective which can only be fulfilled if they work together, fact that makes them feel motivated.

Particularly in cooperative language learning, by using techniques such as *1,2,4, talking chips* or *cooperative roles*, students have more opportunities to communicate and they adjust their words to their peer's level to make themselves understood.

This paper focuses on presenting an innovative proposal (based on previous research) to learn English by following a Cooperative learning structure. This is a six-session teaching unit, the centre of which are vertebrates and endangered animals, aimed at a fifth grade class-group from an underserved school in Girona. Digital tools are a main component, along with three cooperative learning techniques that lead the methodology.

1. LITERATURE REVIEW

1.1 Definition of Cooperative learning

Two definitions of Cooperative learning (CL) are given below, both from significant authors of this approach.

According to Kagan (1994) “Cooperative Learning is a teaching arrangement that refers to small, heterogeneous groups of students working together to achieve a common goal. Students work together to learn and are responsible for their teammates' learning as well as their own” (as cited in Kagan and High, 2002).

In Johnson and Johnson’s (1999) words:

> Cooperative learning is the foundation on which most active learning methods are built. Cooperation is working together to accomplish shared goals. When cooperating, individuals work to achieve outcomes that benefit themselves and all other group members. Cooperative learning exists when small groups of students work to enhance their own and their group mates’ learning. Student efforts are evaluated on a criteria-referenced basis in cooperative and individualistic learning, while in competitive learning students are evaluated on a norm-referenced basis (as cited in Johnson and Johnson, 2018, p.4).

1.2 Principles of Cooperative learning

Kagan and High (2002) define four basic principles of CL, which are known as PIES:

- Positive interdependence. It occurs when gains of individuals or teams are positively correlated. It places students on the same side, so a gain for one is associated with a gain for another and students cannot succeed alone.
- Individual accountability. It happens when all students in a group are held accountable for doing a share of the work and for mastery of the material to be learned. Students must perform on their own in front of at least one other.
- Equal or equitable participation. It is noticed when each member of the group is afforded equal shares of responsibility and input, and not just the more fluent and outgoing students take over.

- Simultaneous interaction. It takes place when class time is designed to allow many student interactions during the period, it is about students producing language.

Moreover, Jacobs and Kimura (2013) state those four principles and add four other elements (as cited in Jacobs and Renandya, 2019):

- Group autonomy. Students' first option when facing difficulties is to rely on their group mates and themselves, instead of immediately asking for the teachers' help.
- Heterogeneous grouping. Students form groups that reflect the diversity found among their classmates.
- Teaching of cooperative skills. To collaborate effectively, students need to know and use a great variety of cooperative skills. The class devotes time to the learning of these skills and to observe how they use them.
- Cooperation as a value. The feeling of positive interdependence extends beyond the small work group, to include the entire class and the whole school.

1.3 Structure

Regarding the structure of Cooperative work (CW), Pujolàs and Lago (2011) mention that pupils are distributed in heterogeneous teams of work, to help and encourage each other mutually when doing the learning activities. In this structure, in addition to the teacher-pupil interaction, there is a greater pupil-pupil interaction, in which individual work is done but also a team work.

Similarly, for Johnson and Johnson (2014) cooperating on a task results in more realistic and positive views of each other when the group members are grouped heterogeneously.

Aims are achieved if everyone achieves it, resulting in cooperation among the students when learning. The cooperative structure is also more inclusive, since when creating the heterogeneous work groups, it has to be by grouping a pupil that is more capable to help, a pupil that very much needs to receive help, with others students of the class-group like shown in Figure 1.

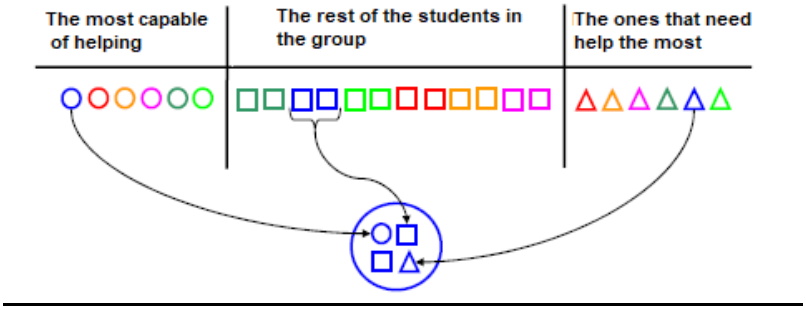

Figure 1. Creation of heterogeneous groups (based on Pujolàs and Lago (2011)

Concerning of the members of a cooperative team, Kagan (1998) holds that as team size increases, active participation is cut down, so, with this he claims teams of four to be “magic” because active participation is maximized and equalized. However, pairing students creates more active participation than square work. On the contrary, doing so does not provide enough diversity of points of view for many cooperative learning activities. Lastly, if the members of a team is an odd number, it is probable that a student does not interact with others and at a given point comes to be left out of an activity.

Hence, a CL structure “involves students in helping each other learn and helping each other enjoy and become more skilful in the learning process” (Jacobs and Renandya, 2019, p.7). Nevertheless, these also claim that just because students sit together, does not mean they will effectively work together. Furthermore, in CL groups students do not constantly interact with one another. They will also work alone, arising in alone time that, on the one hand, supports the CL element of individual accountability, on the other, helps students understand that the goal of CL lies not with groups as entities but with groups as means of promoting the individual growth of each member.

Finally, it should be stated that cooperate is not the same as collaborate. Cooperation adds to collaboration a solidarity extra, of mutual help and generosity that enables strong affective bonds among the ones that initially just collaborate to be more effective. Working so close together on a common aim can contribute to create an intense communion (Pujolàs, 2009).

1.4 Degree of cooperation

The cooperation degree shows the extent to which a team is cooperative and if it has the qualities to be called so. Pujolàs and Lago (2011) suggest analysing team work in a class-group to relate it to the possible benefits of CL. To do so, two levels of analysis have to be considered: a quantitative level (amount of time students work in teams) and a qualitative level (quality of the team work they carry out).

To calculate the cooperation degree, there are quality factors that increase or decrease the quality and the effectiveness of teamwork. These and their "against" factors (Table 1) will arise in a cooperative group to a level that will make the cooperation degree higher or lower.

Table 1. Quality factors and corresponding "against" factors (based on Pujolàs and Lago, 2011)

Factor	**"Against" factor**
Positive interdependence of objectives The members of the group understand and bear in mind the objectives the team has set out as a team: to learn and help one another to learn. They are not satisfied as a group until they make all the members progress in their learning, considering their possibilities.	A component does not make an effort so that the group works well but so that the group fails, by doing nothing and not allowing being helped.
Positive interdependence of roles The group has defined and distributed the different roles that are necessary to make the team work. In addition, the functions to develop have been specified to carry out properly for a certain role.	Despite someone is not following a role, a member implements a negative role that makes it even more difficult to the proper development of the group.
Positive interdependence of tasks Work is distributed so everyone has a responsibility in its fulfilment, and a task as relevant as possible according to their skills and capacities.	There is a component that, although the tasks have been distributed, makes his or her work consciously wrong, or does not to what he or she committed to.
Simultaneous interaction The components of the group interact, reason before doing an activity and agree on the best way to do it. They also help one another and encourage themselves if one does not feel capable to do something or feels depressed.	There is someone being marginalized or despised by the peers, or a member imposes his or her point of view.
Command of basic social abilities The members of a team increasingly command the basic social abilities as a whole, such as talking in turns, ask and offer help, encouraging or showing empathy.	A member of the group consciously and repeatedly shows an attitude and a behaviour that is opposed to these social abilities.
Self-assessment as a team The components of a group are able to reflect on their own working as a team, to identify what they do well to potentiate it, and what they do not do well enough in order to avoid it or making up for it.	Somebody refuses to do the assessment and does not contribute at all to the team improvement.

The authors consider more important ensuring the quality of team work rather than the amount of time (quantity) students work in teams. At any rate, working wrong in teams for a long time is less effective than working well for less time.

1.5 Benefits

1.5.1 General advantages

Johnson and Johnson (2014) confirm that working together to achieve a common goal produces higher achievement and greater productivity than working competitively or individualistically.

Moreover, cooperation results in more higher-level reasoning, more frequent generation of new ideas and solutions, and greater transfer of what is learned within one situation to another. This is likewise stated by Pujolàs and Lago (2011), since structuring activities in CL potentiates the learning of all contents, not only the ones referring to values like solidarity or mutual help, but also more specific contents of each domain in the Curriculum.

By being involved in cooperative efforts, personal ego-strength, self-confidence, independence, and autonomy are promoted (Johnson and Johnson, 2014). Similarly, Corchuelo, Blanco, López and Corrales (2016) agree, stating that CL techniques leave individualistic and competitive tendencies behind, increase motivation, autonomy and responsibility. Finally, as for Pujolàs and Lago (2011) the fact students' autonomy is potentiated enables a personalization of their learning.

1.5.2 Contribution to the acquisition of a foreign language

Kagan and High (2002) cite numerous advantages of using CL techniques in classrooms in which English is a foreign language. They highlight that, since students need to make themselves understood, there is a big motivation for speaking and listening to understand, and they adjust the way of speaking, as well as the language they use, to their peers' level because they are working together. By the same token, as students are distributed into groups of four and pairs, they have

more chances to talk in reduced groups. This allows them to support one another in the use of language, in addition to use a functional and real language.

Furthermore, in classrooms in which CL techniques are used regularly, students for whom English is a second language learn both English and academic content far more quickly and far more thoroughly than when traditional instructional strategies are used.

In the same line, Zhang (2010) agrees that CL provides more opportunities of communication, and holds that cooperative language learning (CLL) is related to a communicative language approach. This approach promotes productivity and achievement and it teaches how to use the knowledge in practice to express thoughts, instead of just grammar and vocabulary. The author states the following benefits of using CL in foreign language classrooms:

- Input and output chances are provided. CLL provides much more opportunities for learners to comprehensible input and output and the processes of negotiation. By interacting, students produce more accurate and appropriate language, providing input for other students. This makes CLL valuable in the oral practice and listening comprehension.

- An effective climate is created. CL offers a relaxed climate in the classroom, while it also increases student motivation. The participation in learning language, along with the learner's self-confidence and self-esteem can increase because of the pupils distribution in reduced groups. They can think and rehearse their answers, and receive feedback from group members. With this, their anxiety and fear of failing in front of the whole class will be reduced, and they will feel more comfortable to participate.

- A variety of language functions are increased. CLL allows learners more chances to produce language in a functional manner. The discourse arisen is a real-life setting that exchanges conversation during group work, develops social abilities and

fosters learner discourse control, as it involves requesting, clarifying, making suggestions, encouraging, disagreeing, negotiating of meaning.

- Learner responsibility and independence are fostered. CL emphasizes individual accountability by making each student a stronger individual through doing work cooperatively. They equally take responsibilities of their actions and progress, increasing their autonomy and self-control.

1.6 Catalan Primary Education Curriculum

To reinforce the statements that were mentioned above, according to the Catalan Primary Education Curriculum (2015) doing a cooperative work in small groups makes the development of attitudes and skills related to expressing and listening possible, along with consensus, self assessment and peer assessment. In addition to recommending the use of digital resources in oral presentations, the same document mentions that the inclusion of the digital technology facilitates the communicative approach of English, since it enables and supports oral comprehension, oral expression and oral interaction when communicating.

Likewise, as well as guaranteeing the attainment of the competences of the students and bringing the ongoing world closer to the classroom, Learning and Knowledge Technologies (LKT) become a notable instrument for the teaching and learning of natural science. However, strategies to locate information and data treatment have to be worked in a classroom. Thus, adding to these a work on abilities of analysis and communication of information, addressed to the resolution of questions and issues of the daily life, they will all contribute to the obtainment of a critical and responsible use of LKT.

2. INNOVATIVE PROPOSAL

2.1 Objective

After doing comprehensible research, an educational intervention to learn about natural science in English has been designed. The aforementioned is, on the one hand, aimed at a specific group of learners whose first language is not English, on the other, led by cooperative learning techniques and digital tools.

Hence, this innovative proposal has been designed bearing in mind the contributions in the literature review section, as well as the students' needs and characteristics, for the purpose of attaining an acquisition of natural science content through the use of a foreign language and three cooperative learning techniques.

2.2 Contextualisation and participants

This proposal is aimed at a fifth graders group of 24 students from an underserved school in Girona. Catalan is not the mother tongue of most of these, as a matter of fact, there are just four Catalan speakers, and several students have attended the newcomers classroom during the year course.

The class-group is made up of seven girls and seventeen boys. There are two newcomers, one boy with learning retardation, one boy with language disease and two Autistic Spectrum Disorder (ASD) students. The latters are very good at computers and programming, but, generally, the group is not used to working with computers.

It should be noted that a lack of cohesion characterizes the group, so the development of a teaching unit in cooperative groups is ideal to foster not only the cohesion, but also their autonomy, along with situations to communicate and make agreements, as well as using other abilities to find solutions to a given challenge.

On the contrary, these students are highly motivated to learn and find new discoveries. They also enjoy giving speeches in which they recommend books,

hence, the oral presentations are a good working tool for them too. Nevertheless, all the work done with them has to be guided and very well-structured.

2.3 Design and development

2.3.1 Methodology

The use of digital tools to independently search information, and the creation of a PowerPoint presentation to support an oral presentation on vertebrates and endangered animals lead the methodology, along with CL techniques, which, as it has been stated in previous sections, are the centre of the methodology. The following table (Table 2) describes the three CL techniques used through the teaching unit:

Table 2. CL techniques used through the process (based on Pujolàs and Lago, 2011, and Kagan 2003)

<table>
<tr><td colspan="2">1,2,4</td></tr>
<tr><td colspan="2">To solve a task that is suggested to a group of 4, its solving is split into 3 rounds. First, it is individually (1) solved, then it is shared and discussed with a partner (2), forming a couple. Finally, the two couples join (4) and the whole group shares their answers and comes to a final solution made with all their contributions.</td></tr>
<tr><td colspan="2">Talking chips</td></tr>
<tr><td colspan="2">Each student has one “talking chip”, which, in this case, is made of a slip of paper of 4 different colors. In small groups, students are given a topic to talk about, and in order to get a chance to speak, a member of the group has to place his or her chip in the center of the team table. With that, it is his or her turn to speak and the others cannot interrupt. Once this student is done, is somebody else’s turn to do the same in order to speak. Students cannot speak again until each member of the group has participated and placed the chip in the center. A new round can start when they have collected the chips.</td></tr>
<tr><td colspan="2">Cooperative roles</td></tr>
<tr><td>Leader</td><td>Speaker</td></tr>
<tr><td>-Coordinates and organizes the tasks. Explains how they need to be done.
- Tries to keep order among group.</td><td>-Speaks in the name of the team.
-Takes the role of a missing peer.
- Helps the ones that need it .</td></tr>
</table>

- Reminds each peer his or her role if they are not following it. - Moderates the speaking turns. - Makes sure the group follows the topic of work - Fosters the members' participation. - Helps the ones that need it.	-Asks for doubts. -Explains (summarizes) the work done.
Supervisor	**Secretary/writer**
- Takes care of the material that is being used. - Controls the timing. -Writes down a list of all the material needed and makes sure nothing is missing. -Organizes the tidiness of the work area, worksheets and folders. -Watches over each classmate has its work area tidied. -Ensures the voice volume asked by the teacher is kept. - Helps the ones that need it. -Cheers the others up.	-Listens to the members' ideas before writing. -Writes down the decisions made among the group. -Fills in the worksheets or questionnaires of the group. - Helps the ones that need it -Makes sure everyone writes down what they need.

For a description in detail of the methodology please see *Methodological guidelines* in Annex 1.

2.3.2 Sessions

The proposal is divided into six sessions of a length of sixty and ninety minutes. Among those, exploration, development and synthesis activities are included. It is led by a prior knowledge activity on the vertebrates and endangered animals, and concluded with peer assessment and a closure debate.

By working in cooperative groups, each one will have a focus: mammals, reptiles, fish, amphibians, birds and endangered animals. After doing independent search of information, the groups will gather their findings in a PowerPoint Presentation to give an oral presentation. As shown in Table 3, the didactic sequence is summarised:

Table 3. Summary of the didactic sequence

SESSION		MATERIAL AND RESOURCES	SOCIAL ORG.	TIMING
1	Prior knowledge	-ICT room and projector -Prior knowledge worksheet	WG	60 min
2	Independent search of information.	-ICT room and projector -Vocabulary classroom reference -Vertebrates oral presentation guide -Endangered animals oral presentation guide	WG CWG	90 min
3	Creation of the slides	-ICT room and PowerPoint -List of linking words and connectors	CWG	60 min
4	Oral presentations	-ICT room, projector and PowerPoint -Vertebrates grid for listeners -Vertebrates oral presentation self assessment	WG CWG	90 min
5	Oral presentations	-ICT room, projector and PowerPoint -Vertebrates grid for listeners -Vertebrates oral presentation self assessment	WG CWG	60 min
6	Oral presentation. Peer assessment. Closure of the teaching unit.	-ICT room, projector and PowerPoint -Endangered animals grid for listeners -Endangered animals oral presentation self assessment -Peer assessment on vertebrates PowerPoint -Peer assessment on the endangered animals PowerPoint -Cooperative learning assessment	WG CWG	90 min

WG= whole group CWG= Cooperative work groups

The development of the sessions is detailed in Annex 2.

2.4 Materials

As for the digital resources needed to carry out the sessions, these are an ICT room in which computers have Internet access, PowerPoint and a word processor, along with a projector. Students will also be able to use dictionaries.

Regarding the materials that students will be provided with, all are personal compilation designed in order to include everything needed by them and to ensure the steps to help students develop the activities are well-structured and proper scaffolded. These are summarized and categorized by topic in the following table (Table 4):

Table 4. Materials that students will be provided with

Prior knowledge worksheet (annex 3)	
Classroom references	
Vocabulary classroom reference (annex 4)	List of linking words and connectors (annex 7)
Outlines	
Vertebrates oral presentation guide (annex 5)	Endangered animals oral presentation guide (annex 6)
While listening to the oral presentations	
Vertebrates grid for listeners (annex 8)	Endangered animals grid for listeners (annex 10)
Assessment	
Self assessment	**Peer assessment**
Vertebrates oral presentation self assessment (annex 9)	Peer assessment on vertebrates PowerPoint (annex 12)
Endangered animals oral presentation self assessment (annex 11)	Peer assessment on the endangered animals PowerPoint (annex 13)
Cooperative learning assessment (annex 14)	

2.5 Assessment

More than one form of assessment is included for the purpose of covering different items in the assessing process, not only a final product that becomes a score. For this very reason, there is an assessment on students' previous knowledge, their interventions during the teaching unit and their whole process. In addition to the assessment done by the teacher (hetero-assessment) on the digital competence and the final product, there is also room for peer-assessment and self assessment. To asses that fairly, students will have an outline with everything that the presentations must contain. Finally, students will be asked to assess their cooperative groups.

Aside from students' interaction and participation together with the grids and the rubrics they fill in, the hetero-assessment grids are found in Annexes 15 and 16. Likewise, the *Assessment criteria and* the *Assessment guidelines* sections are detailed in Annex 1. Lastly, in terms of diversity and additional supports, the sections of *Inclusion and attention to diversity* and *Additional measures and supports* are developed in Annex 1.

3. DISCUSSION

This section has the purpose of justifying the innovative proposal with the literature review on which it is based. Thereby, a connection is done between both to validate the main components and choices according to it. Together with this link, the specific objectives of the teaching unit (Table 5) are referred to after a topic is addressed.

Table 5. Objectives of the innovative teaching unit

Objectives of *Animalia*
1. To critically select information by having a responsible and effective use of digital tools.
2.To create a slide presentation.
3.To work cooperatively respecting the roles and the peers.
4.To perform on an oral presentation in English using basic linkers and key vocabulary about animals
5.To name the five groups of vertebrates.
6.To classify mammals, birds, amphibians, fish and reptiles by physical features.
7.To differentiate the ways of nutrition, movement, reproduction and breathing of vertebrates.
8.To understand an oral presentation in order to gather some information.
9.To know the main reasons why some animals are endangered.
10.To reflect on what can change to reduce endangerment.
11.To reflect on involvement and the work done individually and as a team.
12.To assess oneself and the peers.

To start with, an increase of autonomy is a result of CL, since all the authors looked up agree on saying so. Moreover, the students' will to discover things and gain knowledge fits with autonomous gains that CL makes possible, but this autonomy will not arise just because. The leading activities suggested in the proposal are ideal opportunities for them to gain autonomy and have the chance to lead their learning process, since it is pupils doing the research, pupils selecting information and gathering into slides presentation, pupils choosing the content to be shared in their oral presentations. Despite this, in order to develop a very well-organized work, it

has to come with plenty of scaffolding that they will receive not just with the materials but also with the accompaniment of the teacher.
Objectives of the teaching unit related to this topic: 1-12

In terms of the Positive interdependence principle (Kagan and High, 2002), it states that gains of individuals or teams are positively correlated, meaning that a gain for one is associated with a gain for another. This, along with "Students are responsible for their teammates' learning as well as their own", is used for the purpose of addressing the lack of cohesion issue that exists among this group. Furthermore, as claimed by Pujolàs (2009), CL enables strong affective bonds by working so close together on a common aim. Hopefully, the values of needing each other to success and appreciating the work of others are adopted by students, and even intense communions are created.
Objectives of the teaching unit related to this subject: 3,11

With reference to the organization of pupils, in order to develop the main activities in the proposal, the class-group (recalling it is composed of 24 students) is divided into six groups of four students, one for each focus of the teaching unit: mammals, reptiles, fish, amphibians, birds and endangered animals. This way, each member of each team can take a cooperative role: leader, speaker, supervisor or secretary. Four is the ideal number for CL teams, as claimed by Kagan (1998), not only because it maximizes and equalizes active participation, but also because *1,2,4* technique can be done, given that it involves students interacting in pairs (first they do it individually, then students pair up, having two pairs in a group, and finally the two pairs share their answers together). In the same way, *talking chips* can best be done by following a square work.
Objectives of the teaching unit related to this subject: 1-4,11,12

Besides this organization, there are activities in which the class-group is differently arranged, for instance, in the starting session about their previous knowledge, and the final one when doing a closure debate and sharing their thoughts. Jacobs and Renandya (2019) state that in CL groups students also work alone and this supports

the individual accountability principle, in addition to helping them understand that as a group they promote the individual growth of each member too.

This distribution of pupils will allow the creation of heterogeneous groups, which is the next subject to be addressed. Heterogeneity is a key component of CL, since it will result in more realistic and positive views of each other among the group members (Johnson and Johnson, 2014) and it will allow mutual help when doing the tasks (Pujolàs and Lago, 2011).

Doing the heterogeneous teams paying attention to its principles so as to have a team that works, avoiding grouping students that need help the most, or creating a group that consists of four students that do not need much help.
Objectives of the teaching unit related to this topic: 1-12

Heterogeneous groups, in turn, foster inclusion. CL allows a more personalized learning (Pujolàs, 2009), fact that has to be taken into account as there are six special needs students among the group. It has to be ensured all students are included in the activities and their personal ego-strength and self-confidence is fostered. This is reflected in the equal participation principle, in which each member of the group is afforded equal shares of responsibility and input, and not just the more fluent and outstanding students.

In the same way, when assigning the cooperative roles, a special care about the opportunity of promoting self-confidence and ability to help peers has to be born in mind. Giving students roles that they will be not able to do has to be avoided because it will, consequently, make them feel unhappy or frustrated, leading to them not wanting to cooperate.
Objectives of the teaching unit related to this subject: 3,11

Moving on to the communicative approach of English, it is related to CL (Zhang, 2010) for the reason that it teaches how to use the knowledge in practice to express thoughts, instead of an approach based on just learning the language by repetition and useless grammar lessons.

With the proposal, students are provided with plenty of situations to communicate, make agreements and use other abilities to find solutions to a given challenge, not just together as a class-group, but also in reduced-teams, pairs or CL teams. All of this in a relaxed climate of confidence in order to foster their will to speak without caring about making mistakes. Students have to speak to communicate, so, they indirectly adjust their speech and choose the words to accurately and appropriately speak in order to make it easier for the others to understand. Likewise, they find strategies to understand what they are listening to.

The functional language they will acquire can later be used, with verbs and vocabulary related to animals. This will be acquired, for instance, by doing research, organizing the content they want to share and when listening to the presentations. It will result in comprehensible language that will make students find ways to understand what the others are saying, being an input chance. The content they share in the oral presentations (their final products, their outputs) and the slides will be input for the peers, because each team will listen to a presentation, fill in a grid with some information about it and finally assess the slides presentation once it is finished. This will all be an output for others to know about the topic of each group.
Objectives of the teaching unit related to this subject: *4-10, 12*

About CL potentiating the learning of all contents and not only the ones referring to the values stated earlier, this benefit contributed to the choice of being natural science the leading subject of the proposal, combined with digital tools and oral presentations as an optimal tool to attain a communicative approach of English. The incentive of including digital tools was to make students use strategies to find information on the Internet, as well as criteria in selection and valuation of information.

Discovering new facts about animals from the use of computers will lead to a critical and responsible use of LKT, realizing digital tools are a source of learning too and a way of producing new knowledge: their slides presentations full of natural science content.

Objectives of the teaching unit related to this subject: *1,2,4,5-9*

Regarding the assessment, the proposal includes hetero-assessment, self-assessment, peer-assessment and students assessing the cooperative team. On the one hand, as stated in the Curriculum (2015), doing a CW in small groups makes self assessment and peer assessment possible, along with consensus to make decisions. On the other hand, as for Pujolàs and Lago (2011), being able to reflect on the work done as a team and identify strengths and weaknesses is also part of CL, which involves learning to self-assess themselves too.
Objectives of the teaching unit related to this topic: 11, 12

Lastly, despite the aim is not to calculate the exact percentage of cooperation among the teams, the cooperation degree factors suggested by Pujolàs and Lago (2011) are a reference to bear in mind because those will determine the other topics mentioned above.

However, taking into account the levels of analysis suggested by the authors, referring to the amount of time students work in teams and the quality of the team work they carry out, would contribute to the success or failure, to the extent possible, of the cooperative teams.

In conclusion, the existence of “against” factors can be a drawback, for this reason the cooperative teams will be carefully created by pursuing organizations that foster positive interdependence of objectives, roles and tasks, the simultaneous interaction, the command of basic social abilities and the self-assessment as a team factors. With this, it will not ensure the “against” factors do not arise, but it surely will help to avoid them from the beginning, and it will also be easier to guide them and make the necessary changes if problems are perceived among the teams.
Objectives of the teaching unit related to this topic: 3,11

4. CONCLUSION

The purpose of this paper has been to present an innovative proposal for a specific group of students that is not only lead by CL but also focuses on natural science. In order to pursue that aim and develop the teaching unit, a comprehensible research was made and the findings of the literature review were all born in mind. Along with those contributions, the Curriculum recommendations were taken into account when choosing the activities and methodologies, since it is the ordinance of Primary education. Hence, the decision of having oral presentations as a final product to attain a communicative approach of English, in addition to digital tools as a key component.

The proposal wanted to offer students the most suitable methodologies, activities and materials according to their needs, interests and features. Therefore, the appropriate CL techniques have been selected and the guides for the students have been designed to, not only fulfil the objectives of CL and the teaching unit, but also to foster the principles and allow the benefits of CL. In this case, cooperative roles were determined to be ideal to lead the main development of the sessions, along with *1,2,4* and *talking chips* because cooperation values are much needed among the group. Selecting activities that made inclusion of all students possible and not just the outstanding ones was important too.

These choices are expected to contribute to students producing language that is not the school target language. With the oral presentations as final products, students themselves produce output. This, in turn, is also the input to their peers which will allow them to learn from what the other teams have selected and researched about. In other words, it is a shared accountability. They will also critically and constructively assess their productions, involving reflecting skills and active listening.

When it comes to the acquisition of a foreign language, mastering the English language is not what matters but using it and finding their way to communicate and understand one another.

Doing a teaching unit with these features with these specific fifth graders can be beneficial to learn about vertebrates and endangered animals in depth, through a foreign language which in this instance is English, and by organizing students into cooperative groups to achieve a common goal. The CL techniques described in this paper are just three, but there is a wide range to use in class. It is on the teachers to choose the suitable ones according to their specific aims.

This being said, *Animalia* can be considered an interdisciplinary teaching unit that allows to work on different domains, involves all language skills, fosters inclusion and in which CL perfectly fits.

Before moving on to the proposals for improvement, two quotations end this section. On the one hand:
"Working cooperatively with peers, and valuing cooperation, results in greater psychological health and higher self esteem than does competing with peers or working independently" (Johnson and Johnson, 2014, p.843).

On the other:
At school, it is good that students collaborate when doing a task by doing something all together, or between some students by creating reduced teams. However, teachers have to also aim for students cooperating, encouraging each other and helping one another when needed in order to achieve the common goal: to learn together to everyone's fullest possibilities (Pujolàs, 2009).

4.1 Proposals for improvement

To start with, despite it is not the focus approach of the programming structure, the fact that natural science is learned through English belongs to a Content and Language Integrated Learning (CLIL) approach. Nonetheless, I did not plan it according to its principles but this had to be mentioned.

Notwithstanding that the proposal has carefully been planned, it has other limitations. Like in any teaching unit, elements such as timing and materials are never definite

and involve continuous changes, flexibility and improvisation. Thus, perhaps the sessions need to be extended, students need more time to finish the research or the slides, the closure debate takes longer than expected or the oral presentations are briefer.

In terms of increasing flexibility of timing, an additional session may be necessary to do brief tutorials on how to create a slides presentation. Likewise, perhaps the activities in which a task is solved by 1,2,4 takes longer than the initially set time, resulting in needing more time to do the other presentations, resulting in another extra session.

Organising students in CW and each pupil having a role can be a drawback if in one session a student is missing. This will result in the speaker taking that task and requesting more work to the other members.

To conclude, students are not expected to speak English the whole time, since it would not be coherent to ask them to exclusively do so. All pupils will be encouraged to speak in English but probably some tend to use the mother tongue. The use of L1 (the speaker's first language) is not forbidden at all, but it is the teacher's duty to encourage students and make them feel comfortable to try and ensure they will not be punished or made fun of if they make mistakes when speaking. After all, what matters is that they naturally produce language, real life language that can be used in real context situations. The aim is also that they interact and find ways to understand themselves. Moreover, some students are better at English, so this would be made the most of by asking them to translate or help the others by giving clues, rather than just the teacher translating into L1.

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ANNEXES

Annex 1. Teaching unit

<table>
<tr><td colspan="2">TEACHING UNIT</td><td colspan="4">Animalia</td></tr>
<tr><td colspan="2">Subject</td><td>School year</td><td>Class-group</td><td>Length</td><td>Term</td></tr>
<tr><td>Language domain:

First Foreign Language Subject</td><td>Related:

-Environmental domain

Natural science subject

-Digital domain</td><td>2019/2020</td><td>Fifth grade</td><td>6 – 7 sessions</td><td>Second</td></tr>
<tr><td colspan="6">JUSTIFICATION</td></tr>
<tr><td colspan="6">The previous units done with this group in English were about professions and sports, and past simple and present continuous. About the preceding English projects, those were Women in history and Let’s make a submarine.

Besides the fact I once realized when I was playing a game with some students that they were not sure about the animal classification, Another reason for doing this teaching unit is the benefits of the cooperative roles. Moreover, some students are not familiar to the use of ICT at all.</td></tr>
<tr><td rowspan="2">OBJECTIVES</td><td colspan="3">COMPETENCES</td><td colspan="2">ASSESSMENT</td></tr>
<tr><td>SPECIFIC CORE COMPETENCIES</td><td>CORE COMPETENCIES</td><td>KEY CONTENTS</td><td colspan="2">ASSESSMENT CRITERIA</td></tr>
<tr><td>-To critically select information by having a responsible and effective</td><td>First Foreign Language

<u>Oral</u></td><td>1.Communicative competency: linguistic and audio-visual

3.Knowledge of and interaction</td><td>-Silent reading

-Research strategies</td><td colspan="2">-Do brief oral expositions in group and in English related to the different knowledge</td></tr>
</table>

use of digital tools. -To create a slide presentation. -To work cooperatively respecting the roles and the peers. -To perform on an oral presentation in English using basic linkers and key vocabulary about animals -To name the five groups of vertebrates. -To classify mammals, birds, amphibians, fish and reptiles by physical features. -To differentiate the ways of nutrition, movement, reproduction and breathing of vertebrates. -To understand an oral presentation in order to gather some information. -To know the main reasons why some	<u>communication</u> C1. Obtain basic information and understand simple or graded oral texts related to everyday life, the media or school. C2 Plan and produce short and simple oral texts appropriate for the social communication. C3. Use oral interactions strategies to start, keep and finish discourse <u>Reading comprehension</u> C4. Apply strategies to obtain basic information and understand simple or graded written texts related to everyday life, the	with the natural world competency 4.Artistic and cultural competency 5. Digital competency 6. Social and civic competency 7.Learning to learn competency 8.Autonomy, personal initiative and entrepreneurship competency	-Use of digital resources -Strategies and resources for the expression -Specific strategies for the production and revision of texts written in a foreign language -Resources for the production and revision in digital medium. -Biodiversity and sustainability -Living things: classification, functions and adaptation to the environment. -Multimedia presentations -Word processor -Browsers -Digital Information sources -Criteria in selection and valuation of information -Information organization -Appreciation of the need of knowing other languages to be able to communicate with other people, find information and know	subjects. -Communicate and interact in English. -Participate and engage in a group project. -Make a responsible and effective use of digital tools. -Critically select and organize information searched. -Name the animal groups. -Classify animals according to their features. -Relate the structure of a living thing with the functions that is does. -Compare the nutrition, movement, reproduction and breathing of vertebrates. -Use active listening to gather information about an oral presentation. -Reflect on endangered animals.

animals are endangered. -To reflect on what can change to reduce endangerment. -To reflect on involvement and the work done individually and as a team. -To assess oneself and the peers.	media or school. C6. Use search engine tools to access and understand texts. <u>Written expression</u> C 8. Produce simple texts through the identification of key elements in the communicative situation with some scaffolding. <u>Pluricultural and multicultural</u> C12.Use plurilingual strategies to communicate **Natural science**		about other cultures.	-Respect the cooperative work groups. -Value the peers' productions and effort. -Assess the peers and oneself.

	Current world C4. Analise landscapes and ecosystems bearing in mind social and natural factors that form them, to value the actions that affect them. **Digital** Tools and applications C2. Use the basic functions of text editing applications, numerical data treatment, and multimedia presentations. Information			

	treatment and organization of work and learning environments C4. Search, contrast and select information in addition to consider diverse sources and digital environments.			

CONTENTS
Oral communication -Understanding of work instructions and intervention in the classroom. -Global and specific understanding of diverse typology in different mediums and formats, and information extraction to develop a specific task as a reinforcement/extension of the knowledge. -Production of social exchange messages in the classroom related to thematic content: questions, answers, work instructions... - Use of the own structures of the foreign language in the oral productions.

-Oral individually or in groups exposition of contents worked and using visual and digital format.

Reading comprehension

-Understanding of information related to content from different curricular subjects given in different formats.

-Use of dictionaries in paper and digital format for the understanding of words and expressions.

- Use of digital tools for the guided research of information in the development of specific tasks.

Written expression

-Use of the own structures of the foreign language in the written productions.

-Use of safe digital communication systems that are appropriate for the age to establish communication channels in the foreign language and for the presentation, edition and publication of texts.

Knowledge of the language function and its learning

-Basic linking words: and, but, then, because

-Verb forms suitable for the text type.

Multilingualism and multiculturalism

- Non discriminatory language use

- Linguistic prejudices

<u>The world of the living things</u>

-Relation between vital functions and the structure of some animals, plants and fungi.

-Keys and guides for the classification of organisms.

-Observation and description of some living things and their interaction with the environment.

ACTIVITY DESCRIPTION			RELATION TO THE OBJECTIVE	MATERIAL AND RESOURCES	SOCIAL ORG.	TIMING
EXPLORATION	1	Prior knowledge	To know students' prior knowledge through oral and written questions.	-ICT room -Projector -Prior knowledge worksheet (annex 3)	Whole group	1 hour
DEVELOPMENT	2	Independent search of information	-To research on a topic by following cooperative roles. -To critically analyze information sources. -To responsibly use digital	-ICT room -Projector -Vocabulary classroom reference (annex 4) -Vertebrates oral presentation guide (annex 5) -Endangered animals oral presentation guide (annex 6)	Whole group Cooperative work groups	1 hour and a half

			tools. -To learn new facts about animals.			
	3	Creation of the slides	-To synthesize and communicate the information found in an organised way. -To create PowerPoint slides checking the classroom references and following the cooperative roles. -To responsibly use digital tools.	-ICT room -PowerPoint -List of linking words and connectors (annex 7)	Cooperative work groups	1 hour
SYNTHESIS	4	Oral presentations	-To give an oral presentation in small groups. -To learn new facts about animals by listening actively to an oral presentation. -To assess a performance.	-ICT room -Projector -PowerPoint -Vertebrates grid for listeners (annex 8) -Vertebrates oral presentation self assessment (annex 9)	Whole group Cooperative work groups	1 hour and a half

	5	Oral presentations	-To give an oral presentation in small groups. -To learn new facts about animals by listening actively to an oral presentation. -To assess a performance.	-ICT room -Projector -PowerPoint -Vertebrates grid for listeners (annex 8) -Vertebrates oral presentation self assessment (annex 9)	Whole group Cooperative work groups	1 hour
	6	Oral presentation. Peer assessment. Closure of the teaching unit.	-To give an oral presentation in small groups. -To learn about endangered animals by listening actively to an oral presentation. -To assess a performance and PowerPoint presentations. -To self assess and peer assess the process. -To reflect on the work done.	-ICT room -Projector -PowerPoint -Endangered animals grid for listeners (annex 10) -Endangered animals oral presentation self assessment (annex 11) -Peer assessment on vertebrates PowerPoint (annex 12) - Peer assessment on the endangered animals PowerPoint (annex 13) -Cooperative learning assessment (annex 14)	Whole group Cooperative work groups	1 hour and a half

Methodological guidelines	Inclusion and attention to diversity
Cooperative learning and independent information search are the centre of the methodology. To teach English and communication appropriately, global learning situations are created in order to solve problems. The activities suggested involve applying motivating and reflecting linguistic and communicative strategies. English is not the mother tongue of the students, but they will be encouraged to speak in English and use dictionaries. The groups will be made with a balance on the knowledge of the language so that they can help one another. The oral presentations are designed to help them acquire the communicative competence in the English language. Moreover, dialogue is important, they need to communicate not only with the teacher, but through the whole process: coming to an agreement, organizing themselves, researching and when being asked to work by the 1,2,4 technique. The teaching unit is also about students becoming more independent and learning to work cooperatively. It is all about teaching English through a communicative approach, which is eased by the inclusion of digital technology. Hence, this is feasible with the oral presentations in groups and the autonomy in the research by groups. In addition, as for the oral communication, active and attentive listening are developed with the oral presentations. In the natural science subject, a cooperative learning work gives students chances to develop attitudes and skills related to the expression and listening, agreement, self assessment and peer assessment. Moreover, doing oral presentations through digital tools make possible the gathering of different ideas and summarizing data. This brings rigour and accuracy to their own reflections and eases their improvement based on peer-assessment activities.	Among the group there are two newcomer students, two ASD (autistic spectrum disorder), one language disease and one learning retardation. Specially, the newcomers and the language disease student will be provided with some keywords in Catalan and Spanish, if necessary, and will not be expected to speak long, just encourage them to feel comfortable. They will all have the appropriate scaffolding and will have important roles in the group to motivate them. The two ASD are very good at technologies, so that will be used to make them feel good and confident. In the self assessment and peer assessment, these students' answers will be shorter, they will not be requested to write longer, and they will be able to use an outline or even read, in the oral presentation.

It is also necessary to work on strategies to find information, obtaining and dealing with data and on how to communicate it. The acquisition of digital competences needs scaffolding, this is why along the teaching unit, they will always have classroom references as guides to help them revise. Students have to notice the learning they can achieve by using technology tools and the advantages of being able to modify their productions easily, always with the teacher's scaffolding. The groups will be provided with plenty of time to investigate and reflect, along with the appropriate scaffolded guides in order to help them if there is not enough autonomy to do it without scaffolding.	
Assessment guidelines	Additional measures and supports
A pre-assessment on their prior knowledge will be done through the individual worksheet and the group discussion. Moreover, the learning process will be formatively assessed, along with a summative assessment, making it personal, integrating and qualitative and guiding. This will be done observing and analysing their productions, the group interactions and the dialogue with them. To asses the digital competence, it is important to bear in mind not only the final product that is the creation of a PowerPoint presentation, but also to assess the ability, autonomy and efficiency (teacher assessment and self assessment) in which student applies these programs in order to do the tasks they are asked to	Oral assessment will be flexible for those students who have more difficulties, but they will be encouraged to do their best. In case any student finds it difficult to share the information in the oral presentations, they can have an outline with them. If a group has trouble finding information, they will get some websites in which they do the research. Besides these, the needed adaptations would be done according to students IP. Some items from the grids and the assessment could be left

do. Moreover, in achieving a critical and responsible use addressing quotidian issues by selecting the right information and being able to communicate it. Finally, self assessment and peer assessment is also included in the teaching unit, since they have to learn to assess themselves and self-regulate their learning process.		out, and the slides would be simplified. Likewise, students would be able to have more time to do the activities, as well as more scaffolding.
INTERDISCIPLINARITY	USE OF LKT	OVERRIDING THEMES
Natural science content is learned through the English language, in addition, the digital competence is also part of the key in the activities and development. Hence, this teaching unit can be considered with much interdisciplinarity.	LKT are a main tool in this teaching unit, included in learning consolidation activities. These require the appropriate use, among with sharing them with their peers. Students will work on the digital competence through PowerPoint slides, the use of a word processor, or internet browsers to search information.	Having the Primary Education Curricula (2015) as a reference, based on its principles, this teaching unit contributes to the fact that pupils think and act in an integrated way, considering the interconnections and interrelations among the learning. It also tries to transversally promote the acquisition of habits and values to be able to solve problems and situations coming from any of the curricular domains. Likewise, its aim is to foster the personal initiative, the creativity, the critical spirit, as well as the joy and pleasure to learn.

Annex 2. Further description of the sessions

The sessions will be held in English, and the teacher will address students in English too. Nevertheless, the use of L1 is allowed, as well as translations, and they are not expected to only and exclusively speak in English. They will be encouraged to do so by using the talking chips.

Session 1. Prior knowledge (exploration)

First, the group will be explained what they will learn about, and how. Students will have a worksheet (see annex 3), to share their prior knowledge on the vertebrates and the endangered animals, and to introduce key vocabulary of the new teaching unit. The worksheet asks them to circle the words they know, and those will later be shared. It is important to make them feel encouraged to share their thoughts and their knowledge so that they can learn from each other. To do so, the teacher will ask them questions but also respect if they do not feel confident to speak.

There will be six different foci: mammals, reptiles, fish, amphibians, birds and endangered animals. There may be words that are unknown for them, but they will be able to look up their meaning later on and over the course of the weeks. Despite the centre are vertebrates and endangered animals, it is not all new content for them. Hence, there will be a quick revision done showing the classification of the animal kingdoms and classes, as well as the main features.

The objectives of the teaching unit will be shared then: the final product is to give an oral presentation on their topics, so that everyone is an expert on a topic, as well as making two questions for the other groups. They will be provided with scaffolding and classroom references as guides to help them achieve the objectives. Furthermore, they will be acquainted with the assessment being on their own peers and themselves, not only on the teacher.

The cooperative groups will be created by handing students labels with these six topics, and will previously be thought in order to do heterogeneous groups. They will gather according to them and the names will be translated if necessary. Once there

are six groups of four students, the cooperative roles will be assigned to the members of the group, by giving them a grid with each role. If they need it, the duties of each role can be revised together, and the paper containing the roles must be kept by the group. The assignation of the roles will be done taking care the ASD and the newcomer students feel comfortable and confident.

Students will be asked to voluntarily do research at home for the next session. Each group has a focus now, so they know the research they could do.

Session 2. Independent search of information (development)

Before starting the research, each student will be given two guide documents to help them during the process: a Vocabulary classroom reference (see annex 4) and a guide to the oral presentations with what must be included, differentiated between the Vertebrates oral presentation guide (see annex 5) and the Endangered animals oral presentation guide (see annex 6). These outlines will be part of the assessment.

By making everything clear and following the guides, the groups will do independent information search. Moreover, they can use the information they brought from home. Despite the oral presentation will be done by using PowerPoint, they can use a word processor to gather the information if it is easier for them.

If any group has all the information they need, it can start working on the presentation. Through the development of the session, appropriate scaffolding will be given, as well as reminding them to check the items on the guide or help them find the precise information if needed.

Session 3. Creation of the slides (development)

By now the groups should have finished the research, but if not, they will have some more time. The teacher will insist on them checking the outline to create the PowerPoint presentations and on the two questions each group has to do about their topic for their peers to answer.

To organize the oral presentations, they will be given a List of linking words and connectors (see annex 7) to include in their speech, which will be an item of assessment too.

The scaffolding in this session will be mainly about how to use PowerPoint, how to paste images, how to change the fonts and how to structure their participation on the oral presentation.

Session 4. Oral presentations (synthesis)

Between ten and fifteen minutes will be destined to finish structuring the oral presentations, but before those begin, the students will be told they will have to fill in two grids and how they will do it: one for the listeners on the oral presentation (annex 8) and one for the group speaking, which will be self assessment (annex 9). These will be shown and read together, as well as translated by asking for students' help, to make sure everyone knows what to do. It is very important they understand they will fill in the listening grid by following the 1,2,4 technique and that in each round a different colour will be used to mark the questions. To avoid misunderstandings, green, blue and red will be the colours used. Round 1 will be done while listening to a presentation. The other two rounds will be done once it is over, being the teacher the one managing the time for each round.

While the listeners are doing that, each member of the group that does the presentation does the self assessment. After doing the self assessment, they will share it among the cooperative group to receive their feedback. It is expected that three presentations are done in this session, figuring around 20 minutes are destined to each.

Session 5. Oral presentations (synthesis)

It is expected to have two oral presentations this time. Again, they will quickly be reminded how to fill in the grids and how to do the self assessment.

Session 6. Oral presentation, assessment and closure (synthesis)

Because of its content, it is suitable that the endangered animals presentation is done last. The grid (annex 10) content that listeners have to fill in is different this time. After filling it and doing the self assessment (annex 11), each group will address the two questions they prepared, giving time to the others to answer. Each expert group will be in charge of correcting their peer's answers, with the teachers help if they need it. As well as this, the worksheets filled in by the listeners will be corrected by each expert group too.

Then, by following their cooperative roles, each group will peer-assess four PowerPoint presentations, since they will all be in a shared folder. They will check and assess them with the grids (annexes 12 and 13). In addition, before doing a proper closure of the teaching unit, each group will fill in together one last rubric about the cooperative learning (annex 14).

Finally, besides their interaction and participation, the grids and the rubrics they fill in, the teacher will assess the whole process too with grids (annexes 15 and 16) similar to the ones students used.

Annex 3. Prior knowledge worksheet

Name:

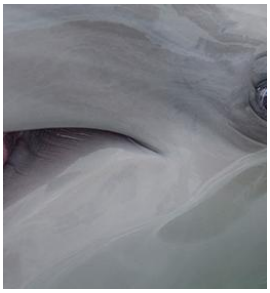
Prior knowledge

Do you know any of these words? Circle the words you know.

vertebrate
skeleton
backbone
invertebrate
omnivore
herbivore
give birth
lay eggs
fly
walk
swim
extinction
mammal
bird
reptile
amphibian
fish
ovipary
ovovivipary
vivipary
herbivores
omnivores
carnivores
endangered
habitat
pollution
global warming
hunting
poaching
loss of habitat
animal kingdoms
animal classes
offspring
adaptation

Annex 4. Vocabulary classroom reference

wings 	feathers 	horns 
tusks 	tail 	whiskers 
legs 	paws 	claws 
hooves 	fur 	mane 

dry skin 	smooth skin 	stripes 
spotted fur 	Wool 	Beak 
scales 	flipper 	fins 
dry scale skin 	gills 	eggs 

Annex 5. Vertebrates oral presentation guide

- Your oral presentation must include, at least:
  -Physical features
  -Body temperature
  -Where do they live?
  -How do they breathe?
  -How do they give birth?
  -What do they eat?
  -How do they move?
  -Examples of animals
  -More information that you consider interesting (optional)
  -2 questions for the others to answer (at the end of the slides)

- Your oral presentation must last between 5 and 8 minutes

- Things you should avoid:
  - Put long paragraphs on the slides
  - Not using any picture
  - Using a tiny font size (everyone has to be able to read)
  - That only one person of the group speaks: you all have to speak equally

- Remember to use linking words

Annex 6. Endangered animals oral presentation guide

- Your oral presentation must include, at least:
    - What does *endangered* mean?
    - What are the different reasons animals are endangered?

- Choose 2 animals to talk about in detail and include:
    - reason
    - number of species left
    - location
    - habitat
    - adaptations
    - food they eat
    - predators they have
    - offspring
    - physical adaptations
    - what can be done to save the animals
    - Other examples of endangered animals and the number of species left
    - More information that you consider interesting (optional)
    - 2 questions for the others to answer (at the end of the slides)

- Your oral presentation must last between 5 and 8 minutes

- Things you should avoid:
    - Put long paragraphs on the slides
    - Not using any picture
    - Using a tiny font size (everyone has to be able to read)
    - That only one person of the group speaks: you all have to speak equally

- Remember to use linking words

Annex 7. List of linking words and connectors

ORDER	**EXAMPLES**	**CONTRAST**
First / second / third Firstly/Secondly/Thirdly Finally Previously Next Then	for instance such as for example	but however On the contrary On the one hand On the other hand
ADDITION	**CAUSE AND EFFECT**	**SUMMARY**
and too also moreover	because so as a result	To conclude To sum up In conclusion

Annex 8. Vertebrates grid for listeners

Group:	
Oral presentation about _____	
Physical features	wings feathers horns tusks tail whiskers legs paws claws hooves hair/fur dry skin smooth skin stripes spotted hair wool scales flipper fins beak
Body temperature	Cold blooded Warm blooded
Where do they live?	Water Land Air Jungle Forest Mountain Sea River Lake Desert
How do they breathe?	Lungs breathing Gill breathing Tracheal breathing Skin respiration
How do they give birth?	Ovipary (an egg outside the mother's body) Ovovivipary (an egg on the inside of the mother's body) Vivipary (baby on the inside of the mother's body)
What do they eat?	Herbivores Omnivores Carnivores
How do they move?	Walk run fly swim climb jump crawl slither
Examples	

Annex 9. Vertebrates oral presentation self assessment

Name:		
ORAL PRESENTATION SELF ASSESSMENT		
Did we talk about… ?	YES	NO
Physical features		
Body temperature		
Where they live		
How they breathe		
How they give birth		
What they eat		
How they move		
Where there any examples?		
Did we include some photos?		
Did we ask 2 questions to our peers?		
Did I use linking words during my speech?		
How did I feel?		
Comments:		

Annex 10. Endangered animals grid for listeners

Oral presentation about Endangered animals	
What does *endangered* mean?	
What are the reasons for endangerment?	
Animal 1	
Name	
why is the animal is endangered?	
number of species left	
location	
animal's habitat	
what does it eat?	
who are its predators?	
how many offspring do they produce?	
physical adaptations	
what can be done to save the animal	

Animal 2	
Name	
why the animal is endangered	
number of species left	
location	
animal's habitat	
what does it eat	
who are its predators it has	
how many offspring do they produce?	
physical adaptations	
what can be done to save the animal	

Annex 11. Endangered animals oral presentation self assessment

Name:		
ENDANGERED ANIMALS ORAL PRESENTATION SELF ASSESSMENT		
Did we explain... ?	YES	NO
The meaning of *endangered*		
The reasons why animals are endangered?		
Did we talk in detail about 2 endangered animals?		
Did we mention…?		
The reason for being endangered		
The number of species left		
The location and habitat		
food they eat		
Their predators		
Offspring		
Physical adaptations		
What can be done to save the animals		
Where there other examples of endangered animals and the number left?		
Did we include some photos?		
Did we ask 2 questions to our peers?		
Did I use linking words during my speech?		
How did I feel?		
Comments:		

Annex 12. Peer assessment on vertebrates PowerPoint

Group assessing:		
Group that is being assessed:		
POWERPOINT PRESENTATION PEER-ASSESSMENT		
Did they talk about… ?	**YES**	**NO**
Physical features		
Body temperature		
Where they live		
How they breathe		
How they give birth		
What they eat		
How they move		
Where there any examples?		
Did they include photos?		
Did they make 2 questions		
Do you suggest any improvements?		
Comments:		

Annex 13. Peer assessment on the endangered animals PowerPoint

Group assessing:		
ENDANGERED ANIMALS POWERPOINT PRESENTATION		
Did they talk about… ?	**YES**	**NO**
The meaning of *endangered*		
The reasons why animals are endangered?		
2 endangered animals in detail?		
The reason for being endangered of those 2 animals		
The number of species left		
The location and habitat		
The food they eat		
Their predators		
Offspring		
Physical adaptations		
What can be done to save the animals		
Where there other examples of endangered animals and the number left ?		
Did they include some photos?		
Did they ask 2 questions?		
Do you suggest any improvements?		
Comments:		

Annex 14. Cooperative learning assessment

	Very good	Good	We can do it better
Roles	Everyone respected his or her role during the process.	The roles were followed just in some occasions.	Nobody followed the role we had assigned.
Participation	We all participated equally	Just some members of the group participated a little.	Half of the group did not participate at all.
Respect	We listened to all opinions and we took turns to speak.	We sometimes took turns to speak, but we did not listen to everyone's ideas.	We did not take turns to speak and we did not listen to all the ideas.
Communication in English	We made an effort to speak in English between us and we used dictionaries to say what we did not know.	We made an effort and tried to say some words.	We did not care about communicating in English.
Team	We felt very confident and comfortable working together.	We worked together as a team but it could have been better.	We did not feel confident and comfortable as a team.
Help and support	We encouraged, supported and helped each other the entire time.	We helped and supported each other sometimes.	We did not help each other.
Time management	We planned well the tasks and we made the most of the time.	We planned well the tasks but needed more time.	We did not make a good use of time.
Happiness and satisfaction	We are all very happy and satisfied with the work done and with the final project.	Some of us are a little happy with the work and results but some others are not.	No one is happy or satisfied with the work done or with the final project.
Guides and reference material	We used them during the whole process, before starting the presentation and later to check we included everything.	We read all the guides but just one time.	We did not use the guides at all.

Annex 15. Teacher assessment on the vertebrates oral presentation

Group:		
VERTEBRATES PRESENTATION TEACHER ASSESSMENT		
Did they talk about… ?	**YES**	**NO**
Physical features		
Body temperature		
Where they live		
How they breathe		
How they give birth		
What they eat		
How they move		
Where there any examples?		
Did they make 2 questions?		
Time management:		
Student 1: Speech Connectors English Answers to questions		
Student 2: Speech Connectors English Answers to questions		
Student 3: Speech Connectors English Answers to questions		
Student 4: Speech Connectors English Answers to questions		

Annex 16. Teacher assessment on the endangered animals oral presentation

ENDANGERED ANIMALS TEACHER ASSESSMENT		
Did they talk about… ?	**YES**	**NO**
The meaning of *endangered*		
The reasons why animals are endangered		
2 endangered animals in detail		
The reason for being endangered of those 2 animals		
The number of species left		
The location and habitat		
The food they eat		
Their predators		
Offspring		
Physical adaptations		
What can be done to save the animals		
Where there other examples and the number left ?		
Did they include some photos?		
Did they ask 2 questions?		
Time management:		
Student 1: Speech Connectors English Answers to questions		
Student 2: Speech Connectors English Answers to questions		
Student 3: Speech Connectors English Answers to questions		
Student 4: Speech Connectors English Answers to questions		