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The WebQuest as a learning tool in the CLIL classroom: a proposal for a Biology and Geology course

La *WebQuest* como herramienta de aprendizaje en el aula AICLE: una propuesta para la asignatura de biología y geología

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Information and Communication Technologies (ICTs) are present in every individual's life and

have been seen as beneficial tools in education, since they facilitate the learning process. This

dissertation aims to present a WebQuest as a tool for helping 1st ESO students of the IES

Tiempos Modernos in the acquisition of both language and content input in the Content and

Language Integrated Learning (CLIL) classroom. The aforementioned WebQuest has been

designed for a Biology and Geology course following the principles of effective learning and

the premises of CLIL. The topic chosen is vertebrate animals, what corresponds to unit 6 of the

textbook in use. The contents were analysed and a creative and engaging activity was created:

students had to design a Zoo of the Rarity to attract tourists to Saragossa in groups.

Consequently, this proposal is also based on the guidelines of cooperative learning.

Key words: CLIL, ICTs, EdTech, Vertebrate animals

RESUMEN

Las Tecnologías de la Información y la Comunicación (TIC) forman parte del día a día de todo

individuo y se han considerado como herramientas beneficiosas para la educación, ya que

facilitan el proceso de aprendizaje. Esta tesis tiene como objetivo presentar una WebQuest como

herramienta que ayude al alumnado de 1º ESO del IES Tiempos Modernos a adquirir tanto la

segunda lengua como el contenido en el marco del aula Aprendizaje Integrado de Contenidos y

Lenguas Extranjeras (AICLE). La ya mencionada WebQuest se ha diseñado para la asignatura

de Biología y Geología siguiendo los principios del aprendizaje significativo y las premisas de

AICLE. El tema elegido es el de los animales vertebrados, lo que corresponde a la unidad 6 del

libro en uso. Se analizaron los contenidos y se creó una actividad motivadora e interesante: los

estudiantes tenían que diseño un Zoo de las Rarezas para atraer a turistas a la ciudad de

Zaragoza en grupos, por lo que esta propuesta también se basa en los principios del aprendizaje

cooperativo.

Palabras clave: AICLE, TIC, tecnología para la educación, animales vertebrados.

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1. INTRODUCTION

ICTs have become an essential element in our daily lives. Students need to be taught how to use them both responsibly and effectively, since they can help and facilitate the learning process. Therefore, new technologies are having a growing importance in education and, more specifically, in bilingual contexts. New technologies have created bonds among people from all over the world; individuals interact in languages that are not usually their mother tongues in order to exchange information satisfactorily. As a consequence, ICTs have been regarded as effective tools to learn an L2- in this case, English- because most of the information that is found on the Internet is in this language and people can both produce and receive information while practising English. These tools have also been considered as devices that help students to acquire and learn content, since there is a wide range of resources from which students can get the information needed. As a consequence, it is very appropriate to include EdTech in the CLIL classroom in order to facilitate the acquisition of both linguistic and content input.

This dissertation aims to introduce new technologies in the context of CLIL because of the benefits that have been shown they have for students. A WebQuest for the study of Biology and, more specifically, of vertebrate animals was designed. The target audience were students from 1st ESO of the IES Tiempos Modernos, in Saragossa. The main goal of this WebQuest was to familiarise students with ICTs while learning the content of the aforesaid unit. Besides, it aimed to develop the 7 key competences of the LOMCE Aragonese curriculum, focusing on the digital, the social and civic competence and the linguistic competence, since cooperative learning will be the methodological approach used.

The paper is organised as follows. First, the theoretical framework introduces both CLIL and WebQuests and explains how WebQuests fit within a Content and Language Integrated Learning (CLIL) environment. After that, the project is contextualised regarding the school and the class for which it is intended. Then, the motivations to carry it out and the anticipated difficulties and possible solutions are presented. The fourth section focuses on the WebQuest created, and explains how students will be arranged, the space in which the lessons will take place, the timing, how learners will develop their key competences and what language

and content input they will learn and the evaluation plan that will be followed. After explaining how the WebQuest will be implemented in class, some conclusions are drawn.

2. THEORETICAL FRAMEWORK

2.1. CLIL: What is CLIL?

Due to the globalisation phenomenon and the interconnections in our world, it has become necessary to know more than one language, which has important implications for our educational system. Students must be equipped with a second language, which is usually English. As a consequence, bilingual education is becoming a way of instruction "in part or all of the school curriculum" (Cohen, 1975: 18). This educational framework has given rise to several practices and approaches such as Content-Based Instruction (CBI) and Content and Language Integrated Learning (CLIL), the latter being considered "a type of instruction that fuses the best of subject matter and language teaching pedagogies" (Morton, 2010: 97). CLIL was defined in 1994 by David Marsh, as an educational model which makes reference to a methodology in which students are taught subjects or part of subjects through a foreign language with the aim of learning both the L2 and the subject content (Marsh, 1994). Coyle et al. (2010: 1) defined CLIL as "a dual-focused educational approach in which an additional language is used for the learning and teaching of content and language with the objective of promoting both content and language mastery to predefined levels."

This approach is built upon the idea that "successful language learning can be achieved when people have the opportunity to receive instruction, and at the same time experience real-life situations in which they can acquire the language more naturalistically" (Marsh, 2010: 11). Swain's output hypothesis (1995) is directly linked to this approach, since it says that language learning only occurs when students produce their own output in that target language. Besides, as Coyle et al. (2010) point out, CLIL allows learners to build upon their own learning. They also state that content is linked to cognition and, therefore, students can have their own perception of

the content being taught and language will always be learned in context. It also brings about intercultural awareness because learners must make connections between both the languages and cultures in play.

Maljers et al. (2010) distinguished five dimensions directly related to the principles of this approach:

- The cultural dimension: CLIL brings about intercultural awareness; students learn about other cultures and understand them.
- The environmental dimension: learners get prepared to be internationalised and CLIL helps them to enhance their curriculum.
- <u>The language dimension:</u> this educational approach helps students develop their target language competence, as well as their attitudes and interests.
- The content dimension: it provides students with the opportunity to access specific vocabulary in the L2 and to study it through different points of view.
- The learning dimension: CLIL practices can cause an increase on learner's motivation because they must understand the language to understand the content. Moreover, it contributes to counterbalance their learning strategies.

This is related to the four dimensions- the 4Cs- that according to Coyle (1999) a successful CLIL lesson should contain: content and new knowledge, communication- students learn the language while using it to learn-, cognition- thinking skills- and culture.

Regarding learner roles, this approach requires a more student-centred perspective, since it is the student who processes the information in another language and builds his/her knowledge from the teacher's instruction (Coyle et al. 2010). Teachers are required to adapt the language for instruction, provide scaffolding and feedback to learn both the language and the subject content (Llinares et al. 2012). According to Lyster (2007), learners will develop accuracy in the L2 if there is a focus on form and if teachers act as feedback providers.

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2.2. WebQuests

A WebQuest is a constructivist learning task which was defined by its developer Bernie Dodge as "...an inquiry-oriented activity in which most or all of the information used by learners is drawn from the Web." (1995: 8). Later, March (2003: 43) redefined this type of activity, emphasising the need to help students transform information: a WebQuest is "a scaffolded learning structure that uses links to essential resources on the World Wide Web and an authentic task to motivate students' investigation of a central, open-ended question, development of individual expertise and participation in a final group process that attempts to transform newly acquired information into a more sophisticated understanding."

From its origins there are two basic kinds of WebQuests, according to its length: Short Term WebQuests and Longer Term WebQuests. The former is divided into two stages which are stated in Marzano's *Dimensions of Thinking* research (1992): the acquisition of knowledge and its integration. This type of WebQuest aims to cover from one to three lessons, where students just deal with relevant information about the topic. The latter is also divided into two stages: extending and refining knowledge (Marzano, 1992). As it involves a longer period-from one week to a whole month-, students should delve into the topic and present a final product in which they demonstrate their understanding.

The process learners follow to complete this kind of activities involves analysing and synthesising the content searched (Yoder, 2003). Therefore, these activities help students develop a number of skills which will be useful for their future, such as comparing, deducting or examining different points of view. WebQuests consist of five basic components (Dodge, 1995):

- The *introduction* presents the topic of the whole WebQuest and aims to catch the students' attention to get them motivated. Besides, some background information is given.
- 2. The *task* establishes, in a precise and clear way, what learners will be required to do throughout the WebQuest. It must also be motivating and resemble authentic situations.

This section should involve high order thinking. Students cannot be just asked to search information and paste it on the activity.

- 3. The *process* stage consists in giving the students a step-by-step explanation to carry out the activities and includes web-based resources in which students will have to search information. It also includes some scaffolding, which is defined as "[t]hose elements of the task that are initially beyond the learner's capacity, thus permitting him to concentrate upon and complete only those elements that are within his range of competence" (Wood et al., 1976: 90).
- 4. The *evaluation* section includes a rubric which will be used by the teacher to evaluate how the activity was carried out and to what extent the objectives were met. It can also include self-assessment and peer-assessment, with the aim of giving feedback to each other and proving what they have learnt.
- 5. The *conclusion* is the last stage, where the experience can be summarized and both students and teacher can reflect upon it. Besides, it can encourage learners to go further on the topic in the future by offering them some food for thought or other unresolved questions.

However, the success of a WebQuest does not only depend on its structure but also on five norms stated by Dodge (2001). These five pieces of advice are gathered in the word **FOCUS**:

- Find great sites: the teacher must look for appropriate and good-quality web pages taking into account the students' age, the topic of the WebQuest and the target learning. Websites should be easily readable, interesting for learners, accurate and up-to-date in content.
- 2. Orchestrate your learners and resources: the teacher's resources must be organised and students must have access to computers. Besides, and as will be stated later on, students must be also arranged in a way in which they could work together successfully, assigning a different role to each member of the group and teaching them some team strategies.

- 3. <u>Challenge your learners to think:</u> WebQuests involve high order thinking processes that will be useful for their future. Students must learn how to deal with information in a critical manner. The design and attractiveness of the main task play an important role in engaging students in mental processes.
- 4. <u>Use the medium:</u> A successful WebQuest must pose a challenge for learners and should motivate them to solve the enigma or big question. Moreover, teachers could include people from outside the classroom that may help students to complete the task such as experts on the topic, parents or even other students.
- 5. Scaffold high expectations: This tool must provide students with the adequate support to be able to carry out the task. According to Dodge (2001), the scaffolding necessary to achieve success in a WebQuest can be divided into three categories: reception, i.e. guiding students in the successful acquisition of input from the resources; transformation, i.e. teaching them several subskills such as brainstorming or decision making; and production, i.e. giving them some structures or guidelines to generate the required product.

2.3. WebQuests and SLA

WebQuests may be very useful in the acquisition of a second language. A WebQuest is a scaffolding tool which increases students' motivation and involves high order thinking processes (March 2007). Ryan and Deci (2000) distinguish three essential elements of WebQuests that improve students' intrinsic motivation: perception of autonomy, self-efficacy and connectedness; learners usually feel involved in the task and connected to their partners to work for a final product. Besides, these websites make learners change the new acquired input to a higher understanding by using advanced thinking (March, 2003). This tool motivates learners to explore, to engage in intellectual challenges and to be curious and, consequently, they may acquire the language subconsciously while being involved in an activity.

As Willis (1996) explains, a language is best acquired when exposure, practice and motivation are present and even more if there is a focus on language form, which will accelerate

language improvement. Pérez Torres (2005) states that WebQuests meet the three aforesaid requirements and offer the possibility to include activities which focus on meaning and promote language learning. They can also involve direct instruction, which will raise students' awareness of being learning an L2. There can be some problems when dealing with WebQuests in the target language; student may not have a good control of the language or perhaps they have difficulties in comprehending and coordinating ideas. To solve it, teachers must adjust the difficulty of the activity to their students' level and provide them with some scaffolding or background information. If they need more help, they can include a "language workshop", where there would be direct teaching of the language. Consequently, the model of WebQuests for SLA will include some language instruction and the process stage may contain background information activation and a language workshop.

2.3.1. Learning theory: Social constructivism

The main theory behind the WebQuest model is social constructivism. Benz (2001: 122) defines a WebQuest as a "constructivist approach to learning" in which students' autonomy and imagination are enhanced to accomplish higher levels of cognitive development than in teacher-centred methodologies.

According to Vygotsky (1978), every cognitive development involves social interaction. His concept of the *zone of proximal development* (ZPD) refers to a certain period in which intellectual development depends on socialization. Piaget (1970) also supports this theory, when he says that people are constantly communicating with each other and interacting with the world, and they learn while solving problems. He conceives thought as something derived from action. This concept is directly related to WebQuests, since students have to work cooperatively to solve the problem-solving tasks.

Social constructivism concentrates on the key role of socialization for cognitive development. It fosters the use of authentic tasks involving interaction, negotiation of meaning and cooperation among students (Bonk and Cunningham, 1998). Consequently, WebQuests provide students with purposeful tasks in which they get involved in real contexts and construct

understanding and knowledge of the L2 by interacting with peers. Learners are given autonomy and must collaborate among them.

2.3.2. Methodological approaches

Several methodological approaches serve as the bases of WebQuests for language learning.

Cooperative learning

Cooperative learning (CL) is essentially an approach where students, arranged in small groups have to work together to fully develop their learning and their partners. Every group member has to collaborate and it is necessary to accomplish the task (Johnson et al., 1981).

WebQuests are considered as a tool to promote cooperative learning (Dodge, 1995) because as March states in his definition of WebQuest, students participate "... in a group process that transforms newly acquired information into a more sophisticated understanding" (2004: 42).

According to Dörnyei (1994), one of the best techniques to make students get motivated is by working in groups and enhancing group cohesion, not only dealing with individualistic activities but making students feel as essential for accomplishing the aims.

Communicative Language Teaching

Communicative Language Teaching (CLT) "can be understood as a set of principles about the goals of language teaching, how learners learn a language, the kind of classroom activities that best facilitate learning, and the roles of teachers and learners in the classroom" (Richards, 2006: 41). The main goal of learning a language is the allowance of its users to communicate with each other, so CLT aims to help students achieve communicative competence, in this case in English. Following one of the CLT principles, the four skills will be always practised and taken into account and the student will try to accomplish fluency and accuracy in the four of them, while students are allowed to make mistakes, which are considered as opportunities for learning.

In CLT, the theory of language is based on the belief that every L2 is learned through "meaningful and purposeful" interaction (Richards, 2006: 42). Acquisition of input occurs within a context, which turns activities into meaningful tasks. Besides, CLT backs the need of authenticity of materials (Richards 2006), which should bring about a non-predictable use of language (Brown, 2007). Besides, CLT is characterised by being learner-centred (Brown 2007).

Task-based learning

According to Willis, a *task* is a meaning-focused activity which involves real world exercises aiming to grow learners' interest "through activities where the target language is used by the learner for a communicative purpose in order to achieve an outcome" (1996: 23). WebQuests are an appropriate activity format for task-based learning, since real WebQuests involve getting students engaged into tasks in which they have to communicate with each other to achieve a common outcome.

Content-based learning

Content-based learning is an approach in which teaching is constantly changing from content to language inputs with the aim of mastering both (Spanos, 1990). In this approach, authentic materials without any modification are the basis for tasks. Besides, activities must incorporate images and other scaffolding items to help students to make associations and carry out high order thinking processes (Craik and Lockhart, 1972). Content-based learning is directly related to CLIL, so WebQuests are a useful tool for teaching both content and language at the same time, since they pose a question and students have to investigate and deal with authentic materials to solve it.

Project-based learning

Project-based learning (PBL) has been defined as an approach in which students are challenged to solve problems which resemble authentic language use and usually involve more than one discipline (McGrath, 2003). Students acquire input while doing several inquiry-based

activities that require them to be engaged in the task. This pedagogy increases learner autonomy, since students are directly responsible for their own intake (Boaler, 1997). Therefore, WebQuests are a very useful tool to engage students in project-based learning: students are presented a problem-solving activity and they have to do some research for an extended period of time to solve it. Besides, cooperative learning is the basis for both, since every learner must cooperate to get results.

2.4. The Language WebQuest

According to Koenraad and Westhoff (2003), there are several basic principles every LanguageQuest (i.e. Webquestss for language learning) must meet. Firstly, there is a reference to Krashen's *comprehensible input*, since every WebQuest must provide students with a great exposure to an L2 input which goes beyond their current knowledge for SLA to take place (1985).

Secondly, the *weak interface hypothesis* stated by Ellis (1990) explains that content processing must be combined with formal instruction, claiming that learners' output is directed by rules and that their attention must be directed to notice formal aspects of the input (Schmidt, 1990) through a Focus on Form, not on FormS.

Swain's *pushed output* hypothesis (1995) should be taken into account when designing a WebQuest, since it enhances students' motivation and fluency and gives the teacher the chance to give feedback (Spada, 1997).

Pérez Torres (2005) establishes a series of principles every WebQuest for Language learning must meet:

- Authentic materials must be included in order to foster a purposeful use of the second language.
- Students' linguistic level should be taken into account when designing the WebQuest. If
 they are provided with a more difficult task than what they are expected, they will need
 linguistic scaffolding.

- Both language-related and non-linguistic outcomes must be clearly set up and the activity must be directed to reaching those objectives.
- Students must make a communicative use of the L2 to attain the goals of the activity.
- Scaffolding has to be a persistent element throughout the whole WebQuest, meeting the learners' needs and will incorporate an activation of the background information, and clear guidelines to carry out the task.
- The WebQuest has to be integrated in the syllabus either as another unit or as an activity.
- The practise of certain language skills must be included when planning the design of this tool.

In addition to these criteria, Koenraad and Westhoff (2003) also state that in a WebQuest for language learning tasks must be open and allow differentiation and that students should have opportunities to reflect upon their own learning and final product (self-assessment).

2.5. WebQuests and CLIL: The CLILQuest

Since WebQuests are tasks that can be used to practise the language while learning content they are highly useful for CLIL. A WebQuest for CLIL should include both content-oriented processing and form-oriented processings. Students must understand the input in order to learn it; just the exposure is not enough. Fernández Fontecha (2010) uses the term CLILQuest to refer to Language WebQuests used in a CLIL context and lists several advantages if used:

- Exposure to the L2 and use of authentic materials: students get greater exposure to the second language. Besides, they can easily find authentic materials and practise the four skills while being evaluated.
- Support of visuals: CLILQuests allow teachers to include a great variety of visuals that will improve the students' understanding and learning of the input, such as conceptual maps, graphics or videos.
- Cooperative learning: students reach their goals only if they all work together to do it.

- Students' development of higher-order thinking and language learning skills, the former being one of the main goal of CLIL (Mohan 1986, Chamot & O'Malley 1994). It involves active learning and March's concept of transformation of knowledge (2000a, 2003) from the activation of prior learning and the addition of the new one.
- Motivation enhancement, since students get the input from different resources and instruction comes in different ways that go beyond traditional teaching.
- Language learning in context: this aspect refers to March's *real world loop*, where learners are exposed to authentic language.
- Learning by doing: students construct their own learning by exploring and carrying out
 problem-solving tasks. Besides, this methodology makes the learners reflect about their
 own process of acquisition of knowledge and about what decisions to make.
- Easy access to content

The CLILQuest is a very useful tool for learning because students can receive scaffolding throughout the learning process. Moreover, it is oriented to obtain a product after having gone through different stages (e.g., creating and writing) and learners are assigned different roles they will have to take on to solve the tasks. The model of CLILQuest allows teachers to focus on Form and gives students the opportunity to use the language with a focus on meaning.

3. Contextualization

3.1. School setting

This proposal has been designed for a Biology and Geology class at the IES Tiempos Modernos, a high school located in Actur, a neighbourhood of Saragossa. The people living in this neighbourhood are mostly part of the middle class, with an average net income similar to the municipal one. These data will influence the type of students and the resources available at the school. It is an urban state school which has classrooms for all levels of ESO and Bachillerato; the latter divided into four branches of knowledge: arts and humanities, social and

legal sciences, technological sciences and health sciences. Moreover, there is a range of basic vocational training courses and middle and higher level training programs.

The school is highly engaged with promoting languages, offering a bilingual program in both English and French since the school year 2010-2011. Its main objective is the development of students' communicative competence required by the current legal framework. In the school year 2014-2015, there was an adaptation of the *Programa Integral de Bilingüismo en Lenguas Extranjeras de Aragón* (PIBLEA) in English and French, so students can opt for a content subject in either of the two languages. Besides, there are a series of programs in which the school is engaged that also foster the learning of foreign languages, such as the Erasmus +, The *Big Challenge*, the *European Citizenship Learning in a Programme for Secondary Education* (ECLIPSE) and the *Juvenes Translatores*, a contest launched by the European Comission. Besides, it covers special educational needs by tendering educational programmes such as *Programa de Mejora del Aprendizaje y del Rendimiento* (PMAR) in 2nd and 3rd ESO, but none of its students will be part of a bilingual program.

3.1.1. Class context

This proposal has been designed for 1st ESO. The different classes are made up of around 25 students, and there are more girls than boys. These classes are heterogeneous regarding the students' characteristics, situations and needs. Students from these classes come from two different primary schools and most of them have a beginner level of English (A1+ according to the CEFR).

There are two high capacity students and three students who work more slowly. In spite of this, none of these five students needs significant curricular adaptations. In general lines, they have an adequate level of English for their course. The class is equipped with a whiteboard, a projector, and a computer for the teacher. Besides, students can make use of a set of laptops available at school. Moreover, the high school has a computer lab with computers for students' use.

3.2. Justification

3.2.1. Legal framework

The following WebQuest has been designed according to the LOMCE Aragonese Curriculum Orden ECD/489/2016, from 26th May and especially with the specifications for English as a foreign language. Commanding at least one foreign language is a key component for a global, intercultural and multilingual education for an interlinked world, as the European Council states; this is recorded in the Specific Provisions of the Aragonese Curriculum for English.

The WebQuest has been designed to be implemented in the subject of Biology and Geology for 1st year of ESO students. The focus will be on BLOCK 3 of the syllabus: the biodiversity that can be found in our planet. It will aim to make students acquire knowledge about the classification of living things according to the five vertebrate animal kingdoms and simultaneously learn the language related to this topic.

3.2.2. Personal justification

It is usually very difficult for students to learn content through a foreign language. As teachers, we must find ways to facilitate the acquisition of both content and language through a series of engaging tasks and scaffolding that help students in the learning process.

Besides, I have chosen 1st ESO because students are all new at school and will get to know each other by working cooperatively. Cooperative learning will also foster students' motivation, a key factor that should be present since the beginning of the ESO stage.

3.2.3. Assumptions

Firstly, I assume that the level of English of students is different. However, they should be able to follow a biology lesson in English, despite the lack of familiarity with specific vocabulary, which will be learnt in the course.

Secondly, I assume that students would have some background knowledge of the classification of vertebrate animals into five kingdoms even if they are not familiar with the corresponding L2 vocabulary, which will be learnt in the different tasks. They have dealt with the topic of animals in Primary education and many specific words are cognate with Spanish words. Therefore, I assume that the topic will be engaging and motivating for the students.

Thirdly, I assume that students have experienced the benefits of working cooperatively in Primary School. They could also know how to peer-monitor their partners, since they will be arranged according to their different levels and characteristics and all of them will have to participate equally to reach a previously set objective.

Finally, I suppose ICTs are present in their daily lives and they have already used EdTech (i.e. Education Technology) during their learning path. It is very useful to integrate ICTs in their acquisition of knowledge process and overall to teach them to make an effective and responsible use of them.

3.2.4. Anticipated difficulties

- Students might be reluctant to take biology lessons, since this subject has been usually
 taught with traditional out-dated teacher-centred methodologies, since the LOMCE
 advocates for more active methodologies in which students are the centre of the
 learning process.
- The fact that the lessons are given in English and they are required to answer in this L2
 may condition their participation; some of them may refuse to take part in the lessons
 because of their fear of making mistakes.
- Timing will also vary from a traditional biology classroom in Spanish, since students may have difficulties in understanding instructions or giving the correct answers, for instance. Likewise, faster learners may finish the tasks earlier than others and consequently get bored while waiting for their partners to finish.
- It is very complex to control that every student is speaking in the L2, since most of them use the L1 to talk to each other and ease their understanding of the message, since they

- may lack specific vocabulary or even feel embarrassed when speaking in English with their partners.
- Some students may not have the digital competence required to do the proposed tasks or
 might be unfamiliar with the opportunities the Internet gives for the process of learning
 if it is used effectively.
- The Internet connection could not work properly or any of the electronic devices might be damaged.

3.2.5. Possible solutions

- To use student-centred instruction and active methodologies in which authentic, motivating and visual materials are used. Students must be involved in the process of learning by the use of the ICTs and cooperative learning, the latter contributing to lower the affective filter and turning students into active learners.
- To make them aware of the fact that making mistakes is part of their learning process. They are allowed to make errors and they may serve as opportunities for learning. To achieve this target, I will foster the learners' participation not only individually, but also in groups. Working in groups, students will feel less anxious because their affective filter will be lowered.
- To provide scaffolding for those students who struggle when doing the activities in order to manage to finish the tasks on time. Moreover, fast finishers would be given extra activities to avoid boredom and also complete and reinforce their learning.
- To control if every student is speaking in the L2 within each group, each of them will be monitored by the teacher and some ideas will be shared at the end of the lesson.
- To give some scaffolding in class about how to use ICTs and monitor the different groups while they are doing the tasks.
- To have some paper copies of the tasks available just in case the Internet connection does not work properly or any of the electronic devices is damaged.

4. UNIT PLAN- WebQuest

4.1. Introduction

According to the specifications of the LOMCE Aragonese curriculum for the first foreign language, English has become a crucial tool, not only to allow students to access information and education but also to fully develop students as citizens of the current globalized world. This WebQuest takes into account the needs of the teaching-learning competence based model, which is founded on the assumption that students have to put their knowledge into practice. In order to achieve this outcome, this WebQuest will require students to use the English language as an instrument to acquire input about the field of animals in biology and more concretely, about vertebrate animals.

The following project will contribute to the target learners' development of the 7 key competences: the linguistic competence, the digital competence, the social and civic competence, the learn to learn competence, the entrepreneurship competence, the mathematical competence and cultural awareness and expressions competence. Therefore, this WebQuest aims to guarantee the students' acquisition of abilities that will allow them to adopt life-long learning attitudes and become ready to enter the real world once they have finished their formation.

This WebQuest has a cognitive focus and task-based principles and is additionally process-oriented, in order to be more learner-centred and meet the principles of CLT, which is also encouraged by cooperative learning structures. Students work in groups to acquire social and civic values from an inclusive educational perspective and build respect to the others. The task proposed will also "help the student to understand the social reality in which we live." (Orden ECD/489/2016, p. 3).

Entering the World of Vertebrate Animals (see Appendix I) is a WebQuest that will be carried out in 9 lessons at the end of the first semester of 1st ESO. It will correspond to unit 6 of the textbook and could be considered as a project in which students have to research and create a Zoo of the Rarity to attract people to the city of Zaragoza. There are several reasons for

doing it at the end of the first semester: firstly, students will get to know each other more deeply, since they will have to work in groups to accomplish a series of aims. Secondly, the teacher will know how students work and will be able to make the groups according to their levels and needs. Finally, this project is more dynamic than traditional lessons and will be motivating for both those who want a high mark and the ones who are struggling with the subject.

As Krashen (1985) states, activities have to challenge students in order to bring about lifelong learning. At the same time, students who engage in an activity that is somehow challenging might have intrinsic motivation for performing the activity (Lepper, 1988). The level of the tasks is not too difficult either linguistically or at the level of content because it is the first time students receive bilingual education and the adaptation is sometimes difficult.

The evaluation of this project will be focused on the process, not on the product, although it will be also evaluated. The note mark got on it will mean the total mark for this unit, since students will not have to make an exam. Students will have to create a portfolio in which they will have to include ten information sheets (see Appendix II) about the weird animals they have chosen for their zoo and a brief document with the measures to keep the animals safe and healthy.

4.2. Stage Objectives

This WebQuest directly contributes to the implementation of stage objectives (see Appendix III).

4.3. Methodology

4.3.1. Principles and techniques

There is a series of methodological approaches and techniques in which this project is based:

-Communicative Language Approach

This WebQuest encourages students to develop their communicative competence by means of interacting to others, since this project is based on cooperative learning, peer teaching and monitoring, and problem solving tasks.

Besides, it fosters the use of authentic materials, since students have to deal with a number of Internet resources which are not scripted and make a natural use of the English language. In any case, the resources given to the students are easy to understand and there is also support of visuals that will help learners to understand the content. If they decide to use their own resources, the teacher will revise them to see whether they are appropriate for students regarding the language and content level.

-Diversity

It has been proved that classrooms are heterogeneous regarding their students; they are diverse and different from each other in terms of their level of knowledge and use of the language and also their way of learning content. In order to cope with it, an education that advocates for inclusion, activities for consolidation, reinforcement or amplification will be included. Besides, students will always work cooperatively for this project, enhancing peer teaching and monitoring and teaching them social and civic values such as being respectful with their partners. These factors will guarantee an individualized education within the framework of the class and will also foster their motivation while working with peers.

-Error treatment

Errors in both content and language will be considered an essential part in the learning process and an indicator that acquisition is taking place. The teacher will use error correction techniques such as recasting in the part of the language. He/she will clarify the possible doubts or mistakes found at the beginning of each lesson, since he/she will collect their work after each session and will revise them to see how they are progressing. The reflection on the project both individually and regarding the group work will be used as instruments to make students aware of their strengths and weaknesses and consequently allow them to improve for their future.

-Autonomy

According to the recommendations proposed by the European Council, this WebQuest is intended to foster students' life-long learning through the development of the key competences and autonomy. Consequently, objectives will be clearly stated and given before the students start working on the project and some strategies for learning how to learn will be promoted, such as self- evaluation and reflection.

-Development of the audiovisual communication and Information and communications technologies (ICT)

This project develops the student's ability to present, process and communicate information in English. Besides, it is directly linked to one of the 7 key competences every learner has to develop for his/her life-long learning: the digital competence. It is very important because students must get adapted to the increasing demands of the society in which they are living regarding the use of new technologies.

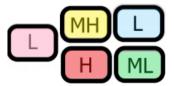
Students also have to look for information in a series of resources provided by the teacher, although they are invited to use their own. This will be used to teach students how to critically evaluate and select the different sources of information and be able to analyse consciously the data provided by the different resources.

The presentation of their Zoo of the Rarity will allow them to work with different tools to present information and emulates a real context in which they are presenting a project to the rest of the citizens to convince them that this will place Saragossa at the top 5 most touristic cities in Spain and attract them to visit their zoo. The correct use of these resources will be part of their evaluation, since it will be considered that they help students throughout their learning process.

4.3.2. Groupings

The whole project will be carried out in heterogeneous groups, in which students will be mixed taking into account their L2 levels and characteristics. Groups will be made of 5 students, who will be seated according to their levels as follows: High (H), Medium-High (MH),

Medium-Low (ML) and Low (L). This way, peer monitoring will be enhanced, since they will be able to help each other.



Besides, they will all contribute to the final product, as they will be arranged in groups of experts to look for the information required and will have to explain it to their partners later on. This way, students will be motivated because they will all feel they are essential and will acquire the information better thanks to the fact that they have to *teach* it to their partners and for that purpose they have to understand it perfectly.

4.3.3. Space

This project will be done in class, since students will have the opportunity to use the set of laptops the high school owns. If the Wi-Fi connexion does not work properly or the devices do not have enough battery, they will move to the computer's lab, in which there are around thirty computers for students' use.

If the Internet does not work properly in any of the facilities, learners will stay in class and the teacher will give them some paper copies with some data about animals and an encyclopaedia with information about them.

4.3.4. Timing

This project will be done at the end of the first semester, since students are supposed to be taught four units per semester and it will be more motivating and engaging that having an exam. Consequently, students who are struggling with the subject may improve their marks and those who aspire for high marks could get them.

This project will be carried out in 9 lessons of 50 minutes each in which students will be completing the challenge. The different parts of the WebQuest are scheduled to be done in

specific times (see section WebQuest Overview) but if there is any group that works faster, the teacher will allow it to continue with the next step. If they finish soon, they could help other groups that work slower.

4.4. Key competences

This project contributes to the development of the seven key competences cited by the Aragonese curriculum (Orden ECD/489/2016). These key competences are:

o Linguistic competence:

CLIL contributes to the learning of a second language, in this case, English. Students acquire the L2 while learning content. They also develop the ability to interact through a series of tasks in which they have to work cooperatively to accomplish the aims. Besides, they have to explain to each other what they have researched, which involves the use of the L2 for communicative purposes as well.

Mathematical competence and basic competences in science and technology:

This WebQuest is directly related to science, since it deals with a topic studied in biology, the vertebrate animals. It also involves some calculations, since students are required to express both the weight and the size of the animals chosen in specific units of measurement, such as kilogrammes and metres respectively. Therefore, they may have to make changes in the units of measurement that they will find on the resources (e.g., from grammes to kilogrammes).

o Digital competence:

This unit directly contributes to the students' learning of how to use Information and Communication Technologies (ICTs) responsibly and autonomously. The WebQuest itself is a tool that will develop their digital competence and will allow them to analyse critically the Internet resources in which they will look for information. Besides, students will have to take part on a *Padlet* page by proposing measures to take care of the animals appropriately. They will also have to present their information by using digital programmes and will self-reflect on their learning and group work through a Google form.

o Learn to learn competence:

This competence is also practiced, since they will be required to look for information on the Internet and take notes to explain it to their partners; they will teach content to them, and at the same time they will learn from their peers' explanations.

o Social and civic competence:

The curriculum (Orden ECD/489/2016) explains that effective learning involves a positive and open mind regarding relations to others, which should be based on discussing and cooperating. This is enhanced by cooperative learning, since students will have to peer-monitor their partners and reach agreements in a respectful environment in which everyone's words count. Moreover, students have to think about ways to take care of the animals chosen properly within the zoo, what is directly related to ethics.

o Initiative and entrepreneurship competence:

This project poses the learners the challenge of creating a Zoo of the Rarity to make Zaragoza a more touristic city. Students have to plan and organise which animals to include in their zoo to make it attractive for tourists and also deal with the ethic side, as they have to think about ways to keep the animals safe and healthy within the zoo. In their oral presentations, they have to try to convince and attract their audience to visit the zoo, as a usual company will do with its products.

O Competence of cultural awareness and expressions:

This WebQuest also contributes to this competence because students will be able to learn about the geographical origins of each animal and will have to present their product by creating an attractive oral presentation regarding both visuals and speech.

4.5. Specific contents

This WebQuest contributes to the development of curricular contents which are presented in the specific provisions for 1st ESO both in the subjects of Biology and English as a Foreign Language. Besides, it fosters the development of the four skills needed when learning a language, which are specified in the four categories established by the curriculum: sociocultural

and sociolinguistic aspects, communicative functions, discourse and syntactic structures and common use lexicon (see Appendix IV).

Moreover, and according to Section 11 of the General Provisions in the *Orden EDC/489/2016 de 26 de mayo*, cross-curricular contents must be also considered when designing a course plan to widen the students' Social and Civic Competence for life-long learning. This project contributes to the development of some of these contents; students are challenged to create and develop a project about a zoo to attract people to the city of Saragossa in heterogeneous groups regarding their levels and needs, so they are learning respect and equality values while reinforcing their autonomy, initiative, their abilities to work in groups, the trust on themselves and their critical thinking while choosing where to get the information from.

As CLIL involves the learning of both the language and the content of the subject, this section will be divided into language exponents and content exponents.

Language exponents	Content exponents		
 The present tense: present simple for descriptions Verbs to be and have got. The future: will to explain plans to keep the animals healthy and how they will organise the zoo. The first conditional: to convince the audience to visit the zoo. Adverbs of frequency. Vocabulary and expressions to describe animals (e.g., animals' body, it is two metres tall). Vocabulary and expressions about countries and origins (e.g., this animal comes from Ethiopia) Expressions to raise interest (e.g., what is amazing is that) Decimal numbers to express weight and size (e.g., it is 1,40 metres tall) 	 Animals' vital functions: nutrition, reproduction and relation and how animals are classified according to them (e.g., viviparous vs. oviparous) Characteristics of vertebrate animals (e.g., they all have a spine, also called backbone). Groups of vertebrate animals and their main features: fish, amphibians, reptiles, birds and mammals. Animals' habitat and geographical location. Habits and actions to keep the animals safe and healthy. 		

4.6. Evaluation

The procedure followed to evaluate students will meet the requirements of Section 14 of the Orden ECD/489/2016, from the 26th of May. This WebQuest will be evaluated according to the evaluable standards of 1st ESO. Evaluation will be continuous, formative and integrative so it will favour the process of learning students follow. Therefore, it will be carried out every day, throughout the whole process and not only at the end of the project. It will evaluate both the knowledge of the students and the process of learning itself. Moreover, peer monitoring will be enhanced. This way of evaluating will aim to help the students acquire the key competences for life-long learning, which are essential for them to progress in their education.

This type of evaluation will consider the quality of the learning process- i.e. if the different objectives are being fulfilled and if the plan is being adequate so as to make some modifications for the remaining lessons if necessary. Besides, students will have the opportunity to self-evaluate their learning and attitudes towards the group work so as to make them become aware of their errors and the way in which they are learning and make improvements for their future. This will also enable students to become more autonomous as well as responsible of their own learning.

4.6.1. Types of evaluation

Evaluation will be continuous, formative and integrative. In order to evaluate not only the process but also the product, several instruments for evaluation will be used. In order to favour the continuous nature of the process, assessment will take place in every lesson dedicated to make the portfolio (i.e., lessons 3,4,5,6 & 7): the teacher will collect the students' work at the end of the lessons to see how they are progressing and give them some scaffolding if necessary. There is a series of evaluation tools which have been chosen to assess the acquisition of input, the development of the key competences and the students' work progress.

In order to evaluate the process of learning, the teacher will take notes every session about how students are working cooperatively by using a rubric (see Appendix V) in which

he/she will assess the students regarding several criteria: use of the in-class time, work quality (i.e., respect and politeness among the members of the groups and the individual role each one takes. The teacher will grade them as *Needs Improvement*, *Fair* or *Outstanding*. Besides, students will be able to assess their peers and themselves regarding their contributions to the group and overall effort with a rubric and two questions for reflection (see Appendix VI). They will have to grade their partners and themselves regarding some criteria (e.g., whether or not each member has helped their partners if needed). Students will be able to reflect on their own learning by completing a Google form (see Appendix VII) available in the section *Conclusion* of the WebQuest. It will not count for their project mark, but will help students to evaluate their own learning and reflect upon it, seeing which their strengths and weaknesses are throughout the process of acquiring input.

The product will be also evaluated, although it will much depend on how students have progressed (i.e., if they have worked properly, their product will meet the requirements). The teacher will use a rubric to assess the students' portfolio (see Appendix VIII), taking into account how it is presented, the contents it includes and its development throughout the lessons, grading it as *Excellent*, *Good*, *Pass* or *Bad*. The students' oral presentations will be also assessed with a rubric (see Appendix IX). The teacher will grade the learners' knowledge of the content, organisation and delivery of information, language accuracy, performance, originality and display by using EdTech as *Excellent*, *Good*, *Average* or *Needs Improvement*.

4.6.2. Grading criteria

The unit will account for 25% of their final mark of the first semester, provided that they will study four units each semester which will all count the same. This 25% will be divided as follows:

- <u>Progress assessment (30%):</u> the teacher will evaluate how students are working within the groups and the quality of their productions after each lesson.
- Portfolio (60%): students will have to hand in a portfolio per group. It will contain:

- A cover with the creative name of the Zoo of the Rarity and the names of the group members.
- ii. The ten information sheets about the weird animals students chose for their zoo.
- A brief document with the measures to keep the animals safe and healthy in the zoo.
- iv. A peer evaluation of each member of the group.
- An oral presentation (10%): students will have to present their project in front of the class.

4.6.3. Specific evaluation criteria

- Students can describe the vital functions of living things (Crit.BG.3.2.)
- Students are able to characterise the main groups of vertebrate animals (Crit.BG.3.6.)
- Students can determine from observation the adaptations that allow vertebrate animals to survive in their habitats (Crit. BG.3.7.)
- -Students are able to communicate some data to their group members to fill in the information sheets and convince the rest of their partners to go to their zoo (Crit. IN. 2.2.)
- Students can understand general and specific information when reading short texts about animals on the Internet. (Crit. IN. 3.1.)
- -Students are able to produce short texts in table form or simple documents to talk about animals' characteristics and how to keep them healthy within the zoo (Crit. IN. 4.1.)

5. WEBQUEST OVERVIEW

Stage	Stage aim	Procedure	Interaction	Time			
Lesson 1							
Activation	-To activate previous knowledge on the topic of vertebrate animals and pose the students the challenge of creating their own Zoo of the Rarity. -To check students' knowledge and understanding of animals' vital functions and classification by playing two videos. -To revise vocabulary about animals' vital functions and classification through two videos.	The teacher asks them what information they remember about vertebrate animals and write the concepts in the whiteboard. He/she projects the <i>Introduction</i> and <i>Tasks</i> sections for the students and explains the challenge they have to face in detail. He/she makes clear what the objects of the project are and how it will be evaluated. He/she also checks for understanding of the task by asking the students to recast what he/she has said. He/she plays two videos about animals' vital functions (available at https://www.youtube.com/watch?v=L_zaTnh8LXo) and their classification(https://www.youtube.com/watch?v=mRidGna-V4E) to activate their schemata and background information (section <i>Resources</i>). The teacher will provide students with a worksheet (see Appendix X) they will complete with the information of the videos. At the end of the lesson, they will correct it and the teacher will be assured that every concept is understood.	T-Ss	30			

Lesson 2				
Discovery	 -To comprehend the gist of a <i>YouTub</i>e video about examples of weird animals and get into the topic of the project. -To get some ideas from the video for their zoo. 	The teacher projects the <i>Process</i> section and plays a video in <i>YouTube</i> to give students' some examples about weird animals. Students answer the posed questions orally to get into the topic and get ideas for their Zoo of the Rarity.	T-Ss	20
Deepening	-To discuss with their partners and reach an agreement on which 10 animals to include in their zoo. -To divide the roles among the group members and check if they understand what each of them has to do.	Students are divided in heterogeneous groups of 5 regarding their levels and characteristics. They discuss what 10 weird animals they will show in their zoo by skimming the webpages the teacher offers them on the section <i>Resources</i> . The teacher states the rules clearly: they have to include animals from the five different groups of vertebrate animals. Then, they think about an original name for the Zoo and divide the different roles among the group members. The teacher clarifies any possible doubts regarding the project and the task each role has to do.	Ss-Ss	30

Lessons 3, 4 & 5						
Planning	 -To get the information needed from the resources given to complete the information sheets arranged in groups of experts. -To give and receive data about the different sections of the information sheets and decide what to include on them. 	The teacher explains how the <i>Resources</i> section work. Students are divided into groups of experts regarding their roles. They look for the information needed and take notes to explain it to their partners. Then, they share the information found and decide what to include in the information sheets.		50 (lesson 3) 25 (lesson 4) 25 (lesson 4) 50 (lesson 5)		
Lesson 6 & 7						
Creation	 -To fill in the information sheets with the information collected from all the members of the group. -To write a short text with measures to keep the animals safe and healthy in the zoo. -To prepare the oral presentation of the students' project by using programmes such as PowerPoint or <i>Powtoon</i>. 	Students complete the information sheets with the data provided by all the members of the group. After that, they write a short text in which they explain what measures they will take in order to keep the animals safe and healthy. Finally, students prepare the visuals for the presentation and the presentation itself.	Ss-Ss	30 (lesson 6) 20 (lesson 6) 50 (lesson 7)		

Lesson 8					
Publishing	-To present their project in front of the class.-To use expressions to convince the audience to visit their zoo.	Students' groups take turns to present their zoo to the rest of the class for 8-10 minutes, combining their speech with some visuals. Students try to convince their audience to visit their Zoo of the Rarity.	Ss-Ss	50	
Lesson 9					
				30	
Assessment and Reflection	-To revise the content learnt throughout the unit.	Students will be divided into two groups, team A and team B. and will play two games. Firstly, they will play Tic Tac Toe with the vocabulary words	Ss-Ss	10	
	-To assess both their partners' work	(see Appendix XI).			
	and theirs within the group and reflect how it could be improved in the future by filling in a rubric and answering two questions.	Secondly, the teacher will choose five weird animals and students, still divided in the two teams, will have to guess their characteristics and give each of them a name. The team that guesses more,		20	
	To reflect on their cours learning	wins (see Appendix XII).	Individual work	_	
	-To reflect on their own learning process and acquisition of input through a Google form.	Students evaluate their group's work with a rubric they can find in the <i>Evaluation</i> section and answer two questions to reflect upon it and improve for their future.	WOIK	5	
		Then, they fill in a Google form they can find in the	Individual	5	
		Conclusion section to think about what they have learnt in this project and suggestions for improvement.	work		
		When all students finish, they comment on the		10	
		reflection all together with the teacher.	Ss-T		

6. CONCLUSION

The growing relevance of ICTs in the CLIL context has been considered in this dissertation. A WebQuest was created with the aim of helping students throughout their learning process. It was intended for 1st ESO students of the state school Tiempos Modernos. The project is a result of working in collaboration with a local teacher that taught the subject of Biology and Geology in this course and it consisted in creating a Zoo of the Rarity as a touristic attraction for the City of Saragossa.

The WebQuest has been designed in accordance with the principles that WebQuests for Language learning must meet. Students will deal with authentic materials and will practice the four skills while learning content. If the linguistic level required by the project and the resources is higher than the students' proficiency, they will be given some scaffolding, such as videos and visuals to clarify their ideas. Peer-monitoring will be also fostered and students will have to use the L2 to reach the goals of the project. Learners' motivation will be also increased by cooperative learning, ICTs and problem-solving tasks. Finally, students will also reflect on their own learning to make improvements for their future.

By carrying out this project, students will both develop their communicative competence and learn disciplinary content, since they have to look for information on the resources given in English and complete the activity with the data found. Besides, it will develop the seven key competences stated by the LOMCE, particularly the digital competence, since they are working with EdTech; the linguistic competence, since they have to interact in groups and negotiate several aspects throughout the project (e.g., what animals to include in their Zoo of the Rarity after skimming the resources given); and the social and civic competence, since they have to respect their partners and understand that the product is a result of every member of the group's work. By using ICTs in the CLIL classroom, students' motivation will be increased and they will learn both the language and content about vertebrate animals while developing their digital competence, a fact that is considered

essential in the world in which they are living since they will need new technologies to interact and exchange information with people from all over it.

Thanks to this dissertation, I have been able to apply what I have learnt throughout this Master's Degree. I have consolidated concepts that I have studied in some of the subjects (e.g., the principles of CLT, Dörnyei's motivation techniques or the benefits of Cooperative Learning) and I have also been able to design a project that follows the guidelines of the LOMCE Aragonese curriculum and contributes to developing the seven key competences stated by this legislation. I have become aware that it is very easy to integrate ICTs in the classroom because there are plenty of tools and resources that have been designed with the purpose of helping students in the learning process and are also engaging and motivating for them. Besides, I decided students would work cooperatively in this project because during my placement period I used CL and students acquired input more easily and built respect towards their partners and understood they were all equal and all contributed to the final product. Consequently, I thought it would work perfectly for this project, as students could work together to create the zoo while enjoying the benefits of working cooperatively.

Unfortunately, I could not implement the WebQuest because the unit for which it was intended was studied at the beginning of the course, so the WebQuest was not ready to be implemented yet. However, the local teacher will be able to implement it next year in her lessons because I have made all the materials available for her. If it is possible, I would like to carry out an action plan, in which I would act as an observer within the classroom to see how effective it is regarding the students' motivation and acquisition of input.

7. REFERENCES

- Benz, P. (2001) "Webquests, a Constructivist Approach". Available at: http://www.ardecol.acgrenoble.fr/english/tice/enwebquests.htm (accessed 10 March, 2018)
- Boaler, J. (1997). When even the winners are losers: Evaluating the experiences of top set'students. *Journal of Curriculum Studies*, 29(2), 165-182.
- Bonk, C. J., & Cunningham, D. J. (1998). Searching for learner-centered, constructivist, & sociocultural components of collaborative educational learning tools. In C. J. Bonk, & K. S. King (Eds.), *Elec collaborators: Learner-centered tech's for literacy, apprenticeship, & discourse* (pp. 25-50). Mahwah, NJ: Erlbaum.
- Brown, H. D. (2007). *Teaching by Principles. An Interactive Approach to Language Pedagogy*.

 New Jersey: Prentice Hall Regents
- Chamot, A. U., & O'Malley, J. M. (1996). The cognitive academic language learning approach: A model for linguistically diverse classrooms. *The Elementary School Journal*, 96(3), 259-273.
- Cohen, A. (1975). A Sociolinguistic Approach to Bilingual Education. Rowley, Mass.: Newbury House
- Consejo de Europa. Marco Europeo Común de Referencia para las Lenguas: Aprendizaje, Enseñanza, Evaluación.
- Coyle, D. (1999). Supporting students in content and language integrated learning contexts: planning for effective classrooms. In J. Masih (Ed.), *Learning through a foreign language:* models, methods and outcomes (pp. 46-62). London, United Kingdom: Centre for Information on Language Teaching and Research.
- Coyle, D., Hood, P., & Marsh, D. (2010). CLIL: Content and language integrated learning.

 Cambridge, UK: Cambridge University Press
- Craik, F.I.M., & Lockhart R.S. (1972). Levels of processing: A framework for memory research.

 Journal of Verbal Learning and Verbal Behavior.

- Dodge, B. (1995). Some thoughts about WebQuests [Online].

 Available: http://edweb.sdsu.edu/courses/edtec596/about_webquests.html (accessed 12 March , 2018)
- Dodge, B. (2001). FOCUS: five rules for writing a great WebQuest. *Learning & Leading with Technology*, 28, 8:6-9. Available at: http://webquest.org/sdsu/focus/focus.pdf
- Dörnyei, Z. (1994). Motivation and Motivating in the Foreign Language Classroom. Modern Language Journal, 78(3), 273-284.
- Ellis, R. (1990). Instructed Second Language Acquisition. Oxford: Basil Blackwell.
- Fernández Fontecha, A. (2010). The CLILQuest: A Type of Language WebQuest for Content and Language Integrated Learning (CLIL). *CORELL: Comput. Resour. Lang. Learn.*, 3, 45-64.
- Johnson, D. W., Maruyama, G., Johnson, R., Nelson, D., & Skon, L. (1981). The effects of cooperative, competitive, and individualistic goal structure on achievement: A metaanalysis. Psychological Bulletin, 89, 47–62
- Koenraad, A. L. M., & Westhoff, G. J. (2003, September). Can you tell a LanguageQuest when you see one? Design criteria for TalenQuests. In *EUROCALL Conference*, *University of Limerick, Ireland*. Available at: http://www.koenraad.info/CALL.
- Krashen, S. (1985). The Input Hypothesis: issues and implications. Harlow: Longman.
- Lepper, M.R. (1988) Motivational Considerations in the Study of Instruction, *Cognition and Instruction*, 5:4, 289-309. Retrieved from: http://tecfaetu.unige.ch/etu-maltt/wall-e/gosetto0/bases/mooc_motivation/ressources_motivations/Motivational%20Considerations
 %20in%20the%20Study%20of%20Instruction.pdf (accessed 1 April, 2018)
- Llinares, A. & Morton, T. (2012) Social perspectives on interaction and language learning in CLIL classrooms. In Alcón Soler, E. & Safont Jordá. P. (eds.) Alcón Soler, E. & Safont Jordá. P. (eds.) Discourse and learning across L2 instructional contexts. Amsterdam: Rodopi.

- LOMCE, Ley Orgánica 8/2013, de 9 de diciembre, para la Mejora de la Calidad Educativa. Boletín Oficial del Estado (1-62), num. 295, from the 10th of December of 2013.
- Lyster, R. (2007). Learning and teaching languages through content: A counterbalanced approach. Amsterdam: Benjamins.
- Maljers, A., Marsh, D., Wolff, D., Genesee, F., Frigols-Martín, M., Mehisto, P. (2010). *Diverse Contexts Converging Goals: CLIL in Europe*. Peter Lang: Frankfurt.
- March, T. (2000a) "Are We There Yet?: A Parable on the Educational Effectiveness of Technology.

 Multimedia Schools** Magazine.* Vol.7.

 http://www.infotoday.com/MMSchools/may00/march.htm (accessed 7 March, 2018)
- March, T. (2003) "The learning power of WebQuests." Educational Leadership, 61, 4, 42-47.
- March, T. (2004). Class Act Portals An Introduction. http://tommarch.com/writings/classactportals-2004-intro/
- March, T. (2007). Revisiting WebQuests in a Web 2 World. How developments in technology and pedagogy combine to scaffold personal learning. *Digital Education Review*, (15), 1-17.
- Marsh, D. (1994). Bilingual Education & Content and Language Integrated Learning. Paris:

 International Association for Cross-cultural Communication, Language Teaching in the

 Member States of the European Union (Lingua), University of Sorbonne.
- Marzano, R. J. (1992). A different kind of learning: Teaching with dimensions of learning. Alexandria, VA: Association of Supervision and Curriculum Development.
- McGrath, D. (2003). Artifacts and understanding. *Learning & Leading with Technology*, 30 (5), 22-24.
- Morton, T. (2010). Using a genre-based approach to integrating content and language in CLIL. In C. Dalton-Puffer, T. Nikula, & U. Smit (Eds.), *Language use and language learning in CLIL classrooms* (pp. 81-104). Amsterdam: John Benjamins.
- Orden ECD/489/2016, de 26 de mayo, por la que se aprueba el currículo de la Educación Secundaria Obligatoria y se autoriza su aplicación en los centros docentes de la Comunidad

- Autónoma de Aragón. *Boletín Oficial del Aragón* (12640-13458), num. 105, from the 2nd of June 2016.
- Pérez Torres, I. (2006) Diseño de WebQuests para la Enseñanza/Aprendizaje del Inglés como Lengua Extranjera: Aplicaciones en la Adquisición de Vocabulario y la Destreza Lectora. Granada: Editorial Universidad de Granada.
- Piaget, J. (1970). Piaget's theory. In P. H. Mussen (Comp.), *Carmichael's manual of child psychology*. Vol 2. Nueva York: Wiley.
- Richards, J. (2006). Communicative Language Teaching Today. 1st ed. New York: Cambridge University Press.
- Ryan, R. M., & Deci, E. L. (2000). Intrinsic and extrinsic motivations: Classic definitions and new directions. *Contemporary educational psychology*, 25(1), 54-67.
- Schmidt, R. (1990). The role of consciousness in second language learning. *Applied Linguistics* 11, 129-158.
- Spada, N. (1997). Form-focused instruction and second language acquisition: A review of classroom and laboratory research. *Language Teaching*, **29**, 73–87.
- Spanos, G. 1990. On the integration of language and content instruction.. *Annual Review of Applied Linguistics*, 10, 227–240.
- Swain, M. (1995). Three functions of output in second language acquisition. Oxford: Oxford University Press. Vygotsky, L. (1987). Zone of proximal development. Mind in society: The development of higher psychological processes, Vol. 5291, p. 157.
- Willis, J. (1996). A flexible framework for task-based learning. *Challenge and change in language teaching*, 52-62.
- Wood, D., Bruner, J., & Ross, G. (1976). The role of tutoring in problem solving. *Journal of Child Psychology and Child Psychiatry*, 17, 89–100.

Yoder.M. (2003). Seven Steps to Successful Learning Communities. *Learning and Leading with Technology*, 30 (6) Available at: https://lesley.edu/faculty/myoder/onlinecommunity.pdf (accessed 3 May , 2018)

8. APPENDICES

Appendix I: WebQuest screenshots

Available in: http://www.webquestcreator2.com/majwq/ver/ver/48512

QR code:

-Introduction

ENTERING THE WORLD OF VERTEBRATE ANIMALS

BIOLOGÍA Y GEOLOGÍA SECUNDARIA

Introduction T

Task

ocess Res

Evaluation

Conclusion

INTRODUCTION

Welcome to this Biology WebQuest!



Are you ready to enlist in a mission you will never forget?

In this WebQuest, you will work with Unit 6 of your textbook: The Animal kingdom: vertebrate animals. I know you have studied the vital functions in animals in previous years and you are nearly experts on the topic. Zarugoca has several touristic attractions, but it is true that it is not placed in the top 5 most touristic places in Spain. As tourism is very important in our country...

why don't we turn Zaragoza into the capital city of the holiday industry?



After considering several ideas proposed by the citizens and the Council of Zaragoza, the mayor of this city has decided to create something that does not exist in any city: A 200 of the rarity.

He thinks everybody will like to see animals they have never seen before. He has named a Committee of Experts that will investigate what animals to include and will run the whole project. If the project goes well, they will have to create a brochure to attract people to the zoo.

Students from 1st ESO of the IES Tiempos Modernos have been selected to be the members of this Committee. You will be in charge of a very important mission:

Choose the strange animals that will turn Zaragoza into the most touristic city in Spain and attract people to visit them.

Do your best! Ready, steady...go!



-Task

ENTERING THE WORLD OF RTEBRATE ANIMALS

Introduction Task Process Resources Evaluation Conclusion

TASK

The Committee of Experts will have to investigate what strange animals to include in the Zoo of the Rarity proposed by the Mayor of Zaragoza. You will be organised in groups of 5 students and each one will choose 10 weird animals.

To complete this mission, you will have to fill in an information sheet about each unusual animal. It will contain data about their physical characteristics, nutrition, reproduction, relation-hábitat/geographical location- and two amazing facts. In order to do it, you ill make use of several Internet web pages that will be available in the section Resources.

After assigning the roles explained in the section Process, you will be arranged in groups of

experts- one for each role. You will do some research and then will return to your original teams to explain to your partners what you have found out. You will have to decide what to include in the information sheet that will be useful for the future visitors.

You will have to make a portfolio including the ten information sheets and a brief document explaining how you will keep the animals healthy and the amount of money you will need to open the zoo. The final product will be presented in front of the class by you taking the role of tourist guides and describing the species of their Zoo of the Rarity to the rest of your partners (PowerPoint, Powtoon or any similar program).

Each member will have to do his/her best and work hard. It is not enough if you focus on your task and do not help the rest of the group.

The project will be successful if each member does his/her bit



-Process

ENTERING THE WORLD OF VERTEBRATE ANIMALS

BIOLOGÍA Y GEOLOGÍA SECUNDARIA

Introduction

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Process

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onclusion

PROCESS

Let's get down to work!

A) watch this video to enter the world of weird animals and answer these questions orally.

Click to watch the video 10 Unique Animals You Won't Believe Exist



- · Which one is the weirdest for you? why?
- · Which is your favourite? why?
- · Would you like to have any of them as a pet? why?

B) IN GROUPS OF FIVE. Think of a creative name for your zoo and choose the 10 weird animals that will be shown on it by using the links in the section resources. You are invited to use other sources if you dare!

C) Once you have chosen the 10 animals, you are going to fill in this information sheet about each unusual animal:

INFORMATION SHEET				
	CLASIFICATION			
10:				
nal group:				
	Vertebrate: Invertebrate:	Photo		
duction	Viviparous: Oviparous:			
n:]		

PH	YSICAL CHARACTERISTICS AND HÁBITAT	
Weight	Size:	TWO AMAZING FACTS
Description: (bod	fy, skin, movement, colour, efc.)	
·		
·		
•		
Hábitat and g	eographical location:	
·		

Click to download the Information sheet

In order to do it, each member of the group will take a different role:

- The Biologist: he/she will be in charge of investigating their nutrition and reproduction. What do
 they eat? Consequently, are they carnivores, herbivores or omnivores...? How do they have their babies? do they lay
 eggs (oviparous) or do their youngs develop inside their mother's body (viviparous)?
- The Geographer: he/she is an expert on habitats and the world map. So he/she will be responsible
 for finding it out for each species. Do they live in the forest? in the savannah? in the desert? where in the world
 can we find them?
- The Observer: he/she will describe their physical characteristics. What kind of skin do they have, have
 they got fur? How many paws do they have if any? how do they move? etc.

- The Vet: he/she will have to do some research on the animals' weight and size. How tall are they? How
 heavy are they? the amounts will be expressed in metres (m) and kilogrammes (kg) respectively.
- The Curious: he/she wants to know more things about the animals and, consequently, he/she will
 look for two amazing facts about the chosen animals. Is there anything interesting in the way they live? what
 about their name? what is breathtaking about their lives?

After deciding what role is for each member of the group, you will be divided into groups of experts (one for each role) to investigate the different data. Then, you will return to your original groups to present them the information you have gathered.



D) In your groups, think about this question and write your proposal in Padlet:

What will you do to keep the animals healthy and safe? (e.g., create something similar to their natural habitats)



- E) Just after finishing the information sheets and the posed questions, you will take the role of tourist guides. Your next mission is to present your Zoo of the Rarity project to the rest of the members of the Committee of Experts with a PowerPoint presentation, Powtoon, Canva or a similar program.
- F) Finally, you will hand in a portfolio with the ten information sheets and a document with the answers to the questions in section D.



-Resources

ENTERING THE WORLD OF VERTEBRATE ANIMALS

BIOLOGÍA Y GEOLOGÍA SECUNDARIA

Introduction Task Process

RESOURCES

Here you will find the resources you will need for your mission. Use them for researching data about your ten weird animals. If you want to use other web pages, you are free to do it!

Online resources for choosing the 10 weird animals:

25 weirdest animals on Earth 60 weird animals around the world Top 25 Strangest Animals in the World

Activating previous knowledge!

Online resources for choosing the 10 weird animals:

25 weirdest animals on Earth 60 weird animals around the world Top 25 Strangest Animals in the World

Activating previous knowledge!

Complete this worksheet with the information from the videos:

- If you don't remember anything about animals' vital functions, watch this video again: Vital functions of living things
- If you struggle with the classification of animals, watch this video once more: Animal Classification for Children: Classifying Vertebrates and Invertebrates

An encyclopedia about animals to investigate data about the species of your Zoo of the Rarity available here



<- Type the name of the animal in the search bar to look for information about it.

Another encyclopedia to find amazing facts about your species! click here



If you click <u>here</u>, you will be directed to a very useful resource, since in this webpage you can find information about physical characteristics of animals groups, their geographical location, their habitat and diet, etc.



-Evaluation



BIOLOGÍA Y GEOLOGÍA SECUNDARIA

Introduction Task Process Resources Evaluation Conclusion

EVALUATION

The assessment of this project will be divided into:

- Progress assessment (30%): The teacher will evaluate your group work in every session.

 He/she will collect your work after finishing each lesson. Here you can download the rubric he/she will use.
- Portfolio (60%): you must hand in a portfolio per group. It will contain:
 - \boldsymbol{A} cover with the name of your Zoo of the Rarity and the names of your group members.
 - The ten information sheets about the weird animals you have chosen for your zoo.
 - A brief document with the measures to keep the animals safe and healthy in the zoo.

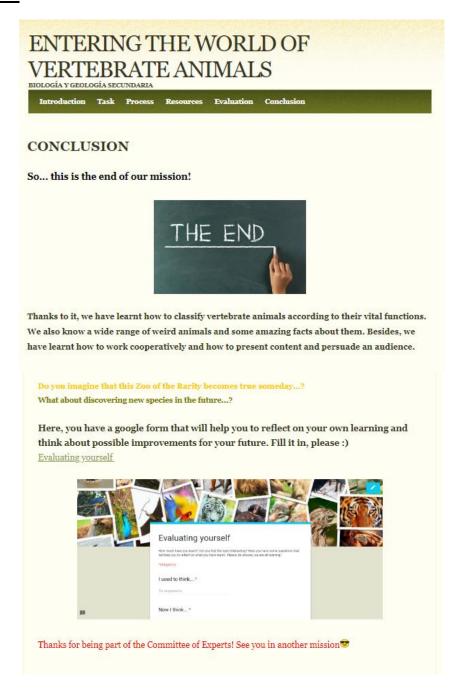
- A peer evaluation of each member of the group, which can be downloaded -> $\underline{\text{Peer}}$ Evaluation.

The rubric the teacher will use to assess the portfolio is available here: PORTFOLIO RUBRIC

An oral presentation(10%): you will have to present your project in front of the class.

The teacher will evaluate it with this rubric: presentations

-Conclusion



Appendix II: Information sheet

	INFORMATION SI	HEET
	CLASIFICATION	
Name:		
Animal group:		
Туре	Vertebrate: Invertebrate:	Photo
Reproduction	Viviparous: Oviparous:	
Nutrition:		
PHYS	SICAL CHARACTERISTICS AND HÁBITAT	
Weight:	Size:	TWO AMAZING FACTS
Description: (body,	skin, movement, colour, etc.)	
Hábitat and geo	ographical location:	

Appendix III: ESO stage objectives

- a) Asumir responsablemente sus deberes, conocer y ejercer sus derechos en el respeto a los demás, practicar la tolerancia, la cooperación y la solidaridad entre las personas y grupos, ejercitarse en el diálogo afianzando los derechos humanos y la igualdad de trato y de oportunidades entre mujeres y hombres, como valores comunes de una sociedad plural y prepararse para el ejercicio de la ciudadanía democrática.
- b) Desarrollar y consolidar hábitos de disciplina, estudio y trabajo individual y en equipo como condición necesaria para una realización eficaz de las tareas del aprendizaje y como medio de desarrollo personal.
- c) Valorar y respetar la diferencia de sexos y la igualdad de derechos y oportunidades entre ellos. Rechazar la discriminación de las personas por razón de sexo o por cualquier otra condición o circunstancia personal o social. Rechazar los estereotipos que supongan discriminación entre hombres y mujeres, así como cualquier manifestación de violencia contra la mujer.

- d) Fortalecer sus capacidades afectivas en todos los ámbitos de la personalidad y en sus relaciones con los demás, así como rechazar la violencia, los prejuicios de cualquier tipo, los comportamientos sexistas y resolver pacíficamente los conflictos.
- e) Desarrollar destrezas básicas en la utilización de las fuentes de información para, con sentido crítico, adquirir nuevos conocimientos. Adquirir una preparación básica en el campo de las tecnologías, especialmente las de la información y la comunicación.
- f) Concebir el conocimiento científico como un saber integrado, que se estructura en distintas disciplinas, así como conocer y aplicar los métodos para identificar los problemas en los diversos campos del conocimiento y de la experiencia.
- g) Desarrollar el espíritu emprendedor y la confianza en sí mismo, la participación, el sentido crítico, la iniciativa personal y la capacidad para aprender a aprender, planificar, tomar decisiones y asumir responsabilidades.
- h) Comprender y expresar con corrección, oralmente y por escrito, en la lengua castellana y, si la hubiere, en la lengua cooficial de la Comunidad Autónoma, textos y mensajes complejos, e iniciarse en el conocimiento, la lectura y el estudio de la literatura.
 - i) Comprender y expresarse en una o más lenguas extranjeras de manera apropiada.
- j) Conocer, valorar y respetar los aspectos básicos de la cultura y la historia propias y de los demás, así como el patrimonio artístico y cultural.
- k) Conocer y aceptar el funcionamiento del propio cuerpo y el de los otros, respetar las diferencias, afianzar los hábitos de cuidado y salud corporales e incorporar la educación física y la práctica del deporte para favorecer el desarrollo personal y social. Conocer y valorar la dimensión humana de la sexualidad en toda su diversidad. Valorar críticamente los hábitos sociales relacionados con la salud, el consumo, el cuidado de los seres vivos y el medio ambiente, contribuyendo a su conservación y mejora.
- l) Apreciar la creación artística y comprender el lenguaje de las distintas manifestaciones artísticas, utilizando diversos medios de expresión y representación.

Appendix V: Progress assessment

Progress Assessment

Name	Group numberDate					
	Needs Improvement	Fair	Outstanding			
Getting down to work	Students just wasted time arguing. The teacher's intervention did not serve to solve their problems. They were unable to meet either the characteristics of the assigned roles or the deadlines.	Everyone gave ideas and managed to stay on task most of the time. They met the deadlines.	Students were on task. Everyone cooperated fairly to reach their goals and hand in the project on time.			
Work Quality	The project was done in a rush. Students did not focus on the aspects evaluated in the rubric for the portfolio.	There were some mistakes, but the work was carried out carefully, following the guidelines of the rubric.	Students make an extra effort in the assignment. Their work responded to the highest mark according to the guidelines of the rubric for the portfolio.			
Politeness and respect	Students did not manage to respect speaking turns and did not listen to their partners. Besides, they argued and could not reach an agreement.	improve some aspects in which the	Students worked perfectly together and managed to listen to each other's contributions. They practiced peer-monitoring and asked the teacher when needed.			
Individual Role taken	Students did not meet the characteristics of their roles. They did not look for the appropriate information.	Students took the roles and contributed to the group, although they did not manage to find all the information.				

Appendix VI: Peer evaluation

Name___

Peer Evaluation

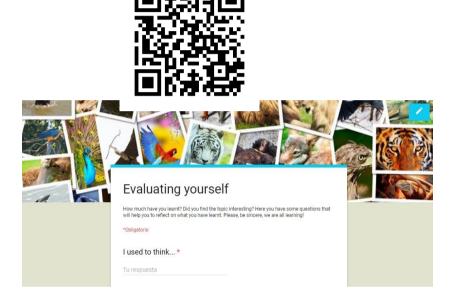
Group number

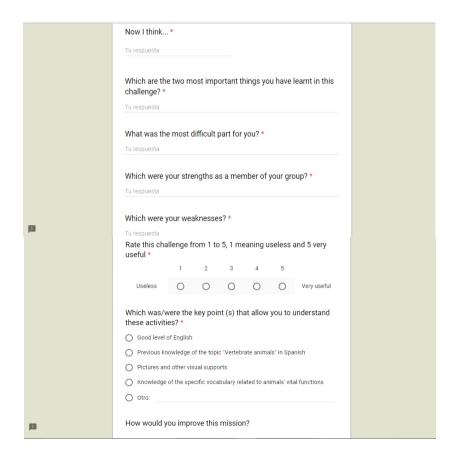
ibute	Myself	1.	2.	3.	4.
ok part in group cussions					
lped keep the oup working					
d useful ideas					
elped their rtners					
et the aracteristics of s/her role					
How co	ould your grou	o work more effici	ently next time? (rol	es, contributions, ti	mes)

Appendix VII: Google Form for self-reflection

Available in: https://goo.gl/forms/wIEYh9EpED3qEcxh2

QR code:





Appendix VIII: Rubric students' portfolio

PORTFOLIO RUBRIC (60%)

CATEGORY	4Excellent	3Good	2Pass	1Bad
Presentation (10%)	1The portfolio allows clear storage and presentation2All documents are included3It follows the correct order	Accomplishes 2 points	Accomplishes 1 point	Does not accomplish any point
Contents (30%)	 The data of the information sheets are correct and accomplish the objectives of the project. The brief document shows the students' awareness of the importance of animals' health in a zoo. All members of the group have included their peer evaluation and they have been done seriously. 	Accomplishes 2 points	Accomplishes 1 point	Does not accomplish any point
Portfolio development (20%)	1The portfolio has been completed throughout the lessons. 2Every member of the group has contributed to its development fairly. 3It shows that students have been researching at least the resources given.	Accomplishes 2 points	Accomplishes 1 point	Does not accomplish any point

Appendix IX: Rubric for oral presentations

	Excellent (4)	Good (3)	Average (2)	Needs improvement
Knowledge of the content	Features and facts of the animals chosen are known; demonstration of understanding through clear explanations	Features and facts of the animals chosen are known; but sometimes unclear demonstration of understanding, lacking explanations	Slightly inappropriate content about the features and facts of the animals chosen. Unclear demonstration of understanding, lacking explanations	Inappropriate content about the features and facts of the animals chosen; lacks in demonstration of understanding
Organisation and delivery of information	Well-structured information, following a logical sequence and establishing clear links between different contents	Mostly well- structured, occasionally following a logical sequence and establishing links between different contents; it can be generally understood	Information is sometimes not clearly structured; there is unclear logical sequence and poor connection between different contents; only main ideas can be understood	Badly-structured information; there is neither logical sequence nor connection between different contents; no understanding possible
Language accuracy	Correct use of grammatical structures, rich and specific vocabulary and expressions; good pronunciation and intonation	Few errors in grammar; varied vocabulary and expressions; sometimes, slightly unclear pronunciation and intonation	Some errors in grammar, but can be understood most of the time; simple vocabulary with some new words; unclear pronunciation that may affect meaning.	Many errors in grammar, cannot be understood; very simple vocabulary with no new words; wrong pronunciation that affects meaning
Performance	Clear and loud voice; fluent; appropriate body language and eye contact; keeps audience's interest and convinces it to visit their zoo	Clear voice most of the time; fluent but sometimes monotone; some body language and eye contact; tries to keep audience's interest	Voice unclear or low; some body language but no eye contact; some difficulty in keeping audience's interest	Problems to hear presentation; frequently uses "fillers" ("uh, um, etc.); no body language; reads notes or slides; difficulty in keeping audience's interest

Originality	The zoo includes original characteristics which are presented in an interesting and appealing way	The zoo includes original characteristics which are not entirely presented in an interesting way	The zoo includes a festival which is so similar to traditional ones	The zoo does not include any originality and it is basically the same as traditional zoos
Display	Relevant and excellent use of EdTech and/or visual aids	Generally good use of EdTech and/or visual aids	Good use of EdTech and/or visual aids, but sometimes irrelevant	Irrelevant or non- existent use of EdTech and/or visual aids

Appendix X: Exercises for the video

1-Video 1: Vital Functions. Complete this mind map with the information you listen from the video.

		ANI	MALS' VITAL FUNCTIONS		
NUTRITION		_		 It allows living things and ensure the contin	to make new living things uity of life
 HERVIBORES Example:	Example:		Animals use their to perceive what's going on. Example(s) of interaction:	Example:	These animals and born from the womb of the mothers. Example:

2-Video 2: *Animal Classification* (vertebrates). Complete the table with the characteristics of each vertebrate group.

Fish	Amphibians	Reptiles	Birds	Mammals

Appendix XI: Tic Tac Toe

VIVIPAROUS	OMNIVORE	HABITAT
FUR	RELATION	MAMMAL
OVIPAROUS	HERBIVORE	SPECIES

Appendix XII: 5 weird animals to guess









