

Master's Dissertation/
Trabajo Fin de Máster

CLIL APPROACH THROUGH ICT: A DIDACTIC PROPOSAL FOR THE SECOND GRADE OF PRIMARY EDUCATION

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ABSTRACT

The present Master's Dissertation consists on a didactic proposal titled "Making a better world". To enhance pupils' learning chances, it integrates the topics of Natural Science and Foreign Language (English) and connects the CLIL approach with ICTs. The paper is divided two main sections. The first one focuses on the theoretical review of the CLIL approach, its pedagogical principles, and its relationship with ICT. The information provided in the appendices endeavor the second part of this paper, which is devoted to the development of the didactic proposal itself. The main target of this paper is to review CLIL literature and exemplify the positive aspects that ICTs provide to a CLIL classroom, facilitating students in comprehending the value of learning a foreign language and contributing to meaningful and successful learning experiences.

Key words: CLIL, ICT's, Foreign Language, didactic proposal, communicative competence.

RESUMEN

El presente Trabajo Fin de Máster consiste en una propuesta didáctica titulada "AICLE a través de las TIC: una propuesta didáctica para el segundo curso de Educación Primaria". Para mejorar las posibilidades de aprendizaje de los alumnos, integra los temas de Ciencias Naturales y Lenguas Extranjeras (inglés) y conecta el programa AICLE con las TIC. El documento se divide en dos secciones principales. La primera se centra en la revisión teórica del enfoque AICLE, sus principios pedagógicos y su relación con las TIC. La información proporcionada en los apéndices y anexos forma la segunda parte de este trabajo, que consiste en el desarrollo de la propia propuesta didáctica. El objetivo principal de este trabajo es abordar los aspectos positivos que las TIC proporcionan a un aula de AICLE, facilitando a los estudiantes la comprensión del valor del aprendizaje.

Palabras clave: AICLE, TIC, Lengua Extranjera, propuesta didáctica, competencia comunicativa.

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1. INTRODUCTION

As Coyle (2010) states "Spain is rapidly becoming one of the European leaders in CLIL practice and research" (p.8). One of the driven forces behind CLIL according to Coyle, Hood. & Marsh (2010), is the need of adopting an official language as the means of instruction in schools. This is due to the fact that there are many countries where the language of instruction is a foreign language for most of the pupils. In this line, CLIL plays an important role in providing a practical response towards linguistic drawbacks and enhancing equal access to education for all learners, even those with special needs.

Promoting language learning as well as developing other social, personal and educational aspects was one of the reasons which underpin the interest in CLIL. The European Education Council (1976) established language learning objectives and argued in favor of promoting language teaching besides the traditional school system. Moreover, the European Commission made a proposal which fostered teaching by means of more than one language.

Dale (2011, p. 19–21) claims that CLIL approach is a result of constructivism, second language acquisition theories, cognitive learning theories, and bilingualism. In addition, any type of education where subjects are simultaneously learnt in two languages or through a second language is referred to as CLIL. (Ball, et al., 2015, p.1). Moreover, in accordance with Genesee and Hamayan (2016) we use the term CLIL to describe instruction that combines the acquisition of competence in a second language in educational settings where real-world non-linguistic subject serves as a platform for language teaching and learning. (Genesee and Hamayan, 2016, p.27). Besides, the teaching of subject matter knowledge and language simultaneously through CLIL is frequently seen as an effective method (Tedick, 2020). Verspoor, et.al. (2015) believed that this idea is corroborated by the notion that learning a language as a school subject leads to better outcomes than learning the language independently in terms of academic achievement and language proficiency.

Cenoz (2013) claimed that, as a method of language instruction, CLIL has developed into a pedagogical tool that allows teachers of foreign languages to contextualize language instruction in subjects that are familiar to students and are covered in the school curriculum. By doing this, students can review knowledge from their mother tongue and activating new content while learning the target language. Furthermore, Information and Communication Technology (ICT) has influenced every aspect of life, and the teaching of foreign languages is involved in this makeover by gaining advantages from the introduction of ICT while also facing new challenges to the learning process. In this framework, we underline the need for a pedagogical update in the teaching setting, a new environment formed by the use of ICT, and an analysis of the roles of the two primary stakeholders in this process, instructors and students. Graddol (1997) claimed that “technology lies at the heart of the globalization process; affecting work and culture...”. (p.16). It can be difficult to enforce and use ICT in the teaching of a second language, particularly in semirural and poor rural areas. However, the global knowledge of wealthy countries demonstrates favorable results that are related to an efficient usage of ICT in classrooms where a foreign language is being taught. (Xhuvani, 2015, p.42).

Almost all learners, even those who reside in the city and those who live in the countryside, now have greater access to knowledge thanks to the use of ICT in teaching and learning foreign languages. ICT adds flexibility, but it also puts the learner in charge, enabling individual growth. (Mexhuani, 2014, p. 7). Besides, the use of ICT to teach foreign languages fosters collaboration, and in this context, we focus on a crucial cultural component of foreign languages. By strengthening the essential abilities of speaking and writing without limitations, a pupil can visit a significant point of cultural interest or engage in communication with a native speaker through forums, chat, Skype email, and other means. When a learner mentally connects with the content, they feel better, have their knowledge and memories reinforced, and feel as though they are speaking with a real person. (Xhuvani, 2015, p.42).

With this in mind, the main objectives of the present dissertation are the following:

- Review CLIL literature and exemplify the benefits of the use of ICT in CLIL classrooms.
- Design a didactic proposal to foster a responsible use of water, proper management of waste, and safe and healthy mobility, through the use of ICTs and the foreign language (English).

The following dissertation aims to deal with the benefits that ICTs bring in a CLIL classroom, helping students understand the purpose of learning a foreign language leading to successful and meaningful learning experiences. This dissertation will be divided in two main parts, a theoretical one, and another section whose focus is on a didactic proposal. These last part aims to encourage the use of ICT as a means of communication and a way of encouraging the acquisition of a second language. It will be shown how methodology can influence the pupil's predisposition and attitude towards learning a second language. We will focus on CLIL approach, and how it can promote student's ability to learn a foreign language while learning contents. We will also deal with the four Cs this motivating approach faces, which are content, cognition, communication and culture.

2. THEORETICAL FRAMEWORK

2.1 The CLIL approach

In the late 1990s, it arises an educational need of achieving a high degree of language awareness and better communication and language educational outcomes. As a result, there was a seek for the most appropriate methodologies to obtain the best results and which included different learning styles. Other aspects in relation to achieving better language teaching and learning were considered and discussed, such as the number of hours destined to language teaching in the curriculum , which were normally insufficient to get successful results. There were other issues concerning this topic, which includes the need of improving the communicative competence, and more innovative methodologies and authentic materials and activities to encourage the learners motivation. In response to the demands of the modern age, CLIL approach emerged. (Coyle, Hood & David Marsh,2010, p.4)

We could refer to CLIL as an increasingly popular approach to bilingual education, and what is more, according to (Wolff, 2005),CLIL describes a school situation through which a foreign language is the vehicle to teach subjects such as history, arts, science, etc. The term CLIL (Content and Language Integrated Learning), was coined by David Marsh in 1994 to design good practice and enrich learning, where teaching and learning take place in a foreign language. Besides, Coyle et al. (2010), claims that CLIL is a “dual-focused educational approach in which an additional language is used for the learning and teaching of both content and language”(p.1). That is, language and content are both connected, even if one is given more emphasis than the other at a given time. While the target language is being used to help students comprehend the content, they are also improving their ability to use the foreign language.

Moreover, according to Coyle, Hood & Marsh (2010), CLIL is a flexible approach which can be applied in different contexts. In other words, it includes a variety of models which can be used in diverse situations with different type of learners. Depending on the model used, the learning objectives and outcomes

vary. Some examples are the following: a cross curricular project in which both, language and content teachers plan together; a global initiative like those run by *Science Across the World*, where students from many nations and languages study similar topics such as road safety, global warming and renewable energy, and then compare their findings; Subject matter and curriculum adapted to allow students to learn a foreign language while exploring the subject from a fresh angle, and developing foreign language skills. (Coyle, 2005, p.2). In line with Eurydice (2006) achieving this dual form of instruction, where the focus is given to both, language and content, suggests the development of a method which involves teaching a non-language subject like mathematics not in a foreign language, but through and with a foreign language. Coyle, Hood & Marsh (2010), believe that CLIL involves participative learning, meaning that pupils adopt an active role in acquiring skills and knowledge, through a process of exploration (research) and by using complex cognitive processes and problem solving. Besides, in CLIL approach, teachers become facilitators of information and, whereas students acquire knowledge actively at the same time they develop communication and reasoning skills.

On the other hand, another relevant CLIL objective in accordance with Coyle et al., (2010), is to improve student's language proficiency in both, the first language and the foreign language. As Marsh states (2002), CLIL is a student-centered approach, whose target is to encourage awareness among students on the importance of learning a second language. Learners may not always see the need and benefits of learning a foreign language, as they do not use it in their daily life. Kirwan (2014) believe that all languages provide a means of promoting language awareness among all students including those who only have experienced just one language at home. This language awareness promotes not only language learning but also the development of literacy and learning of contents. It also enhance pupil's confidence and help them become independent learners (Kirwan ,2014). Furthermore, when children are encouraged to use their mother tongue at school and stablish comparisons with the additional language of instruction, language awareness becomes a tool to support learning. Besides, as Cummins (2000) states, once the learners are capable of finding differences and similarities between languages, they will be conscious of their existing knowledge.

2.2 The four Cs of CLIL

The 4Cs framework of CLIL was created by Coyle (1999), and serves as a foundation for the integration of its components as well as a means of fostering the growth of CLIL pedagogies. It places a strong emphasis on content (the subject matter), communication (the language used), cognition (learning and thinking), and culture (the way in which people relate to one another in society). Besides, Barboráková, (2011) states that following the 4Cs curriculum of Coyle (1999), a successful CLIL lesson should integrate elements of the following: Content, which refers to the subject progression in skills, knowledge and understanding of particular elements of a defined curriculum; Cognition, which refers to the development of thinking and cognitive skills; Communication. It implies using language to learn while learning to use language, focusing on interaction; Culture or community. It suggests understanding and awareness of our culture and other cultures, as well as being exposed to different perspectives. Finally, Coyle (2009) claimed that the development of appropriate language knowledge and skills, the interaction in the communicative context, progression in knowledge, skills, and understanding of the content, as well as a deeper intercultural understanding are all requirements for effective CLIL. (p.110)

Moreover, Clegg (2009) provides the following learning and language skills for those students learning in a foreign language. First of all, the basic language skills. This includes the four linguistic skills, the receptive skills (listening and reading) and the productive skills (speaking and writing). These skills would cover what Cummins (1979), as cited in Bentley (2010) refers to as BICS, Basic Interpersonal Communication Skills. That is, the language used in our daily life, the social and everyday language. Pupils need to be able to use these skills within a variety of topics and making an accurate and appropriate use of grammar, vocabulary, spelling, discourse and function. Learners acquire these skills implicitly in their content lessons and outside school during their daily life through media or other extracurricular activities or communities where the target language is used, as well as in their second language lessons. As Barboráková (2012) claimed, we need to be aware of the fact that not all students master these skills and may show difficulties when

following the teacher instructions or interacting with his/her peers in the foreign language. They may also have issues for writing without making grammatical mistakes or for reading subject texts.

On the other hand, the academic language skills. This refers to what Cummins (1979) named CALP or cognitive academic language proficiency. It is the language needed to understand and discuss content in the classroom. This type of skills can be transferred from one language to another. In other words, if a student shows a good command of learning or language skills in his or her mother tongue, he or she will be able to transfer that skills with ease to the second language. Concerning the speaking skill, students will need to agree or disagree with their peer's points of view, participate in discussions, respond to the teacher's questions, and come to conclusions and report them to the whole group-class. In relation to the listening skill, pupils will develop listening comprehension skills by listening to the teacher's presentations on the subject and will need to take notes as they listen. Moreover, when talking about the reading skill, learners will read subjects texts and handouts which normally include visual aids to ease understanding and they will need to do research looking for information in the Internet or reference books using skills such as skimming and scanning. Finally, concerning the writing skill, learners will need to use specific vocabulary from the subject, construct formal sentences properly, use headings and organize sentences into paragraphs.

In relation to the BICS and CALP distinction of Cummins, the author Gibbons (1991), distinguished between language used on the playground and language used in the classroom, which brought out the linguistic demands in the classroom in a very clear way. She points out that "children can make friends, join in games, and take part in a variety of day-to-day activities that develop and maintain social contacts" (p.3) using the language used in playgrounds. She makes the observation that this language usually takes place in face-to-face interactions and is very reliant to the physical and visual background, as well as body language. Despite this, language used in schools differs greatly from language used in playgrounds. Children typically do not have the opportunity to use such academic words on the playground. Additionally, it typically does not call for the language connected to higher order cognitive abilities like speculating, judging, inferring, generalizing, forecasting, or

classifying. These, however, are the linguistic functions that are linked to learning and cognition development; they appear across the curriculum, and without them, a child's academic potential cannot be reached. (Gibbons,1991, p. 3)

Clegg (2009) also provides the metacognitive skills. This skills are specific from CLIL approach, and encourage students to perform tasks such as problem solving, planning, establishing goals, starting work, managing their own progress on activities to identify errors and weak points and improve them. Besides, learners will need to read texts before a lesson, ask the teacher to explain or repeat what he just said, to look up for new words on dictionaries or plan and revise writing activities.

Finally, regarding the relationship between language use and subject matter acquisition, as well as how language is acquired during that process, we can distinguish three dimensions: language of learning, language for learning and language through learning, are interrelated in the progression of learning in CLIL. Language of learning, according to Coyle et al. (2010), is the language required to understand fundamental ideas and concepts associated with a given subject. This comprises the framework and methods employed to discuss the subject's related topics. In tasks involving pair and group work, language for learning is employed, and it incorporates the learning practices that students employ in collaborative group work. Language through learning refers to the interactive practice that encourages learners to think critically and jointly create new content and is employed in the dialogue that takes place.

2.3 What are the principles behind CLIL?

There are several theories about how people learn in CLIL programs. For example, Vygotsky's sociocultural theory (1978) is based on the idea that learning happens via collaboration and is frequently referred to as a core principle of CLIL methodology. In this way, the teacher's job is to use language to mediate knowledge in a way that encourages student learning by communicating with peers, teachers, and other students. Thus, CLIL is considered a "social process" (p.11) according to Llinares, et.al. (2012).

Furthermore, According to Hemmi & Banegas (2021), CLIL approach is based on constructivism, which links content, culture, communication and cognition. (p.9). With the use of engaging tasks that encourage group knowledge-building within a specific learning environment, CLIL targets the improvement of the learners' knowledge and abilities, including the language used. Pupils actively expand their knowledge through this cooperative work. (Cupchik, 2001).

Moreover, the core of learning in CLIL is the development of cognitive abilities and critical thinking skills. As a result, CLIL techniques are meant to assist students in moving from lower-order thinking abilities like applying, comprehending, and remembering, to higher-order thinking abilities like, evaluating, creating and analyzing . (Coyle et al., 2010, p.31). In CLIL, according to Anderson & Krathwohl (2001) lower order thinking skills like “remember” and “understand” (p.5) are significant because without comprehending and remembering new material, one cannot use or assess their knowledge. Additionally, it should be highlighted that the top higher order thinking abilities, “create”, can be used with younger pupils in elementary school because they will be applying their knowledge at their level to make a poster or a presentation as part of a project, for example. Therefore, this progression from lower order to higher order cognitive abilities is undoubtedly not a linear process; more so, it consists of an ongoing process in which the acquisition of knowledge and skills are promoted in order to support learners' thinking development through CLIL.

In accordance with Pérez-Cañado (2016), the majority of CLIL teachers lack formal training in instructing Second Language Learners (SLLs), and many have concerns about how to do so. According to some researchers, scaffolding offers a promising means of assisting SLLs. (Gibbons 2015 ;Van de Pol, et.al. 2010). In addition, Pawan (2008) claims that in order to explore meaning negotiation and linguistic support in the classroom, CLIL teachers can incorporate language learning into academic areas by adopting scaffolding tactics. According to Wood et.al. (1976), the term "scaffolding" originally referred to a form of immediate adult support "that enables a child or novice to solve a problem, carry out a task, or achieve a goal which would be beyond his unassisted efforts" (p. 90).

There are numerous ways to use scaffolding with English language learners. Bridging, modeling, schema building, and contextualizing, are some of the most important educational scaffolding strategies (Walqui, 2006). For example, teachers use bridging approaches to develop students' skills by drawing on their prior knowledge. Bridging also creates a personal connection with students by drawing similarities between their experiences and the content. Academic language, which English language learners use in class, usually appears decontextualized. However, teachers may contextualize the learning of a language using a variety of verbal and nonverbal tools, including images, films, and examples. (Walqui, 2006).

In relation to SLLs, as Dong (2017) states, they are not “empty vessels” , they hold “a collection of prior knowledge and skills acquired in their native language” (p.145). Moreover, since prior knowledge is one of the most crucial components of pupil’s learning process, connecting known knowledge to unknown knowledge is essential. (Tomlinson and Moon 2013, p. 421). Despite this, having prior knowledge in high-interest topics does not necessarily make comprehension easier. Some authors like Guthrie (1981) have come to the conclusion that due to the fact that native English speakers have more knowledge about a topic, they show a better understanding on high-interest materials. Other authors such as Pearson and Johnson (1978) came to the conclusion that interest, regardless of knowledge, is a crucial factor in reading comprehension. Furthermore, two studies conducted by Weber (1980) and Entin (1981) showed that prior knowledge and interest were connected, giving a positive effect on comprehension. In this light, a well-designed and controlled study conducted by Baldwin, et.al. (1985) proved meaningful achievements on reading comprehension due to the contributions of interest on the topic and prior knowledge.

On the other hand, Walqui (2006) claims that in modeling, learners are given realistic representations of what is expected of them, providing them with specific instructions. Along with assignments and tasks, teachers can provide examples of appropriate language usage and lexicon that students must learn to complete their assignments. Furthermore, teachers assist students in relating new knowledge to preexisting structures using the scaffolding technique known as schema building.

Students might be requested to go over the material before beginning a reading assignment by concentrating on the title, the images, the charts, etc. Thus, the mental structures of the students might be activated and prepared to integrate new knowledge. (Walqui, 2006)

Moreover, it is worth mentioning the importance of the three principles of offering personalized guiding considering the pupil's need and characteristics. The three principles of personalized education that Garcia Hoz (1988) identified as singularity, openness, and autonomy are strongly related to the key elements of CLIL (Mehisto et al., 2008). Firstly, a safe and stimulating learning environment is made possible by singularity in individualized learning, which encourages students to reflect on their learning experience and increases linguistic comprehension. As they draw links to their own life, students' interests are taken into account. Singularity scaffolds students' prior knowledge and experiences, takes into account how they learn best, and promotes critical and creative thinking. Secondly, in an environment that is more open, students communicate more than the teacher does (active learning), they cooperate more with their peers, and they discuss both content and meaning with the teacher.

Finally, contrary to popular belief, Gallagher and Colohan (2017) claim that in CLIL settings, where students and teachers have a common mother tongue and cultural background, L1 can be an efficient scaffolding method. In fact, Mahan, et.al. (2018) and Dalton-Puffer (2007) found that CLIL teachers relate concepts in the first and second language, using L1 as means to ease pupils understanding.

2.4 CLIL models and methods

In accordance with Cenoz, Genesee, & Gorter (2013) CLIL is considered a "well-recognized and useful construct for promoting L2/foreign language teaching". (p.258) As it is not a homogeneous educational term, many models can be identified. In this line, Dueñas (2004) determines that CLIL is "commonly perceived as a flexible operational framework for language instruction, with a heterogeneity of

prototypical models and application options available for different contexts and pedagogical needs" (p.75). As the famous proverb says, "*A lot of different flowers make a bouquet*". In light with this, I believe that the variety of models included in CLIL are very beneficial. Indeed, this enables the teacher to choose the model or the models that better fits his or her educational context. For example, the different models can be based on level of immersion, weather the focus is on content or language), or the existence of support teachers.

On the other hand, it is worth mentioning the importance of flexibility in education. CLIL allows pupils to adapt their learning pathway along the process, and to suit their interests and needs. Furthermore, one of the teacher's role is to be able to adapt the lessons and make any changes if necessary, in order to improve their teaching quality. Joan (2013) mentioned in his research paper that according to Shurville et al. (2008) "Flexible Learning is a set of educational philosophies and systems, concerned with providing learners with increased choice, convenience, and personalization to suit the learner. In particular, flexible learning provides learners with choices about where, when, and how learning occurs". (p.37-38)

According to Met (1999), we can distinguish the following models in CLIL: Adjunct, Immersion, Theme-Based, Sheltered subject-matter, and Content-enriched FL instruction among others. Considering the combination of content and language instruction, as well as the educational level, it will be more appropriate to use one model or another. In accordance with Snow (2001), *Immersion* is an educational model where the majority of academic education is given to native English-speaking elementary school children in a foreign language. English and the foreign language are both used roughly 50% of the time in partial immersion models.

For the purpose of academic content instruction, second language learners are "sheltered" from native-speaking pupils using the *Sheltered Subject-matter* instruction model. The goal is to provide the material in a way that language learners can understand it. Classes in "ESL Science" or "ESL Math" are two examples. Moreover, in the *Adjunct language* teaching model, students sign up for both, a language and a content course at the same time. The tasks and materials for these courses are coordinated so that students' learning in the language course is

supported by their learning in the content course. While second language learners may be integrated with native speakers in the subject course, they may be sheltered in the language course.

The term *theme-based instruction* refers to language training when the topics are taken from one academic subject like Science, or from all of the subjects included in the curriculum (such as nutrition). The term "theme-based instruction" is used alternately with "content-based instruction" by Stoller and Grabe (1997), who argue that "all CBI is fundamentally theme-based" (p. 81). In addition, Content-based education is described by Brinton, et.al.(1989) as "the integration of content with language-teaching aims" (p. 2). It entails the instruction of academic material and second language abilities. Thus, curricular growth and the study of the L2 or target language is combined, allowing the students to learn curricular information, complete their academic assignments, and acquire the L2/TL at the same time in a very natural way. This would be the case of the present Didactic proposal.

Furthermore, we can distinguish following Ball & Bentley (2009) between "hard" and "strong" CLIL and "weak" and "soft " CLIL. According to Ikeda (2013) the "hard/strong" version of CLIL is that "where academic subjects such as geography or science are taught in English by non-native content teachers". On the other hand, Ikeda (2013) claims that "soft/weak" CLIL "is taught by native or non-native language teachers with more focus on language learning".

2.5 Benefits of CLIL

The main benefit of CLIL approach is that it is topic focused and it enables pupils to learn a foreign language through content. Learners might be more motivated if the material is engaging and pertinent to their other studies. Students will learn more if they choose themes they are already familiar with or have recently studied in their mother tongue since they will be more comfortable with the material and context. This "top-down" method of learning, which builds on prior information, contextual cues, and overall meaning, is more effective than a "bottom-up" approach. (Barboráková, 2012).

Following Coyle, Philip and Marsh (2010), there are numerous advantages behind CLIL approach which can be grouped in the following categories: pedagogical, cultural and linguistic benefits. In relation to the pedagogical benefits, since learners are put in circumstances where they will need to socialize, and manipulate the language to ease understanding, CLIL is a natural and authentic manner of learning a language. The teaching-learning process will be more interesting and motivational since it uses a realistic approach to the language. The students' attitude toward learning a second language changes for the better as a result. In fact, students will be more motivated to learn with the CLIL approach because due to its high ICT potential.

With regard to motivation, it is without a doubt the driven force in any situation. Motivation is crucial to achieve effective learning, and teachers should encourage awareness among learners of the fact that good knowledge in a Foreign Language can be very beneficial for their future. In fact, according to Dörnyei (2007), “Long-term, sustained learning such as the acquisition of an L2 cannot take place unless the educational context provides, in addition to cognitively adequate instructional practice, sufficient inspiration and enjoyment to build up continuing motivation in the learners. Boring but systematic teaching can be effective in producing, for example, good test results but rarely does it inspire life-long commitment to the subject matter.” (pp.719-720)

In the words of Wolff (2005), “CLIL theoreticians and teachers claim that the learning environment created by CLIL increases the learner’s general learning capacities, his/her motivation and interest”(p.9). As a matter of fact, CLIL is an approach which endeavors to provide the most exposure of pupils to the foreign language in a real context. Teachers offer strategies for acquiring both, language and content knowledge, and where the active role of the learners is essential.

Furthermore, when students actively assess how effectively they have met their learning objectives, they are demonstrating autonomy. They then, decide to continue on to the following assignment. When a student's self-confidence rises to the point where they desire to explore with language and subject matter, participate

in active learning decisions and ask for linguistic assistance when necessary, openness and autonomy are present. (Garcia Hoz, 1988).

On the other hand, concerning the cultural benefits, learning a second language fosters the development of virtues like tolerance, respect for diversity, and knowledge of other people's cultures. It brings people together and connects them with the outside world. Pupils participate in social interactions that give them an understanding of the various cultural contexts they might be a part of. Besides, regarding the linguistic benefits, in CLIL approach, at the same time students use the second language to learn content, they use content to learn the target language. This approach focuses on developing the full person, not just one aspect of the student, by requiring them to actively manage materials and tools in real-world circumstances. Additionally, they learn how to communicate and how to interpret linguistic exchanges, as well as the fact that a language is more than just a system of symbols and rules.

2.6 CLIL implementation in Spain

Foreign language education is currently prioritized in the curriculum in Europe. However, compulsory Foreign Language teaching was not introduced in Spain until the 1990s. Nowadays, significant progress has been made in FL education, and it is now required to teach a second language to pupils starting at the age of 12 in practically all EU nations. (MIEB,2022).In order to teach one or more subjects, bilingual education and European sections have also progressively started to take center stage across the continent. CLIL is being used in nearly all of Europe's educational systems, as Wolff (2002) reveals. CLIL practice has significantly expanded (Marsh 2002), today spreading the continent from East (Bulgaria) to West (Spain) and from North (Finland) to South (Italy).

Within the European scenery, Spain stands out noticeably, since as Coyle (2010) states "Spain is rapidly becoming one of the European leaders in CLIL practice and research".(p.8) . The authors Lasagabaster & Ruiz de Zarobe (2010),

support this idea, who claim that “In the last decade CLIL ... has undergone a rapid development in the Spanish scenario” (p.9). The poor levels of language proficiency that are typically attained in Spain are frequently blamed for the growth of CLIL. According to Lasagabaster & Ruiz de Zarobe (2010) “The dismal foreign language proficiency usually obtained through its conventional teaching as a school subject has led many primary, secondary and tertiary institutions to put CLIL programs into practice”(p. 290-291). In fact, a significant number of students have expressed their unproductive experience of foreign language learning in the Spanish setting, despite the fact that many have attempted to acquire the language for quite a few years. According to Lasagabaster & Sierra (2009) “dissatisfaction is the common denominator when the proficiency in English of Spanish students is scrutinized, despite many having spent quite a few years trying to learn the language” (p.7)

Plurilingual strategies are currently supported by all local educational administrations. The most noteworthy official CLIL projects include (MIEB,2022): (1) The Spanish Ministry and British Council Project, in order to provide bilingual and bicultural education to students from the age of three to sixteen; Language immersion programs, which provides summer courses for students in the final cycle of primary education and the first grade of compulsory secondary education, with support from the Spanish Ministry of Education and Science. (2) Support Program for the Teaching and Learning of Foreign Languages. It is designed with the aim of helping CLIL teachers increase their FL proficiency through 200 hours of training and a two-week study abroad trip. (3) Linguistic Innovation Projects. They have the aim of training teachers who are eager to implement CLIL approach in their classrooms. (4) Bilingual project. This is the multilingual project's official name within the Madrid community. In 2003–2004, it was first implemented in 26 public infant and elementary schools, and it has since then been expanded to 147 centers. CLIL can be used in this situation to teach any subject using either English, French, or German, with the exception of Spanish and mathematics. It features a unique teacher preparation program of its own.

These particular CLIL activities are targeted at the Primary and Secondary levels. At these levels, they aim to promote a more communicative, participatory, dynamic, and inspiring method of language teaching.

2.7 CLIL implementation in Madrid

The region of Madrid describes itself as a “bilingual community”. According to Relaño (2015), since the middle of the 1990s, two different bilingual education projects have been put into place. One of them is the “Comunidad Autónoma de Madrid” (CAM) Bilingual Project, which was implemented by the local government of Madrid in 2004. The other project, known as the MEC/British Council Project, was signed in 1996 by the Spanish Ministry of Education and The British Council. This last project, also known as BEP (Bilingual Education Project), advocates for a content-based curriculum that is bilingual in Spanish and English as well as the recognition of academic achievement in both the Spanish and British educational systems. A third of the subjects on the official school schedule to be taught in English are described by the CAM Bilingual Project. The subjects that teachers instruct are determined by their linguistic proficiency in teaching English-language content. (Relaño , 2015). Moreover, Science is one of the most popular options in these institutions, according to Llinares and Dafouz (2010, p. 98), with physical education, arts and crafts, social science, and music being additional popular topics that are frequently taught in English.

2.8 CLIL and ICT

Since the COVID-19 crisis, the value of ICT and the crucial role that teachers play in integrating it into classroom practice have become even more obvious. The digital competence is one of the key competences described in the RD 61/2022, of July 13th , by which the Curriculum of Primary Education is established for the Autonomous Community of Madrid. This skill enhances the responsible use of digital tools and the acquisition of strategies that facilitate the search for information selectively, safely and effectively. Moreover, one of the main blocks of the subject of

Natural Science is “Technology and Digitalization”. This block focuses on the development of strategies of design thinking and computational thinking so that the students manage, in a basic way, tools and digital resources as means of learning, and can communicate responsibly in a digital environment.

It is worth mentioning that, in order to provide the educational community with tools that allow the development of digital skills, the Community of Madrid has signed a collaboration agreement with Google to make Google Workspace for Education (GWE) services available to public schools in our region, as a complement to those that make up the corporate platform EducaMadrid. It consists of a package of tools designed to enable teachers and pupils to innovate and learn together. The main targets of this collaboration are the following: (1) to encourage the development of teaching programs in educational centres, (2) to promote digital literacy and the development of the knowledge society through an advanced environment in these centres, and (3) to develop innovation in information and communication technologies in the educational process.

In today's world, we deal with kids who grew up with technological devices like the Internet, smartphones, and social networks (Kalaš et al., 2011). These kids were born into a society where these tools were common. Thanks to ICT, learning is changing from being teacher-centered to being learner-centered and is now possible at any moment and anywhere, at home or in classrooms (Assar, 2015). Moreover, the use of ICT differs per school, nation, and student age, however Kalaš et al. (2011) established some implementation models that might be used. On the one hand, ICT use can be incorporated into the curriculum as a whole. ICT is used in topics in this paradigm to promote particular learning objectives while also strengthening cross-curricular relationships between subjects. Teachers' digital literacy, which includes their personal capacity and interest as well as their own ICT skills, is crucial to the model's success. On the other hand, in some schools, we can find computer science or informatics courses. This model of implementing ICT in CLIL practices aims not only to enhance the teaching-learning process, but also to achieve the understanding of fundamental technological concepts and abilities, such as computational thinking, programming, data processing, and problem solving.

Among its benefits technology can help change a teacher-centered setting to one that places an emphasis on the interests and aspirations of students (Foutsitzi & Caridakis, 2019). Henderson (2020) argued that the incorporation of ICT will likely increase students' motivation and curiosity in the subjects they are studying. Technology offers the chance to make learning more enjoyable and exciting. Additionally, ICT can encourage more active learning, which is challenging to do in a typical classroom setting. Additionally, pupils who are eager and involved in their studies are more probable to remember what they have learned. As was already said, ICT can help promote student involvement in the classroom, which is essential for boosting students' retention of information (Henderson, 2020). In addition, using ICT in the classroom allows the quick modification of instructional materials in response to attending the pupil necessities (Houcine, 2011). Besides, in relation to family involvement in the learning process, the ability to communicate with school educators online and to have real-time access to information about their child's academic achievement, are two ways that technology enables parents to be more active in the learning process (Shatri, 2020).

Information and communication technology (ICT) advancements are increasingly giving language learners the chance to connect in real time with native speakers of their target language. According to Lloyd (2012) ICTs in foreign-language learning context provide learners with new options to improve their foreign-language abilities. Researchers such as Kumar & Tammelin (2008) and Stevenson & Liu (2010) have demonstrated the advantages of using current technological tools when learning a foreign language. For instance, the introduction of Web 2.0 technology allowed students to engage in real-time conversations with native speakers. To be more specific, a number of language learning websites, like *Palabea*, *Livemocha*, and *Babbel*, make use of social networking tools to create online language-learning communities where learners can practice their target language with other competent students or proficient speakers. Without these resources, joining communities for studying a foreign language was only feasible abroad. (Stevenson & Liu, 2010). In accordance to many researchers such as Ho (2002), Campbell (2004) and Fageeh (2011), the real use of a foreign language is essential for students to gain proficiency.

Finally, Evans & Cordova, (2015) mentioned in their research regarding lecture videos, that students have stated that they enjoy learning from videos. In this line, Cooper et al. (2018). claimed that videos are preferred by students as a content delivery method over readings. Videos frequently offer the advantage of giving students the chance to pause, rewind, and skip forward to guide their learning experience, in contrast to face-to-face lecturing. (Fyfield et al., 2019). Despite this, a constant issue is that videos are frequently didactic lectures (Fyfield et al., 2019). In other words, learners do not actively participate in learning. But research have demonstrated that student-centered active learning outperforms didactic lecturing in terms of effectiveness (Freeman et al., 2014) and that answering questions and participating in class rather than simply absorbing information passively can help pupils learn more. That is to say, although videos are a motivating resource for students to receive input, active lessons are more beneficial for the learners. Therefore, the present didactic proposal includes the use of some videos as audiovisual resources to support the learning of content and develop the target language, but specially provides face-to-face lecturing, where students are able to interact with the teacher and their peers.

3. DIDACTIC PROPOSAL

3.1 Justification

In the present Didactic proposal, ICT will be used in Content and Language Integrated Learning (CLIL) for teaching Natural Sciences. It helps students to learn how to use ICT tools and become more digitally competent. According to the D61/2022 (13 July), “The purpose of the area of Natural Sciences in Primary Education is for students to develop responsible and respectful attitudes towards the world in which they live.” (p.32)The aim is to design a Didactic Unit in which we manage to reach a meaningful learning-teaching process of the target language (English) and the subject of Natural Science through the use of ICTs and sociocultural and cognitive approaches. It will consist of a guideline for teachers of the main points for the educational practice and to help students to achieve the aims within their own pathway considering each student’s level, capacity and needs. It should be also considered the fact that the didactic unit must be flexible and open to

changes, so it can be modified and adapted to the student's needs and capacities. The present this Didactic Unit has been designed for the teaching of Natural science through CLIL approach, in a bilingual school in the South of Madrid, for the 2nd year of Primary Education.

ICTs have increased the educational opportunities by making blended learning, digital education, and distant learning feasible. (Pavel, et.al. 2015) Additionally, they ease the adaptation and modification of the knowledge provided, and a variety of digital reinforcement and additional tasks can support this use (Navarro-Pablo, López-Gándara, García-Jiménez, 2019), which can further encourage independence, creativity and self-learning (Gámiz-Sánchez, 2016). Additionally, ICT may be used as a tool to support a student-centered methodology because it is assumed to encourage involvement and active participation, in which pupils feel like they are the protagonists of their own learning process (Gámiz-Sánchez, 2016; Barreto Huilcapi, et.al., 2021). As a result, they encourage engagement and teamwork among the learners (Prendes-Espinosa, et.al., 2021). Moreover, the use of ICT in the CLIL classroom might assist students learn a formal subject and their target language while reducing fear and promoting engagement and interaction. This is due to the possibility that ICT may offer deeper clarifications using visual tools (Fernández Fontecha, 2012).

The use of ICT in the present didactic proposal can therefore facilitate learning in a CLIL classroom, as it has been reviewed previously, it offers numerous benefits. In addition, it could potentially open up the possibility of distant learning in along with face-to-face instruction. This connection between ICT and CLIL fosters the development of other skills and abilities, such as administration of data, problem solving, and choice-making, in addition to digital competence. (Bueno-Alastuey, et.al. 2018; Nieto-Moreno-de-Diezmas, 2018)

Besides, as ICT offers auditory, visual, or any other kind of assistance, it can be helpful for language learning and content comprehension (Nieto-Moreno-de-Diezmas, 2018; Abbate, 2017) In fact, ICT improves accessibility to academic information for all types of students by making adaptations easier (Navarro, López-Gándara, García-Jiménez, 2019; Pavel, Fruth, Neacsu,, 2015). Studies showed that

there is still a lack of teacher training and materials in this area, and specific digital tools are required. Therefore, this Didactic Unit will provide CLIL teachers with meaningful tasks and tools to use in their classroom. (Carrión, et.al.,2021; Pérez Gracia,et.al.,2020; Pérez Jurado, Martínez-Aznar, 2019; Escobosa, et.al ,2019; Bueno-Alastuey, et.al. 2018). Some of the digital tools and resources which implemented include *Canva*, *Jamboard*, *Quizziz* , Life worksheets, digital portfolios, and the use of tablets and the digital board.

3.2 Contextualization

This Didactic Unit has been designed for 2nd grade of Primary Education of a bilingual public school. It is oriented to a public school, *CEIP Ortega y Gasset* , located in a medium sized town on the south of Madrid (Leganés), in which most of the students come from middle class families. It is a line 2 school. It has two buildings, one for Pre- Primary Education with 6 classrooms for the three academic years and one for Primary Education with 12 classrooms for the six academic years. There are about 24 students in each class, so we have a total of 430 students in the school. As to the students, they are between 8 and 9 years old. The group-class is multicultural, as there are students from Morocco, Angola, Colombia and Belgium. However, the origin of the students is mostly Spanish. Despite Spanish is not the L1 for all students, most of the learners are able to speak it fluently. Within the CEFR levels of proficiency, students have an A2 level of English. Moreover, one of the students have hearing difficulties, for which the measures taken will be specified in the section ‘attention to individual differences’.

Regarding the families, parents are aware of the importance of learning English and show an active participation in the school life. The school have a Parents Association known as “AMPA”, which foster educational quality, provide educational activities in relation with environment, conduct instructional activities that support children and families with specific social and educational needs, foster positive connections within the educational community, and strengthen the principles and goals of the institution among many other duties.

3.3 Learning objectives

The specific learning objectives have been elaborated focusing on the general objectives for Primary Education established in the Royal Decree 157 /2022, and the curricular contents and key competences shown in the Decree 61/2022 as in the contents and assessment criteria of the Royal Decree 157/2022. They will be specified in the tables which represent the 6 sessions of the Didactic Unit. The general purpose of the Didactic Proposal has to do with objectives (h) and (f) for Primary Education in the Royal Decree 157/2022 art 7. And Decree 61/2022 art.5: “To know the fundamental aspects of Natural Sciences, Social Sciences, Geography and Culture” and “to acquire, at least in English, the basic communicative competence that allows them to express and understand simple messages and cope in everyday situations in this language”.

3.3.1 Natural Science Objectives

- To recognize and list the importance of a responsible use of water.
- To identify and practice a safe and healthy mobility.
- To demonstrate management and prevention of waste.

3.3.2 Foreign Language (English) Objectives

- To answer specific questions about relevant environmental issues in English such as the dangers within drinking water or the uses of water.
- To understand simple and brief oral texts from different audiovisual and digital supports getting the key words and main ideas.
- To express basic vocabulary, simple messages and usual expressions to interchange elementary information developing the communicative competence, with a correct pronunciation, intonation and stress. (E.g. : waste, recycle, water pollution, global warming, groundwater).

- To express tense (present simple), and interrogation: Wh-questions for the exchange of basic information in oral interactions and written texts.

3.4 Competences

While it would be possible to work on any of the competences stipulated by Decree 61/2022 with the unit here developed, for pedagogical purposes, a choice has been made to focus on the digital competence, the linguistic communication competence, the mathematical competence and scientific, technological and engineering skills, and the citizenship competence. New skills and competences are required to function in this globalized society, including digital competence. This competence involves the development of skills related to the search, analysis and dealing of information that will be transformed into knowledge, as well as the creation of content through digital applications. In the present Unit, students will develop the basic skills for a critical, creative and safe use of ICT. This competence is essential to train competent students in the digitized world in which we live.

In regard to the linguistic communication competence, the development of this competence is directly linked with the study of a foreign language. It contributes to its development, in the same way the mother tongue does, enriching and complementing the communicative skill. It is a useful instrument to understand the world around us and organize our thoughts and emotions. Therefore, it will be a good learning tool both inside and outside the classroom. In this didactic proposal, students will develop their communicative capacity, being able to use the English language in various situations, to express ideas or interact with other individuals, both orally and in writing.

Moreover, concerning the mathematical competence and scientific, technological and engineering skills, this competence will help students to familiarize with different technological devices, principles, concepts and relevant facts in relation to the environmental issues in our current society. This Didactic proposal will contribute to the expression and mathematical reasoning to interpret and produce

information, and to the ability to solve problems based on everyday life situations. For example, students will analyze the water footprint of different food and drinks, and how this affects the environment.

Furthermore, citizenship competence helps students to exercise responsible citizenship and participate fully in social and civic life, based on an understanding of social, economic, legal and political concepts and structures, as well as the knowledge of world events and the active commitment to sustainability. In the developed didactic proposal, the pupils will actively devote themselves to environmental sustainability. They will acquire knowledge on how to save water, recycle and manage waste, and practice a healthy and safe mobility.

3.5 Contents

The contents are extracted from the Spanish National Curriculum documents for Primary Education in the autonomous community of Madrid, the D 61/2022 and the RD157/2022. Students will acquire concepts and develop skills in relation to a safe use of sources of information and the caring of the environment.

3.5.1 *Natural Science contents*

Social and environmental awareness

- Appropriate lifestyles. The responsible use of water.
- Safe and healthy mobility.
- The prevention and management of waste.

3.5.2 *Foreign Language (English) contents*

Block 1: Communication

- Identification and understanding of key words and main ideas.
- Emission of words and short and simple messages with correct pronunciation, intonation, stress and rhythm. Participation in conversations in the classroom.

- Elementary analog and digital tools for oral, written and multimodal comprehension and production. Guided, limited and responsible use of digital tools.

Block 2: Multilingualism

- Introduction to elementary strategies to identify and use language units, such as the transfer and application of strategies of the mother tongue, use of images, vocabulary, diagrams, basic mind maps, posters, personal dictionaries with images, songs...,etc.

Block 4: Syntactic-discursive contents

- Interrogation: Wh- questions: What; Where; How; Who
- Expression of tense: present (present simple).

3.6 Timing

This didactic unit is going to be implemented at the end of the first trimester. We are in a public bilingual school, where the sessions last 45 minutes. Therefore, in order to complete the 1.5 weekly hours for the Natural Science subject there will be 2 lessons per week. That would be a total of 4.5 hours of students work for the development of the Unit in the class. Pupils are also expected dedicate a total of around 5 hours of work out of class, to fulfill their assignments, revise contents, and work on their digital learning portfolio. They will take place on Tuesdays and Fridays.

I have scheduled this unit considering the School Calendar for the Community of Madrid, 2022-2023.

Table 1

November 2022						
Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30				

Didactic Unit development
 Non-school days
 Weekends

Table 1. Didactic Unit plan calendar

3.7 Methodology

The lack of motivation to learn and boredom in the classroom is increasingly noticeable nowadays. All this leads us to think about the importance of active methodologies in our classrooms to achieve meaningful and motivating learning for our students. Meaningful learning according to De Rus Guerrero Sánchez (2014), originally proposed by David Ausubel, “arises when the student, as a constructor of their own knowledge, relates the concepts to learn and give them meaning from the conceptual structure that they already have”(p.5). In this way, students will be the main protagonists of this educational challenge. There is not only one way to reach

the proposed objectives, and it is the teacher who should discover which is the most suitable for each student. In this didactic unit, an active methodology is followed, in which students have an active role in the acquisition of knowledge. As a matter of fact, it was shown in a qualitative research through classroom observations, conducted in Castilla La Mancha (Rani & Inamdar, 2022) , that teachers, “when teaching the units of the content, they built on students’ prior knowledge,” (p.44) Regardless of the variance in educational backgrounds, classroom observations of CLIL pedagogical techniques and students' multilingual interactions have given valuable insights that will improve our knowledge of what CLIL practices are and how they truly work. (Rani & Inamdar, 2022, p.44)

On the premise that the CLIL approach entails an active building of one's own knowledge, the idea of considering CLIL as a type of constructivist learning is developed. (Wang, 2011). Constructivism explores the learner's own development of a new concept based on prior knowledge, that is challenged by the existence of a meaningful learning environment with real motivations for the pupil. Consideration, comparison, adaptation, and transformation of new knowledge so that it makes sense in light of what is already known in the world, constitutes how learning happens. (Hanesová,2015,pp.36-37). CLIL lessons sometimes incorporate circumstances or exercises that present some sort of cognitive difficulty and call for student participation. The focus is transferred from the teacher to the students, who must be active and think more deeply about the subject matter. They need to acquire knowledge on their own (Hanesová, 2015, p.37).

Besides, according to Yassin et.al. (2018), Constructivism is an effective learning approach, and cooperative learning is a way of constructing meaning. Separating the students into groups will make it easier for them to engage with one another, and this interaction will be meaningful for them as they develop a solid knowledge foundation. Additionally, cooperative learning gives students the option to manipulate the materials and exchange experiences, which helps them learn by developing significant ideas. Active learning is a fundamental component of language learning. Therefore, cooperative learning is a way that enables students to connect with one another and build their knowledge.

On the other hand, as pointed out before, it is the teacher's responsibility to determine which is best methodological choice for each student. In other words, teachers should personalize learning. As mentioned by National College (2017), The Gilbert Review (2007) defined personalized learning as a way to ensure that each student can learn, advance, and get involved in the learning process. Besides, personalizing learning and teaching entails adopting a highly organized and flexible approach. It involves making students' parents active participants in their education in order to reinforce the connection between learning and teaching.

Järvelä (2006), in her work "Personalised Learning? New Insights into Fostering Learning Capacity?," she addresses crucial issues concerning personalization. She believes that personalized learning is "an approach to in educational policy and practice whereby every student matters, equalizing opportunities through learning skills and motivation to learn". (Järvelä ,2006, p.31). According to this author, the evolving environment, evolving social dynamics, new technology, and more adaptable learning methods have made personalized learning a promising strategy for addressing the needs of both education and the workforce in the future. Järvelä examines seven important areas where individualized learning may serve as a powerful tool. (Järvelä ,2006).

Furthermore, a good teacher must be able to awaken concerns and curiosity in their students, and "make school a place where children want to go" (Bona, 2015 p.98). To do this, we must try to educate from the reality of our students, relating the contents to real life, based on their interests and needs. Methodology will focus as well on the acquisition and development of the communicative competence, as one of the main objectives of this Didactic proposal is that students become communicative competent in the target language (English).

The present didactic proposal also fosters cooperative learning (CL). It organizes classroom activities into academic and social learning experiences. Tasks are completed collectively in work groups towards academic goals. In cooperative learning students benefit from each other's skills and resources. They work cooperatively, and learn to show tolerance and respect towards their peers. Critical

thinking skills may be also encouraged as students will listen, analyze and discuss their peers' ideas. As a matter of fact, Casal (2008) believes that CL can improve CLIL context as it offers pupils the chance to share their ideas and knowledge through socializing with their peers. Despite this, we should not just place pupils together in work groups, and expect them to work together successfully.

Cooperative learning (CL) appears to be an ideal approach to meet the demands of CLIL. As Johnson & Johnson (1999, in Jacobs 2004, p. 1) pointed out, Cooperative Learning is "the instructional use of small groups so that the students work together to maximize their own and each other's learning". Teachers may want to emphasize the collaborative relationships between pupils by assigning them tasks or problems that require them to work in groups to complete, or by giving every learner a piece of the necessary materials that they must then put together as a group, known as the Jigsaw technique. Besides, in cooperative learning, every member of the team is given a set of complimentary and interconnected roles that outline the tasks required for the whole team to accomplish the overall task. When teachers provide pupils roles that complement one another like reader, recorder, checker of understanding, encourager of engagement, and elaborator of knowledge, they foster interdependence among the students. (Johnson & Johnson, 2009, pp.2-3). For example, in the present didactic unit, students will be given the roles of "materials manager", "recorder", "speaker" and "leader" and "time keeper". (Appendix 21).

On the other hand, some authors such as Genesee (1994) and Dalton-Puffer (2007) indicated that learners are not given enough opportunities to communicate in contexts where L2 is learnt through content, slowing down their speaking and writing outcomes. Mewald (2004) also agrees on this view, and points out that opposite to what is expected, in CLIL classrooms, pupils make a little use of English as a Foreign Language and are not encouraged to speak and maintain conversations. Despite this, authors such as Kagan (2009) believe that cooperative learning in CLIL contexts can increase academic achievement.

According to research, cooperative learning may assist pupils improve their communication abilities. This approach gives students further chances for communication and fosters a good learning environment (Brecke & Jensen, 2007;

Zhang, 2010; Duxbury & Ling, 2010). When students make use of the target language for learning activities, they must collaborate to achieve a certain goal, communicate their ideas clearly to others, and try to understand another person's point of view on a situation (Strickland & Feeley, 2003).

In addition, Krashen and Terrel (1983), noted that pupils interaction should be employed as one component of the educational program for their methodology even though during communication learners might hear inaccurate versions of their second language from each other. They claimed, from their experience, that "interlanguage [intermediate forms of the L2] does a great deal more good than harm, as long as it is not the only input the students are exposed to." (p.97)

Moreover, Johnson, et.al. (1981) believe that cooperative learning, regularly used in Primary education, improves pupils' self-esteem and their understanding on activities. It also helps students overcome their fear to speak in front of their peers and teachers. It is clear that with Cooperative Learning, communicative skills will be improved due to the need of exchanging information. This results in higher participation and oral practice.

3.8 Materials and resources

Geneviève (1996) stated that "today's school must be located in front of all screens". According to Geneviève (1996), education must provide the necessary training to all those whose daily life, both personal and professional, is affected by these new technological resources, in order to develop skills for their use. More opportunities for peer communication arise from the use of ICTs. Moreover, students will have a better insight into the language and the culture of native people of the target language, by using authentic material given out in the Internet.

For the activities they will be able to use a trolley with tablets provided by the school available on request, and in some sessions one day of the week they will go

the computers room. These two resources will be used in activities to do quizzes, complete life worksheets, search for new information, play computer games, etc. The interactive whiteboard will be also a usual classroom tool. In addition, the classroom also offers an ICT's corner where students can keep learning when they finish a task early or any other free time moments.,

In accordance with López. & Galván. (2016), one of the biggest CLIL teachers' concerns is that "they can't find appropriate materials for their lessons"(p.634). Therefore, teachers normally have to prepare their own materials. In this case, I have created my own original materials for scratch and I have also adapted authentic materials considering the teaching goals. According to Marongiu (2019) ,"adapting material from authentic sources might be too challenging for a subject teacher not yet familiar with language learning practice and principles".(p.81) This author believes that content teachers have to learn how to adapt a text to make it appropriate for their learning setting. Additionally, even if the educational sector already offers a large range of published resources, CLIL teachers must be able to assess how relevant they are for their particular class and pupils. (Marongiu,2019, p.81). Marongiu (2019) argued that "teaching materials available for CLIL classes should have rich, meaningful and comprehensible content to provide effective input." (p.88)

Regarding the issue of adapting authentic material, Moore and Lorenzo (2007) believe that a text serving as input should be reduced to its essential meaning, developed by using paraphrase and clarifications, and adjusted to the students' educational needs. Besides, Guerrini (2009) provides strategies for scaffolding including the use of labeled images and descriptions, as well as texts where language and lexicon are acquired through the use of visual organizers or ICT tools.

Additionally, according to Steiert & Massler (2011) "Increased visualisation is a key point in CLIL teaching materials. It supports students' understanding and motivation". (p.107) Taking this into consideration, in order to ease content processing, the present Didactic proposal includes highly visual content activities, labeled pictures with captions and the use of ICT tools such as tablets and computers. In addition, tasks are adapted to the students' level of proficiency to ease understanding of content. Moreover, I will make use of visual aids such as subtitles

when watching any kind of video or song, write important information on the blackboard or provide written materials to support the lecture.

3.9 Transversality & Interdisciplinary

This didactic proposal aims to work on transversality on a daily basis regarding the aspects that are considered within legislation. Students will learn about the value of protecting the environment throughout each session. In fact, the present didactic proposal is linked to environmental awareness, providing a great opportunity to raise awareness among pupils about saving water, practice a safe and healthy mobility and recycle to protect the world we live in. Thus, students will comprehend that their actions have an impact on the environment as citizens and future responsible people.

The present Didactic Unit is related to the previous Unit “The Water Cycle”, in which students already learnt about the importance of water and its properties, as well as the movement of water within the Earth and atmosphere. This will enable learners establish connections between the new content and their previous knowledge. This link of concepts, ideas and shared vocabulary, according to Coyle (2007), will result in “establishing connections between new and previously learnt concepts” (p.51) that will ease the understanding of complex and new content to the students. The following Unit is also linked with the theme appropriate lifestyles. It is based on healthy habits, related to the physical care of the human being: basic hygiene, varied, balanced diet, physical exercise, contact with nature, rest, active and healthy leisure and body care as a means to prevent possible risks and diseases.

As it is described in the RD 61/2022, the block of “Scientific Culture” focuses on the topics related to the scientific field and research that allow students to development of skills and strategies of scientific thinking, which will favor the inquiry and discovery of the immediate environment and recognition of the value of science in our society. In turn, this block develops the contents related to health and the functioning of the human body, the relationships between living beings, and of these with the environment, as well as those related to the effect of forces and energy on matter. Moreover, the present didactic proposal covers the importance of teamwork,

inclusion, diversity, tolerance and respect, in line with the legislation. In addition, it is also perused one of the fields of the area of education in civic and ethical values, which is the teaching of care and protection of nature and the environment.

Furthermore, in line with article 4 in the Royal Decree 157/2022, of 1st of March, in which the National Curriculum for Primary Education is established, the main target of this didactic proposal is to facilitate pupils' learning of oral expression and comprehension, reading, writing, calculus, logical and mathematical skills, acquisition of basic knowledge of culture, and the habit of coexistence as well as those of study and work, the artistic sense, creativity and affection, in order to guarantee an integral formation that contributes to the full development of their personality.

On the other hand, Coyle, Holmes and King (2009) pointed out that “different levels of success in CLIL mostly depend on the collaboration between content teachers” (p.17). If teachers find the time to meet and talk about how they are going to work together, students will be the most benefited from it. Moreover, the development and success of a CLIL programme would not be possible without a professional team . According to Mehisto (2009), one of the basic principles on which the success of the educational model is based on, is the adequate coordination and collaboration among all the stakeholders. He refers as “stakeholders” to anyone involved in the CLIL program, that is, the people with educational responsibilities at the school or administration level. In this line, in the developed Didactic proposal, co-teaching will be present. Agreements will be reached with the language teacher, in order to plan and identify the linguistic necessities for the content subject.

3.10 Assessment

For the present Didactic proposal I will use three types of evaluation to assess my students: Initial evaluation, continuous evaluation (formative) and final evaluation (summative). Assessment has a triple perspective. As a teacher I will evaluate both, the students' learning process (Appendix 19) and the teaching processes and my own teaching practice (Appendix 18). Assessment will be carried

out taking as references the different elements of the curriculum that are included in RD157/2022, which establishes the basic curriculum of Primary Education. Moreover, the evaluation of students will be continuous and global and will take into account their global progress.

3.10.1 Assessment instruments

In the present Didactic proposal, traditional type tests are avoided, as they may be sources of stress, pressure and demotivation for students, and they assess a limited range of skills. To promote motivation and self-confidence among the students, different evaluation instruments will be used, giving importance to interaction and communication, in light of my methodology based on the CLIL approach. To that end, the activities are meaningful learning tasks that will let me know the students' knowledge in an unconsciously and relaxed way for them.

Students will be evaluated through classroom observation, taking note during all the activities students perform (formative assessment). They will be assessed individually, considering their learning pace, as well as their skills and needs. Two different rubrics will be used by the teacher to evaluate pupils at the end of each unit, considering language and content. (Appendix 19). Since there are still no formal rules or guidelines controlling the direct evaluation of students in CLIL classes, CLIL teachers must take into account both the requirements for the content-subject assessment and the standards for the foreign language assessment while evaluating their students. Massler (2011), explains that "this does not mean that content and language cannot be assessed in one task but rather involves having separate and clear criteria for each area; language ability and content knowledge". (p. 122)

Furthermore, regarding summative assessment, in order to measure the academic achievement and skill acquisition of the students at the end of the unit, pupils will create a digital learning portfolio. The portfolio will be created during the development of the Didactic unit, and it will include the most meaningful tasks and picture dictionaries, so it is a useful tool for students to go through it if needed.

Besides, it is a way for learners to present their work and demonstrate what they have learned. It can also include teacher grades, comments and feedback.

To achieve meaningful learning, is also essential to assess the teaching process. As educators it is very important that we self-evaluate our work. We must be able to detect the mistakes we have made or aspects that need to be improved, in order to adapt our teaching practice and enhance our didactic proposal. For that purpose, I will use a teacher self-evaluation rubric.(Appendix 19). Moreover, the students' point of view about the activities, methodology, etc. must be also taken into account. In this case, I will provide a rubric as an evaluation tool of the teaching process. (Appendix 17). Finally, I will provide self-assessment target for the students to self-evaluate their work. (Appendix 18).

It is worth mentioning that assessment is crucial to the learning and motivation processes. The type of evaluation tasks we assign to our students affect how they approach the learning task and the study habits they adopt. In fact, John Biggs(1999) believed that "What and how students learn depends to a major extent on how they think they will be assessed." (p. 141). Moreover, the assessment will give us information about what our pupils have learnt and how well they did it and where they struggled. In other words, assessment is a way of comprehending pupils learning and enhancing our instructional strategies.

Evaluation is a fundamental tool for any educational proposal that aspires to be effective and of quality. It is necessary to analyze the resources used, the methodology, the project design, as well as the role of the teacher and other factors, in order to improve the results and, if necessary, reconsider the proposed objectives or contents. The opinion of all the users involved in the learning process should be considered. As stated by Gento Palacios (1998), the evaluation has to be considered "with an essentially formative purpose"(p.93). Meaning that the student will be provided feedback during the learning process, which can be useful to identify weakness and strengths.

Like any other effective assessment techniques, CLIL assessment strategies and processes, must be appropriate for the particular educational environment in which they are used. What is proper and valid in a particular context may not be in another, especially in CLIL, since teaching situations can differ greatly. (Massler,2011 p.116). Besides, in CLIL assessment, students should be encouraged to respond in non-verbal forms if they lack the necessary L2 abilities to do so, or they should be permitted to use their mother tongue in such scenario. In order for the learners to show their content understanding and to prevent weaker pupils from being at a disadvantage, a combination of L1 and the target language may occasionally be permitted. (Massler,2011,p.121). Moreover, pupils in CLIL classes may frequently be aware of the material used for assessment, but they struggle to convey their understanding due to language-related problems. If teachers want to measure precisely the degree to which content goals and criteria are achieved, it is crucial to adapt evaluation instruments to learners' different language abilities. (Massler,2011, p.125).

Furthermore, Assessment is considered a “tool for learning rather than the end of the learning process” (Williams, 2003, p. 34). This suggests that the process of a learner's knowledge acquisition is equally, if not more, significant than the final degree of knowledge acquired. In other words, we should go beyond summative assessments, as assessment should have a formative character.

3.10.2 Assessment Criteria

The evaluation criteria for the 2nd grade of Primary Education, based on the objectives I created, are the following:

3.10.2.1 Natural Science Assessment Criteria

The pupil is capable of:

- Recognizing and listing the importance of a responsible use of water.
- Identifying and practicing a safe and healthy mobility.
- Demonstrating management and prevention of waste.

3.10.2.2 *Foreign Language (English) Assessment Criteria*

The pupil is capable of:

- Answering specific questions about relevant environmental issues in English.
- Understanding simple and brief oral texts from different audiovisual and digital supports getting the key words and main ideas.
- Expressing basic vocabulary, simple messages and usual expressions to interchange elementary information developing the communicative competence, with a correct pronunciation, intonation and stress.
- Expressing tense (present simple), and interrogation: Wh-questions for the exchange of basic information in oral interactions and written texts.

3.11 Attention to individual differences

In the group-class there is one student that has been diagnosed with Special Educational Needs. This pupil have hearing difficulties. To address this situation, he will be sited towards the front of the lesson where he will have an unobstructed line of vision. This is essential, as this student needs visual support and uses lip-reading. In this light, I will use visual clues and demonstrations of how to do different activities, as well as make use of body language. I will also avoid the pressure of listening, try to sit him far from loud noises and avoid background noises to ensure a positive and quiet working environment. Moreover, I will make use of visual aids such us subtitles when watching any kind of video, write important information on the blackboard or provide written materials to support the lecture. Finally, I will use a clip-on microphone to facilitate the sense of hearing

On the other hand, it's probable that some students show some issues during the developed of this Didactic Unit. Students need to feel that their differences are seen and valued. In accordance with Massler (2011), CLIL teachers “need to offer learners the best assistance possible so as to make the students’ learning experience a successful and pleasant one”. (p.90) Thus, it is crucial to offer pupils a

variety of techniques for learning that, depending on their educational needs and styles, may make the learning process easier.

That is why we also need to focus on the students that finish the task with ease and faster than the rest of the group-class. With the aim of offering a more suitable educational alternative for these students, necessary measures will be taken to identify and evaluate their needs. For this students, I provide them a fast-finishers board (appendix 1) with different tasks they need to fulfill. Fast-finishers can also help the students which show some difficulties when doing a task, named slow learners. I will use repetition, reiterate important information during the lesson and make some students to repeat instructions. I will also provide hands-on materials, and visual materials. Slow learners may suffer from low self-esteem; therefore, I will address this issue by introducing topics that are of their interest, providing activities that these students are successful at, and praising their small achievements.

As it was mentioned in the 'Contextualization' section, the group of students to which the present Didactic proposal is targeted is multicultural. Most of the learners are Spanish, and most of the students show a great command in Spanish although it is not their L1. There are a few students who speak other languages such as Dutch, Arabic and Portuguese. In addition, students show a very similar level of English, linguistically speaking. They all have an A2 level of English within the CEFR levels of proficiency. Overall, it is an homogeneous group.

3.12 Step-by-step planning

This didactic unit, called 'Making a better world', links both subjects, Natural Science and Foreign Language (English). The following tables each of the session and the tasks that will be carried out, together with the time devoted to each of the activities, the contents and the specific objectives that will be pursued, the key competences, the corresponding assessment criteria and the materials and resources that will be used.

Lesson 1 “Water doesn’t come from a tap”.

This first lesson starts with a motivating activity to activate students’ prior knowledge and introduce the new topic. This will also enable teachers to identify students’ interests and what they expect to learn about the new topic. Besides, the video from UNICEF aims to raise students’ awareness on the topic and make them think about different ways to solve this issue. Regarding classroom management, for all activities, students will be seated in clusters. Cluster seating will ease cooperative work, providing students a learning environment with opportunities to work together and interact with each other easily.

UNIT 5: “Making a better world”	Friday 4 th of November	Lesson 1
Objectives		
- To recognize and list the importance of a responsible use of water. - To understand simple and brief oral texts from different audiovisual and digital supports getting the key words and main ideas.		
Description		
First of all, the lesson begins with an activity through which connections with the pupil's prior knowledge and the new will be made. Students will be asked to write down on sticky notes what they already know about the topic in the “What we know” poster, as well as what they would like to learn in the “What we want to know” poster. All the ideas in the sticky notes will be discussed with the whole group-class. This activity will last around 10 minutes. For the next part of the session, pupils will watch the video from UNICEF “Water doesn’t come from a tap”. (Appendix 2) . Afterwards, in small groups of 4 students they have to create a mind-map with their tablets, including at least 4 tips to save water. They will complete a template provided by the teacher using the digital tool <i>Canva</i>. (Appendix 4). Students can add the pictures and graphic elements they want. This task lasts 30 minutes and it will be included in their digital learning portfolio. Finally, the last part of the lesson (10 minutes) consists on a life worksheet about “Water pollution”. (Appendix 5). Students will do this task in pairs, in which they have to identify the waste that appears in the ocean. Then, orally, they should discuss and think about 2 reasons why we should prevent water pollution. Then, at home they will write in their portfolio some of the ideas discussed in class.		
Key competences		Materials
- Linguistic communication competence. - Multilingual competence. - Digital competence.		Digital whiteboard & computer

• Personal, social and learning to learn competence. • Citizenship competence.	(video) • Tablets
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Lesson 2 “The water footprint”.

As a way to revise the concepts from the previous lesson, students will play an interactive vocabulary game. This second lesson is linked with the first one, as they will further develop knowledge on the topic. In this session they will learn more about where water comes from, different ways of making a responsible use of water, and how the food we eat have an environmental impact.

UNIT 5: “Making a better world”	Tuesday 8 th of November	Lesson 2
Objectives		
• To recognize and list the importance of a responsible use of water. • To answer specific questions about relevant environmental issues in English.		
Description		
The lesson will start with the “What’s missing?” game. The teacher will show on the digital board the vocabulary flashcards of the unit (appendix 3), including vocabulary they have used in the previous lesson. Then, the teacher will throw a ball to one of the students and he or she needs to identify which vocabulary flashcard is missing. Then, he or she has to create a sentence with it or explain its meaning. This activity will last 8 minutes. For the next activity, in pairs students will roll the dice to discuss the 6 different questions and then with the group-class. (Appendix 6). The questions are projected in the digital board and students will use the tablets to make use of the online dice or look for any information needed. This activity will last 7 minutes. The last activity		

is the “Water footprint” challenge, which lasts 30 minutes. It will be done in small groups of 4/5 students. Each group will be given a worksheet with different food. (Appendix 7). To make each piece of food or drink it is used a specific quantity of water, which students have to calculate. They can make use of a digital calculator on their tablets if needed. (“There is an apple and cheese. There are 443 liters in total.”)

Finally, as homework, pupils will watch the video “Where is water?” (appendix 8) and write down 3 important words in their digital portfolio which describe the main ideas from the video, and include pictures or graphic elements.

Key competences	Materials
• Linguistic communication competence. • Multilingual competence. • Mathematical competence and scientific, technological and engineering skills. • Digital competence. • Personal, social and learning to learn competence. • Citizenship competence.	• Vocabulary flashcards. • “Water footprint” worksheet. • “Roll the dice & discuss” worksheet • Digital board • Digital calculator • Tablets

Lesson 3 “Do you recycle at home?”

This lesson aims to make pupils aware not only of the importance of making a responsible use of water, but also of recycling to take care of the environment. The way we consume food also has an environmental impact. Food product preservation and packaging, both undertake energy and resources, which raises greenhouse gas emissions. Therefore, it is essential to recycle correctly, and in this unit students will learn how to do so.

UNIT 5: “Making a better world”	Friday 11 th of November	Lesson 3
Objectives		
• To demonstrate management and prevention waste. • To express interrogation: Wh-questions for the exchange of basic information in oral interactions.		
Description		
This lesson will start with a small discussion about the video “Where is water?”. (Appendix 8). Students will share in their groups the main ideas they have written in their portfolios. (5 minutes). Then, they will play the game “Find someone who”. (Appendix 13). Each student has to complete a worksheet considering the statements given. To do so, they need to move around the classroom and interact with their peers. For example they will need to find someone who recycles at home or uses the public transport to go to school. Afterwards, there will be a small discussion to share the information they gathered with the group-class. This activity will last 10 minutes. The second part of this lesson consists on listening to “The recycle song for kids” (appendix 14) and complete a life worksheet.(Appendix 15). They need to decide in which type of bin they have to through each of the items given in order to recycle correctly. It will be done in pairs and it will last 8 minutes. Finally, the last activity is a group project, which consists on making a pencil holder with recycled materials. (22 minutes). Each student will bring a material needed and they will work together.		
Key competences	Materials	
• Linguistic communication competence. • Multilingual competence.	• Find someone who” worksheet. • Digital board and computer. • Recycle life worksheet.	

• Digital competence. • Personal, social and learning to learn competence. • Citizenship competence.	• Tablets. • Tin cans or cardboard tubes. • Markers, eva rubber, cardboards, crepe paper and any other decorative materials.
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Lesson 4 “The Three Rs: Reduce! Reuse! Recycle!”.

In this lesson, students will learn more about the importance of recycling and useful tips to manage waste properly. In the reading activity, all learners will be involved and will need to pay attention to their peer’s reading, and wait for their turn. Besides, to check comprehension and make it more enjoyable, the post reading task will be done with the whole group-class in the digital board.

UNIT 5: “Making a better world”	Tuesday 15 th of November	Lesson 4
Objectives		
• To demonstrate management and prevention waste. • To express basic vocabulary, simple messages and usual expressions with a correct pronunciation, intonation and stress.		
Description		
In the first part of this lesson, before doing the reading task, students will have a quick look to the text and try to guess the meaning of unknown words for them. Their answers will be discussed with the whole group-class. (7 minutes). The next activity consists of a reading (“The Three Rs: Reduce! Reuse! Recycle!”) using the <i>Sausage technique</i>, about the importance of Recycling. (Appendix 11). One student will start reading the first sentence of the text, then, the student seated next to him/her will read the next sentence, and so on. Then, the worksheet will be completed in the digital board with the whole group-class, taking turns. (30 minutes). The last activity would be the “Kaboom” game. Students will reinforce the vocabulary learnt		

throughout this lesson and the previous one, in a meaningful way. (Appendix 12)

Finally, as homework, in relation to the reading activity, each student will do the worksheet “Write and draw”. It will be included in their portfolio. (Appendix 11).

Key competences	Materials
• Linguistic communication competence. • Multilingual competence. • Digital competence. • Personal, social and learning to learn competence. • Citizenship competence.	• Text “The three r’s for a better world”. • Digital board. • “Kaboom”

Lesson 5 “Streets for life”

This lesson aims to transmit students the importance of healthy and safe mobility, to take care of the environment and ourselves. It is a more cognitive and linguistic demanding lesson. At this point, students have acquired skills related to the communicative competence and the digital competence, so they will probably do the task with ease. The last task is a creative activity which will boost student’s emotional intelligence, enhance their cognitive skills and their self-esteem.

UNIT 5: “Making a better world”	Friday 18 th of November	Lesson 5
Objectives		
• To identify and practice a safe and healthy mobility. • To express tense (present simple) for the exchange of basic information in oral interactions and written texts.		
Description		

In this lesson, students will watch the video “Streets for life”. (Appendix 9). But first, a *brainstorming* will be done by using the digital tool *Jamboard* . By reading the title of the video, they will have to guess what the topic is about, and in their clusters, students will discuss and share their ideas to the rest of the class using their tablets. All the ideas will be shown in the digital board. (8 minutes). Then, in small groups, pupils will design an advertisement to transmit the same message as in the video. That is, to promote safe and healthy mobility. They should write down a small speech , and next, using the digital online tool *Canva*, they have to create a catchy slogan including visual aids. This task will last 30 minutes, and it will be included in their portfolio. Finally, at the end of the lesson, students will present their advertisement to the rest of their peers and vote for the best one.

Key competences	Materials
• Linguistic communication competence. • Multilingual competence. • Digital competence. • Personal, social and learning to learn competence. • Citizenship competence.	• Digital board • Paper and pencil. • Tablets • Digital online tool: Canva.

Lesson 6: “Time for a fun Quizz”

In the last lesson of the unit, students will be given de opportunity to demonstrate all the knowledge they have acquired throughout the unit. It is also a good way to reinforce the contents in a meaningful and fun way. Besides, the assessment rubrics will enable pupils become aware of their learning, their achievements and strengths, as well as their weaknesses and aspects they need to reinforce.

UNIT 5: “Making a better world”	Tuesday 22nd of November	Lesson 6
Objectives		
• To recognize and list the importance of a responsible use of water. • To demonstrate management and prevention of waste. • To understand simple and brief oral texts from different audiovisual and digital supports getting the key words and main ideas.		
Description		
This last session is divided in two main parts. The first part consists on evaluation activities. A quizz in small groups will be done using the online tool <i>Quizziz</i>. (30 minutes). For the second part of the lesson, students will complete the assessment rubrics to evaluate the teacher’s work and evaluate themselves as well. (7 minutes). Finally, to end up this unit, they will watch a moving video called “A Whale’s Tale” (appendix 16) and complete a worksheet to answer some questions about it.(8 minutes)		
Key competences	Materials	
• Linguistic communication competence. • Multilingual competence. • Digital competence. • Personal, social and learning to learn competence. • Citizenship competence.	• Quizziz • Tablets • Digital board • “A Whale’s Tale” worksheet.	

4 CONCLUSION

In the present Master's Dissertation, some ideas about CLIL as a dual-focused, flexible and student-centered approach, and its connection with ICT have been discussed. CLIL literature has been reviewed to exemplify the positive aspects that ICTs provide to a CLIL classroom. Besides, through the use of the pupil's foreign language (English), this ideas have been integrated to create a didactic unit for young students that aims to teach certain knowledge regarding social and environmental awareness.

TICs have a great potential in the CLIL approach. I believe they are meaningful tools to develop the target language and foster pupil's motivation. Moreover, technology may provide useful resources for the elaboration of visual aids and teaching materials, which ease understanding. When creating educational resources, CLIL-teachers, especially those with young students, frequently describe facing the following challenge: The 'time-consuming task' of creating the numerous visual aids needed for improved visual representation in CLIL lectures. (Ioannou-Georgiou, 2011,p.39). Despite this, with the aid of numerous websites that provide tools for the development of personalized materials, creating visual aids gets easier and faster. Therefore, we must consider innovating in the use of ICT and increasing the digital culture of teachers. Besides, developing digital competence will also help the student in the process of adapting to the new needs marked by technologies, being able to act correctly regarding its use.

Furthermore, as it has been discussed in this paper, the CLIL approach offers opportunities to focus on content from multiple perspectives, complements other subjects , boosts students' interest and confidence in both the language and subject matter that is being covered, and suggests resources that foster critical thinking from the very beginning. CLIL does indeed have a lot of potential. The advantages of this approach extend beyond the development of subject and language proficiency. Additionally, CLIL gives students the chance to enhance their intercultural knowledge, comprehension, and social skills. (Ioannou-Georgiou and Pavlou, 2011, p.5). As it has been reviewed, ICTs can encourage the teaching and learning of a second language in a variety of ways, facilitating quick access to information and

educational resources, inspiring people to learn and communicate in the foreign language, expanding the variety and quality of instruction and learning possibilities, and giving students accurately and useful feedback.

In addition, it is important to highlight that the integration of technology within the CLIL approach, can provide linguistic assistance. As Ioannou-Georgiou and Pavlou (2011) said, “Even teachers who are highly proficient in the foreign language, may find difficulties when using the language to teach a specific subject”. (p.37). In this situation, the Internet may serve as a valuable because it provides free online dictionaries that allow both, teachers and learners, to hear the pronunciation of words in addition to their definitions.

On the other hand, we may face some challenges when implementing CLIL through the use of ICTs. Since the demands of pupils and schools change over time, an extensive initial training for teachers may not be sufficient without considering long-life training sessions (Dalton- Puffer, 2011). Teachers need training on how to put CLIL into practice and deal with the different practical issues they may encounter during this process. Moreover, the collaboration between the different stakeholders is essential to achieve the targets of this educational approach. Besides, increasing the use of ICTs requires tools and devices which entail specific formation. There are also some difficulties that can be faced such as management and economic issues, as well as security problems.

Overall, ICTs enhance teaching effectiveness. It fosters learning outcomes by helping teachers implement a variety of strategies to facilitate the comprehension of content. There are many important factors to be considered in future works or research . The use of ICT in the CLIL classroom has had some positive effects on foreign language learning, but there are also certain drawbacks that should be noted, such as a lack of resources, inadequate teacher preparation and the digital equipment. ICT plays an important role in foreign language acquisition and, more specifically, in CLIL. ICT in CLIL needs further research, nevertheless, as it is still a topic that needs more development. ICT in CLIL needs further research, nevertheless, as it is still a topic that needs more development. In this regard, it

would be intriguing to look at the ways by which these unfavorable features may be minimized or overcome, given this was not the focus of the current paper.

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APPENDIX

Appendix 1

Fast-finishers board

I'M DONE... NOW, WHAT?		NAME:	
1. READ A BOOK	2. PLAY BAAMBOOZLE (TABLET)	3. WRITE A LETTER TO A CLASSMATE	4. PLAY YOUR FAVOURITE GAME
8. MAKE A DRAWING RELATED TO THE UNIT	7. WHAT'S YOUR FAVOURITE FILM? WHY?	6. WRITE ABOUT YOUR BEST FRIEND	5. HELP ANOTHER CLASSMATE
9. WRITE ABOUT YOUR HOBBIES	10. WRITE A LETTER TO A MEMBER OF YOUR FAMILY	11. DRAW A CLASSMATE AND DESCRIBE HIM/HER	12. BUILD A PUZZLE
16. DRAW A SELF- PORTRAIT	15. WHAT'S YOUR FAVOURITE FOOD? WHY?	14. READ A MAGAZINE	13. WRITE A STORY WITH THE VOCABULARY OF THE UNIT

Appendix 2

Video “Water doesn’t come from a tap”:

https://www.youtube.com/watch?v=teX2l_E40mw



unicef 

Appendix 3

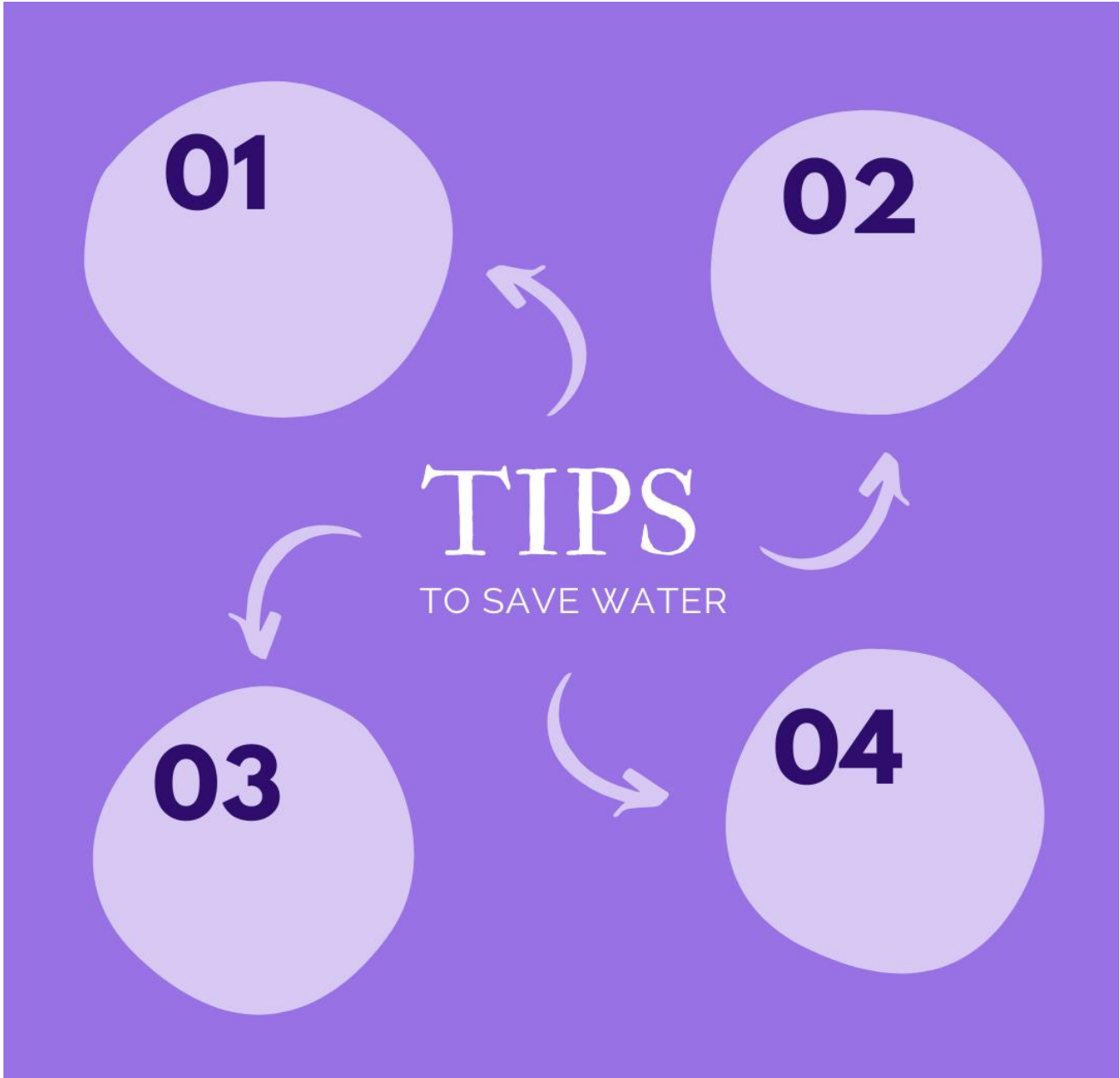
Vocabulary I flashcards



Appendix 4

Mind-map “Tips to save water”





Appendix 5

Life worksheet “Water Pollution”:

<https://es.liveworksheets.com/bz553023pd>

Name: _____ Age: _____

Water Pollution

Water pollution is any change in the water that causes it to become unstable and harmful for living things. In other words, the water gets so bad that you cannot drink it, bathe in it, wash clothes in it, or even give it to animals.

Look at the picture of the ocean below. Click on all of the items that cause water pollution.



Worksheet created by Jihan Dumont (Miss)

Appendix 6

“Roll the dice & discuss”

 **Roll the dice** & **DISCUSS IN GROUPS** 



2. What 2 types of water can we find?



1. What dangers can there be in drinking water?



3. What does water look like?



4. What do we use water for?



5. Is water a solid, liquid or gas?

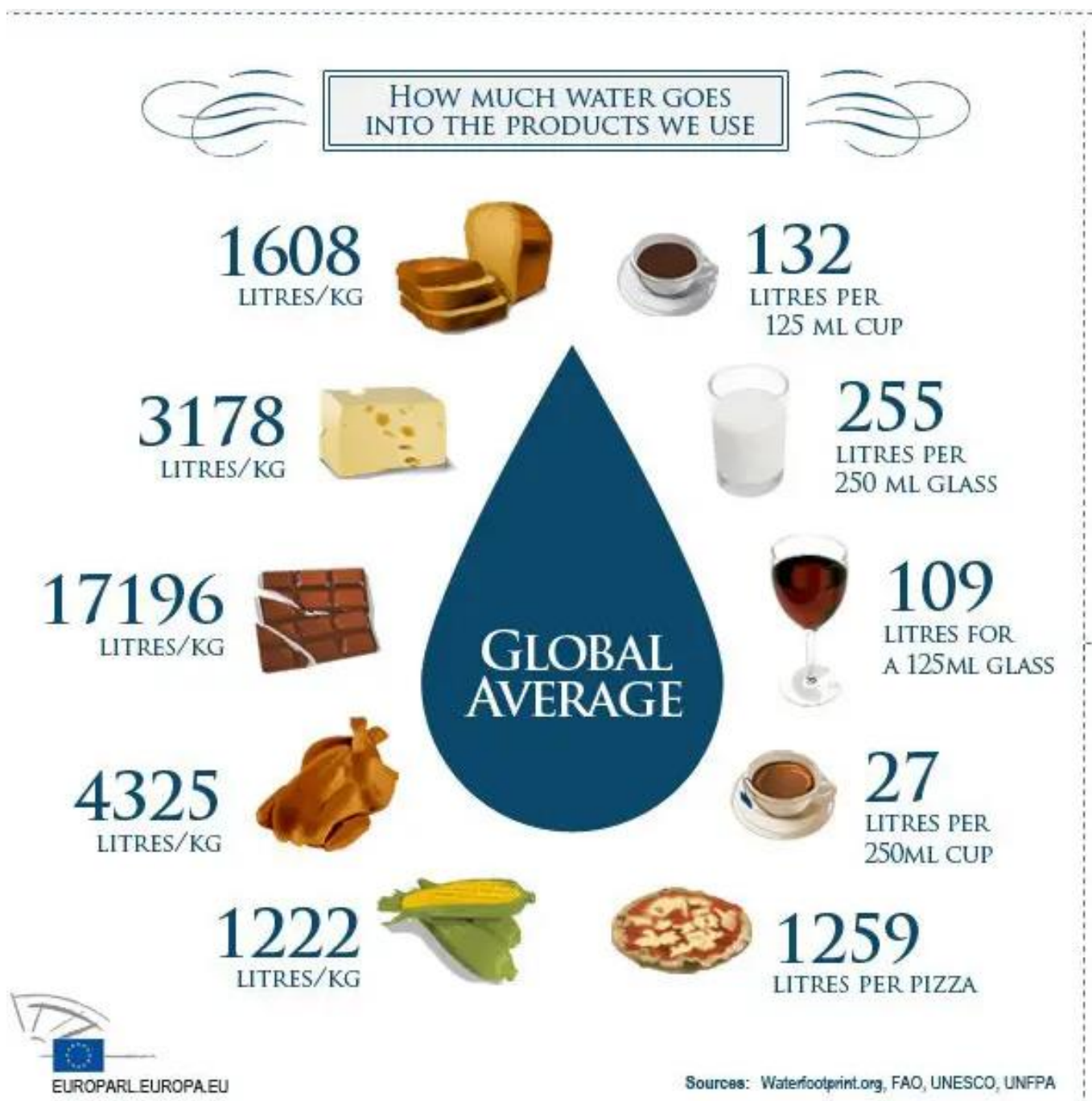


6. Where can we find water in our planet?



Appendix 7

“Water footprint”



FOOD WATER FOOTPRINT

Now we know that everything we eat or drink has a Water Footprint (direct and indirect).



125 litres
1 apple



80 litres
1 orange



50 litres
1 tomato



1260 litres
1 pizza Margherita



160 litres
1 slice



255 litres
1 glass of milk



318 litres
100 g cheese



196 litres
1 egg



2400 litres
1 beef hamburger



132 litres
1 cup of coffee



Water footprint of a 0,5litre plastic bottle of coke as produced in Dongen factory (The Netherlands)

- 0,44 litres of water content
- 27,6 litres for sugar production
- 5,3 litres for bottle production
- 3 litres for other ingredients

TOTAL 36 litres

How much water is needed to produce this food?

NAME:



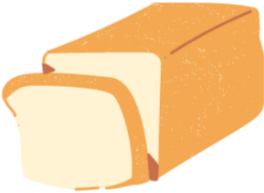
$+$ $+$ $=$





$+$ $+$ $=$



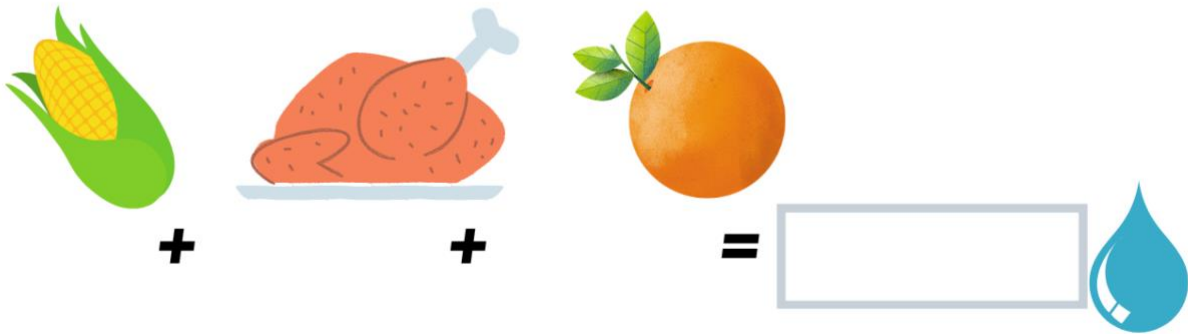


$+$ $+$ $+$ $=$



How much water is needed to produce this food?

NAME:



Appendix 8

Video “Where is water?”

<https://www.youtube.com/watch?v=b1f-G6v3voA>

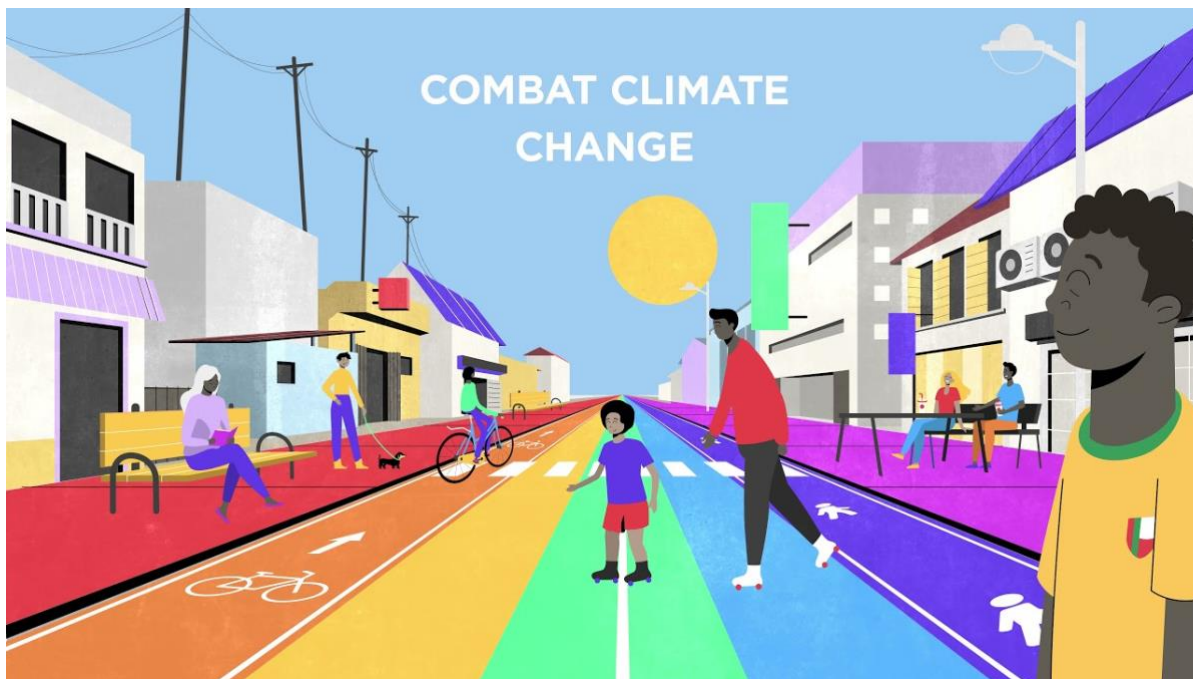


<https://www.youtube.com/watch?v=b1f-G6v3voA&feature=youtu.be>



Appendix 9

Video “Streets for life”: https://www.youtube.com/watch?v=C8fdaL_bIUg



Appendix 10

Vocabulary II flashcards



Appendix 11

Reading “The 3 Rs: Reduce! Reuse! Recycle!” & worksheet

<https://learnenglishkids.britishcouncil.org/read-write/reading-practice/level-2-reading/three-rs>



LearnEnglish Kids

Reading text

Read the text about the three Rs.



The three Rs: Reduce! Reuse! Recycle!

There are lots of ways we can look after our planet. Three great ways are ‘the three Rs’: Reduce! Reuse! Recycle! We throw away too many things and make too much rubbish. Lots of the things we throw in the bin take thousands of years to go away. Every time you want to throw something in the bin, STOP and THINK about the three Rs. Can you reduce it? Can you reuse it? Can you recycle it?

Reduce!

- Reduce paper. Always use both sides of the paper for writing, drawing and printing – we need to save our trees!
- Reduce plastic bottles. Fill a reusable bottle with water each day.
- Reduce plastic bags. Take your own bag to the shop.



Reuse!

- Don't throw away plastic bags. Keep them and use them again.
- Don't put old clothes and toys in the bin. Give them to people in need.
- Don't throw away coloured paper from presents. Be careful opening the present and use the paper again!



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Recycle!

If we make new paper, glass and plastic from old paper, glass and plastic, we save energy and look after the planet. Don't throw away anything that you can recycle. But use the correct bin!

Paper and card

- newspapers
- notebooks
- magazines



Glass

- glass bottles
- jars
- broken glass objects

Plastic and packaging

- plastic bottles
- yoghurt cartons
- other packaging

Home and school

Make sure you reduce, reuse and recycle at home and at school! Here are some more ideas:

- Don't print anything if you don't need to.
- Use empty boxes and cartons to keep things tidy.
- Make new clothes from old clothes.

Can you think of other reduce, reuse and recycle ideas?



1. Fill it in!

Complete the sentences.

new	throw	bag	trees	paper	tidy	plastic	toys
-----	-------	-----	-------	-------	------	---------	------

- We need to throw away less rubbish.
- We can use less paper and save _____.
- We can take our own _____ to the shop.
- We can reuse _____ bags.
- We can give our old _____ to other children.
- We can use coloured _____ from presents again and again.
- We can make _____ things from old things.
- We can use empty boxes to keep things _____.

2. Where does it go?

Write these words in the correct group.

glass bottles	plastic packaging	jars
paper	yoghurt cartons	newspapers
empty milk cartons	broken mirrors	old notebooks

paper and card	glass	plastic and packaging
	<i>glass bottles</i>	



Write and draw!

Do you follow the three Rs? What things do you reduce, reuse and recycle at home or at school? Draw a picture and write about it!



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Appendix 12

“Vocabulary Kaboom game”

Vocabulary kaboom

-Unit 5-



Vocabulary kaboom

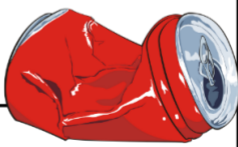
-Unit 5-



“Find someone who”

Find Someone Who...



Recycles at home. 	Spends more than 5 minutes having a shower. 
Uses reusable bags. 	Waters plants with rainwater. 
Closes the tap when brushing teeth. 	Goes to school by public transport.  
Goes to school walking. 	Knows in which bin to throw a tin can. 

Appendix 14

“The Recycling song for Kids”:

<https://www.youtube.com/watch?v=fLZPV3DihAo>



Appendix 15

Life worksheet "Recycle"

RECYCLE

This items need to be recycled. Can you put each item into the appropriate bin?



The image shows four recycling bins with the following labels and contents:

- PAPER** (Blue bin): Contains cardboard boxes and paper.
- PLASTIC** (Yellow bin): Contains plastic bottles and containers.
- GLASS** (Green bin): Contains glass bottles and containers.
- ORGANIC** (Brown bin): Contains food waste like fruits and vegetables.



The items to be recycled are:

- Milk carton (Paper)
- Juice carton (Paper)
- Meat bone (Organic)
- Cardboard box (Paper)
- Apple core (Organic)
- Green glass bottle (Glass)
- Crushed red can (Plastic)
- Blue recycling symbol (Paper)
- Straw (Plastic)
- Watermelon (Organic)
- Open cardboard box (Paper)
- Orange (Organic)
- Cola bottle (Glass)
- Newspaper (Paper)
- Milk bottle (Plastic)
- Banana (Organic)
- Water bottle (Plastic)
- Fish skeleton (Organic)

Appendix 16

Video “A Whale’s Tale”

<https://www.youtube.com/watch?v=xFPoIU5iiYQ>



VIDEO QUIZ QUESTIONS

Choose the correct options.

1. What are the boy and his father doing?

The boy and his father _____.

- a) are fishing
- b) are having lunch

2. What is the whale doing?

The whale is _____.

- a) collecting the rubbish
- b) dancing

3. What is the turtle eating?

The turtle is eating a _____.

- a) plastic bag
- b) plastic bottle

4. What are the other animals doing?

Animals are helping the whale _____.

- a) clean the sea.
- b) find food to eat.

What is the message of the video? Describe it briefly.

Appendix 17

Assessment Instrument. Student Evaluates the teacher



Student evaluation sheet



NAME: _____

DID YOU LIKE THIS UNIT?



FEELINGS WHILE WORKING THIS UNIT

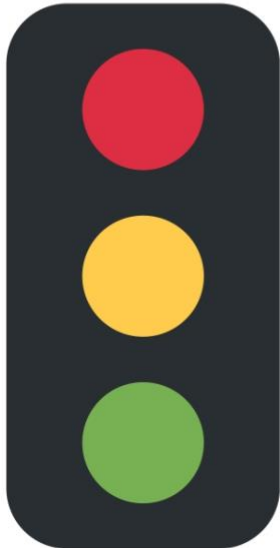


FAVORITE WORD

SOMETHING YOU DID NOT LIKE

1

**Something you found
difficult:**



2

**Something you
need to review:**

3

Something you understand:

I like to work:

- | | |
|------------------------------------|---|
| ☐ In pairs | ☐ Individually |
| ☐ In groups | ☐ With the teacher |

I learn better:

- | | | |
|------------------------------------|----------------------------------|----------------------------------|
| ☐ Listening | ☐ Reading | ☐ Playing |
| ☐ Speaking | ☐ Writing | |

I prefer to work with...



**The explanation from the teacher
was clear.**



Did you like the materials used?



Did you like the activities?



Did the teacher solve your doubts?

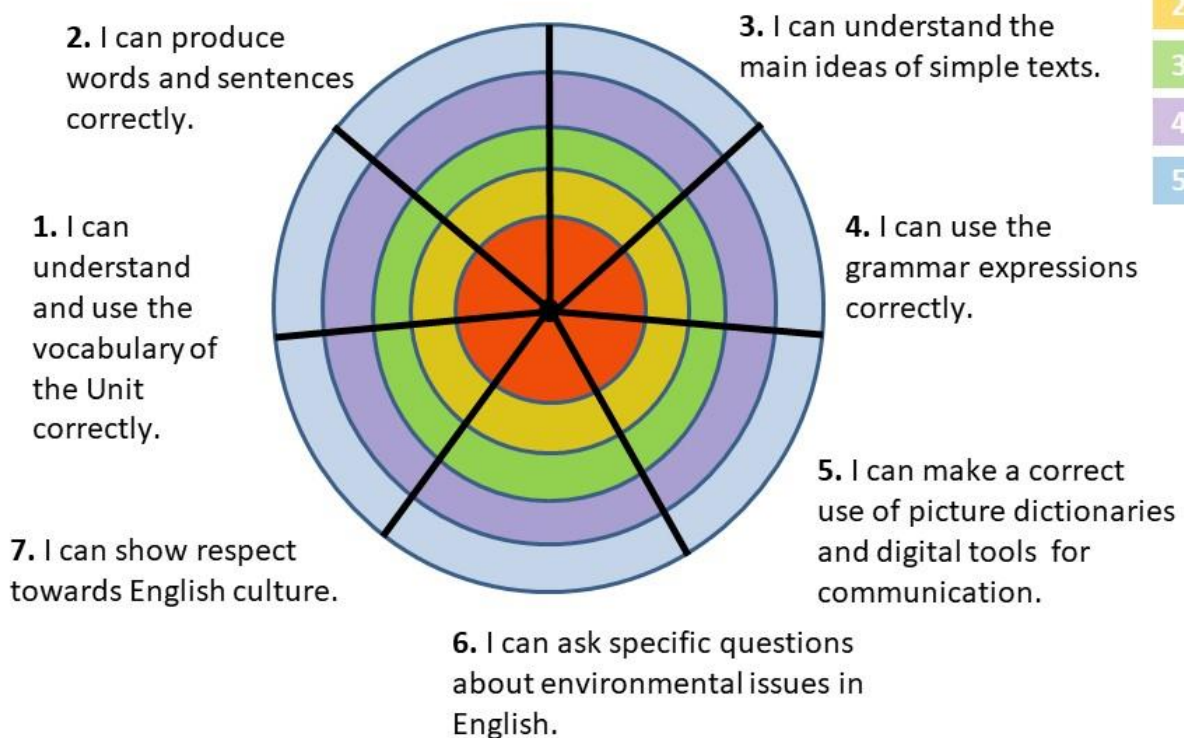


Appendix 18

Assessment instrument. Student self-evaluation

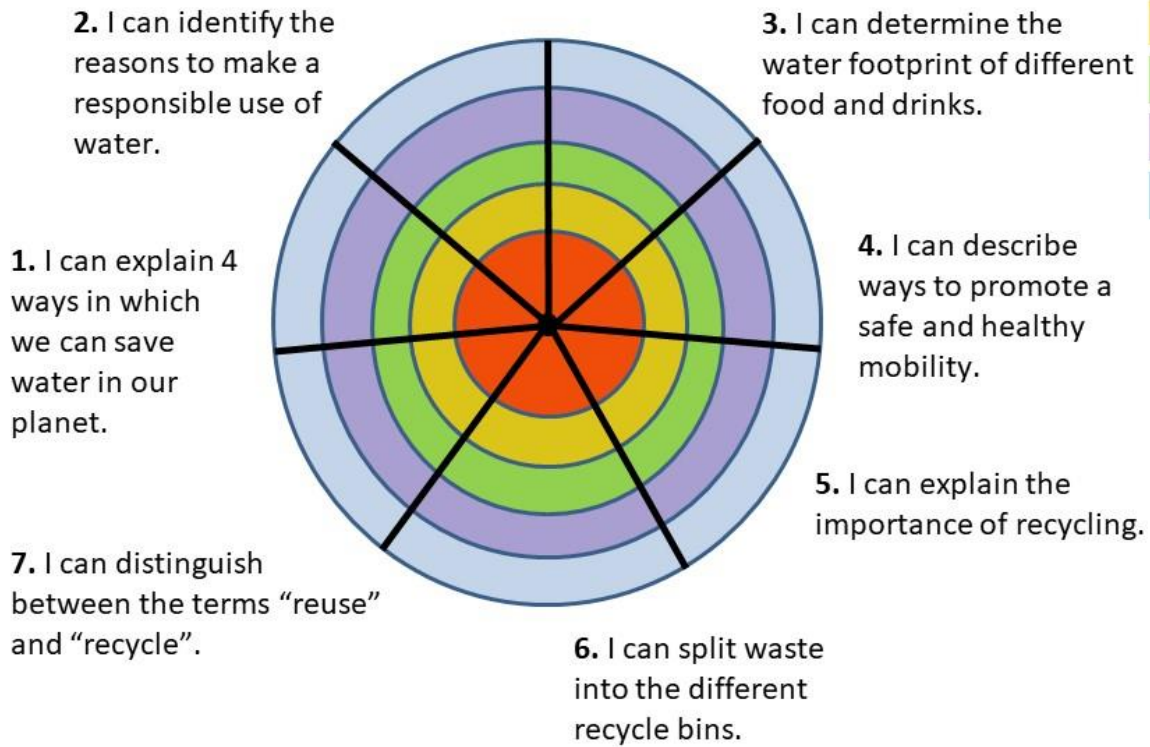
Target evaluation –Foreign Language (English) 2nd year of Primary Education

On scale of 1 to 5- where 1 is “I know perfectly” and 5 is “I am not sure”- please rate the following assessment criteria of Unit 5.



Target evaluation –Natural Science. 2nd year of Primary Education

On scale of 1 to 5- where 1 is “I know perfectly” and 5 is “I am not sure”- please rate the following assessment criteria of Unit 5 “Making a better world”.



Appendix 19

Assessment instrument. Teacher self-evaluation

Teacher self-evaluation sheet

1 2 3 4

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The activities have been fulfilled in the estimated time.

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All the set objectives have been achieved correctly.

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Participation of all students have been encouraged.

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Appropriate use of teaching resources has been made.

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Doubts and difficulties have been solved.

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The four linguistic skills have been integrated correctly.

1 2 3 4

--	--	--	--

Students have been guided during the learning process.

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Help has been provided when needed.

--	--	--	--

The necessary instructions for doing the activities have been given.

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A variety of materials and activities are used to engage students.

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Activities and vocabulary have been adapted to the students' interests, proficiency level and needs.

Appendix 20

Teacher evaluates students

CLIL ASSESSMENT GRID					
Content					
Score	1	2	3	4	5
	Unsatisfactory	Almost satisfactory	Satisfactory	Good	Excellent
Descriptors	Student shows no knowledge of the subject and specific vocabulary.	Student lacks background knowledge and uses specific vocabulary wrongly.	Student has essential knowledge of the subject and uses specific vocabulary correctly.	Student shows good knowledge of the subject and uses specific vocabulary properly.	Student shows a complete knowledge and understanding of the subject.

CLIL ASSESSMENT GRID				
Language				
Score	1	2	3	4
Descriptors	The student shows difficulty in using scientific vocabulary and grammar is very limited, significantly affecting communication.	The student uses a limited scientific vocabulary and the grammar presents frequent errors that make it difficult to communicate ideas.	The student uses adequate scientific vocabulary and generally correct grammar, although there may be some minor errors in communication.	The student uses accurate scientific vocabulary and appropriate grammar, demonstrating fluency and the ability to communicate complex ideas in the foreign language.

Appendix 21

Cooperative learning role cards

Role cards

COOPERATIVE LEARNING



Leader



Material
manager



Speaker



Time
keeper



Recorder



Role cards

COOPERATIVE LEARNING



Material manager

Collect supplies for the team and organizes cleanup.

Speaker

Asks questions to the teacher and other teams.

Shares group answers with the class.

Time keeper

Makes sure the group finishes the task in the given amount of time.

Leader

Leads the discussion, reads the problem.

Motivates the group to do the task.

Recorder

Writes group answers and notes.