

Master's Dissertation/
Trabajo Fin de Máster

**CLIL AND ACTIVE
METHODOLOGIES: AN
INTEGRATED DIDACTIC
PROPOSAL FOR 3RD YEAR OF
PRIMARY EDUCATION**

Student: Funes García, Elia

Supervisor: Dr. Antonio Bueno González

Department: English Philology

TABLE OF CONTENTS

1. INTRODUCTION	6
1.1. Setting the picture	6
1.2. Justification and relevance	7
1.3 Objectives	7-8
1.4. Methodology	8
1.5. Structure of the MA Thesis	8-9
2. THEORETICAL FRAMEWORK	9
2.1. What is CLIL?	9-11
2.1.1. <i>Characteristics of CLIL methodology</i>	12-13
2.1.2. <i>How to plan in CLIL?</i>	13-15
2.2. The use of ICTs in CLIL	15-17
2.3. Active methodologies: Collaborative Learning	17-18
2.3.1. <i>What is Cooperative Learning?</i>	18-20
2.3.2. <i>Benefits and inconveniences of using Cooperative Learning in the classroom</i>	20-21
2.3.3. <i>Cooperative Learning in the classroom</i>	21-22
2.3.3.1. <i>Types of cooperative learning groups</i>	22-23
2.3.3.2. <i>Techniques for cooperative learning</i>	23-24
3. DEVELOPMENT OF THE TEACHING PROPOSAL	25
3.1. Justification	25
3.2. Contextualization	25-27
3.3. Curricular simplification	28
3.3.1. <i>Evaluation criteria, indicators and learning standards</i>	28-29
3.3.2. <i>Key Competences</i>	29-30
3.3.3. <i>General objectives of stage, of area and didactic</i>	30

3.3.3.1. <i>Stage objectives</i>	30-31
3.3.3.2. <i>Area objectives</i>	31
3.3.3.3. <i>Didactic objectives</i>	31-32
3.3.4. Contents	32-36
3.4. Didactic transposition	36-37
3.4.1. <i>Methodology</i>	37-38
3.4.2. <i>Activities</i>	38-39
3.4.3. <i>Space and time organization</i>	39-40
3.4.4. <i>Resources</i>	40
3.4.5. <i>Attention to diversity</i>	41-42
3.4.6. <i>Sessions of the unit</i>	42-47
3.4.7. <i>Evaluation</i>	48-49
4. RESULTS AND CONCLUSIONS	50-51
5. BIBLIOGRAPHICAL REFERENCES	52-54
6. ANNEXES	55
Annex I. Organization of the class group in U shape	55
Annex II. Table about “What do we know about animals?”	55
Annex III. Instructions for making a documentary	56
Annex IV. Mental map about invertebrates	57
Annex V. Collage with different animals; Identify the intruder	57
Annex VI. Activities to work: “One for all”	58
Annex VII. Animals suffering from pollution	58
Annex VIII. Text adapted from: “Plastic waste, a serious threat to life at sea and on land”	59
Annex IX. Kahoot	59-60
Annex X. “The bingo of recycling”	61
Annex XI. Animals in 3D	62

Annex XII. Annex XII. Formative assessment tool (Observation; individual control list)	63
Annex XIII. Formative assessment tool (Checklist)	63
Annex XIV. Summative assessment tool (Peer-assessment)	64
Annex XV: Summative assessment tools.	
Rubric to assess the oral expression of the video for the subject Natural Sciences and the content acquisition (Kahoot)	64-65
Annex XVI: Summative assessment tools. Rubric to assess the artistic creation and its corresponding written work	65-66
Annex XVII: Assessment of the teacher	66

ABSTRACT

This Master's Thesis (MA Thesis) is based on a study on active methodologies in the CLIL (Content and Learning Integrated Learning) approach and the importance of meaningful learning in students. For its development, it has been based in the first place on a theoretical revision that has allowed us to focus on CLIL, its principles and the benefits that its correct application entails; the bases of one of the active methodologies (Cooperative Learning); and the use of Information and Communication Technologies (ICTs). Secondly, taking these hypotheses as a reference, I have designed a Didactic Proposal that aims to put theory into practice.

In addition, with this MA Thesis I intend to respond to personal motivations, linked to my academic studies and professional experience. This happens because several insights into my profession –Teacher in Primary Education- have appeared throughout my training and professional experience that have awakened in me a series of interests, which will be presented below:

- The importance of meaningful learning in students.
- The CLIL approach. How to plan according to the CLIL methodology?
- Benefits of active methodologies and ICTs.
- Learning theories, such as Constructivism and Siemens' Connectivism.

KEY WORDS:

Meaningful learning, CLIL, active methodologies, ICTs, didactic proposal.

RESUMEN

Esta Tesis de Maestría (Tesis MA) o Trabajo de Fin de Máster (TFM) se basa en un estudio sobre metodologías activas en el enfoque AICLE (Aprendizaje Integrado de Contenidos y Lenguas Extranjeras) y la importancia del aprendizaje significativo en los estudiantes. Para su desarrollo, se ha basado en primer lugar en una revisión teórica que nos ha permitido abordar el enfoque AICLE, sus principios y los beneficios que conlleva su aplicación; las bases de una de las metodologías activas (Aprendizaje Cooperativo); y el uso de las Tecnologías de la Información y la Comunicación (TIC) en clase. En segundo lugar, tomando estas hipótesis como referencia, he diseñado una Propuesta Didáctica que pretende poner en práctica la teoría.

Además, con esta Tesis de Maestría pretendo responder a motivaciones personales, vinculadas a mis estudios académicos y experiencia profesional. Esto sucede porque a lo largo de mi formación y experiencia profesional han aparecido varias visiones de mi profesión -Maestro en Educación Primaria- que han despertado en mí una serie de intereses, que se presentarán a continuación:

- La importancia del aprendizaje significativo en los estudiantes.
- El enfoque AICLE. ¿Cómo planificar según la metodología AICLE?
- Beneficios de metodologías activas y TIC.
- Teorías de aprendizaje, como el constructivismo y el conectivismo de Siemens.

PALABRAS CLAVE

Aprendizaje significativo, AICLE, metodologías activas, TIC, propuesta didáctica.

1. INTRODUCTION

1.1. Setting the picture

Today we live in a globalised world in which citizens are increasingly interconnected. This territorial, integrative and social environment in which we live implies the need to have knowledge of a vehicular language that makes mutual understanding possible. This growth requires improvements in educational quality, strengthening research results, promoting innovation and knowledge transfer across the European Union and making the most of ICTs, thereby ensuring quality growth to help meet the challenges of social change in Europe and the world (European Commission, 2010).

Member States must therefore adapt their education systems so that people achieve personal development and are able to integrate into society.

From this, derives the need to carry out the learning of at least one language different from the mother tongue and this is how it establishes, in Spain, the current Organic Law 8/2013, 9 December, for the Improvement of Educational Quality (LOMCE). This Act, in its preamble XII, emphasizes that "mastery of a second or even a third foreign language has become a priority in education as a result of the globalization process in which we live".

As a result, Spain has multiplied the number of educational establishments that carry out a teaching-learning process based on CLIL (Content and Language Integrated Learning) methodology. In this way, teaching has shifted to English or another foreign language, rather than teaching only the language.

In this connection, using an active methodology, in which students are the protagonists of their own learning, will help to produce meaningful learning; there are studies that argue that many of the students learn more effectively if they are immersed in learning, through content application, interaction and self-assessment.

1.2. Justification and relevance

Since I decided to study the "Master's Degree in Bilingual Teaching and Content and Language Integrated Learning (CLIL)" to continue my training as a teacher, I considered it advisable to carry out a Master's Final Project whose subject was associated with the CLIL approach but at the same time allowed me to obtain new knowledge and conclusions, the importance of this methodology as well as the benefits of implementing active methodologies in CLIL classrooms.

Then, I think it could be a topic both of interest and practical for teachers teaching subject content in bilingual centres, for language teachers as well as for teachers and the educational community in general.

I currently work teaching students who have bilingual subjects and one of the main problems I find is that there is not too much connection between the contents that my students learn in the English subject, with what they learn in Nature Sciences or Arts (subjects they study with a bilingual methodology).

Because of this, sometimes my students are distressed because they do not find what they are learning meaningful, so that they can apply it in their day-to-day lives. However, this is where active methodologies will present a fundamental role in the CLIL classrooms, as they will allow us to integrate the contents of the different subjects, as well as to promote the involvement of learners and make them protagonists of their learning.

In relation to all this, through this project it will be proposed how, considering the interests and peculiarities of the learners and starting from a centre of interest, it would be possible to carry out coordinated work among the subjects given in another language (English) and resulting in a beneficial teaching-learning process for teachers, students and education in general.

1.3. Objectives

The objectives addressed in this Master's Thesis are:

- To implement the CLIL approach properly.
- To develop an integrated didactic proposal covering the subjects of Natural Sciences and Arts, both taught through a foreign language (English).

- To use Cooperative Learning as a teaching method to foster meaningful learning by students.
- To approach teaching from a more dynamic and creative perspective.

1.4. Methodology

The path that I have chosen to achieve an approximation to the proposed object of study as well as to design an integrated didactic proposal to be developed in CLIL classrooms has been the following:

On the one hand, before beginning to investigate information in different bibliographical sources, I had to consider what objectives I wanted to focus the present work on. To this end, I did several valuable readings on topics of interest to me and from them I explained the objectives to which I would respond. The sources for the literature review I have made use of have been: Dialnet, various books, reports, the University of Jaén Library and Google Scholar.

On the other hand, I will develop an Integrated Didactic Proposal, based on active methodologies and the CLIL approach. To elaborate this Didactic Proposal, I have made use of the information that I have found in the readings as well as of all the contents that I have acquired throughout my training as a teacher and, in particular, the knowledge obtained in this Master's degree.

1.5. Structure of the MA Thesis

It is the different points dealt with in this work that give body to the structure and consequently, table of contents of this MA Thesis. The structure consists mainly of three parts:

- An initial part that includes, on the one hand, a brief introduction of what the work consists of, methodology and what are the objectives that it is intended to achieve. On the other hand, there is the theoretical framework with its corresponding sub-sections that will answer each and every one of the theoretical concerns raised as a teacher and whose answers have been obtained after various readings based on true data.

- The part adjacent to the theoretical framework corresponds to the practical part of the work, that is, in it we find how it is possible to put the whole theory into practice. All this has been presented in different sub-sections which appear under the name of objectives, contents, methodology, resources, and activities among others.
- The last part of the table of contents consists of: the conclusions obtained after the completion of this MA Thesis; the various bibliographical sources that have been consulted to obtain relevant information regarding the topics to be dealt with and finally, the annexes which give a more visual and dynamic character to the work, allowing the reader to approach the reality of what is being spoken about.

2. THEORETICAL FRAMEWORK

2.1. What is CLIL?

The Content and Language Integrated Learning approach, better recognised by the acronym CLIL, emerges due to the impact of globalization in which we find ourselves submerged as society. As result, there is a need to learn and know different languages in order to allow communication between citizens and to promote personal and professional opportunities in a world in which a society that has to be multilingual is growing.

Because of this, the educational community is researching various methods to enable it to obtain the best possible performance from foreign language learning.

Although learning a second language is not new, it is true that there have not been great successes in obtaining appropriate language proficiency after years of learning in schools, which makes it necessary to delay in this matter. Some people consider this to be because students are not exposed to this language for too long, so the need for new methodologies is proposed.

In this environment and with the aim of giving an effective result to the question arises the methodology CLIL, which consists in students' acquiring contents while learning a second foreign language (the vehicle for the teaching of these contents). Therefore, in Spain, such as stated by Coral and Lleixà (2013: 79), "in the current Spanish educational context, the CLIL (Content and Language Integrated Learning) educational approach is becoming more and more accepted".

The CLIL concept was developed in 1994 to give a name to these educational establishments or subjects that used a second language or foreign language (L2) for the teaching of content. According to Marsh (2012: 1):

The European launch of the CLIL during 1994 was both political and educational. The political driving force was based on the idea that mobility in the EU required higher levels of language proficiency in the designated languages than was currently considered. The driver of education, influenced by other major bilingual initiatives, such as in Canada, is to design and otherwise adapt existing language teaching methods to offer a wide range of students higher levels of competence.

Throughout the 1990s, the term CLIL became the most widely used word in Europe for integrated language and content teaching. Later, in 2005, Marsh proposed that CLIL be "a general term of reference to refer to various methodologies that lead to a two-pronged education where attention is paid to both the subject and the language of instruction" (Kovács, 2014: 48-49).

Although many authors have defined the concept of CLIL, I would like to state that according to Marsh & Langé (2000: 2), CLIL is defined as "a dual-focussed education approach in which an additional language is used for the learning and teaching of both content and language". Therefore, a teaching and learning process takes place in which the content of the subject and the language are taught simultaneously, thus consolidating different cognitive skills such as: Remembering, understanding, applying, analysing, evaluating and creating. (Bloom's Revised Taxonomy).

Within the didactic proposal the taxonomy of Bloom will be a fundamental tool to position the level of learning of students and establish different levels in their learning process. The layout of this taxonomy can be seen in the following chart:

Bloom's Taxonomy

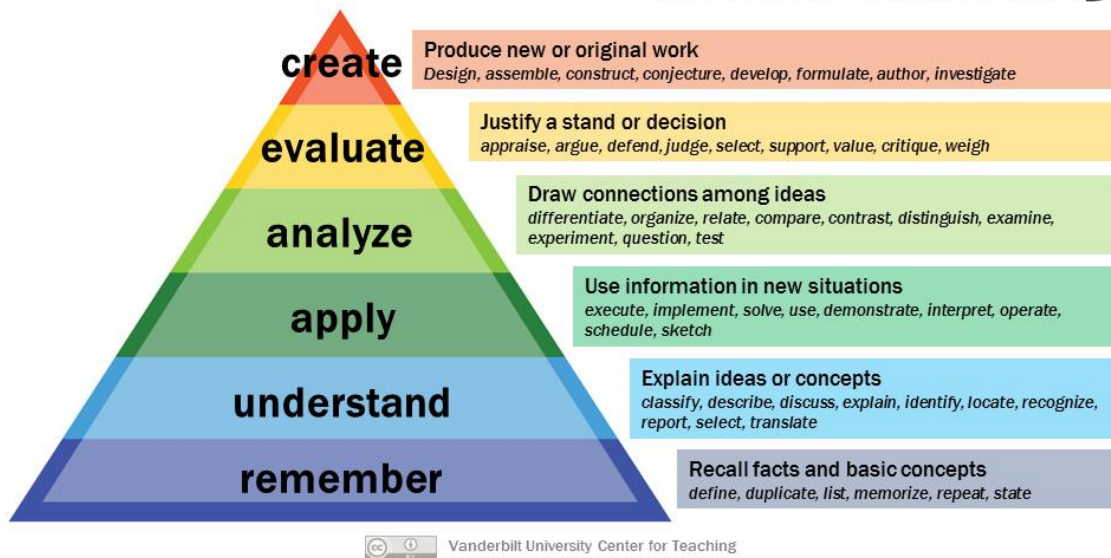


Fig.1. Bloom's taxonomy

Source: <https://cft.vanderbilt.edu/guides-sub-pages/blooms-taxonomy/>

According to Coyle, Hood & Marsh (2010), a collection of principles for the learning of communicative language could be established, which in turn are relevant to the CLIL methodology. These will be the following:

- A communication tool is language.
- Diversity is accepted and recognized in language development.
- The competence of the student is referent in terms of gender, character and modification.
- Many varieties are identified.
- Culture is instrumental.
- More than one methodology can be used for teaching and learning the language.
- The aim is both the use of language and the learning of language.

The goal of CLIL methodology is therefore to make students to learn the contents of the various subjects while acquiring and working with communication skills such as comprehension and expression at both oral and written levels as well as vocabulary.

2.1.1. Characteristics of CLIL methodology

The characteristics of CLIL methodology could be summarized as follows:

- The theory of language that sustains CLIL considers the second language is the vehicle used for teaching; that is, it is understood as the vehicle through which the content of the subject is learned.
- Pupils are able to follow their academic and cognitive development while acquiring language skills, learning both BICS (Basic Interpersonal Communication Skills) and CALP (Cognitive Academic Language Proficiency) (Cummins, 1999).
- Language teaching is presented in an integrated manner and content instruction is carried out in a convenient and effective environment.
- CLIL enables "education through construction rather than education" (Wolff, 2002: 47-48) that is, it offers significant learning as it takes into account students' previous knowledge as well as experiences, skills, interests and needs.
- It is a methodology characterized by scaffolding which "implies providing sufficient support to students so that students can gradually succeed independently" (Short, Vogt and Echevarria 2011: 15). These procedures are fundamental in CLIL as students are challenged to understand and acquire new content in a language other than their native tongue.
- According to Mehisto, Marsh and Frigols (2008:30) to successfully implement CLIL, it is important to ensure that a high degree of cooperation and coordination is made between teachers in general, whether or not CLIL, parents and the educational community.
- CLIL makes it possible to give a novel character to the classroom, teaching with modern pedagogical practices and making use of task-based learning or collaborative/cooperative work.
- It is characterized by the use of creative activities and materials, in which Information and Communications Technology (ICTs) is of great importance.

With the viewing of the above features we can check that, as Coral and Lleixà (2014) declare, in CLIL different teaching-learning methodologies can be used and stress that what is important is to know the characteristics and interests of our students, so that they can start from a centre of interest and create a meaningful environment for the teaching-learning

process, using as many cognitive skills as possible. Here, the role of the teacher is to facilitate the learners' learning and linguistic communication, using a series of teaching resources or scaffolding that will be removed as they do not need them.

This scaffolding, used by teachers, is directly related to the Zone of Proximal Development explained by Vygotsky (1978). In other words, Vygotsky suggests that students are able to learn those contents that are just above what they can achieve for themselves and that are within their next development zone. Therefore, it will be necessary to take as a reference the interests of the students and provide them with the necessary tools to make them the protagonists of their learning process and that learning based on the CLIL methodology occurs in the most favourable possible.

2.1.2. How to plan in CLIL?

“Students cannot develop academic knowledge and skills without access to the language in which that knowledge is embedded, discusses, constructed, or evaluated. Nor can they acquire academic language skills in a context devoid of (academic) content”. (Crandall, 1994: 256).

For this reason, in planning for CLIL, it will be important to consider the 4Cs framework, from which it will be necessary to take into account what and how it will be taught in a specific educational context. It will be necessary that the 4Cs are integrated and connected in a "whole", always taking content into account.

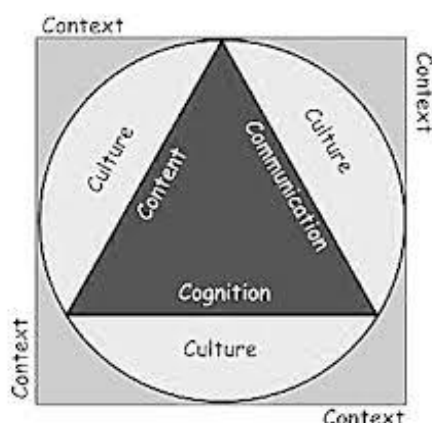


Fig.2. The 4Cs Framework (Coyle, Hood and Marsh 2010: 41)

In this previous figure Coyle, Hood and Marsh graphically manifest the interrelationships of the various components involved in the CLIL teaching-learning process. These are the following:

- **Content (subject) as well as cognition (learning and thinking processes).** It is necessary to relate content and cognition. That is, after having selected the content (which should be familiar to the children and be linked to what is happening inside and outside the school), it will be convenient to select and analyse the different thinking skills, creativity and how to carry out problem solving, so that access to content is as appropriate as possible. In this way, students can create their own learning and reflect on this process, thus ensuring, that the cognitive level of the unit is related to the level of development of the students.
- **Communication (language learning and using),** which consists in defining the language learning as well as the use of it. In this area it implements the connection between cognitive and content demands and communication, using the triptych. Thus, progress in language learning takes place through the learning of non-linguistic content. However, in case it was necessary at some point, the teaching of grammar as such would take place.
- **Culture (advancement intercultural).** It would include intercultural understanding and awareness as well as global citizenship. The aim here would be to enable students to understand and work with other students and in another language. This will be aided by ICTs through the rapid access to information.

Besides, as Coyle, Hood and Marsh (2010:41) suggest, effective CLIL takes place through:

- » progression in knowledge, skills and understanding of the content;
- » participation in the cognitive processes involved;
- » interaction in the communicative context;
- » successful progress at the level of language skills and knowledge;
- » deeper development of an intercultural awareness that at the same time takes place by the location of oneself and “otherness”.

Similarly, according to Coyle, Hood and Marsh (2010:36), the relationship between language and learning in CLIL can have three different possible interpretations that are represented in the so-called Language Triptych that we can observe in the following image: Language for learning and Language through learning.

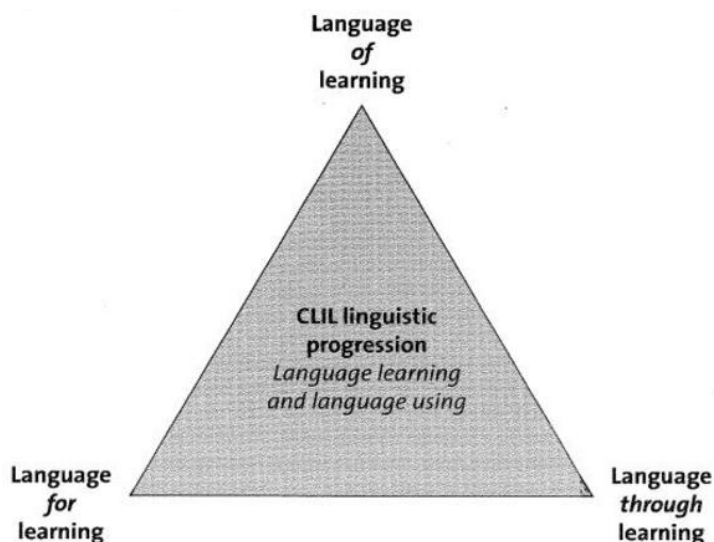


Fig.3.The Language Triptych (Coyle, Hood and Marsh 2010: 36)

In addition, it will be necessary to consider in the commissioning of the didactic proposal that the *language of learning* requires "an analysis of the language necessary for students to have access to the basic concepts and skills related to the subject or topic" (ibid.: 37). For example, students know the structure and use of the simple present, so that in the natural sciences class they can follow the instructions to elaborate and carry out an experiment. The *language for learning* is understood as "the type of language needed to function in a foreign language environment" (ibid.: 37), for example to carry out cooperative learning, ask questions, propose hypotheses. Finally, *language through learning* "has to do with the language acquisition needed by individual learners during the learning process" (ibid.: 38). According to Llull and Fernández (2016: 38), language through learning refers to the linguistic or linguistic needs of the student that arise spontaneously during the class. For example, when students want to say something and do not know how to do it.

2.2. The use of ICTs in CLIL

In recent years, the inclusion of ICTs in education has become one of the main focus areas in the educational field. Therefore, the constant evolution of new technologies has given rise to the need for continuous training by education professionals, so that they are up to date and can put into practice the technological and scientific advances related to their professional activity.

Within the classroom, new technologies can have many functions, such as the search for information, the accomplishment of tasks and projects, the creation of materials (especially

for teachers), and presentation of the contents in a dynamic way through blogs or wikis or the practice of knowledge through games such as the Kahoot. As a result, it is now common to find the use of ICTs in almost all classrooms. But is the use of ICTs in CLIL really important?

First of all, it will be important to know that the Information and Communications Technologies (ICTs) are defined by Wojtowicz, Stansfield and Connolly (2011:2) as “a diverse set of technological tools and resources are used to communicate, and to create, disseminate, store, and manage information can support CLIL in many ways”.

Likewise, ICTs are also defined by González et al., (1996:413) like “a set of processes and products derived from new tools (hardware and software), information media and communication channels, related to the digitised storage, processing and transmission of information quickly and in large quantities”.

Thus, Order EDC/65/2015 of 21 January defends that digital competence and linguistic competence are fundamental to achieving these European objectives. On the one hand, due to the fact that linguistic competence is linked to communication, socialization and in general to the development of both mother tongue and other languages. On the other hand, digital competence means the safe, critical and creative use of new technologies, which means being able to know the different ways of participating and collaborating in the creation and acquisition of different contents. These communicative contents and exchanges can be carried out in different languages and, in this way, both competences are related.

In the same way, the current Organic Law 8/2013, 9 December, for the Improvement of Educational Quality (LOMCE), in its preamble X, translated by me into English, establishes that “Information and Communication Technologies will be a key element in bringing about the methodological change that will lead to the objective of improving educational quality”, this being a primordial methodological change to tackle the challenges of the twenty-first century.

With reference to the above, the use of ICTs in the CLIL methodology can be considered important for several reasons such as:

Firstly, ICTs have a lot of advantages for teachers in designing their own materials for class use. Thanks to ICTs teachers can find, design or share a lot of materials, without having to

rely on textbooks or pre-established materials. This design of materials, teaching units or other resources has become standard among teachers who implement CLIL in their classes.

The second is that ICTs make it possible to present content in a more dynamic and attractive way for students, resulting in greater learning among boys and girls. All this is because using ICTs allows for a wide variety of activities with visuals, sound and video, gamification techniques, etc., which may adapt to different learning styles and are at the basis of personalization and differentiation, so that diversity and special needs can be met.

As a result, ICTs become an excellent tool for both teachers and students who carry out a teaching-learning process based on CLIL methodology. This is because CLIL requires a great participation on the part of the teacher and students in the teaching-learning process, in order to be able to teach the contents and language all at once as students have to learn the contents and to understand/learn the foreign language as it is the means or vehicle through which the contents are transmitted.

2.3. Active methodologies: Cooperative Learning

One reality that cannot be denied is that at present, active methodologies are in fashion. This section therefore seeks to answer how they work in the classroom, including CLIL classrooms, why they are used and what their benefits are.

Among all existing active methodologies (the Flipped Classroom, Collaborative Learning, Project-Based Learning, Gamification, Problem-Based Learning...) in this dissertation we will focus on Cooperative Learning.

There are several reasons why we focus on Cooperative Learning in particular:

- Firstly, in this work it is sought and defended that the student be the true protagonist of his/her learning and produce meaningful learning, which can be achieved through cooperative learning where the learner is the main actor of the teaching-learning process and the teacher takes a back seat, acquiring the role of guide of learning.
- Second, cooperative learning is an active methodology that will allow students to develop fundamental values such as mutual respect, acceptance of oneself and others as well as key skills and abilities such as: sense of initiative, active listening, mutual help, constancy, responsibility and development of social skills.

- Finally, for teachers it is vitally important to implement in our classrooms educational models that allow us to cover the characteristics and needs of each and every one of our students while encouraging and seeking the inclusion of each and every them.

2.3.1. What is Cooperative Learning?

Despite the large number of definitions that exist regarding Cooperative Learning, according to different authors, we must say that all of them conclude that it is a methodology carried out in the classroom with students distributed in small groups.

Cooperative Learning is defined by Olsen & Kagan (1992: 8) as a “group learning activity organized so that learning is dependent on the socially structured exchange of information between learners in groups and in which each learner is held accountable for his or her own learning and is motivated to increase the learning of others”.

According to Guitert and Giménez (2000: 113-114), Cooperative Learning occurs if “there is reciprocity between a group of individuals who know how to differentiate and contrast their points of view in such a way that they generate a process of knowledge construction that allows them learn more than they would learn on their own”.

Cooperative Learning is in other words, a grouping of teaching actions that take as a starting point the distribution of the components of the classroom in different small groups in which students work coordinated and in a cooperative way to solve academic tasks and deepen their own learning (cf. Otero, 2009).

That said, another aspect to highlight of Cooperative Learning is that many teachers use both approaches interchangeably due to the fact that the cooperative and collaborative approaches share a series of similarities which are shown below:

SIMILARITIES BETWEEN COOPERATIVE LEARNING AND THE COLLABORATIVE APPROACH
- The learner becomes an active part in the process in which participation is key taking responsibility for their own learning. - The teacher becomes a facilitator, discarding lecture-based instruction - The aim is to complete a task/project - Social interaction and team work skills are encouraged

- | |
|--|
| <ul style="list-style-type: none"> - A close relation with the real world and the world of work - Use of higher order cognitive skills - Shared learning experiences - Embracing student diversity |
|--|

Table 1

Source: Lancaster, Navarro & Ráez (2019). *Student-centered methodologies*. Jaén: University of Jaén

However, despite these similarities, it will be important to bear in mind that both approaches also comprise important differences: in Cooperative Learning, more prepared and structured activities by teachers are needed, while in the Collaborative Approach the students have more autonomy and it is they who take control of the interactions and the activity. Furthermore, in Cooperative Learning, the teacher must monitor interactions and performance so that the activity has the expected results.

Characteristics of Cooperative Learning

Johnson, Johnson & Holubec (1999: 33-36), argue that there are five essential components that characterize cooperative learning:

- 1. Positive interdependence:** The components of each group should be committed to the group as their efforts will benefit the entire group.
- 2. Individual responsibility:** Each student should be sufficiently responsible and do his/her part of the job.
- 3. Face to face interaction:** All components must work together and provide positive feedback to each other.
- 4. Interpersonal skills:** Students are required to obtain the indispensable skills to work in a group, such as taking initiative, making decisions, or resolving conflicts peacefully.
- 5. Group processing:** The members of the group need to examine the favourable and unfavourable aspects of the work being done and make improvements where necessary.

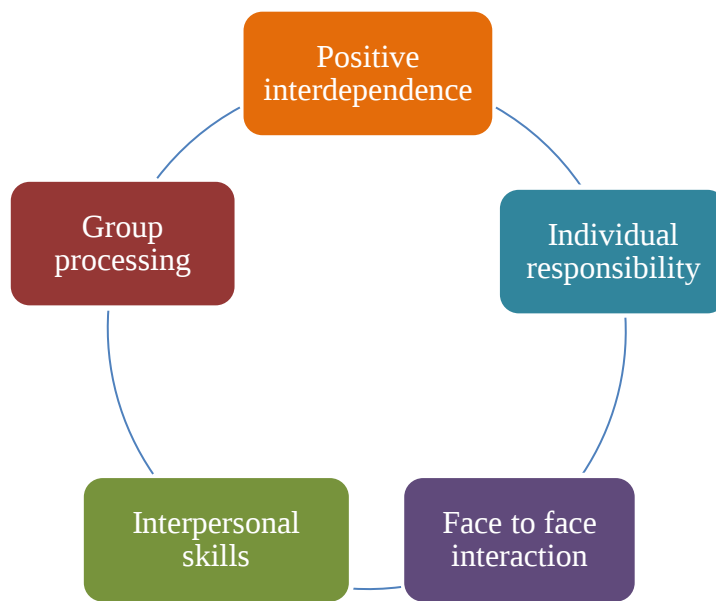


Fig.4. Essential components that characterize cooperative learning.

Source: My own elaboration, based on Johnson, Johnson & Holubec (1999: 33-36)

In this approach, the results depend on the individual performance of each team as well as the strength of the team members. In this way, all team members are responsible for their part of the work, which will be evaluated both individually and in groups. This is so that the success of each person will decide the success of the group, although not in a competitive way.

It can therefore be said that the main objective of this approach is for all members of the group to learn, engage in learning and complete the task or project in the best possible way. In this way, an area of social and interactive work will be promoted in the classroom and will make it possible to improve students' weaknesses and further enhance their strengths.

2.3.2. Benefits and inconveniences of using Cooperative Learning in the classroom

In addition to enabling learning to occur in a more meaningful and memorable way, the classroom application of cooperative learning presents several benefits such as:



Fig.5. Benefits of Cooperative Learning

Source: My own elaboration on the basis of Lancaster, Navarro & Ráez (2019). *Student-centered methodologies*. Jaén: University of Jaén

Gómez Gutiérrez (2007: 14-15) determines that despite all the benefits present, the application of cooperative learning shows some difficulties such as:

- It is an apprenticeship that demands very active participation by all the members involved, which is not easily achieved.
- It requires a lot of patience and perseverance in the initial phases on the part of the teacher.
- Lack of teacher training for the implementation of this methodology.
- Different rates of learning, work and academic results.
- In many cases groups do not advance because they get stuck in an idea (even if it does not work), difficulty in agreeing...

2.3.3. Cooperative Learning in the classroom

To implement cooperative learning in the classroom, Johnson and Johnson (1994: 54-64) said that the following guidelines need to be taken into account:

- Creating a comfortable, trustworthy and secure environment so that cooperation and free expression, allowing students to get to know each other better and work together.

- Encouraging active listening in the classroom. Thus, students will be able to listen effectively to the different contributions of the members of the classroom and, from them, each one of the students will be able to create their own.
- Establishing a continuous communication with the idea that the group can make contributions and express its own opinions.
- Taking into account, at all times, the diversity of the group with the idea of forming heterogeneous groups in order to achieve positive results in the construction of knowledge
- Implementing self-assessment and peer evaluation as this will help to know the strengths and weaknesses of the group and allow for improvements for future work.

2.3.3.1. Types of cooperative learning groups

With regard to the implementation of cooperative learning in the classroom, there are also elements to consider, such as cooperative learning groups and the types of strategies that can be used with them.

After reading to Johnson and Johnson & Holubec (1999) it is possible to differentiate three types of groups for cooperative learning, which can be explained as follows:

Formal cooperative learning groups

This modality can be used for any subject, topic or activity that is organized in a cooperative way. In this type of grouping, students are actively involved in organizing the material, summarizing it, integrating it into the group and thus developing the cooperation technique. It will be up to the teacher to organise the activity before implementing it. To do this, you must clearly set the goals of the class, make prior teaching decisions, explain the task, monitor and supervise your learning, advise and assist groups to improve interpersonal and group work and, lastly, to evaluate the students' learning and to inform them of the degree of effectiveness achieved by the group, so that they can improve it.

Informal cooperative learning groups

Through these groups the students work mostly, during a class session. The teacher uses informal techniques for a specific classroom teaching activity: a video, an exercise, a discussion, a sharing of ideas for a brainstorming task... and with this mode of grouping the

teacher can verify that the boys and girls focus on the exercise while cognitively assimilating the subject matter under study.

Cooperative groups with long-term functioning

With these types of groups you can work for a whole year or for a long period of time. These are heterogeneous groups with permanent members. In these groups all the previously mentioned characteristics of cooperative learning are developed. This will motivate them to fulfil the obligations that arise with the aim of achieving the common goal and on a par the individual one, to strive, to carry out the tasks as effectively as possible.

2.3.3.2. Techniques for cooperative learning

After reading the CL/LC Program (Cooperate to learn, learn to cooperate) by Pujolàs & Lago (2009) it is possible to check that there are many techniques that can be used in the classroom to carry out cooperative learning with our students; the following are the ones that will be worked on throughout the didactic proposal presented.

- TECHNIQUE “1-2-4”

The technique called "1-2-4", is based on the fact that, within a base team, first of all each student thinks the answer which is adequate for the question or questions that the teacher has proposed. Secondly, the students are distributed two by two, exchanging their answers and commenting on them. Finally, the whole base team must agree and decide which answer is the most appropriate to the question or questions they have been asked.

- PHRASE/PHOTO/VIDEO/MURAL

This technique consists of the teacher launches a phrase/photo/video related to the contents of the topic and poses a question in relation to what has been presented. He/she then asks students to reflect on the question individually and to translate their ideas into a quarter of a sheet, of paper. Thirdly, students are divided into groups to share with their peers what they have thought and to reach an agreement among all. Then, on the other side of the sheet they will write the team's response. Finally, the teacher will ask some students, randomly, the response of their teams.

- “ONE FOR ALL”

The technique of "One for all" tries to make students work different exercises in groups, in relation to the topic discussed. For this, all students must write activities in their notebook, in order to be able to affirm the teacher that the components of each group have done the task. When time is up, the teacher collects a notebook from one member of each of the groups. Finally, the teacher corrects this and the grade that the student obtains will be for the whole group.

- "PENCILS TO THE CENTRE"

"Pencils to the centre" consists in distributing to each group of students a series of activities (normally there is the same number of activities as of members in the group). Then each member becomes responsible for an activity and must leave the pencils in the centre of the table as it will be time to talk with the companions of the group about the exercise. First, the student who has been assigned activity one will be in charge of reading it for later, among all, deciding which answer is the most suitable for writing it. Once they have reached an agreement, all students will write individually the response which they have reached in a group form. To do this, they have to pick up their pencils and write the answer while remaining silent. Once they have all finished writing the answers they leave the pencils again in the centre and the person in charge of the second activity reads it, repeating the same process as in the previous activity, until finishing all the exercises.

- “ROTATING PAPER”

To carry out the technique the teacher must ask the teams for an activity (write a sentence, a list of words, a summary...) on a topic they know. To begin with, a component of each team will be the one who writes his/her answer in a folio which will rotate from one partner to another until all the members of the group have written on the sheet. While a colleague writes, others should motivate, advise and help him/her.

3. DEVELOPMENT OF THE TEACHING PROPOSAL

3.1. Justification

For the development of this didactic proposal, as a starting point, the area of Nature Sciences has been selected, as it will allow students to start in the development of the scientific method through the implementation of strategies such as asking questions, planning and carrying out activities, identifying the problem, observing, analysing and contemplating relevant information, working cooperatively, drawing conclusions and making them known, etc. In the reality of the 21st century in which we are immersed, these strategies are considered fundamental as they provide learners with the foundation for scientific education to help them progress in the essential competences to evolving in a world that is continually changing and increasingly developing at the scientific and technological level.

Likewise, I consider it an essential subject to bring students closer to the world around us and they can explore it, understand it and develop responsible attitudes to care for and preserve it, as well as aspects related to the environment, resources and living things. It will be on the latter, the living beings, that the work shown below will focus.

Specifically, it is the subject of "The animals" which has been selected for work for two reasons:

- On the one hand, it is included in the curriculum, as we can see in the Order of 17 March 2015.

- On the other hand, as a teacher, I consider it essential that students know first-hand the importance of animals, in our planet in general and in a concrete way in the ecological balance of this planet. Therefore, this topic aims to inculcate in students the love, respect and care of animals, as well as to teach them that these living beings are part of that magical balance that we must protect so that this planet can remain a suitable space for life.

3.2. Contextualization

The didactic proposal presented below is designed to be developed in a Nursery and Primary School in a municipality of Granada, located in an area of constant urban and population growth. The population of the town is approximately 21,000, predominantly devoted to the service sector.

The centre is a two-line school with six Early Childhood Education units and twelve Primary Education units, a total of 18 units. It also has a Therapeutic Pedagogy Unit, a Hearing and Language Unit and other units such as the multi-purpose room, pavilion, computer room, school library, pavilion, teachers' room, management offices, playground, etc.

As for teachers, it has specialists in Physical Education, Music, English, French and Religion. The majority of teachers are in permanent ownership, which has given stability to the staff and allows continuity in the development of the Educational Project.

All the students are residents in the town. For several years, some immigrant pupils have been incorporated and are fully integrated in the school and do not have language problems because of their origin. The total number of students at the centre is 470, including students with specific educational support needs.

In order to cater for diversity, the Educational Project of the school will define in a transversal way all the measures and resources of attention to diversity necessary to achieve the success and excellence of all students, according to their abilities and potentialities. The Centre Guidance Team is involved in the planning, implementation, monitoring and evaluation of the Diversity Care Plan through advice to the teaching coordination bodies. It will also advise on the development of the Tutorial Guidance and Action Plan and collaborate with the cycle teams in developing it.

The ordinary classroom in which the teaching proposal will be carried out refers to a third year of Primary Education, specifically with students who are between 8 and 9 years old. Regarding the classroom context, it is a large classroom, consisting of 24 students, concretely 14 girls and 10 boys, one of them presenting specific needs for educational support. In particular, it is a student with slight visual impairment because I have to give her the material in a bigger print size, always have good lighting in the classroom and place her near the blackboard and the teacher.

With regard to the level of English, students have a good level of English, specifically, around an A1 level, according to CEFR Levels. This is because they have been taught English since kindergarten and since the beginning of Primary Education the school belongs to the Bilingual Plan since certain subjects as, Natural Science and Arts are taught in English.

The luminosity and acoustics of the class are adequate and it has, among others, the following resources: worksheets, reading and consulting books, different manipulative instruments (strips, playdough, puzzles, etc.), a sound recording and reproducing equipment used in the development of activities, two computers and educational and educational computer programmes. The walls are decorated with the productions made by the children themselves, as well as mural sheets, a blackboard and a digital slate.

Regarding the participation of families, it should be pointed out that they are highly motivated to collaborate because they are participatory whenever they are asked for help in carrying out any activity, workshop and/or school outings.

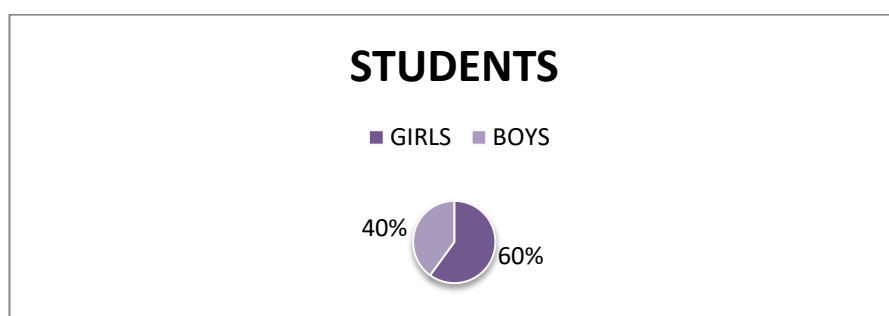


Fig.6.Group of students to which the didactic proposal is intended.

Source: My own elaboration.

To carry out the design of this teaching proposal, I have taken into account the legal regulations, both national and regional as these will allow us to carry out a quality education in Andalusia, a community in which this Integrated Curriculum (IC) proposal will be applied. Specifically, I have focused on the Order of 1 August 2016 modified by the Order of 28 June 2011 regulating bilingual education in educational establishments in the Autonomous Community of Andalusia (BOJA 12-07-2011) as well as in Decree 97/2015 of 3 March, which establishes the organization and teaching of primary education in Andalusia and within the framework of which, in its article 5.3. the objectives, contents, competencies, standards, evaluation criteria and methodology (necessary to take into account to know what to do in the classroom) are established.

This IC will be global and interdisciplinary, will consist of integrated tasks which will allow us to globalize learning within a context and are also the best way to combine everything that influences the teaching-learning process.

3.3. Curricular simplification

The curricular elements to be addressed in this proposal are the following:

3.3.1. Evaluation criteria, indicators and learning standards

On the one hand, in carrying out the evaluation of the implementation of the teaching unit, the evaluation criteria, indicators and standards of learning will be taken as references, as established by the Order of 4 November 2015 and Royal Decree 126/2014 of 28 February.

- **Evaluation criteria:** They are the specific reference for evaluating student learning. It describes what you want to evaluate and what students must achieve in terms of knowledge and skills.
- **Indicators:** They describe the concreteness of the evaluation criteria and the key competences and allow knowing the level of achievement of the acquisition of the capacities contemplated in the objectives
- **Evaluable learning standards:** These are specifications of the assessment criteria that express the outcome of the learning, which specify what the learner needs to know, know how to do and understand.

For this reason, below is shown the direct relationship between the two subjects found in the development of the proposed teaching unit and the evaluation criteria and indicators thereof. Specifically, the subjects are: Natural Sciences and Arts, which will be taught using the CLIL methodology.

NATURAL SCIENCES	
EVALUATION CRITERIA	INDICATORS
C.E.2.1. To obtain and contrast information from different sources, to pose possible hypotheses about natural facts and phenomena observed directly and indirectly for the team to carry out experiments that anticipate the possible results. To express these results in different graphic and digital media, applying this knowledge to other experiments or experiences.	CN.2.1.1 C.N. 2.1.3
C.E.2.3. To know and classify the biotic and abiotic components of an ecosystem, knowing the basic relationships of interdependence and identifying the main characteristics and functioning of the organs, devices and systems that intervene in the vital functions of living beings living in our community, acquiring values of responsibility and respect for the environment.	CN.2.3.1. CN.2.3.2. CN.2.3.3.
ARTS	
EVALUATION CRITERIA	INDICATORS
CE.2.4. To use plastic language in their productions, representing the near and imaginary environment.	EA.2.4.1.
CE.2.6. To elaborate plastic productions progressively according to basic indications in the creative process, selecting the most suitable techniques for its	EA.2.6.1.

3.3.2. Key Competences

Key competences are understood as the set of learning aims that are considered essential from an integrative approach and oriented to the application of knowledge acquired. The competences worked and which I have translated are:

- **Competence in Language Communication (LC).** It refers to the use of language as an instrument of oral and written communication, both in Spanish and foreign languages.
- **Mathematical competence and competences in science and technology (CMST).** Understood as the application of mathematical reasoning for the resolution of situations or problems of daily life, as well as responding to human desires and needs through science and technology.
- **Digital competence (DC).** It consists in having skills and making safe and critical use of ICT, to seek, obtain process and communicate information, and to transform it into knowledge.
- **Learning to learn (L2L).** It involves the development of learning strategies to get started and to be able to continue learning in an increasingly effective and autonomous way.
- **Social and civic competences (SCC).** They enable us to live in society, to understand the social reality of the world in which we live, to commit ourselves to contributing to its improvement and to exercise democratic citizenship.
- **A sense of initiative and entrepreneurship (SIE).** It involves the development of skills that involve transforming ideas into actions, such as the ability to take responsibility and risks, plan and manage projects.
- **Awareness and cultural expressions (CAE).** It involves appreciating, understanding and critically valuing different cultural and artistic manifestations, as well as using them as a source of enjoyment and personal enrichment.

It is important to stress that language acquisition; communication must be the fundamental reference on which the learning processes are centred, favouring the development of communicative competence.

Furthermore, although it is not officially included in Royal Decree 126/2014, 28 February, establishing the basic curriculum of primary education, at the national level, in the design proposed for the integration model "Integrated Curriculum of languages and contents", "Emotional competence" has been incorporated as I consider it a priority for the formative process of a school in which the teaching of values and education for equality are fundamental in the integral formation of the students.

3.3.3. General objectives of stage, of area and didactic

The objectives are an immediate guide to learning planning and must be explicitly formulated. The objectives are as the abilities that are expected to be born from students as a result of the teaching-learning process and perform a couple of fundamental tasks:

- To serve as a guide to the process.
- To provide criteria for their control.

Among them, we can differentiate: stage objectives, area objectives, as well as didactic objectives.

3.3.3.1. Stage objectives

The general stage objectives refer to what students are expected to be able to achieve after the learning process, during the whole stage of primary education.

Article 17, the LOMCE, in its consolidated text dated July 25, 2014, states that the goals of the primary education stage will contribute to develop in children capacities that allow them. Specifically, the following, which I translated into English, will be used in this teaching unit:

- b) To develop individual and team work habits, effort and responsibility in the study, as well as self-confidence, critical sense, personal initiative, curiosity, interest and creativity in learning, and entrepreneurial spirit.
- f) To acquire in at least one foreign language the basic communicative competence that allows them to express and understand simple messages and to develop themselves in everyday situations.

h) To know the fundamental aspects of Nature Sciences, Social Sciences, Geography, History and Culture.

i) To initiate the use, of Information and Communication Technologies to learn, by developing a critical attitude to the messages they receive and develop.

j) To use different representations and artistic expressions and start building visual and audio-visual proposals.

l) To know and value the animals closest to the human being and to adopt behaviours that favour its care.

3.3.3.2. Area objectives

The area objectives determine the general capabilities to be achieved in each of the areas to contribute to the general objectives of the stage. For my planning I have considered those included in Order 17 March 2015, which develops the curriculum corresponding to Primary Education in Andalusia. These are the following which these have been translated by me:

AREAS	AREA OBJECTIVES
NATURAL SCIENCES	O.CN.4. To interpret and recognize the main components of ecosystems, especially of our autonomous community, analysing their organization, their characteristics and their relationships of interdependence, seeking explanations, proposing solutions and acquiring behaviours in everyday life of defence, protection, recovery of ecological balance and responsible use of energy sources, by promoting values of commitment, respect and solidarity with the sustainability of the environment. O.CN.6. To participate in working groups, putting in practice values and attitudes proper to scientific thought, fostering the entrepreneurial spirit, developing one's own sensitivity and responsibility to individual and collective experiences.
ARTS	O.EA.5. To maintain an attitude of personal and collective search, by integrating perception, imagination, sensitivity, inquiry and reflection to realize or enjoy different artistic productions.

3.3.3.3. Didactic objectives

The teaching objectives are defined as the achievement of skills in teaching units and are guided by psychological and pedagogical foundations. They fulfil two vital functions:

- They serve as a guide to content and activities.
- They propose criteria for the evaluation of activities.

In addition, the proposed teaching objectives fulfil two conditions: they are feasible, as they can be achieved by students in the time envisaged and with the resources and constraints from which they are derived and at the same time are evaluable as to why their achievement can be evaluated. The teaching objectives of my proposal have been extracted from the competence indicators of Order 17 March 2015 and are included and developed in the teaching unit presented.

NATURAL SCIENCES:

- Knowing and classifying the animals that inhabit our ecosystems.
- Comprehending the relationships established between the animals.
- Understanding the vital functions of living beings, specifically animals.
- Becoming aware that caring for the planet is essential.
- Acquiring knowledge related to recycling.

ARTS:

- Elaborating plastic productions making use of creativity and using the most appropriate techniques for their manufacturing.

3.3.4. Contents

The contents are defined in the Order of 17 March 2015, as the set of knowledge, skills, and attitudes that contribute to the achievement of the objectives of each teaching and educational stage and to the acquisition of competences. They shape the internal structure of the subject matter subject of the teaching contents of each of the areas. Students are constantly living an educational activity, which is related to the contents, understood as knowledge. These know-how, when worked through the CLIL methodology, are understood as the contents worked in the IC and will be classified taking into account the framework of the 4Cs (Content, Cognition, Communication and Culture) as well as the triptych of languages (the language of, for and through learning) developed by Coyle, Hood and Marsh (2010) as well as Bloom's taxonomy, already explained.

The contents will be worked in an interdisciplinary and intra-disciplinary manner in different areas and connecting formal, informal and non-formal learning, thus achieving meaningful learning, permeated by the CLIL methodology.

In the Order 17 of March 2015, the blocks of contents for each of the areas of Primary Education are established, allowing us to identify the main areas that compose each one. In the teaching unit the blocks of contents dealt with belong to the second cycle of the stage. These have been translated by me and these are:

NATURAL SCIENCES:

BLOCK 1: “INITIATION TO SCIENTIFIC ACTIVITY”

- 1.3. Development of the scientific method.
- 1.4. Development of skills in the management of different sources to seek and contrast information.
- 1.5. Curiosity about the reading of scientific texts suitable for the cycle.
- 1.7. Curiosity to use appropriate terms to express the results of experiments or experiences orally and in writing.
- 1.8. Interest in taking care of the presentation of papers in a printed format or through digital media, maintaining basic guidelines.
- 1.11. Responsible participation in group tasks, making decisions, contributing ideas and respecting those of their colleagues. Development of empathy.
- 1.12. Curiosity, initiative and creativity in carrying out research work.
- 1.13. Development of scientific thought.

BLOCK 3: “THE LIVING THINGS”

- 3.1. Observation of different environmental life forms.
- 3.3. Classification of animals according to their basic characteristics.
- 3.5. Identification of vital functions of nutrition, relationship and reproduction of animals.
- 3.6. Classification of animals and plants in relation to vital functions.
- 3.14. Development of habits of respect and care for living beings.
- 3.15. Development of defence values and restoration of ecological balance.

ARTS

BLOCK 2: “ARTISTIC EXPRESSION”

2.1. Creative production of plastic products, by observing the environment (natural, artificial and artistic), individually or in groups, selecting the most appropriate techniques for their manufacturing.

2.9. Consolidation of work habits, constancy and evaluation of well-done work both by themselves and by their colleagues.

Other contents that will also guide my didactic proposal are those related to Education in Values or Transversal or Cross-Curricular Themes, which will be worked in all areas. To do this, I will carry out actions to develop Environmental Education as it is a topic that is directly related to the contents dealt with in the unit.

More specifically, the specific contents of the unit are:

SUBJECTS	CONTENTS
NATURAL SCIENCES	- Observation of animals in our environment. - Identification of animals as vertebrates or invertebrates. - Classification of invertebrates in: molluscs, jellyfish, sponges, echinoderms, annelids and arthropods. - Cataloguing vertebrate animals in relation to their vital functions: respiration, reproduction and nutrition. - Development of habits of respect and care for our planet and our animals. - Use of ICT for information search. - Responsible participation in group tasks.
ARTS	- Three-R rule (3R): Reduce, Reuse, and Recycle - Creative elaboration of plastic productions, by observing the environment and selecting the most appropriate techniques for their manufacturing.

More specifically, in the next section the contents will be divided according to the framework of the 4Cs (content, cognition, communication and culture) as well as the

trptych of languages (the language of, for and through learning) developed by Coyle, Hood and Marsh (2010) as well as Bloom's taxonomy.

CONTENT AND COGNITION

In the first place, reference is made to both content and cognition, that is to say, it contemplates what students have to learn in terms of theoretical contents. In this case, the contents have been divided taking into account, on the one hand, those that have greater cognitive requirements for the students and therefore pose a challenge (Higher Order Thinking Skills, HOTS) and on the other hand, those that require lower language and cognitive skills (Low Order Thinking Skills, LOTS). In addition, Bloom's Taxonomy has been taken into account to specify the contents.

HOTS	CREATE	Production of creative plastic productions Writing descriptive texts about the created animal. A video about your pet.
	ANALYZE	Classification of animals according to their vital functions. Identification of vertebrate and invertebrate animals. Analysis of texts on animals.
	EVALUATE	Knowledge acquired in the different subjects. Proper use of the foreign language.
LOTS	COMPREHEND	Identifying the vital functions of animals. Explaining the animals according to their characteristics. The composition of the swamp ecosystem. The importance of caring for our planet.
	REMEMBER	The song about recycling. The classification of the animals in relation to their characteristics. The characteristics of the swamp to be visited. The distribution of the residues.
	APPLY	Classifying animals. Creating, from recycled material, your favourite animal. Drawing the animal they have created.

COMMUNICATION

Secondly, it shows the contents that are related to communication and with the triptych of languages (the language of, for and through learning) developed by Coyle, Hood and Marsh

(2010) and that will be worked on throughout the teaching unit. The contents to be achieved in relation to language are shown below:

LANGUAGE OF LEARNING	Key vocabulary - Animals - Vertebrate and invertebrate beings - Nutrition, relation and reproduction - o Herbivores, carnivores and omnivores - o Viviparous and oviparous - o Respiration with lungs or gills Use of prepositions and adjectives for descriptive texts and video Comparative Comprehension of instructions and informative texts
LANGUAGE FOR LEARNING	Use of new expressions Acquisition of new vocabulary Question/answer
LANGUAGE THROUGH LEARNING	Present Simple Animals Imperative Recycling

CULTURE

Finally, in the third place, the contents that will be worked on in relation to culture will be considered. Among them are:

CULTURE	Three-R rule (3R): Reduce, Reuse, and Recycle Varied Videos Information and Communication Technologies (ICTs)
----------------	--

3.4. Didactic transposition

As for the didactic transposition, it encompasses all the conditions created for students to be able to live the experiences that are considered appropriate to achieve the chosen learning rhythm. Therefore, the didactic transposition, in my case, includes the tasks and activities as well as the scenarios, associated resources, and timing.

3.4.1. Methodology

The methodology will answer the question, *how to teach?* This is defined by Royal Decree 126/2014 as “the set of strategies, procedures and actions organized and planned in a conscious and thoughtful way that has as aim to facilitate the learning and to reach the objectives proposed”. It will be a CLIL methodology as well as a constructivist methodology with a basically active, motivating and participative character. It will also be based on students' interests and will promote individual, cooperative work and peer learning. It will enable learning to be integrated and used effectively in different situations and contexts. In addition, it will be geared towards the development of key competences, as long as pupils are always the protagonists of their learning and the role of the teacher is to guide their learning and provide them with the necessary scaffolding or linguistic aids to achieve them. What is more, students will be encouraged to use the foreign language (English) naturally to communicate with both peers and the teacher. The activities will be aimed at working the higher order skills as well as integrating new learning and previous knowledge of the students. Also, throughout the unity we will integrate Content, Communication, Cognition and Culture, in addition to the aspects of language. I will always seek to ensure that the activities carried out relate to and complement each other, have a common objective and are based on the needs of the students.

Furthermore, the didactic proposal will take into account the Constructivist principles (Beltrán, 2003) and the principles of Connectivity (Siemens, 2004) such as:

- Starting from the level of development of my students.
- Ensuring the construction of meaningful learning that is useful to them and related to their daily life.
- Enabling students to acquire significant learning.
- Modifying the mental patterns that students possess through cognitive conflicts.
- Encouraging networking.
- Organizing content through a globalising approach.

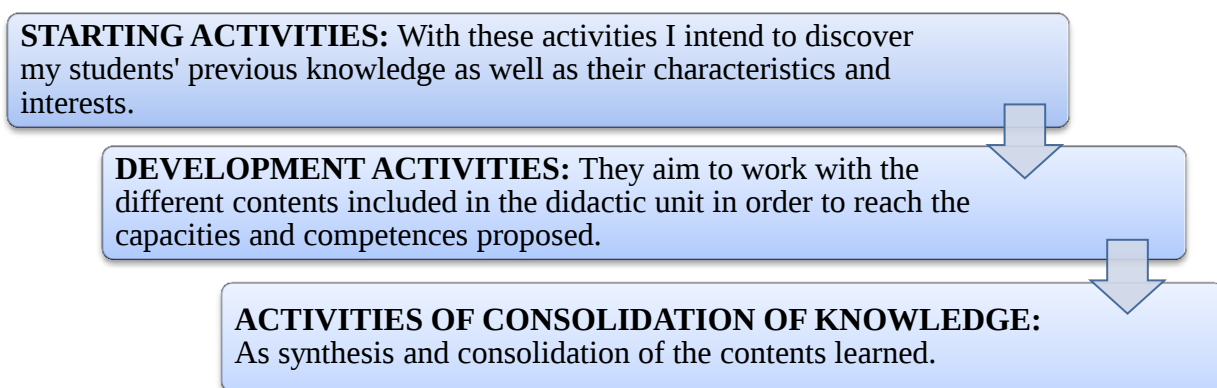
- Promoting interest and motivation in students, since motivation is the motor of all the learning.

In relation to ICTs and constructivist principles, we will consider Connectivity, which is defined as a theory of learning for the digital age (Siemens, 2004:112). Internet-based education has contributed to expanding learning in formal, non-formal, and informal settings (Merriam & Caffarella 2006: 5-26). As a result, teaching-learning strategies are in constant change and Connectivity emerges as a new theory of learning. According to Siemens, this theory of learning has to be contextualized in the digital age, which is characterized by the influence of technology in the field of education.

Another aspect that I want to highlight in my unit plan is the integration of gamification: the use of play and technologies as an element of relevance in my teaching practice, and as a fundamental factor in the motivation of my students, making use of the Kahoot, digital board, YouTube, among others.

3.4.2. Activities

The activities are defined as the active and orderly way of carrying out the teaching-learning process, which will allow me to achieve the previously established objectives and what will be the reflection of my methodology. The different types of activities that will be present in the didactic proposal are:



In addition, to address the diverse learning rhythms of my students and to take into account diversity, I will establish:

- **REINFORCEMENT ACTIVITIES:** I will generally program them for students who have not acquired the contents worked.

- **EXTENSION ACTIVITIES:** They will allow me to continue building new knowledge in the students who have successfully achieved the proposed development activities.
- **EVALUATION ACTIVITIES:** In order to assess the degree of knowledge achieved.

3.4.3. Space and time organization

The classroom should be an environment that encourages different types of interaction and facilitates the development of learning. Therefore, I have to say that in terms of space and time, both must be flexible and adapted to the needs of students and the type of activity that takes place in the classroom.

In terms of time planning, I will take into account Royal Decree 126/2014, 28 February, which states that the timetable for core subjects cannot be less than 50% of school hours. It will also be flexible and will take into account the different areas and their peculiarities as well as the students' fatigue rate, the first hours of the morning are devoted to the instrumental subjects, since they require a higher level of attention and concentration on the part of the students.

	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY
9:00 - 9:45	Language	Mathematics	Language	Mathematics	Language
9:45 – 10:30	French	Mathematics	Language	Language	Language
10:30 – 11:15	Mathematics	Religion/Alt.	Mathematics	Natural Sc.	Mathematics
11:15 – 11:45	Playground	Playground	Playground	Playground	Playground
11:45 – 12: 30	English	Language	Social Sc.	Music	Natural Sc.
12:30 – 13:15	Natural Sc.	Arts	Social Sc.	English	P.E.
13:15 – 14:00	P.E.	French	English	Social Sc.	Tutoring

The Didactic Proposal will be developed over two weeks, which has included the following number of sessions:

- **Natural Sciences:** 7 sessions in total (3 sessions per week)
- **Arts:** 2 sessions in total (1 session per week)

Therefore, 9 sessions of 60 minutes each have been planned.

On the other hand, the groups will be flexible and the learners will be arranged in the classroom in different ways depending on the activities to be carried out. Among those that I will carry out we can differentiate:

- **Class group:** this organization will allow the participation of all students in activities such as brainstorming, collective reading, debates, etc. Usually, the organization of the class will be in the form of a U. Annex I.
- **Small group:** students will be grouped into small groups or teams, always heterogeneous, in order to encourage them to help each other. With this type of groupings, mainly the tasks that consist in small investigations, performance of role-play, information search, exhibitions, etc. will be carried out.
- **Work in pairs:** for some types of activities or even tutoring among the students themselves.
- **Individualized work.**

3.4.4. Resources

A teaching resource is defined as the place, object, person, process, and instrument that help teachers and students achieve learning objectives; therefore, all the elements of the curriculum are didactic resources.

According to Article 122 of the LOMCE, schools shall be provided with the educational, human and material resources necessary to provide quality education and to ensure equal opportunities for access to education. Of all these, the ones used in the development of my teaching units are:

HUMAN RESOURCES	
Educational community (content teachers, language teachers, students, parents)	
STAGES	
Classroom and outdoor spaces	
MATERIALS	
STATIONERY	EQUIPMENT
Chalk, photocopied material, cardboard, glue, continuous paper, folios, notebooks, folders, pencils, pens, markers, waxes, watercolours, erasers, adhesive, cello, chalk, glitter, folios.	Computers, pencil sharpener, whiteboard, digital whiteboard, projector, speakers, scissors, table games system, technological tools, audio-visual resources (YouTube and Kahoot)

3.4.5 Attention to diversity

Attention to diversity is understood as the set of educational actions aimed at responding to the different capacities, rhythms and styles of learning, motivations, interests, socio-economic and cultural, linguistic and health situations of students. Our educational response must start from the principle of inclusion with basic, compulsory and quality education. Similarly, diversity measures at this stage will be geared towards meeting the specific educational needs of pupils and the development of key competences and the objectives of Primary Education they will not be able to do without the necessary adaptations: under no circumstances may he/she discriminate in such a way as to prevent him/her from achieving those objectives.

In addition, we must comply with one of the fundamental principles of the LOMCE in its Article 71: to ensure that all pupils achieve the maximum development of their abilities and meet the general objectives of this Law.

At the national level, Preamble I of Organic Law 8/2013 of 9 December for the Improvement of Educational Quality regulates attention to diversity. At the autonomous level, as far as Andalusia is concerned, it is regulated by the Order of 25 July 2008 and the Instructions of 8 March 2017 updating the protocol for the detection and identification of pupils with Special Needs and educational intervention.

The measures available to all pupils are:

- **Organizational measures** such as reinforcement programmes, group splitting, flexible group organisation, support teachers, etc.
- **Curricular measures** as didactic methodologies favouring inclusion, cooperative learning, organisation of spaces and time, and diversification of evaluation procedures and tools.
- **Didactic measures** can be found among them: mentoring and orientation, reinforcement programs, educational commitments, uses of ICTs and peer tutoring.

Title II of the LOMCE is devoted to matters relating to pupils with specific educational support needs, meaning by pupils with Special Needs as follows:

- Special Educational Needs (SEN: it includes pupils with functional diversity, autism and serious behavioural disorders).
- Pupils who have joined the education system late.
- Pupils with specific learning difficulties.
- Students due to their personal conditions and school history.
- Students with high intellectual abilities.
- Students with Attention Deficit and Hyperactivity Disorder (ADHD).

Among the different adaptations that we can adopt to cater for students with Special Needs are: Adaptations of Access to the Curriculum (AAC), Non-significant Curricular Adaptations (NSCA), Significant Curricular Adaptations (SCA), Specific Programs (SP), Curricular Adaptations for Students of High Intellectual Capacities (CAHIC), Curriculum Enrichment Programs for Students of High Intellectual Abilities (CEPIA), flexibility in the period of schooling and specific personal and material resources for attention to diversity.

Landing in my classroom, I will attend to my student with mild visual impairment who is unable to read a text in common size or perform a reading at a normal distance, by means of an Access Adaptation to the Curriculum that will be carried out with measures such as: increase the print size, deliver the photocopies in A3, instead of A4 format, be sitting near the blackboard and the teacher, have good lighting in the classroom, etc.

3.4.6. Sessions of the unit

Below are the different sessions as well as the activities that are contemplated and developed in each of them, in order for the students to achieve the objectives and the expected learning.

NATURAL SCIENCES	
SESSION 1	Name: “ANIMALS AROUND THE WORLD” Timing: 60’ Skills: Analysing and comprehending. Key competences: LC/ L2L/ SCC/ SIE/ CAE Development of activities:

	Initial: Before starting to introduce the new subject in the classroom, all students must paste a table (Annex II) in their notebook of the Natural Sciences subject about “What do we know about animals?” Later, students will have to fill out the first two columns and then share their ideas with the rest of the students. For this, at group level there will be a brainstorming task in the classroom, so the teacher will project the table on the blackboard and fill in the ideas provided by the students. Development: To hold a debate in the classroom, the question will be raised: Are all animals equally important? Students will have to participate actively and this will encourage communication skills in the classroom. Our pets: In class we will talk about which students have pets, which are the most frequently chosen... and it will be explained what will make their pets famous because we will make an animal documentary. Final: Students will have to write in their notebook the instructions for making the documentary as well as the information it must contain. One example of these instructions can be seen in Annex III. Arrangements: Individual and class group.
SESSION 2	Name: “WHAT DO WE KNOW ABOUT INVERTEBRATES?” Timing: 60’ Skills: Analysing, creating, comprehending and evaluating. Key competences: LC/ CMST/ DC/ L2L / SIE Development of activities: Initial: Watch the video and questions about this https://www.youtube.com/watch?v=rzxFTTrktN1c Development: (GROUP RESEARCH). Students will be divided into groups of 4 and each group will be assigned a group of invertebrates and will have to look for information on their tablets and books regarding the assigned invertebrate group. Once the information is searched, they will have to write down information about this group and then put it on the mental map that will be made of the invertebrate animals. The information to be provided is where the animals in that group live (land, air or water) and what their main characteristics are. An example of this can be found in Annex IV. Final: Each group will explain to their peers the information they have

	collected in relation to the group of assigned invertebrates and, finally, all will put their information together in the class mural so that all of us will build a mental map of the invertebrate animals. Arrangements: Individual, small group and class group.
SESSION 3	Name: “OUR FRIENDS THE VERTEBRATES” Timing: 60’ Skills: Remembering, applying, analysing. Key competences: LC/ DC/ L2L /SIE/ CAE Development of activities: Initial: A video will be projected on vertebrate animals about the classification and their vital functions (breathing, reproduction and nutrition). After this, a collage with different animals will be projected on the digital board and they have to identify the intruder, that is, which is not an invertebrate animal (Annex V). Then they will have to identify the other animals and tell which group they belong to as well as some of their characteristics. https://www.youtube.com/watch?v=HQdiSMUZEDA Development: The activity will consist in carrying out the technique "One for All". To strengthen the contents, students will be divided into 6 groups of 4 components each and will have to perform several group exercises. To ensure that the whole group has carried out the activities, all students will have to write the exercises in their notebook. When the time is up, the professor will call one member of each group and ask for his notebook. The teacher corrects it and the grade that the student has is for the whole group. The activities will be those that appear in Annex VI. Final: In conclusion, “Technique 1-2-4” will be implemented. The question at work will be whether people have things in common with vertebrate animals or if they are totally different. To do this, couples will have to take a single correct solution. And finally the whole group has to reach a consensus on the most appropriate response. Arrangements: Individual, small group and class group.
SESSION 4	Name: “TAKE CARE OF YOUR PLANET AND PROTECT YOUR ANIMALS” Timing: 60’

	Skills: Comprehending, analysing and creating. Key competences: LC/ CMST/ DC/ L2L/ SCC/ SIE Development of activities: Initial: The students, in groups of 4, will be shown a series of images (Annex VII) and we will discuss in large group the following questions: What happens to animals? What do you think this is due to? Are we the human beings responsible for it? Development: In class group, we will do a reading aloud activity (students will read from point to point, thus ensuring that the largest number of students participate in the reading) on “Plastic waste, a serious threat to life at sea and on land” (The text can be seen in Annex VIII). Once the reading is done and translated, each student will be given photocopiable material that will include the text and four questions related to it and an activity will be carried out based on the technique of “Pencils to the centre” (explained above). Final: The teacher will ask each group to propose two solutions to end the problem. Once written, students (in groups) will go to the blackboard and present them to their peers. Arrangements: Individual, small group and class group.
SESSION 5	Name: “WE INVESTIGATE WITH THE SCIENTIFIC METHOD” Timing: 60’ Skills: Analysing, applying and comprehending. Key competences: LC/ CMST/ DC/ L2L/ SCC/SIE/ CAE Development of activities: Initial: Students will have to search for information and research with the help of their tablets and computers, which animals and plants we will find in the swamp we will visit. Development: “Rotation paper” on information relative to the swamp. Final: With all the information worked, they will play “who’s who”. In groups, one will place on one’s forehead the image of an animal or plant (which may be in the swamp) and ask questions to others until he guesses the animal or plant he has caught. For example, you can ask them, am I a carnivore? Do I eat fruit? Arrangements: Individual, small group and class group.

SESSION 6	Name: “ WE ARE GOING ON AN EXCURSION” Timing: 60’ Skills: Analysing, comprehending, remembering and applying. Key competences: LC/ CMST/ L2L/ SCC/ SIE/ CAE Development of activities: We’ll go hiking in the swamp. After the departure, the students will have to write in their notebook in which season of the year we have made the departure, as well as which animals they have found and to which group they belong. They may also add that plants have seen and explained about them. This information will be recorded with the idea of, later in another season, to repeat the outing and to contrast if the same animals and plants continue to be there or if depending on the season we have found one or the other. Thus, our students will be able to verify through a real experience the relationship that exists between the atmospheric factors and the living beings' experience in the environment. Arrangements: Individual and class group.
SESSION 7	Name: “WE ARE EXPERTS IN ANIMALS” Timing: 60’ Skills: Creating, applying and evaluating. Key competences: LC/ DC/ L2L/ SCC/ CAE Development of activities: Initial and development: The documentary of animals made by the students will be screened. At the end of the documentary it will be commented in class if they liked the experience, if something can be improved, etc. Final: Each student with their tablet will perform a set of questions and answers on everything we have studied in this topic. It is created with Kahoot. You will receive a higher score if you answer faster and correctly. Who will win? In this way the teacher will be able to evaluate individually the contents acquired by each of the students. Example of this can be seen in Annex IX. Arrangements: Individual and class group.
ARTS	

SESSION 1	Name: “SHALL WE RECYCLE IT?” Timing: 60’ Skills: Remembering, comprehending and evaluating. Key competences: LC/ DC/ L2L/ SCC/ SIE /CAE Development of activities: Initial: A video with the 3R song will be shown in class and the class group will be asked why it is important to recycle. Development: The above question will be answered through the Phrase/Photo/Video/Mural technique. Each student will have to reflect (individually on it) and write his idea in a quarter of a sheet. After this, students will be grouped into heterogeneous groups and will share with their peers what they have thought in order to obtain a final answer. After that, they will have to write the final answer on the other side of the sheet and finally the teacher will ask, randomly, some students the response of their teams. Final: “The bingo of recycling” (Annex X). This activity is intended for children to memorize where they have to deposit each item, so that the recycling takes place properly, through bingo. Arrangements: Individual, small group and class group.
SESSION 2	Name: “WE GIVE LIFE TO OUR ANIMAL” Timing: 60’ Skills: Creating, applying and remembering. Key competences: LC/ L2L/ SCC/ SIE/ CAE Development of activities: Initial: Students will be asked to bring recycled materials from their home and draw what their fantastic animal would be (it may be made up of different parts of animals). Development: Students will perform in 3D the animals drawn, with recycled and reused materials (Annex XI). Final: Students will need to name their animal and describe the main characteristics of the animal. Some students (chosen at random) will explain their animals. Arrangements: Individual and class group.

3.4.7. Evaluation

The assessment of the learning will be continuous, criterial, formative and global and will be carried out by the teaching team of each course, as established in Article 2 of the Order of 4 November 2015, which establishes the organization of the evaluation of the learning process of Primary School pupils in the Autonomous Community of Andalusia.

The benchmarks of the evaluation are the criteria for evaluating the achievement of the area and stage objectives and the indicators or evaluation criteria and learning standards, as explained above in section 3.3.1.

The assessment process shall be carried out using different procedures, techniques and instruments, adapted to the assessment criteria, as well as to the specific characteristics of pupils. In addition, the evaluation will be carried out at three moments. The moments as well as the techniques and instruments used are:

- **Pre-assessment.** It will be used to collect information about students. It will be carried out before we begin to study the new topic and it will be put into practice through a brainstorming task. It is a very useful tool to determine the readiness level of students who finish filling the table at the end of the topic (Annex II).

- **Formative assessment.** It provides us information about student learning. It will be carried out during the entire topic with the aim of checking whether students are learning correctly and making changes if necessary. Besides, formative assessment will be carried out through:

- **Observation (15%).** Its record will be reflected in an individual control list. (Annex XII)
 - **Checklist (35%).** This will allow us to collect information from students as well as from each of the activities done throughout the topic. (Annex XIII)

- **Summative assessment.** This will show what students have learned about the topic. It will be put into practice at the end of topic. The tools used to carry out the summative assessment are:

- **Peer assessment.** This will allow students to be aware of how group work has been carried out, what strengths and difficulties have been encountered and to see how they can improve for future group work. (Annex XIV)

- **Rubrics.** It is a good tool to use with summative assessment tasks, since it allows us to check the learning of our students and in what grade and with what quality it is being produced. It also allows students to be assessed objectively and consistently. Therefore, different types of rubrics will be used which will allow us to evaluate the following aspects:
 - o A rubric to assess the oral expression of the video for the subject Natural Sciences and the content acquisition (Kahoot) (50%). It will be used in Natural Sciences and one example can be seen in Annex XV.
 - o A rubric to assess the artistic creation and its corresponding written work (50%). It will be used in Arts and can be seen in Annex XVI.

The final grade of the students in relation to the integrated teaching proposal will be the addition of each of the percentages obtained in each of the assessment tools described above.

On the other hand, with regard to the evaluation of teaching I want to stress that, as we evaluate our students, we must also evaluate ourselves as teachers as well as the implementation of our educational intervention. Because of this, I present below a series of indicators of achievement that will indicate to me if the work done is being correct and whose information obtained will provide me with feedback of the process. All this can be seen in Annex XVI.

4. RESULTS AND CONCLUSIONS

After the drafting of the present MA Thesis has been completed, clear conclusions can be drawn regarding the objectives set at the beginning of this work and those that have been answered throughout it.

In order, as can be seen in the present work, we have been addressing the different issues (which had aroused some interest in me as a teacher). Firstly, it has been answered what CLIL (Content and Learning Integrated Learning) is and how it can be planned in the classroom according to this methodology. Therefore, we have grounded the importance of ICTs and active methodologies in the meaningful learning of students. In this regard, we have seen how in the twenty-first century it has become vitally important for everyone to have at least a basic knowledge of ICTs as they are the new tool for the exchange of information, innovation, etc., of the citizens of today's world in which we find ourselves immersed.

On the other hand, among all the active methodologies that we can implement in the classroom, we have decided to focus mainly on the methodology of Cooperative Learning. This happens because, in addition to being a methodology that presents a great number of advantages, it contemplates an aspect that I consider vital: it allows and encourages the inclusion of students, so that it favours normalization, allows the development of social skills, being fully and satisfactorily integrated into society and giving everyone (with different characteristics and needs) the opportunity to belong to a working group and to help each other in order to achieve a common objective, since in most cases the outcome will depend on the work done by each of them.

In addition, from all this and following the work pattern it can be corroborated that an integrated didactic proposal has been proposed, which has been developed following the steps of the CLIL methodology and integrating different groups as well as cooperative learning techniques such as 1-2-4, rotating paper, one for all, and pencil to the centre. Similarly, it can be seen that the development of the sessions of the didactic proposal has tried to integrate different activities and classroom dynamics patterns, in which students are the protagonists of their learning and can relate the learning acquired to the experiences and environments of their nearest world. In this way, we can get students to acquire the contents in greater depth.

However, not all of the work has been positive, and that is a negative aspect, since it has not been possible to put it into practice. This is because I am not currently teaching at any school and because of all the conditions experienced in recent months, which have made it impractical to have the opportunity to apply for permission from a school and to carry out the didactic proposal in the classroom in order to be able to check the strengths and weaknesses of the classroom, to verify how it works among students, as managed by the teacher, and make improvements for the future, if necessary.

Nevertheless, despite the above, I must confess that the accomplishment of this work has also had positive aspects and this has given me the possibility to discover the CLIL methodology in depth (because although I had heard of it, it was still a little unknown to me), learn a little more about what cooperative learning is, and discover new techniques. Furthermore, I have noticed that as teachers we always have something new to discover and that, although implementing certain methodologies, has advantages and disadvantages (like spending more time or having to investigate about it), this should not be a problem for us and we should always be updating ourselves and looking for improvements to our educational practice because, after all, the goal of most of us is to achieve quality education. That is why, finally, we cannot forget that: "A teacher is a compass that activates the magnets of curiosity, knowledge and wisdom in students" (Ever Garrison).

5. BIBLIOGRAPHICAL REFERENCES

- Beltrán, J. (2003). *Intervención psicopedagógica y currículum escolar*. Madrid: Pirámide.
- Coral, J. & Lleixà, T. (2013). “Las tareas en el aprendizaje integrado de educación física y lengua extranjera (AICLE). Determinación de las características de las tareas mediante el análisis del diario clase”. *RETOS. Nuevas tendencias en Educación Física, Deporte y Recreación*, 24: 79-84.
- Coral, J. & Lleixà, T. (2014). “La enseñanza de la Educación Física mediante el enfoque educativo CLIL: la resolución de los dilemas profesionales surgidos durante un proceso de investigación-acción”. *Movimento*, 20(4), 1447-1472.
- Coyle, D., Hood, P., and Marsh, D. 2010. *CLIL. Content and Language Integrated Learning*. (pp.41).Cambridge: Cambridge University Press.
- Crandall, J.A. (1994). Strategic integration: Preparing language and content teachers for linguistically and culturally diverse classrooms. In J.E. Alatis (Ed.). *Strategic Interaction and Language Acquisition: Theory, Practice, and Research* (pp.255-274). Washington, DC: Georgetown University Press.
- Cummins, J. (1999). BICS and CALP: Clarifying the distinction (Report No. ED438551). Washington, D.C.: ERIC Clearinghouse on Languages and Linguistics
- Decreto 97/2015, de 3 de marzo, por el que se establece la ordenación y las enseñanzas correspondientes a la Educación Primaria en Andalucía.
- Gómez Gutiérrez, J. L., (2007). *Aprendizaje cooperativo: Metodología didáctica para la escuela inclusiva*. (pp.14-15) Madrid: Editorial. La Salle
- González, Á., Gisbert, M., Guillem, A., Jiménez, B., Lladó, F. & Rallo, R. (1996). “Las nuevas tecnologías en la educación”. *Redes de comunicación, redes de aprendizaje*, 14, 409-422.
- Guitert, M. & Giménez, F. (2000). El trabajo cooperativo en entornos virtuales de aprendizaje. En J. M. Duart y A. Sangrà (Eds.), *Aprender en la virtualidad* (pp. 113-134). Barcelona: Gedisa.
- Instrucciones de 8 de marzo de 2017, de la Dirección General de Participación y Equidad, por las que se actualiza el protocolo de detección, identificación del alumnado con necesidades específicas de apoyo educativo y organización de la respuesta educativa.
- Johnson, D.; Johnson, R. & Holubec, E. (1999). *El aprendizaje cooperativo en el aula*. Buenos Aires: Paidós.

- Johnson, D. & Johnson, R. (1994): “An Overview of Cooperative Learning”, en Thousand, J.S., Vila, R.A. y Nevin, A.I.: *Creativity and Collaborative Learning. A practical Guide to Empowering Students and Teachers*. Baltimore: Paul H. Brookes. Catalan version in 1997, in *Suports*, 1, pp. 54-64.
- Kovács, J. (2014). CLIL – Early competence in two languages. In Kovács, J. & Benkő, É. T. (Eds.), *The World at Their Feet: Children’s Early Competence in Two Languages through Education* (p. 15–97). Budapest: Eötvös József Könyvkiadó.
- Lancaster, N. K., Navarro, M. & Ráez, J. (2019). *Student-centered methodologies*. Jaén: University of Jaén.
- Llull, J. & Fernández, R. (2016). *Planning for CLIL. Designing Effective Lessons for the Bilingual Classroom*. Madrid: CCS.
- Ley Orgánica 8/2013, de 9 de diciembre, para la mejora de la calidad educativa (LOMCE).
- Marsh, D. & Langé, G. (2000). *Using Languages to Learn and Learning to Use Languages*. (Pp.2). Finland: University of Jyväskylä.
- Marsh, D. & Meyer, O. (2012) *Quality Interfaces: Examining Evidence & Exploring Solutions in CLIL*. (Pp:1). Eichstatt: University of Eichstatt Press.
- Mehisto, P., Marsh, D. & Frigols, J. (2008). *Uncovering CLIL. Content and Language Integrated Learning in Bilingual and Multilingual Education*. Oxford: MacMillan Publishers Limited.
- Merriam, S. & Caffarella, R. (2006). *Learning in Adulthood: a comprehensive guide* Hoboken: Jossey Bass
- Olsen, R. & Kagan, S. (1992). About Cooperative Learning. In C. Kessler (ed.), *Cooperative Language Learning: A Teacher’s Response Book*, pp. 1-30. New York: Prentice Hall.
- Orden de 25 de julio de 2008, por la que se regula la atención a la diversidad del alumnado que cursa la educación básica en los centros docentes públicos de Andalucía.
- Orden de 4 de noviembre de 2015, por la que se establece la ordenación de la evaluación del proceso de aprendizaje del alumnado de Educación Primaria en la Comunidad Autónoma de Andalucía.
- Orden ECD/65/2015, de 21 de enero, por la que se describen las relaciones entre las competencias, los contenidos y los criterios de evaluación de la educación primaria, la educación secundaria obligatoria y el bachillerato.
- Orden de 1 de agosto de 2016, por la que se modifica la Orden de 28 de junio de 2011, por la que se regula la enseñanza bilingüe en los centros docentes de la Comunidad

Autónoma de Andalucía.

Orden de 17 de marzo de 2015, por la que se desarrolla el currículo correspondiente a la Educación Primaria en Andalucía, determina los aprendizajes básicos para cada área curricular.

Otero, J. (2009). *Qué-por qué-para qué-cómo. Aprendizaje Cooperativo. Propuesta para la Implantación de una Estructura de Cooperación en el Aula. Laboratorio de Innovación educativa*. Madrid: Colegio Artica.

Pujolàs, P. (2008). *Nueve ideas clave: El aprendizaje cooperativo*. Barcelona: Graó.

Pujolàs P. (2002). *El aprendizaje cooperativo. Algunas propuestas para organizar de forma cooperativa el aprendizaje en el aula*. Zaragoza: Laboratorio de Psicopedagogía de la Universidad de Zaragoza.

Pujolàs, P. & Lago, J.R. (coords.) (2009). *Programa CA/AC (Cooperar para aprender, aprenderá cooperar). Algunas actuaciones para implementar el aprendizaje cooperativo*. Universitat de Vic. Facultat d'Educació.

Real Decreto 126/2014, de 28 de febrero, por el que se establece el currículo básico de la Educación Primaria.

Siemens, George. 2004. A learning theory for the digital age. Retrieved from: <http://www.elearnspace.org/Articles/connectivism.htm> [20/05/2020]

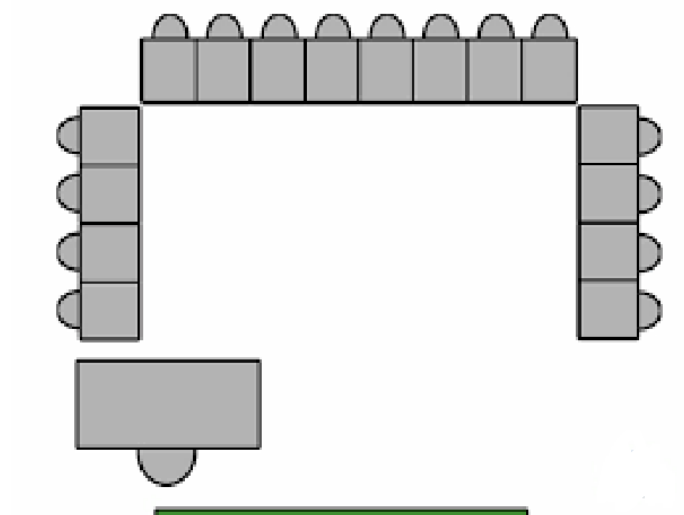
Vigotsky, L. (1978). *El desarrollo de los procesos psicológicos superiores*. Barcelona: Crítica.

Wojtowicz, L., Stansfield, M. & Connolly, H. (2011). "The Impact of ICT and Games Based Learning on Content and Language Integrated Learning". *International Conference "ICT for Language Learning"* (4).

Wolff, D. 2002. On the importance of CLIL in the context of the debate on plurilingual education in the European Union. In *CLIL/EMILE. The European Dimension. Actions, Trends, and Foresight Potential*, D. Marsh (ed.), 47-48. Jyväskylä: University of Jyväskylä.

6. ANNEXES

Annex I. Organization of the class group in form of U



Source: <http://laeduteca.blogspot.com/2014/01/expediente-newton-organizacion-y.html>

Annex II. Table about “What do we know about animals?”

Name and surname:		
TOPIC:		
What do I know?	What do I want to know?	What have I learned?

Source: Own elaboration

Annex III. Instructions for making a documentary

HOW TO MAKE A DOCUMENTARY?

To make the documentary of the animals it will be necessary that all students make a video, of your pet or that of a relative or friend, **with a maximum duration of one minute and 30 seconds.** The information that the video should contain is as follows:

1. Name of the animal.
2. Characteristics of the animal (to which group it belongs, if it is oviparous or viviparous, how it breathes).
3. Activities we do with the pet.
4. Where does the pet live?
5. Anything you consider important and want to share with your peers.

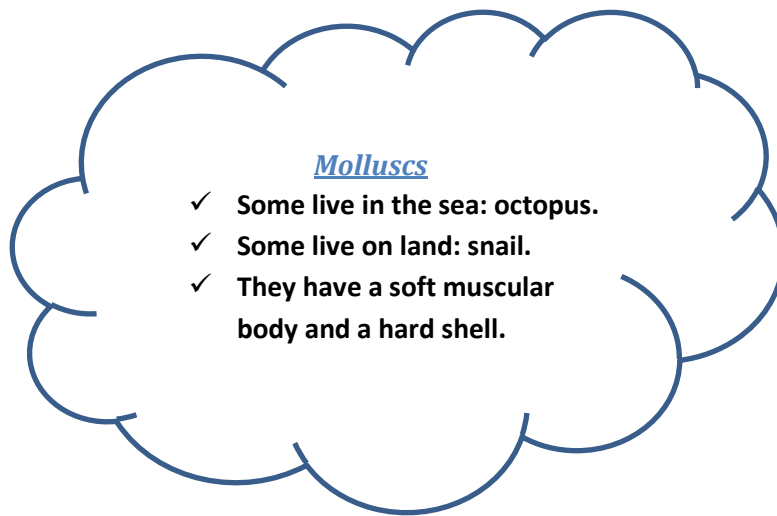


Source: Text own elaboration & images retrieved from:

<https://www.canstockphoto.es/grabaci%C3%B3n-stickman-ni%C3%B1os-grupo-60267002.html>

https://www.freepik.es/vector-premium/coleccion-vectores-mascotas-lindas-dibujos-animados-vector_3910892.htm

Annex IV. Mental map about invertebrates



Source: Own elaboration

Annex V. Collage with different animals; Identify the intruder



Source: <https://sites.google.com/site/webquestsgdepino/>

Annex VI. Activities to work: “One for all”

1. Copy in your notebook and complete the table.

Animal	Group	Respiration	Reproduction	Nutrition
Cow		Lungs		
				Omnivore
		Gills		
	Amphibian		Oviparous	
				Herbivores

2. In each of the following sentences there is an intruder. Circle red which is and explain why.

A) Annelid	mollusc	amphibian	arthropod
B) Carnivore	herbivorous	omnivore	viviparous
C) Cow	human	lion	bear
D) Pig	sheep	butterfly	whale
E) Hedgehogs	fish	frog	crocodile

Source: Own elaboration

Annex VII. Animals suffering from pollution



Source: <https://www.ecointeligencia.com/2013/09/contaminacion-plastico-fronteras/>

Annex VIII. Text adapted of: “Plastic waste, a serious threat to life at sea and on land”

Plastic waste, a serious threat to life at sea and on land

Our seas are dying and the plastic we use every day, in bags and containers and its inadequate recycling is responsible for this. Due to the composition of plastic (derived from oil and other chemicals), this material takes up to thousands of years to disappear from the planet and while doing so, it causes a great ecological disaster in the same.

"What happens is that, the plastic, it breaks down, it breaks down into smaller and smaller pieces, what is called micro plastic. This has a lot of negative effects on fauna and flora as it contaminates everything,' explains Javier Sierra. For example, in marine fauna, plastic kills one million birds and more than 100,000 species each year (United Nations data).

The victims of plastic

The ONU estimates that eight million tons of plastic are discharged into the sea every year and that in 30 years, there will be more plastic than fish in the sea. All this has negative consequences because in the bellies of these animals you can find everything: from soda caps and bags to wipes, straws, etc. In addition, birds, fish, dolphins or turtles, often confuse plastic with food or they can simply die entangled and suffocated. A fish contaminated with plastic could be on our own meal plate.

Objectives

People are not really aware of the seriousness of the problem, because we think that plastic is very useful and cheap, and we use it for millions of things, without thinking about the negative effects it has on our planet. However, given the seriousness of the situation, the United Nations managed to get 193 countries committed to reducing pollution of the seas by 2019.

For example, in Europe, France has prohibited the use of plates, cutlery or plastic cups, while in Spain; it pays for the use of bags. The aim is to make people aware that small changes, such as recycling, can make a difference for marine life and ours.

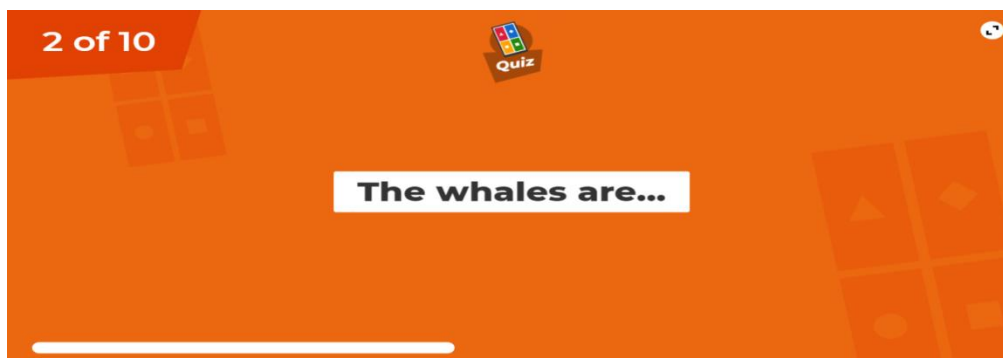
Source: Own elaboration through <https://rpp.pe/mundo/medio-ambiente/los-desechos-plasticos-una-grave-amenaza-para-la-vida-en-el-mar-y-en-la-tierra-noticia-1107044>

Annex IX. Kahoot

Information to access Kahoot and can play

Game PIN: **06642801**, https://kahoot.it/challenge/06642801?challenge-id=815fd584-6420-4d13-837b-7b1aa4fa43b8_1593361704934

Some of the questions asked in Kahoot are:



The whales are...

23



▲ Crustacean	◆ Reptiles
● Fish	■ Aquatic mammals

The whales are...

Correct
+ 717



Next

▲ Crustacean	✗	◆ Reptiles	✗
● Fish	✗	■ Aquatic mammals	✓

Scoreboard

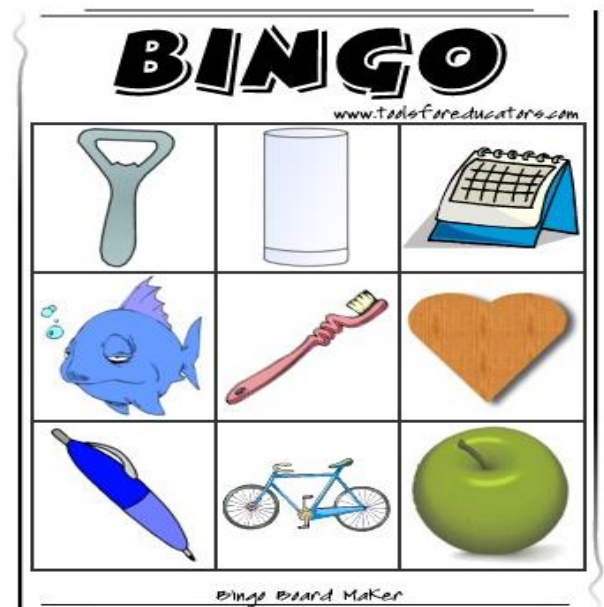
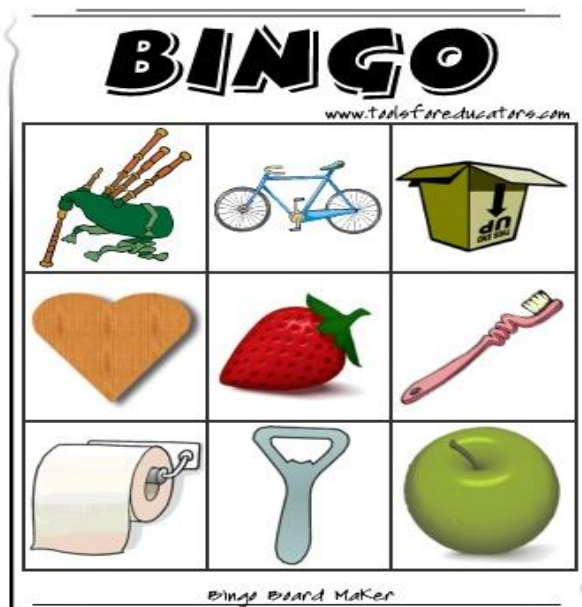
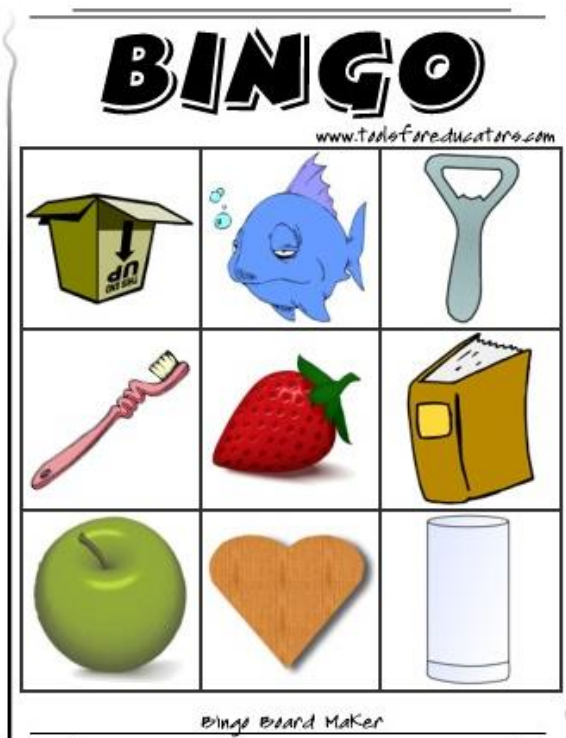
You have completed the challenge

Open for: 9 days 22 hours

1 MightyImpala	8983
2 SturdyOwl	717

Source: Own elaboration through: <https://kahoot.com/schools-u/>

X. "The bingo of recycling"



Source: Own elaboration through of <https://www.toolsforeducators.com/bingo/> // <https://www.toolsforeducators.com/bingo/bingo-maker-3x3.php?cat=all>

Annex XI. Animals in 3D



Source: Own elaboration

Annex XII. Formative assessment tool (Observation; individual control list)

ITEMS	ALWAYS	SOMETIMES	NEVER	OBSERVATIONS
Takes care of the materials				
Pays attention to the explanations				
Daily effort and has good behaviour				
Autonomous learning				
Collaborates with your colleagues				

Source: Own elaboration

Annex XIII. Formative assessment tool (Checklist)

	Carries out the proposed activities				Structures and sequences of ideas in a logical way				Uses language and understands messages (both written and oral) correctly				Makes proper use of ICT				Respects group working standards				Shows interest and actively participates in the subject			
	4	3	2	1	4	3	2	1	4	3	2	1	4	3	2	1	4	3	2	1	4	3	2	1
STUDENT A																								
STUDENT B...																								

Source: Own elaboration

Annex XIV. Summative assessment tool (Peer-assessment)

PEER-ASSESSMENT			
Name:			
Partner name:			
Topic:		Date:	
	Totally agree (3)	Agree (2)	Disagree (1)
We have had many difficulties in carrying out the activity			
We have shared ideas			
It has been easy to agree on decisions			
We have actively collaborated in the activity			
Working in groups has been enriching			

Source: Own elaboration

Annex XV: Summative assessment tools (Rubric)

Rubric to assess the oral expression of the video for the subject Natural Sciences and the content acquisition (Kahoot)

Student's name:				
Topic:				
Categories	Excellent (4)	Good (3)	Sufficient (2)	Needs to improve (1)
Communication	Speak clearly, pronounce and intone properly	Speak with clarity, good intonation and pronunciation is adequate	Speak clearly but his/her intonation and pronunciation are not always correct	Speak with little clarity, does not sing well and his/her pronunciation is inadequate
Vocabulary	Use a suitable vocabulary making use of own and novel contributions	Use an appropriate vocabulary	Uses appropriate vocabulary but with doubts	Do not use the right vocabulary and has gaps
Body expression	Appropriate body	His/her posture and gesture are	His/her body expression is	No body expression in

	expression. Express the meaning of the message clearly	appropriate although it does not clearly express the meaning of the message	inexpressive although he/she accepts well the suggestions for improvement	the video
Content	Demonstrate a complete comprehending of the unit	Demonstrate a good comprehending of the unit	Demonstrate, with help, a good comprehending of parts of the unit	Seems not to comprehend very well the contents that should work
Kahoot	Adequately answers between 100%-90% of questions	Adequately answers between 80%-70% of questions	Adequately answers between 60%-50% of questions	Adequately answers less than 50% of questions

Source: Own elaboration

Annex XVI: Summative assessment tools (Rubric)

Rubric to assess the artistic creation and its corresponding written work

Student's name: Topic:				
Categories	Excellent (4)	Good (3)	Sufficient (2)	Needs to improve (1)
Writing	The work is very well structured	The work is well structured	The work is regular	The work is not well written
Grammar and vocabulary	The text at both the grammatical and vocabulary levels is excellent	The text has some grammatical errors but excellent use of the vocabulary	The text presents some grammatical errors and the vocabulary is scarce	The text presents inadequate use of grammar and vocabulary
Argumentation of the ideas	They present very well-argued and error-free ideas.	They present well-argued ideas.	The presentation of some ideas presents errors.	Ideas are not presented in a clear way and those presented are not argued.
Presentation and artistic creation	The presentation is very careful and clean	The presentation is neat and clean	Little consideration has been given to the presentation and there are	The work presents folds and many studs

			some studs	
Delivery time	The delivery is done on the date indicated	The delivery is made one day late	Delivery is three days late	Delivery is more than a week late

Source: Own elaboration

Annex XVII: Assessment of the teacher

Indicators of achievement	4	3	2	1
The tasks selected are relevant for the learning of different key competences				
The objectives include the contents necessary to carry out the activities.				
The evaluation tools for obtaining information on acquired learning are adapted and varied.				
The teaching methods used to facilitate learning were appropriate.				
The planned activities are inclusive (cater to the diversity of the students)				

Source: Own elaboration