TRABAJO DE FIN DE GRADO

Grado en Educación Primaria

Programación didáctica anual de Aprendizaje Integrado de Contenido y Lengua (AICLE)

3º de Educación Primaria

Wild Detectives: Nature in action.

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Área: Ciencias de la Naturaleza

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Agradecimientos

Quiero expresar mi agradecimiento a todas las personas que me han acompañado en este proceso.

A mis padres, gracias por enseñarme a no rendirme y a creer en mí. Por permitirme crecer, no solo como profesional, sino como persona. Gracias por ponerme siempre por delante y por abrirme caminos incluso cuando no eran fáciles. Todo lo que soy es el reflejo de su apoyo y amor incondicional; ustedes son mi mayor orgullo.

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Al final, no se trata solo de llegar, sino de todo lo que te transforma mientras avanzas.

Declaration of the Use of Artificial Intelligence

The use of Artificial Intelligence (AI) tools in this Final Degree Project has been carried out in accordance with the educational objectives of the CLIL subject taken in the fourth year of the Degree in Early Childhood and Primary Education. Within this subject, the professional and pedagogical use of AI forms part of the development of student teachers' digital, linguistic, and methodological competences.

Specifically, AI tools have been used as support for the analysis of the linguistic demands of curricular content in a CLIL context, as well as for the design and refinement of scaffolding strategies aimed at facilitating students' reception, transformation, and production of knowledge in the foreign language. This includes support in identifying key language functions, vocabulary, and discourse features, and in developing strategies that promote meaningful content learning and language development.

At all times, AI has been used as an assistive resource to support reflection and decision-making, while the final pedagogical choices, interpretations, and designs presented in this project are the result of the author's own academic work and professional judgment.

Resumen

Este Trabajo de Fin de Grado presenta una programación anual en el área de Ciencias Naturales orientado para el tercer curso de Educación Primaria. La propuesta se basa en el enfoque de Aprendizaje Integrado de Contenidos y Lengua Extranjera (AICLE), y se complementa con metodologías activas como el aprendizaje cooperativo y el Diseño Universal para el Aprendizaje (DUA). El hilo conductor del proyecto es una narrativa que convierte al alumnado en investigadores de la naturaleza, resolviendo misiones en lengua inglesa.

El trabajo se divide en dos bloques: El primero recoge el marco teórico y legislativo que fundamenta la propuesta. En el segundo bloque se desarrolla la programación anual, compuesta por quince unidades didácticas secuenciadas a lo largo del curso. Una de dichas unidades se presentará de forma completa, con la descripción de las sesiones, actividades, recursos y procedimientos de evaluación.

Palabras Clave: *Educación Primaria, Ciencias Naturales, AICLE, atención a la diversidad*

Abstract

This Final Degree Project presents an annual syllabus in the area of Natural Sciences, designed for the third year of Primary Education. The proposal is based on the Content and Language Integrated Learning (CLIL) approach and is complemented by active methodologies such as cooperative learning and Universal Design for Learning (UDL). The guiding thread of the project is a narrative that transforms students into nature detectives, solving missions though the use of English.

The work is divided into two main sections: The first includes the theoretical and legislative framework that supports the proposal, covering objectives, contents, assessment criteria and measures for attention to diversity. The second section develops the annual syllabus, composed of fifteen didactic units sequenced throughout the school year. One of these units is presented in full detail, including session descriptions, activities, resources, and evaluation procedures.

Keywords: *Primary Education, Natural Sciences, CLIL, attention to diversity.*

INDEX:

1. Introduction

This work proposes an annual syllabus for students in the third year of Primary Education, designed from a bilingual and competence-based perspective. The proposal is structured around a central idea that accompanies the group throughout the school year: *Wild Detectives*, an agency of young detectives who investigate natural events and solve missions related to the planet's ecosystems. This narrative functions as a connecting framework that provides coherence to the activities, fosters student engagement and transforms each learning experience into something meaningful.

The use of a narrative thread responds to the need to create learning contexts that spark curiosity and allow curricular content to be approached through varied and authentic situations. Through this immersive experience, students receive tasks, clues, reports and challenges that invite them to observe, analyse, experiment and communicate their findings. In this way, the CLIL approach is naturally integrated, as English becomes a functional language for understanding instructions, producing materials, participating in oral interactions and presenting conclusions within the agency.

1.1 Rationale of the proposal

The design of this annual syllabus responds to the need to create meaningful, motivating and competence-based learning experiences that align with current educational regulations. Natural Sciences provide an ideal context for research, experimentation and problem-solving, while the integration of English though the CLIL approach enables students to engage with scientific content in authentic communicative situations. This dual focus strengthens both conceptual understanding and linguistic development, fostering a holistic learning process.

From a personal perspective, the choice of working with Natural Sciences and English reflects a coherent journey throughout my academic and personal development. Both areas have played a significant role in shaping my identity as a future teacher. My interest in English has been reinforced by my experience in a summer camp, where I observed the positive impact of immersive language learning, as well as by international experiences that helped me understand the

value of linguistic competence in educational experiences that encouraged my interest in English and sciences.

Besides, the selection of the third year of Primary holds a special personal meaning. My little sister is currently studying in this grade, which has allowed me to observe closely the features, needs and, most importantly, the interest of learners at this stage because they show a strong curiosity about animal world and adventures, which makes the experience immersive. This approach significantly enhances their learning. Moreover, the use of diverse resources: visual, dynamic, and active reinforces the concept of meaningful learning.

These methodologies promote interaction, autonomy and multiple ways of expressing understanding, which are essential for addressing the diversity present in today's classrooms.

Overall, this proposal aims to combine methodological innovation, curricular coherence and inclusive practices to create a learning environment in which students can explore, understand and communicate scientific concepts while developing essential competences for their academic and personal growth.

1.2 Objectives

This syllabus aims to promote the holistic development of learners in third year of Primary Education by fostering curiosity, scientific thinking, and meaningful communication in English through interdisciplinary learning experiences connected to the natural world. It aligns with the competence-based approach established by current educational regulations. From a personal viewpoint, this syllabus also aims to:

- To promote the development of scientific thinking through observation, investigation, experimentation, and the formulation of simple explanations about natural processes.
- To strengthen communicative competence in English by engaging students in meaningful tasks that require understanding, interaction, and the production of oral and written messages.
- To encourage cooperative learning by fostering collaboration, shared responsibility, and positive interdependence in group tasks and missions.

1.3 Methodological approach: CLIL, cooperative learning and narrative learning

The methodological approach of this syllabus is grounded in three complementary pillars: the CLIL framework, cooperative learning and narrative-based learning. Together, they create a motivating, meaningful and cognitively rich environment in which students learn Natural Science content through English in an active and functional way.

On the one hand, the CLIL approach provides the overarching structure of the syllabus. English is used as a functional tool to understand instructions, interpret scientific information, collaborate with peers and communicate findings. Content and language objectives are planned in an integrated manner, ensuring that students develop conceptual understanding while progressively expanding their linguistic repertoire. Through multimodal input, guided tasks and scaffolded output, learners engage with scientific concepts in authentic communicative situations.

Cooperative learning constitutes the second methodological pillar. Structured group dynamics foster positive interdependence, shared responsibility and meaningful interaction, all of which are essential in CLIL contexts. Working in teams allows students to negotiate meaning, explain ideas, ask questions and support one another, reinforcing both content learning and communicative competence. This collaborative dimension aligns naturally with the missions and challenges proposed throughout the syllabus.

And narrative-based learning is the third key component of the methodological approach. The Wild Detectives storyline provides a coherent and engaging framework that connects the different units and situates learning within meaningful contexts. Through missions, clues and investigative tasks, students adopt an active role as young explorers, which increases motivation, emotional involvement and cognitive engagement. The narrative also supports language use with purpose, as learners communicate to solve problems, report discoveries and present conclusions within the fictional agency.

1.4 Narrative thread

The syllabus is structured around a narrative thread that accompanies students throughout the learning process: Wild Detectives, an international agency of young explorers dedicated to investigating the planet's ecosystems and solving missions related to life on Earth. This narrative serves as a pedagogical tool that provides coherence, motivation and a clear sense of purpose to each session, transforming scientific content into meaningful and interconnected learning experiences.

Through missions, clues, field notes and investigate briefings, students adopt an active role within the agency. Each session becomes a challenge that requires them to observe, analyse, experiment and communicate their findings, fostering both emotional engagement and cognitive involvement. The narrative also supports the functional use of English, as learners must understand instructions, collaborate with peers and present conclusions within the fictional context of the agency.

The Wild Detectives storyline reinforces the methodological pillars of the syllabus. It aligns naturally with cooperative learning, as missions require teamwork, shared responsibility and collective problem-solving. It also strengthens the CLIL approach by situating language use within authentic and purposeful situations, encouraging students to produce meaningful output while engaging with scientific concepts.

2. Theoretical Framework

2.1. Foundations of CLIL

Content and Language Integrated Learning (CLIL) constitute the methodological foundation of this proposal. It is an educational approach in which curricular content and a foreign language are learned simultaneously, allowing both dimensions to reinforce each other. As started by Coyle, Hood and Marsh (2010), CLIL is based on the idea that language is best acquired when it is used for meaningful communication, and that content learning becomes richer when approached through linguistic interaction, cognitive challenge and active participation.

This section explores the theoretical bases of CLIL by examining its pedagogical principles, cognitive foundations and implications for bilingual education.

2.1.1. Definition and origins of CLIL

CLIL emerged in Europe during the 1990s as a response to the need for improving multilingual competence and promoting innovative teaching practices. It differs from traditional language teaching because the foreign language is not the object of study but the vehicle through which students access content, interact, and construct knowledge. CLIL therefore promotes a dual focus: learning subject matter while simultaneously developing communicative competence in the target language.

2.1.2. CLIL as the base for bilingual education

CLIL has become the reference approach for bilingual programmes across Europe due to its balanced integration of cognitive, linguistic and competence-based development. In this approach, the foreign language is not treated as an isolated subject but as a functional tool for accessing knowledge, participating in tasks and communicating in authentic contexts.

Learning is structured around Coyle's 4Cs Framework (2006), which provides a conceptual foundation for integrating content and language:

- Content: Subject knowledge and skills
- Cognition: thinking skills required to process and apply knowledge
- Communication: language used to interact, construct and express understanding
- Culture: awareness of self and others, intercultural understanding

These four dimensions interact dynamically, ensuring that learning is meaningful, cognitively demanding and linguistically rich.

2.1.3. The 4Cs framework

Coyle's 4Cs Framework (2006) provides the conceptual foundation for CLIL and explains how content and language interact to create meaningful learning experiences. According to Coyle, Hood and Marsh (2010), the four components (Content, Communication, Cognition and Culture) are

interdependent and must be planned together to ensure a balanced and effective CLIL lesson. Based on this idea, the following understanding of the 4Cs is proposed:

Content: What students learn

Content refers to the subject knowledge, skills and understanding that learners are expected to acquire. In CLIL, content is not simplified but scaffolded, allowing students to access age-appropriate scientific concepts through multimodal resources, guided tasks and cooperative structures. In this syllabus, content aligns with the Natural Sciences curriculum, including classification of living things, ecosystems and scientific inquiry.

Communication: How students learn

Communication involves learning language for learning, language of learning and language through learning. Students use English to understand instructions, describe processes, collaborate with peers or present findings.

Language is therefore both a tool and a learning outcome, supporting the development of communicative competence in authentic contexts.

Cognition: How students think

Cognition refers to the thinking skills required to process and apply knowledge. CLIL promotes a thinking curriculum, encouraging learners to move from lower-order thinking (remembering, understanding) to higher-order thinking (analysing, evaluating, creating). Scientific inquiry naturally supports this progression, as students observe, classify, hypothesise, experiment and draw conclusions.

Culture: How students relate to the world

Culture involves developing intercultural awareness, respect for diversity and understanding of global issues. Through CLIL, learners explore different perspectives, compare environments, and reflect on their role as global citizens.

2.1.4. CLIL methodological principles

CLIL is grounded in several methodological principles that shape classroom practice. According to Meyer (2010) these principles are key to successful CLIL:

- **Active learning:** students construct knowledge through exploration and interaction. Coyle (2010) emphasizes that effective learning requires learners to be cognitively engaged, to question, to solve problems and to articulate their thinking. This aligns with Meyer's (2010) idea that multimodal input and scaffolding allow students to interact actively with content, rather than receiving information passively.
- **Dual focus:** content and language objectives are planned together. Coyle (2010) explains that teachers need to analyse both the cognitive demands of the content and the linguistic demands required to access it. Meyer (2010) reinforces this by highlighting the importance of scaffolding, multimodal input and guided output, which help learners progress simultaneously in content learning and language development. Meaningful input: language is presented in authentic, comprehensible contexts.
- **Purposeful output:** students use language to solve problems, explain ideas and collaborate. Meyer (2010) highlights the importance of 'pushed output', where learners are encouraged to produce language beyond their comfort zone. Coyle (2010) stresses that interaction and dialogue are essential for learning, as they help students reconstruct content and develop deeper understanding through communication.
- **Task-based learning:** involves designing activities that are connected to curricular goals and that promote higher-order thinking. Meyer's (2010) principle "Make it H.O.T." encourages teachers to include tasks that require analysing, evaluating and creating, not just remembering information. Coyle (2010) also argues that meaningful learning occurs when students transform information, solve problems and apply knowledge in new contexts.
- **Interaction:** communication is central to learning, promoting negotiation of meaning Meyer (2010) refers to 'rich interaction', where students negotiate meaning, ask questions and collaborate to complete tasks. Coyle (2010)

explains that dialogic learning (learning through dialogue) helps students articulate their thinking and develop both content knowledge and language skills. Interaction must be supported with linguistic scaffolding so that all learners can participate meaningfully.

2.1.5. Scaffolding in CLIL

Scaffolding is essential in CLIL because learners face a dual challenge: understanding new content while using a language they are still acquiring. Drawing on Vygotsky's Zone of Proximal Development (ZPD), scaffolding refers to the temporary support provided by teachers, peers or resources to help learners progress. According to Dale and Tanner (2012), scaffolding in CLIL can be organised into three complementary types: Reception, Transformation and Production.

Reception scaffolding supports learners as they access and understand input. It includes strategies such as visual aids, graphic organisers, glossaries, pre-teaching key vocabulary, guiding questions and multimodal resources that make content comprehensible. These supports help students move from exposure to actual comprehension.

Transformation scaffolding helps learners process and reorganise information. Dale and Tanner (2012) explain that students need structured opportunities to manipulate content through activities such as sorting, comparing, sequencing, completing diagrams or summarising. These tasks encourage deeper cognitive engagement and ensure that learners actively work with the content rather than simply receiving it.

Production scaffolding prepares students to produce output in the target language. This includes sentence starters, writing frames, model texts, cooperative structures and guided speaking tasks. Dale and Tanner (2012) emphasise that scaffolding output is crucial for enabling learners to express content knowledge accurately and confidently, gradually reducing support as they gain autonomy.

2.1.6. Roles of teacher and student in CLIL

In CLIL classrooms, the roles of teachers and students shift significantly compared to traditional instruction. The teacher is no longer the sole transmitter

of knowledge but becomes a facilitator who guides learning, provides scaffolding and creates opportunities for meaningful communication. Students, in turn, adopt an active role as participants who construct knowledge, interact, solve problems and use the foreign language with a real purpose.

2.1.7. CLIL and cognitive engagement

CLIL promotes a thinking curriculum, where learners are encouraged to analyse, evaluate and create. Using the revised Bloom's taxonomy (Anderson & Krathwohl, 2001), CLIL tasks integrate both lower-order and higher-order thinking skills. This balance ensures that learners do not simply reproduce information but actively transform it.

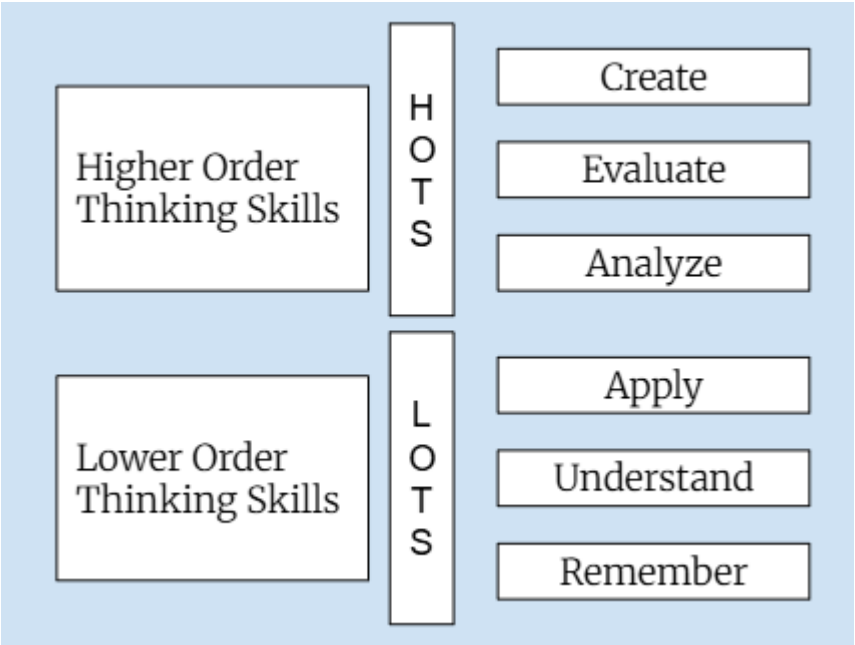

Figure 1. Higher and Lower Order Thinking Skills. Source: Own creation

As Coyle et al. (2010) note, learners must be 'intellectually challenged to transform information and ideas'. Cognitive engagement in CLIL therefore requires designing tasks that stimulate reasoning, problem-solving and creativity. Activities such as comparing sources, interpreting data, debating viewpoints or designing solutions push learners to operate at higher cognitive levels while using the foreign language meaningfully. In this way, CLIL fosters deeper learning, metacognitive awareness and the ability to transfer knowledge across contexts.

2.1.8. CLIL and inclusion

CLIL aligns naturally with inclusive education principles. Through multimodal input, varied tasks and flexible pathways for expression, CLIL supports diverse learners and connects directly with Universal Design for Learning (UDL) framework.

The Royal Decree reinforces this approach by emphasizing accessibility, flexibility and the need to adapt teaching to different learning profiles. CLIL contributes to these requirements by integrating visual and auditory resources, offering scaffolded language support, and allowing students to show their learning through different formats oral presentations, posters or digital products. In this way, CLIL not only supports linguistic diversity but also responds to a wide range of cognitive, social and emotional needs, ensuring that all learners can participate meaningfully and progress within an inclusive learning environment.

2.2. Cooperative learning

Cooperative learning is a key methodological strategy of this syllabus, as it promotes interaction, shared responsibility and meaningful communication, elements that align naturally with the CLIL approach. Through structured group work, students collaborate to solve problems, complete tasks and support one another, creating a learning environment in which language and content develop simultaneously.

Collaborative work is grounded in the work of Johnson, Johnson and Holubec (1998), who identify five essential principles that distinguish true cooperation from simple group work:

- **Positive interdependence:** learners understand that they succeed together and that each member's contribution is essential.
- **Individual accountability:** each student is responsible for their own learning and for contributing to the group.
- **Promotive interaction:** students support, encourage and help one another to achieve shared goals.
- **Social skills:** cooperation requires explicit teaching of skills such as turn-taking, active listening, empathy and conflict resolution.

- **Group processing:** groups reflect on their functioning to improve collaboration and outcomes.

These principles ensure that cooperative learning is structured, purposeful and effective, rather than merely placing students in groups.

Cooperative learning is particularly compatible with CLIL because it creates opportunities for authentic communication and cognitive interaction, which are essential for language acquisition and cognitive development. When students work together, they must negotiate meaning, explain ideas, ask questions and justify decisions, all of which promote the use of the foreign language in meaningful contexts.

2.3. Narrative learning

Narrative learning is an educational approach that uses stories as a vehicle for meaning-making, engagement and conceptual understanding. According to Bruner (1990), narrative is a fundamental mode of human thought that helps learners organise experiences, interpret reality and construct knowledge. In educational contexts, stories provide coherence, emotional connection and a sense of purpose, which are essential for maintaining motivation and supporting long-term retention.

In CLIL settings, narrative learning plays a particularly important role because it creates authentic communicative contexts in which language is used meaningfully. Stories offer a natural framework for integrating content, language and cognition, as learners must interpret information, make predictions, solve problems and communicate collaboratively. This aligns with the 4Cs framework, especially the dimensions of Communication, Cognition and Culture.

2.4. Connection between theory and proposal

Before establishing the connection between theory and the proposal, it is essential to highlight the explicit strategies that guide the design of this syllabus. From a CLIL perspective, the proposal incorporates multimodal input, scaffolding strategies (reception, transformation and production), guided language support through sentence frames, word banks and visual organisers, as well as tasks that promote both lower- and higher-order thinking skills. Narrative learning is operationalised through missions, roles, clues and field notes that structure each

unit and provide a meaningful purpose for using English. In line with the Universal Design for Learning (UDL), the syllabus offers multiple means of representation (visuals, manipulatives, videos), multiple means of action and expression (oral, written, artistic and digital outputs) and multiple means of engagement (choice, collaboration and narrative-based challenges), ensuring accessibility and participation for all learners.

The design of this syllabus is grounded in the theoretical principles outlined in the previous sections. CLIL provides the overarching methodological framework, ensuring that content and language objectives are integrated in every session. The 4Cs guide the planning of activities, ensuring that students develop scientific knowledge (Content), use English meaningfully (Communication), engage in higher-order thinking (Cognition) and develop intercultural awareness (Culture).

Narrative learning reinforces motivation and coherence. The Wild Detectives storyline proposed as the context for the syllabus provides a unifying thread that connects the different units, giving students a clear purpose for learning and using English. It also supports cognitive engagement by presenting challenges that require inquiry, problem-solving and creativity.

Finally, the principles of Universal Design for Learning (UDL) ensure that the proposal is inclusive and accessible. By offering multiple means of representation, action and engagement, the syllabus accommodates diverse learning needs and reduces linguistic and cognitive barriers.

Together, these theoretical foundations create a coherent, motivating and inclusive learning environment that supports both scientific understanding and language development.

2.5 Regulatory Framework

This proposal aligns with the current educational legislation at national and regional levels. The LOMLOE (2020) establishes a competency-based curriculum that promotes meaningful learning, inclusion and the development of key competences. It emphasises active methodologies, interdisciplinary approaches and attention to diversity (all of which are central to CLIL, cooperative learning and UDL).

At national level, the Royal Decree 157/2022 establishes the basic curriculum for Primary Education in Spain. It defines the key competences and their descriptors, the specific competences for each area, the evaluation criteria and the basic knowledge that guide teaching and learning across the country. This competence-based framework aligns with the LOMLOE and promotes meaningful, interdisciplinary and inclusive learning. In the area of Natural Science, the Royal Decree emphasises inquiry, observation, experimentation and the development of scientific thinking, which directly supports the design of CLIL learning situations such as those proposed in this syllabus.

At the regional level, Decree 61/2022 defines the organisation and curriculum of Primary Education in the Community of Madrid. It specifies the learning outcomes, basic knowledge and evaluation criteria for each subject, including Natural Sciences. The decree highlights the importance of inquiry-based learning, scientific thinking and the integration of digital, linguistic and social competences.

Regarding bilingual education, the Order 595/2010 regulates the Bilingual Programme in the Community of Madrid. It establishes the use of English as a vehicular language in specific subjects, the role of the language assistant, and the methodological principles that should guide bilingual instruction. The order explicitly encourages the use of active methodologies, cooperative learning and communicative approaches, which are fully reflected in this proposal.

By integrating CLIL, cooperative learning, narrative learning and within the framework of the LOMLOE, Royal Decree 157/2022, Decreto 61/2022 and the Order 595/2010 Bilingual Programme, this syllabus ensures full compliance with the legal requirements and pedagogical guidelines of the Community of Madrid.

3. CLIL Syllabus

3.1. Contextualization

3.1.1. The school

This syllabus is designed for a third-year Primary Education group at CEIP Aben Hazam, a public bilingual school located in Leganés (Community of Madrid) whose facilities support the implementation of active and contextualised teaching

approaches. The school is equipped with digital whiteboards in its classrooms, enabling the integration of audiovisual resources and interactive materials into daily instruction. In addition, the centre offers spacious outdoor areas that allow for direct observation and fieldwork activities, which are particularly relevant for proposals connected to the study of natural environments. The school library functions as an active and accessible resource for students, encouraging autonomous consultation, guided reading and the development of reading habits. The availability of a wide range of manipulatives further supports experimentation and inquiry-based learning. These material conditions are complemented by the school's participation in institutional initiatives such as *Ecoescuelas*, the school garden and environmental awareness projects, which reinforce the coherence between the school's resources and its pedagogical orientation.

3.1.2. The staff

The teaching staff at CEIP Aben Hazam is well-known by its experience within the Madrid Bilingual Programme and its commitment to innovative methodologies. The school has two groups per grade level and a team of teachers who have received specific training in CLIL methodologies, ensuring an integrated approach to content and language in subjects such as Natural Sciences, Arts & Crafts and Physical Education. The presence of a language assistant contributes to the development of communicative competence in English and enriches classroom dynamics through authentic interaction opportunities. The teaching staff promotes active methodologies, project-based learning and cooperative structures, fostering a participatory classroom climate oriented towards the co-construction of knowledge. This professional culture facilitates the implementation of didactic proposals that combine academic rigour, creativity and attention to diversity.

3.1.3. The students

The target group for this syllabus consists of 24 third-year Primary Education students whose diversity plays a central role in instructional planning. The class presents heterogeneous linguistic profiles, varied learning rhythms and a range of cognitive styles that require flexible and adaptive strategies. Among the students, one presents mild learning difficulties and requires occasional support in reading and writing tasks, while another receives specific

reinforcement in English due to a lower linguistic level; however, both participate normally in classroom activities. It is also common for some students to need guidance in organising their work or regulating their attention, aspects that are typical of their developmental stage. This diversity makes the group an ideal context for applying Universal Design for Learning (UDL) principles and incorporating cooperative structures that ensure equitable participation and sustained engagement for all learners.

From a developmental perspective, third-year students are situated within Piaget's stage of concrete operations, which is characterised by significant progress in logical reasoning applied to real situations and by the need to rely on manipulative experiences and meaningful contexts to consolidate new learning. At this stage, students show a gradual development of sustained attention, planning skills and self-regulation, although these processes still require teacher support and clear structures that facilitate their acquisition. The Wild Detectives narrative aligns naturally with these characteristics, as it positions students as active explorers investigating ecosystems, thereby fostering intrinsic motivation and meaningful learning. The thematic coherence across the fifteen sessions allows scientific content to be presented in a contextualised, engaging and comprehensible manner, strengthening the connection between students' cognitive development and the learning experiences offered to them.

3.1.4. Other professionals

The school counts on the collaboration of other professionals who contribute to students' wellbeing and the smooth functioning of daily routines. The caretaker supports logistical needs and maintenance of learning spaces. The school canteen staff ensures a healthy environment during lunchtime, promoting autonomy and social interaction.

The centre also offers a morning care service called 'L@s Primer@s del Cole', coordinated by the AMPA (parents' association) which supports families who require early drop-off and provides students with a calm and supervised start to the day.

Extracurricular activities are also organised by the AMPA, with specialised instructors who guide students in sports, artistic and academic workshops,

fostering creativity, teamwork and personal interest beyond the regular timetable. Additionally, the school provides a post-lunch care service and accompaniment to extracurricular activities, ensuring that transitions are safe and well supervised.

The presence of a school nurse further strengthens the school's commitment to students' wellbeing, offering first aid, monitoring health needs and supporting families and teachers when specific medical attention is required. Together, these professionals create a comprehensive support network that enhances the educational experience and contributes to a safe, inclusive and caring school environment.

3.2. Objectives of the syllabus

3.2.1 Stage objectives

The proposal aligns with the stage objectives established in the Royal Decree 157/ 2022, which are contextualized in the curriculum and in the curriculum for Primary Education in the Community of Madrid (Decreto 61/2022). These objectives emphasise the development of scientific thinking, communicative competence, digital literacy, social interaction and respect for diversity. In the context of Natural Science, students are expected to observe, classify, analyse and interpret phenomena from the natural world, while progressively acquiring the linguistic tools needed to communicate their findings in English.

These stage objectives are included in Annex 1, where they are presented in full. These stage objectives are the reference for the curricular components and, thus, for the learning goals and outcomes. This ensures coherence between the legal framework, the methodological approach and the learning experiences proposed in the classroom.

3.2.2 Sequence of learning objectives in the annual syllabus

To achieve the stage objectives, the proposal uses a CLIL approach encouraging active learning through different learning situations. Learning objectives are set to help students to gain confidence in using English to explore scientific concepts, collaborate with peers and solve the challenges presented in each mission of the narrative.

The progression of learning outcomes is aligned with Bloom's Taxonomy, but not as a year-long progression. Instead, each didactic unit integrates a complete cognitive sequence from lower-order to higher-order thinking skills. Each mission begins with activities that activate prior knowledge and support remembering and understanding key concepts. Students then move on to tasks that require applying and analysing information, such as classifying organisms, interpreting data or comparing habitats.

Finally, each challenge culminates in a task of greater cognitive complexity. In some cases, these tasks correspond to the level of evaluating, for example when students justify decisions, compare evidence or argue conclusions. In other cases, the final product belongs to the level of applying, as it involves putting knowledge into practice to create a poster or a model. Only those tasks in which learners generate new knowledge, propose original solutions or design something that did not previously exist will be considered at the creating level.

This structure ensures that all units incorporate a coherent progression from LOTS to HOTS, while clearly distinguishing between producing a final product and achieving the cognitive domain create.

3.3. Contents

This syllabus examines the subject of Natural sciences as established in the decree of the Community of Madrid 61/2022. The contents for the area, organised according to the basic knowledge defined in the decree are included in Annex 2, where they are presented in a structured way to coherence with the annual syllabus.

3.4. Competences

3.4.1. Key competences and its descriptors

The Royal Decree 157/2022 establishes eight key competences that all students must develop throughout Primary Education. These competences provide the foundation for lifelong learning and guide the design of teaching and learning processes.

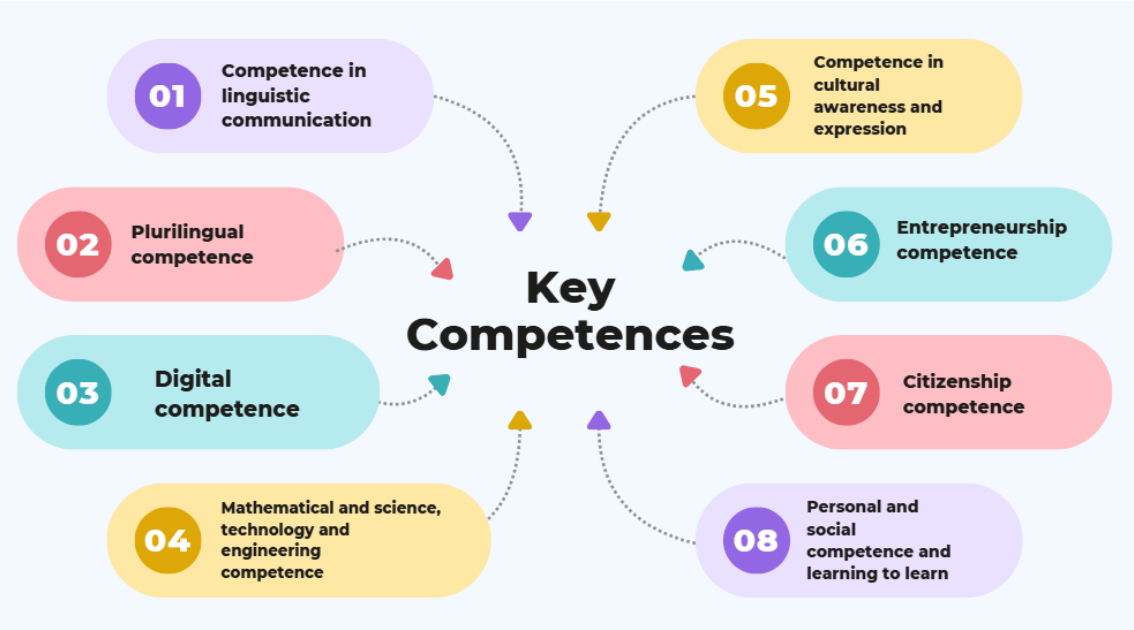

Figure 2. Key Competences. Source: Own creation based on Royal Decree 157/2022

In addition to identifying the eight key competences, it is essential to consider their descriptors, as they specify the observable behaviours through which students demonstrate progress in each competence. These descriptors guide the design of learning situations by indicating how learners mobilise knowledge, skills and attitudes in real tasks. In the context of this syllabus, the descriptors help ensure that activities promote meaningful communication, scientific reasoning, digital literacy, collaboration, creativity and responsible citizenship.

3.4.2. Specific competences and assessment criteria

In the Decree 61/2022, specific competences are presented as fundamental elements of the curriculum. They define the essential performances that students must develop in each area of knowledge, integrating conceptual understanding, procedural skills and attitudes. These competences specify what students are expected to be able to do by the end of each academic year and ensure coherence between teaching, learning and assessment.

Each area in Primary Education must contribute to the development of its own specific competences. In Natural Science, these competences guide inquiry, observation, experimentation, communication and responsible behaviour

towards the environment. They are closely linked to the evaluation criteria, which provide observable indicators of achievement. For this reason, Annex 3 of this syllabus includes a general table where the specific competences and their corresponding evaluation criteria are organised across the three terms.

3.5 Methodology

The methodology of this syllabus is built around an active, motivating and inquiry-based approach that turns students into the protagonists of their own learning. The entire project, Wild Detectives: Nature in Action, is designed so that children learn Natural Sciences through investigation, teamwork and meaningful use of English. Instead of receiving information passively, students explore clues, solve ecological mysteries and complete missions that connect scientific content with real-world situations.

The proposal follows a CLIL approach, integrating scientific content and English in meaningful ways. Using the 4Cs Framework (Coyle et al., 2010), each activity develops scientific knowledge, communication in English, thinking skills and environmental awareness. Students use English not only to name concepts, but to observe, classify, compare, justify and present their findings as real 'detectives'

Cooperative learning plays a central role. Students work in stable teams with assigned roles, which promotes responsibility, peer support and positive interdependence (Johnson et al., 1994). This teamwork helps them negotiate meaning, explain ideas and solve problems collaboratively, reinforcing both content and language learning.

The project also incorporates inquiry-based learning, using scientific routines such as Observe – Ask – Record – Share. These routines help students think like young scientists as they analyse evidence, ask questions and draw conclusions. Many sessions include Case Files, where learners must apply what they know to solve a mystery related to living things, ecosystems or environmental issues.

To ensure cognitive progression, each challenge follows a sequence from lower-order to higher-order thinking skills, in line with the revised Bloom's taxonomy (Anderson & Krathwohl, 2001). Students begin by understanding key

concepts through multimodal input, then apply and analyse information through hands-on tasks and finally evaluate or create through final products.

Finally, the project includes a project-based elements, especially in the final missions, where students design solutions, create models and present their ecosystem projects. These tasks connect scientific learning with creativity, real-world issues and environmental responsibility.

3.6. Assessment

Assessment in this CLIL syllabus is conceived as a continuous, formative and competence-based process that accompanies students throughout the three learning situations of the Wild Detectives storyline. In accordance with Royal Decree 157/2022, which establishes the basic curriculum for Primary Education, and Decree 61/2022 of the Community of Madrid, evaluation must be global, continuous and formative, and aligned with the specific competences and assessment criteria of each curricular area.

Therefore, assessment in this proposal focuses on the development of scientific thinking, the acquisition of Natural Science content, and the functional use of English as a vehicular language.

The evaluation model integrates formative assessment, self-assessment, and summative assessment, ensuring coherence between the missions of the Wild Detectives agency, the inquiry-based methodology and the competence-based curriculum.

a) Formative assessment

Formative assessment is embedded in every Wild Detectives mission. As students observe, classify, experiment and discuss, the teacher collects evidence through observation, questioning and interactive tasks. This ongoing assessment helps adjust scaffolding, identify misconceptions and provide immediate feedback. Tools include observation checklists, exit tickets, mini-whiteboard responses and mission field notes.

b) Self-assessment

Students reflect on their own learning through self-assessment routines, mission journals and peer feedback activities. Within detective

teams, they evaluate their participation, language use and scientific reasoning using tools such as structured checklists

c) Summative assessment

Summative assessment measures the achievement of competences at the end of each learning situation. Each term concludes with a final mission product such as a poster, report, model that integrates scientific content and functional English. Evaluation considers both conceptual accuracy and communicative clarity, without penalising minor linguistic errors that do not hinder meaning.

d) Instruments

A range of instruments ensures a complete and inclusive evaluation process. These include rubrics, checklists, observation grids, portfolios, mission logs and self-assessment tools. Together, they provide varied and reliable evidence aligned with the competence-based curriculum and the CLIL methodology.

3.7 Attention to diversity

Attention to diversity is a core principle of this CLIL syllabus and is aligned with the inclusive approach promoted by the LOMLOE, Royal Decree 157/2022 and Decree 61/2022 of the Community of Madrid. The design of the learning situations follows the principles of Universal Design for Learning (UDL), ensuring that all students can access the content and participate meaningfully in the Wild Detectives missions. UDL is reflected in the use of multiple means of representation (visuals, diagrams, videos, real objects, simplified texts), multiple means of action and expression (oral reports, posters, models, written notes, digital products) and multiple means of engagement (narrative missions, cooperative roles, choice-based tasks and gamified challenges). This flexibility allows each learner to approach the scientific content and the English language at their own pace and through their preferred learning pathways.

Cognitive diversity is also addressed through a progression of tasks based on Bloom's revised taxonomy, moving from Lower-Order Thinking Skills (LOTS) to Higher-Order Thinking Skills (HOTS). Students begin each mission by identifying, observing and classifying information, and gradually advance towards

analysing evidence, evaluating hypotheses and creating final products that solve the challenges posed by the Wild Detectives storyline. This structure ensures that all learners can engage at an appropriate cognitive level while being encouraged to move towards more complex reasoning.

Finally, scaffolding plays a key role in supporting both content learning and language development in the CLIL context. Throughout the missions, students receive reception scaffolding (visual aids, guiding questions, pre-teaching vocabulary, graphic organisers), transformation scaffolding (sorting tasks, sequencing, comparing, completing diagrams) and production scaffolding (sentence frames, word banks, model texts, cooperative structures). As students gain confidence and autonomy, this scaffolding is gradually reduced, allowing them to communicate their scientific understanding more independently and effectively in English. Together, UDL, LOTS/HOTS progression and scaffolding ensure that every learner can participate successfully in the Wild Detectives investigations, regardless of their linguistic, cognitive or socio-emotional needs.

3.8. Contribution to school plans

This syllabus contributes directly to several of the school's institutional plans, reinforcing coherence between classroom practice and the broader educational framework of the school. Through its CLIL approach, cooperative structures and narrative-based learning, the proposal supports the development of key competences and promotes an inclusive, motivating and participatory learning environment.

The syllabus contributes to the Linguistic Project of the School by promoting meaningful use of English as a vehicular language in Natural Science. Students engage in authentic communication through inquiry tasks, cooperative activities and mission-based challenges, which strengthens both oral and written competence in English. It also aligns with the Digital Competence Plan, as students use digital tools to research information, create multimodal products and document their findings throughout the Wild Detectives missions. These activities foster responsible digital use, creativity and basic information-processing skills.

Additionally, the syllabus contributes to the school's Reading Plan, since the narrative thread encourages reading for pleasure and reading to learn through

clues, case files and scientific texts. Finally, the focus on ecosystems, biodiversity and environmental issues aligns with the school's Environmental and Sustainability initiatives, promoting ecological awareness and responsible behaviour.

4. Learning Situations

The annual syllabus is structured into three learning situations that guide the progression of content and language learning throughout the year. Each one is framed within the *Wild Detectives* narrative, which provides coherence, motivation and a meaningful purpose to each session.

At the beginning of the project, students are organised into cooperative groups and assigned specific roles within their detective teams such as observer, recorder, materials manager or spokesperson ensuring active participation and shared responsibility throughout the missions.

During the first two learning situations, students complete different sections of their *Field Notebook*, where they record observations, descriptions, explanations and evidence gathered during their investigations. In the third learning situation, instead of adding to the notebook, students apply everything they have learned by creating a detailed model of an ecosystem, demonstrating their understanding of interactions, adaptations and environmental challenges.

At the end of each learning situation, teams earn an official Wild Detectives Seal that certifies the skills and knowledge acquired. Collecting all three seals becomes a motivating thread throughout the year: those who complete every mission and obtain the full set are officially "graduated" as authentic Wild Detectives.

Below are the three learning situations that structure the annual plan for each of the terms.

4.1. Learning situation 1: The Awakening of the Wild Detectives

<table>
<tr><th colspan="4">Learning situation 1
The awakening of the Wild Detectives</th></tr>
<tr><td>Cycle</td><td>2nd</td><td>Year</td><td>3rd</td></tr>
<tr><td colspan="4">Contextualization of the learning situation
In this learning situation, students will have to embark on their first adventure as rookie members of the Wild Detectives agency. A mysterious message (Appendix 1) arrives at the classroom headquarters announcing that strange clues have appeared, and only trained young detectives can decode them.
 

Source: Own creation made with Copilot</td></tr>
<tr><td>Timing</td><td>September-December</td><td>Genre</td><td>Description</td></tr>
<tr><td>Where?</td><td>Main classroom, school garden, playground and digital resources provided by the agency.</td><td>Description</td><td>Students receive their official welcome to the Wild Detectives agency through video message and a mission briefing.</td></tr>
<tr><td>Final product</td><td colspan="3">The final product will be a “Wild Detectives Field Notebook” composed of descriptive entries about the living beings’ students investigate.
Students will earn the five mission badges and obtain their first Wild Detectives Seal, certifying their successful initiation into the agency.</td></tr>
<tr><td colspan="4">Challenges
❖ Challenge 1: Welcome, Wild Detectives!
❖ Challenge 2: Living thing? What is it?
❖ Challenge 3: Vertebrates and invertebrates
❖ Challenge 4: Adaptations. How animals survive?
❖ Challenge 5: Plants. From roots to leaves</td></tr>
</table>

4.1.1 Challenge 1: Welcome, Wild Detectives!

<table>
<tr><th colspan="2">LS1 Challenge 1: Welcome, Wild detectives!</th></tr>
<tr><td colspan="2">Description: Students are introduced to the Wild Detectives Agency. They form their cooperative teams, learn their roles, establish scientific norms and practise the basic routines needed for the investigation.
Final product: A detective profile page and the setup of their Field Notebook, including team formation
Timing: First Term – September (4 sessions)</td></tr>
<tr><td colspan="2">Challenge:
Hey, detectives!
Your first mission is to join the agency. You will form your team, choose your role and learn the scientific routines we use to investigate mysteries. Get ready to observe, ask questions, record clues and share your ideas.
The adventure starts now!</td></tr>
<tr><th colspan="2">Content</th></tr>
<tr><td colspan="2">Curricular Content (Decree 61/ 2022)
A. Cultura Científica
Iniciación en la actividad científica
- Vocabulario científico básico y adecuado a su edad, de tipo técnico y aplicado, relacionado con las diferentes investigaciones.
- Fomento de la curiosidad, la iniciativa y la constancia en la realización de las diferentes investigaciones

Contribution to specific competences: 1-2-5</td></tr>
<tr><td colspan="2">Language content: Description</td></tr>
<tr><th colspan="2">Cognition</th></tr>
<tr><th>Learning Goals</th><th>Learning Outcomes (Standards)</th></tr>
<tr><td>Declarative knowledge
1. To remember the key elements of the Wild Detectives Agency (roles, mission, routines) and to understand the purpose of the mission and the function of each cooperative role.</td><td>1.1. Students list the roles of the Wild Detectives Agency.

1.2. Students explain the purpose of the mission using simple scientific vocabulary</td></tr>
<tr><td>Procedural knowledge
2. To apply the basic steps of the scientific routine (Observe – Ask – Record – Share) during guided tasks.</td><td>2.1. Students use the steps of the scientific routine.</td></tr>
<tr><td>Metacognitive knowledge
3. To evaluate their own participation within the team and adjust behaviour according to their assigned role.</td><td>3.1. Students judge on their contribution to the team.</td></tr>
<tr><td>Language learning goal connected to the content
4. To use basic scientific and cooperative vocabulary to describe observations and actions within the team.</td><td>4.1. Students use appropriate vocabulary to describe basic observations.</td></tr>
<tr><th colspan="2">Culture</th></tr>
</table>

<table>
<tr><th colspan="2">Learning Goals</th><th>Learning Outcomes (Standards)</th></tr>
<tr><td colspan="2">❖ To understand and value teamwork as part of a scientific community.</td><td>❖ Students recognize respectful behaviour when interacting with peers.</td></tr>
<tr><th colspan="3">Communication
Coyle, Hood and Marsh (2010)</th></tr>
<tr><td>Language OF learning</td><td colspan="2">Key Language: detective, agency, mission, clue, team, role, routine, observe, record, share.
Language content (Genre): Description

Structure:
Present simple for descriptions:
The detective observes the clue. / The team works together to solve the mission.
Present simple to describe roles, routines and clues:
The Reporter shares the team's ideas. / The detectives work together to solve the mission. / The picture clue gives information about the object we are investigating.
Sentence frames for observation:
I can see… / We found… / This clue shows…
Language Input:
Teacher modelling of detective vocabulary:
This is a clue. A clue gives us information. / A detective observes carefully. Look: I observe the picture and record what I see.
Visual prompts (clues, icons, routines).
Short oral explanations during guided tasks:
First, we observe the clue. Then, we record the information in our notebook.

Academic Language:
Sequential connectors to describe observations and the connectors they will learn:
First, the detective observes the clue. Then, the team records the information in the Field Notebook. Finally, the Reporter shares the ideas with the class.</td></tr>
<tr><td>Language FOR learning</td><td colspan="2">Language for writing their ideas in the notebooks
Language for sharing with their group
Language for listing the roles of the Wild Detectives Agency.
Classroom language
Group work: Let's work together, your turn, I need help, we agree
Classroom Interaction: asking for clarification, taking turns, listening to others.</td></tr>
<tr><td>Language THROUGH learning</td><td colspan="2">❖ Following routines and simple instructions
❖ Communicating ideas during detective tasks
❖ Peer interaction</td></tr>
<tr><th colspan="3">Assessment</th></tr>
<tr><td colspan="3">Content Evaluation Criteria (Decree 61/2022)</td></tr>
<tr><td colspan="3">1.1 Know the fundamentals of block programming.
2.1 Formulate questions and predictions based on observation.
2.2 Search and select information from reliable sources.
2.5 Present results using basic scientific language.
5.1 Identify the characteristics and properties of elements in the environment.</td></tr>
<tr><td colspan="3">Language Evaluation Criteria (CEFR, 2018)</td></tr>
<tr><td colspan="3">Sustained Monologue: Describing Experience</td></tr>
</table>

A2 → Can give short, basic descriptions of events and activities	
Assessment Tools	
For interaction	Checklist of cooperative role performance
For active observation	Teacher diary
For self-evaluation	Simple smiley-face holistic rubric for participation and role performance
For summative assessment	Field Notebook analytic rubric
Grading Criteria	**Formative assessment:** Interaction and cooperative work 20% Self-evaluation 10% **Summative assessment:** Field notebook rubric 40% Challenge quiz 30%

Attention to Diversity

General measures: Clear and concise instructions are provided to support understanding, and visual aids are used to reinforce routines and role expectations. Flexible grouping is implemented to respond to different learning rhythms and individual needs within the classroom.

Use of different resources:

- Provide sentence starters ("I see…", "I notice…", "Your turn…") and word banks with the key vocabulary of the challenge.
- Use short video clips modelling the Wild Detectives routines (how to follow clues, how to work as a team).
- Include manipulative materials (role badges, clue cards, routine strips) to support comprehension through hands-on interaction.
- Offer visual timers to help students manage turn-taking and participation within the team.

Assess flexibly: Students are allowed to demonstrate their learning in different formats, including oral explanations, written work.

LOTS → HOTS	**HOTS → LOTS**
In the *Find the clue* activity, students begin by identifying their cooperative role and following the steps of the routine (Observe – Ask – Record – Share). To raise the cognitive demand, the task is extended by asking students to analyse which clue is most relevant for advancing the mission and justify their choice to the team, comparing options and explaining why one piece of evidence is stronger than another.	In the *Secret agency message* activity, students usually engage in a higher-order task by deciding together the best strategy to decode the message. To lower the cognitive demand for students who need support, the task is adapted by providing a guided model with examples of symbols and meanings, so that students only need to identify and match the correct elements before reading the final message.

4.1.2. Challenge 2: Living thing? What is it?

LS1 Challenge 2: Living thing? What is it?
Description: Students explore the basic characteristics of living things and distinguish them from non-living objects through guided observation and simple descriptive language. **Final product:** A short description of a selected item and a *Living / Not living* classification table based on the mini-investigation *Is it alive?* **Timing:** First Term – September (4 sessions)

Challenge:
Wild Detectives, get ready!
In this challenge you will become real science agents. Your mission is to discover what makes something alive. You will observe objects, test your ideas and decide if they are living or not.

Let's investigate!

Content

Curricular Content (Decree 61/ 2022)

A. Cultura Científica

Iniciación en la actividad científica:

- Vocabulario científico básico y adecuado a su edad, de tipo técnico y aplicado, relacionado con las diferentes investigaciones.
- Fomento de la curiosidad, la iniciativa y la constancia en la realización de las diferentes investigaciones.

La vida en Nuestro Planeta:

- Características básicas de los seres vivos.
- Diferencias entre elementos vivos y no vivos.
- Observación y clasificación inicial de elementos del entorno.

Contribution to Specific Competences: 2-5

Language content: Description

Cognition

Learning Goals	Learning Outcomes (Standards)
Declarative knowledge 1. To **remember** the basic characteristics of living things (movement, growth, reproduction, needs) and to **understand** the difference between living and non-living objects.	1.1. Students **define** the basic characteristics of living things. 1.2 Students **describe** why an object is living or non-living.
Procedural knowledge 2. To **apply** guided observation to classify items as living or non-living 3. To **analyze** features of different items to justify whether they are living or non-living**.**	2.1. Students **implement** items using the scientific routine 2.2. Students **compare** observable features to support their classification
Metacognitive knowledge 4. To **evaluate** their own reasoning when deciding if something is alive.	3.1. Students **defend** their decision and adjust it when new evidence appears.
Language learning goal connected to the content ~~5.~~ To **use** descriptive language and scientific terms to communicate observations.	4.1. Students **produce** short oral or written descriptions of living and non-living things.

Culture

Learning Goals	Learning Outcomes (Standards)
❖ To **understand** careful observation as part of scientific inquiry.	❖ Students **recognise** respectful and collaborative behaviour when sharing ideas during investigations.

<table>
<tr><th colspan="2">Communication
Coyle, Hood and Marsh (2010)</th></tr>
<tr><td>Language OF learning</td><td>Key Language: living, non-living, needs, grow, move, reproduce, breathe, plant, animal, object.
Language content (Genre): Description

Structure:
Simple present for descriptions:
Living things grow and need food and water.
Non-living objects do not move or reproduce.
Sentence frames for classification:
The rock is not alive because it does not move or reproduce.
The plant is alive because it grows and needs water.
Language Input:
Teacher modelling of descriptive vocabulary:
Living things grow. Look: this plant grows and needs water.
Non-living things do not move by themselves.
Visual prompts (clues, icons, routines).
Short oral explanations during guided tasks.
We check if it grows, moves or needs food.
Look at the object: does it change or stay the same?

Academic Language:
Present Simple to describe roles, routines and clues.
Sequential connectors (first, then, finally) for observation steps:
First, we observe the item. Then, we check if it has the characteristics of living things. Finally, we classify it as living or non-living.
Basic cause-effect structures (because):
It is alive because it grows and needs water</td></tr>
<tr><td>Language FOR learning</td><td>Language for completing the classification table
Language for sharing findings
Language for defining the basic characteristics of living things
Classroom language
Group work: Let’s compare / I agree / I disagree because…
Classroom Interaction: asking for clarification, taking turns, listening to others.</td></tr>
<tr><td>Language THROUGH learning</td><td>❖ Following observation routines.
❖ Communicating ideas during classification tasks.
❖ Learning new vocabulary through interaction</td></tr>
<tr><th colspan="2">Assessment</th></tr>
<tr><td colspan="2">Content Evaluation Criteria (Decree 61/2022)</td></tr>
<tr><td colspan="2">2.1 Formulate questions and predictions based on observation.
2.2 Search and select information from reliable sources.
2.3 Carries out guided observations using simple tools and records results.
2.4 Proposes answers comparing results with initial predictions.
2.5 Presents findings using basic scientific language and simple arguments.
5.1 Identifies characteristics and properties of living and non-living things.
5.2 Recognizes relationships between elements of the natural environment.</td></tr>
<tr><td colspan="2">Language Evaluation Criteria (CEFR, 2018)</td></tr>
<tr><td colspan="2">Sustained Monologue: Describing Experience
A2 → Can give short, basic descriptions of events and activities</td></tr>
<tr><td colspan="2">Assessment Tools</td></tr>
<tr><td>For interaction</td><td>Checklist of cooperative role performance</td></tr>
<tr><td>For active observation</td><td>Teacher diary</td></tr>
</table>

For self-evaluation	Simple smiley-face holistic rubric for participation and role performance
For summative assessment	Classification table + short description analytic rubric.
Grading Criteria	**Formative assessment:** Interaction and cooperative work 20% (checklist of cooperative work performance) Self-evaluation 10% (face-rubric) **Summative assessment:** Classification table + Description rubric 40% Challenge quiz 30%

Attention to Diversity

General measures: Instructions are simplified and paired with visual references to ensure all students understand what to do. Group arrangements are adapted throughout the lesson to accommodate diverse learning rhythms and provide targeted support when necessary.

Use of different resources:

- Provide sentence starters linked to the investigation (*"I observe…", "I think it is living because…", "I notice it has…"*) and word banks with key vocabulary (needs, moves, grows, breathes).
- Use short video clips showing real examples of living and non-living things to model observation and classification routines.
- Include hands-on materials such as picture cards, object samples, sorting mats and clue cards to support understanding through manipulation.
- Offer visual organisers (T-charts, checklists, mini-charts) to help students structure information and justify their decisions.
- Provide visual timers to support turn-taking and ensure balanced participation during group classification tasks.

Assess flexibly:

- Accept short verbal explanations ("It is living because…") when written production is challenging.
- Provide alternative formats for the Field Notebook (icons, checklists, picture-supported sentences) to ensure all learners can demonstrate classification and reasoning.
- Use observation notes and quick conferences to capture progress for students who need more guided support.

LOTS → HOTS	**HOTS → LOTS**
In the *Classify the objects* activity, students begin by sorting items into *living* and *non-living*. To extend the task, they are asked to compare two items and decide which clues are more useful for classifying them, explaining briefly why one piece of evidence helps more than another.	In the *Explain your reasoning* activity, students usually justify why an item is living or not. To make the task more accessible, they receive a guided model with icons and a partially completed chart, so they only need to match characteristics before giving a short oral explanation.

4.1.3. Challenge 3: Vertebrates and invertebrates

<table>
<tr><th colspan="2">LS Challenge 3: Vertebrates and invertebrates</th></tr>
<tr><td colspan="2">Description: Students investigate the main differences between vertebrates and invertebrates through observation, classification and simple comparative language. They explore examples of animals, identify key features and organise them into basic scientific categories.
Final product: A Vertebrate / Invertebrate classification chart and a short comparative description of two animals.
Timing: First Term – October (5 sessions)</td></tr>
<tr><td colspan="2">Challenge:
Wild Detectives, your next mission is here! You will explore the animal world to discover which creatures have bones and which do not. Observe carefully, compare their features and classify them like real science agents.
Let’s solve the mystery of vertebrates and invertebrates!</td></tr>
<tr><th colspan="2">Content</th></tr>
<tr><td colspan="2">Curricular Content (Decree 61/ 2022)
A. Cultura científica
La vida en nuestro planeta
- Características propias de los animales que permiten su clasificación.

Contribution to Specific Competences: 2-5</td></tr>
<tr><td colspan="2">Language content: Description</td></tr>
<tr><th colspan="2">Cognition</th></tr>
<tr><th>Learning Goals</th><th>Learning Outcomes (Standards)</th></tr>
<tr><td>Declarative knowledge
1. To remember the basic characteristics of vertebrates and invertebrates and to understand how animals can be grouped based on the presence or absence of a backbone.

Procedural knowledge
2. To apply guided observation routines to identify external features of animals.

Metacognitive knowledge
3. To evaluate their own classification decisions using guided criteria.

Language learning goal connected to the content
4. To use descriptive vocabulary to classify animals.</td><td>1.1 Students memorize the characteristics of vertebrates and invertebrates.

1.2 Students identify animals as vertebrates or invertebrates.

2.1. Students demonstrate relevant features in their Field Notebook

3.1. Students argue their classification using short explanations.

4.1. Students use appropriate vocabulary to describe animals.</td></tr>
<tr><th colspan="2">Culture</th></tr>
<tr><th>Learning Goals</th><th>Learning Outcomes (Standards)</th></tr>
<tr><td>❖ To understand that biodiversity is valued and represented differently in various regions.</td><td>❖ Students identify examples of animals that have cultural significance in different regions or communities.</td></tr>
</table>

Communication Coyle, Hood and Marsh (2010)	
Language OF learning	**Key Language:** vertebrate, invertebrate, backbone, skeleton, shell, body parts, wings, legs, segments, mammal, bird, reptile, amphibian, fish, insect. **Language content (Genre):** Description **Structure:** **Simple present for descriptions.** *The bird has wings and a backbone.* *The worm has segments and no skeleton.* **Comparative adjectives structures:** *bigger than, smaller than, has more…, has fewer…* **Sentence frames:** *It is a vertebrate because… / It is an invertebrate because…* **Language Input:** **Teacher modelling of classification vocabulary:** *A vertebrate has a backbone. A fish is a vertebrate.* **Visual prompts** (animal cards, diagrams). Short oral explanations during guided tasks: *First, we look for a backbone, then we decide if it is a vertebrate or an invertebrate* **Academic Language:** **Cause–effect structures (*because…*) for justification.** *A mammal is a vertebrate because it has a backbone.* *This insect does not have a backbone, so it is an invertebrate.*
Language FOR learning	Language for sorting cards Language for completing classification charts. Language for identifying animals **Classroom language** **Group work:** Let's compare / I agree / I disagree because… **Classroom Interaction:** asking for clarification, taking turns, listening to others.
Language THROUGH learning	❖ Observing and comparing animals. ❖ Justifying classifications in the Case Files.

Assessment
Content Evaluation Criteria (Decree 61/2022)
2.1 Formulate questions and predictions based on observation. 2.2 Search and select information from reliable sources. 2.3 Carries out guided observations using simple tools and records results. 2.4 Proposes answers comparing results with initial predictions. 2.5 Presents findings using basic scientific language and simple arguments. 5.1 Identifies characteristics and properties of living and non-living things. 5.2 Recognizes relationships between elements of the natural environment.
Language Evaluation Criteria (CEFR, 2018)
Sustained Monologue: Describing Experience A2 → Can give short, basic descriptions of events and activities
Assessment Tools

For interaction	Checklist of cooperative role performance
For active observation	Teacher diary
For self-evaluation	Simple smiley-face holistic rubric for participation and role performance
For summative assessment	Classification table + short description analytic rubric.

<table>
<tr><td>Grading Criteria</td><td>Formative assessment:
Interaction and cooperative work 20% (checklist of cooperative work performance)
Self-evaluation 10% (face-rubric)
Summative assessment:
Classification table + Description rubric 40%
Challenge quiz 30%</td></tr>
<tr><td colspan="2">Attention to Diversity</td></tr>
<tr><td colspan="2">General measures: Students receive clear modelling, visual scaffolding, and step-by-step support to access the classification tasks. Instruction is adjusted according to individual needs by offering additional guidance, extended time, or simplified examples. Learners can engage with the content through multiple modalities (visual, oral, hands-on), ensuring that everyone can participate meaningfully in the investigation.

Use of different resources:
❖ Animal cards with different levels of detail
❖ Simplified and extended dichotomous keys
❖ Vocabulary cards with pictograms (Manipulative material)
❖ Sentence starters and graded word banks

Assess flexibly:
❖ Allow oral, written, or picture-supported explanations
❖ Evaluate both the process (observation, reasoning, cooperation) and the final product
❖ Provide visual or linguistic scaffolds for justification
❖ Adjust the complexity of the animal or case to match learner needs</td></tr>
<tr><td>LOTS → HOTS
In the Identify the features activity, students begin by recognising simple physical characteristics of animals using picture cards (e.g., wings, legs, body covering). To extend the task, they are asked to compare two animals and decide which features are more relevant for classifying them. They explain why certain clues help more than others when determining the correct group.</td><td>HOTS → LOTS
In the Case File activity, students usually analyse several clues, evaluate evidence, and justify the classification of an unknown animal. To make the task more accessible, they receive a guided model with icons and a partially completed chart, so they only need to match the highlighted features before giving a short oral explanation.</td></tr>
</table>

4.1.4. Challenge 4: Adaptations. How animals survive?

<table>
<tr><th colspan="2">LS1 Challenge 4: Adaptations. How animals survive?</th></tr>
<tr><td colspan="2">Description: Students investigate how animals survive by examining the special features that help them live in different habitats. Through guided experiments, observation tasks, and detective-style missions, they explore how body structures and behaviours support feeding, movement, protection, and temperature regulation. Students compare species, identify patterns, and draw simple conclusions about why certain adaptations are essential for survival.
Final product: A simple Animal Adaptation Card describing one animal and its key adaptations (physical or behavioural), plus a class display titled How animals survive.
Timing: First Term – November (4 sessions)</td></tr>
<tr><td colspan="2">Challenge:
Wild Detectives, your next mission takes you into the wild! Animals have incredible ways to survive: some hide, some run fast, some change colour, and others have special body parts. Your task is to discover how animals adapt to their habitats and explain why these adaptations help them stay alive.
Let’s investigate the secrets of survival!</td></tr>
<tr><th colspan="2">Content</th></tr>
<tr><td colspan="2">Curricular Content (Decree 61/ 2022)
A. Cultura científica
La vida en nuestro planeta
- Características propias de los animales que permiten su clasificación y diferenciación en subgrupos relacionados con su capacidad adaptativa al medio: obtención de energía, relación con el entorno y perpetuación de la especie

Contribution to Specific Competences: 2-5</td></tr>
<tr><td colspan="2">Language content: Description</td></tr>
<tr><th colspan="2">Cognition</th></tr>
<tr><th>Learning Goals</th><th>Learning Outcomes (Standards)</th></tr>
<tr><td>Declarative knowledge
1. To remember basic types of animal adaptations (physical and behavioural) and to understand how adaptations help animals survive in their habitats.

Procedural knowledge
2. To apply observation routines to identify to adaptations in different animals.

3. To analyse how specific adaptations help animals survive in their habitats.

Metacognitive knowledge
4. To evaluate the effectiveness of an adaptation using guided criteria.

Language learning goal connected to the content
5. To use descriptive vocabulary to communicate how animals adapt to their environment.</td><td>1.1. Students state basic physical and behavioural adaptations.

1.2. Students discuss how an adaptation helps an animal survive.

2.1. Students interpret observation routines to locate adaptations.

2.2 Students differentiate animal adaptations by identifying their function and explaining how they support survival in a specific habitat.

3.1. Students select on their ideas and adjust them when new information appears.

4.1. Students produce short oral or written descriptions about how an adaptation helps an animal survive.</td></tr>
<tr><th colspan="2">Culture</th></tr>
</table>

Learning Goals	Learning Outcomes (Standards)
❖ To **understand** that animals around the world adapt differently depending on environmental and cultural contexts	❖ Students **recognise** that animals from different continents face different survival challenges.

Communication
Coyle, Hood and Marsh (2010)

Language OF learning	**Key Language:** adaptation, survive, habitat, camouflage, protection, movement, behaviour, environment, predator, prey. **Language content (Genre):** Description **Structure:** **Present simple for descriptions:** *The polar bear has thick fur.* *The camel lives in the desert.* **Cause–effect structures**: *It survives because… / This adaptation helps…* **Sentence frames for explanation:** *It has… to… / It does… so it can…* **Language Input:** **Teacher modelling of adaptation vocabulary:** *This animal has sharp teeth. Sharp teeth help it catch prey.* *The penguin has a layer of fat to keep warm in cold habitats.* **Visual prompts** (animal photos, diagrams). **Short oral explanations during guided tasks:** *First, we observe the body part. Then we think: what does it help the animal do?* *If the animal has long legs, it probably uses them to run fast.* **Academic Language:** **Cause–effect connectors** (*because, so*). *The seal has blubber so it can stay warm in cold water* **Sequential connectors** (*first, then, finally*)
Language FOR learning	Language for matching the picture Language for describing the animal Language for discussing how an adaptation helps an animal survive **Classroom language** **Group work:** Let's look together / I think… / I agree because…´ **Classroom Interaction:** Can you show me? / What do you see? / Why do you think that?
Language THROUGH learning	❖ Expanding their descriptive language as they observe animals, share ideas with classmates, and complete guided tasks. ❖ Improving their explanations by using sentence frames while comparing how different animals survive.

Assessment

Content Evaluation Criteria (Decree 61/2022)

2.1. Formulates simple questions and predictions about how animals survive, based on observation.
2.2. Searches for and selects basic information about physical and behavioural adaptations.
2.3. Carries out guided observations of animals and records relevant information.
2.4. Gives simple explanations about how an adaptation helps an animal survive.
2.5. Presents information in a simple format using basic scientific vocabulary.
5.1. Identifies characteristics of animals related to their adaptation to the environment.
5.2. Recognises simple relationships between habitat and animal adaptations.

Language Evaluation Criteria (CEFR, 2018)	
Sustained Monologue: Describing Experience A2 → Can give short, basic descriptions of events and activities	
Assessment Tools	
For interaction	Checklist of cooperative role performance
For active observation	Teacher diary
For self-evaluation	Simple smiley-face holistic rubric for participation and role performance
For summative assessment	Classification table + short description analytic rubric.
Grading Criteria	**Formative assessment:** Interaction and cooperative work 20% Self-evaluation 10% **Summative assessment:** Classification table + Description rubric 40% Challenge quiz 30%

Attention to Diversity

General measures: The learning sequence offers multiple ways for students to access the content on animal adaptations, ensuring that every child can participate successfully. Visual anchors, hands-on tasks, and clear language scaffolds help students understand key ideas without relying solely on reading or writing. Activities are paced with built-in checkpoints so the teacher can support learners who need extra guidance, while extension prompts allow faster learners to deepen their thinking. The classroom environment encourages curiosity, risk-taking, and collaborative problem-solving, making the challenge accessible and engaging for all.

Use of different resources:

- Picture cards showing adaptations (camouflage, mimicry, special structures)
- Short videos with subtitles
- Word banks and sentence frames (*It has… / It uses… to…*)
- Graphic organisers (T-charts, simple diagrams)
- Manipulatives (matching cards, clue cards, sorting mats)
- Digital tools for visual exploration (simple interactive images)
- Enlarged print or simplified texts when needed

Assess flexibly:

- Accept drawings or labelled diagrams as evidence of understanding
- Provide sentence starters for students who need language support
- Offer extended time or reduced task complexity

LOTS → HOTS	**HOTS → LOTS**
In the *Identify the adaptation* activity, students begin by recognising simple features in animals (camouflage, claws, long legs, sharp beak). To extend the task, they compare two animals and decide which adaptation is more important for survival in their habitat, giving a short explanation using sentence frames such as 'This helps it survive because… or It uses… to…. '	In the *How it survives* activity, students usually justify how an adaptation helps an animal live in its habitat. To make the task more accessible, they receive a guided model with icons and a partially completed chart showing 'has / uses / helps to'. Students only need to match the correct adaptation to the correct function before giving a short oral explanation.

4.1.5. Challenge 5: Plants. From roots to leaves

<table>
<tr><th colspan="2">LS1 Challenge 5: Plants. From roots to leaves</th></tr>
<tr><td colspan="2">Description: Students explore the basic parts of plants and their functions through observation, manipulation and simple descriptive language. They identify roots, stems, leaves and flowers, and understand how each part helps the plant live and grow.
Final product: A labelled Plant Diagram and a short description of the function of each plant part.
Timing: First Term – December (5 sessions)</td></tr>
<tr><td colspan="2">Challenge:
Detectives, today we’re starting a new mission, but this time, we’re not following animals… we’re following plants. They don’t run, they don’t hide, and they don’t hunt, but they have amazing parts that help them live, grow, and survive.
Are you ready to explore the secret life of plants?</td></tr>
<tr><th colspan="2">Content</th></tr>
<tr><td colspan="2">Curricular Content (Decree 61/ 2022)
A. Cultura científica
La vida en nuestro planeta
- Características propias de las plantas que permiten su clasificación en relación con su capacidad adaptativa al medio: obtención de energía (fotosíntesis)

Contribution to Specific Competences: 2-5</td></tr>
<tr><td colspan="2">Language content: Description</td></tr>
<tr><th colspan="2">Cognition</th></tr>
<tr><th>Learning Goals</th><th>Learning Outcomes (Standards)</th></tr>
<tr><td>Declarative knowledge
1. To remember the basic parts of a plant (roots, stem, leaves, flower) and to understand the function of each plant part.

Procedural knowledge
2. To apply observation routines to identify plant parts.

Metacognitive knowledge
3. To evaluate the clarity and accuracy of their plant description.

Language learning goal connected to the content
4. To use descriptive and explanatory vocabulary to communicate a plant structure and function.</td><td>1.1. Students list the basic parts of a plant.

1.2. Students recognize the function of each part using simple language.

2.1. Students sketch the plant parts during guided observation

3.1 Students value whether their description is complete and correct.

4.1. Students produce short oral or written descriptions of how each plant part helps the plant survive.</td></tr>
<tr><th colspan="2">Culture</th></tr>
<tr><th>Learning Goals</th><th>Learning Outcomes (Standards)</th></tr>
<tr><td>❖ To understand that plants can have different symbolic meanings across cultures.</td><td>❖ Students identify simple examples of plant symbolism and explain their meaning in a basic way.</td></tr>
<tr><th colspan="2">Communication
Coyle, Hood and Marsh (2010)</th></tr>
</table>

Language OF learning	**Key Language:** root, stem, leaf, flower, soil, water, sunlight, grow, absorb, support. **Language content (Genre):** Description **Structure:** **Simple present for describing functions:** *The roots take water from the soil.* *The flower produces seeds.* *The stem transports water to the leaves.* **Cause–effect structures:** *The plant grows because it gets sunlight.* *The leaves make food so the plant can survive.* **Sentence frames for explanation:** *It has roots to absorb water.* *It makes food so it can grow.* **Language Input:** **Teacher modelling of plant vocabulary:** *These are the roots. Roots take water and nutrients from the soil.* *The leaves make food for the plant using sunlight.* **Visual prompts** (real plants, diagrams). **Short oral explanations during guided tasks.** *First, we identify the part. Then we think about its function.* *If the part is under the soil, it is probably the root.* **Academic Language:** Cause–effect connectors (*because, so, therefore*). Sequential connectors (*first, then, finally*) for explanation steps.
Language FOR learning	Language for drawing and labelling the parts of the plant Language for describing the function Language for comparing the plants **Classroom language** **Group work:** *Let's work together/ Can you help me* **Classroom Interaction:** *Share your ideas / Present your diagram*
Language THROUGH learning	❖ Developing language by describing plant parts and functions ❖ Developing language by explaining how plants grow

Assessment

Content Evaluation Criteria (Decree 61/2022)

2.1. Formulates simple questions and predictions about how animals survive, based on observation.
2.2. Searches for and selects basic information about physical and behavioural adaptations.
2.3. Carries out guided observations of animals and records relevant information.
2.4. Gives simple explanations about how an adaptation helps an animal survive.
2.5. Presents information in a simple format using basic scientific vocabulary.
5.1. Identifies characteristics of animals related to their adaptation to the environment.
5.2. Recognises simple relationships between habitat and animal adaptations.

Language Evaluation Criteria (CEFR, 2018)

Sustained Monologue: Describing Experience
A2 → Can give short, basic descriptions of events and activities

Assessment Tools

For interaction	Checklist of cooperative role performance
For active observation	Teacher diary
For self-evaluation	Simple smiley-face holistic rubric for participation and role performance

For summative assessment	Classification table + short description analytic rubric.
Grading Criteria	**Formative assessment:** Interaction and cooperative work 20% Self-evaluation 10% **Summative assessment:** Plant Diagram + Description rubric 40% Challenge quiz 30%

Attention to Diversity

General measures: The learning sequence offers multiple ways for students to access the content on plants, ensuring that every child can participate successfully for instance: clear visual explanations and real plant samples to support understanding.

Use of different resources:

- ❖ real plants
- ❖ plant diagrams
- ❖ videos
- ❖ pictograms
- ❖ vocabulary cards
- ❖ sentence starters
- ❖ graphic organisers

Assess flexibly:

- ❖ oral explanations
- ❖ drawings
- ❖ labelled diagrams
- ❖ guided worksheets

LOTS → HOTS In the Identify the plant parts activity, students begin by recognising the main parts of a plant (roots, stem, leaves and flower) using real plants and labelled diagrams. To extend the task, they compare two plants and decide which part is more important for survival, explaining briefly how each part helps the plant grow using sentence frames such as “This part helps the plant because…”.	**HOTS → LOTS** In the *Plant Diagram* activity, students usually analyse the functions of plant parts and explain how they work together to help the plant survive. To make the task more accessible, they receive a guided diagram with icons and partially completed labels showing (roots, water, leaves, sunlight, stem, transport) so they only need to match the correct function before giving a short oral explanation.

4.2. Learning situation 2: Secret of survival. Missions in Air, Land & Sea

Learning situation 2: Secret of survival. Missions in Air, Land & Sea			
Cycle	2nd	Year	3rd

Contextualization of the learning situation

In this learning situation, students will have to respond to a new alert from the Wild Detectives agency: strange phenomena are being reported across skies, forests and oceans. As junior agents, they must investigate how living beings adapt to survive in different environments.

Source: Own creation made with Copilot

Timing	January - March	Genre	Description Explanatory description
Where?	Main Classroom, audiovisual room, outdoor spaces and virtual simulations.	Context	Students receive a new alert from the Wild Detectives agency reporting unusual survival behaviours in animals across different environments.
Final product	A Field Notebook Part II, containing descriptions and diagrams that illustrate how different organisms adapt to their environments. Also, teams earn their second Wild Detectives Seal		

Challenges

- Challenge 6: The secrets of the forest
- Challenge 7: Sky Explorers
- Challenge 8: Migration mysteries
- Challenge 9: Ocean zones
- Challenge 10: Coral guardians

5.2.1. Challenge 6: The secrets of the forest

<table>
<tr><th colspan="2">LS2 Challenge 6: The secrets of the forest</th></tr>
<tr><td colspan="2">Description: Students explore the forest as an ecosystem. They investigate the organisms that live there, the interactions between them and the abiotic factors that shape the environment. Through guided observation and analysis, they discover why forests are essential for biodiversity and balance.
Final product: A forest ecosystem page in the Field Notebook II, including a diagram and a short description of biotic–abiotic interactions.
Timing: Second Term – January (4-5 sessions)</td></tr>
<tr><td colspan="2">Challenge:
Detectives, a new alert from the Agency!
Strange signals have been detected deep inside the forest. Your mission is to uncover its secrets: identify the living beings that inhabit it, discover how they interact and explain why forests are vital for life on Earth.
Are you ready to explore the forest?</td></tr>
<tr><th colspan="2">Content</th></tr>
<tr><td colspan="2">Curricular Content (Decree 61/ 2022)
A. Cultura Científica
La vida en Nuestro planeta
- Los ecosistemas como lugar donde intervienen factores bióticos y abióticos, manteniéndose un equilibrio entre los diferentes elementos y recursos.
Contribution to Specific Competences: 2- 5</td></tr>
<tr><td colspan="2">Language content: Description /Explanatory description</td></tr>
<tr><th colspan="2">Cognition</th></tr>
<tr><th>Learning Goals</th><th>Learning Outcomes (Standards)</th></tr>
<tr><td>Declarative knowledge
1. To remember the basic components of a forest ecosystem (biotic and abiotic factors) and to understand their role in the environment

Procedural knowledge
2. To apply observation strategies to recognise simple interactions in the forest.

Metacognitive knowledge
3. To evaluate the importance of forest and ecological balance
Language learning goal connected to the content
4. To use descriptive vocabulary to communicate how a forest ecosystem works.</td><td>1.2. Students list biotic and abiotic elements in a forest ecosystem.

1.2. Students explain the role of each forest component using simple language.

2.1 Students use the observation routine to notice interactions between living beings and their environment.

3.1 Students judge the importance of forest for biodiversity, giving simple reasons (e.g., shelter, food, oxygen).

4.1 Students produce short oral or written descriptions of how the forest ecosystem stays balanced.</td></tr>
<tr><th colspan="2">Culture</th></tr>
<tr><th>Learning Goals</th><th>Learning Outcomes (Standards)</th></tr>
<tr><td>❖ To understand that forests are valued differently across cultures.</td><td>❖ Students recognise simple cultural references related to forests.</td></tr>
<tr><th colspan="2">Communication
Coyle, Hood and Marsh (2010)</th></tr>
</table>

Language OF learning	**Key Language:** ecosystem, forest, biotic, abiotic, light, soil, water, temperature, producer, consumer, decomposer, interact, survive, habitat. **Language content (Genre):** Description **Structure:** **Present Simple for descriptions:** *The forest has many plants and animals.* *The soil provides nutrients.* **Cause-effect structures:** *The plant grows because it gets enough light.* *The fox survives because it hunts small animals.* **Sentence frames for description:** *The forest has abiotic factors such as water and light.* *It is a biotic element because it is alive.* **Language Input:** **Teacher modelling:** *This is an abiotic factor. Abiotic means it is not alive.* *The deer eats plants, so it is a consumer.* **Visual prompts** (photos, diagrams) **Short oral explanations during guided tasks:** *First, we identify if it is living or non-living. Then we check how it interacts.* *If the organism breaks down dead matter, it is a decomposer.* **Academic Language:** **Present Simple for scientific description:** *The forest ecosystem includes biotic and abiotic elements.* *The soil is rich and helps plants grow.* **Adjectives for scientific description** *moist, shady, dense, warm, cold, living, non-living, diverse* **Classification language** *It is a biotic element.* *It is an abiotic factor.*
Language FOR learning	Language for listing biotic and abiotic elements Language for using the observation routine to notice interactions Language for explaining the role of each forest component **Classroom language** **Group work:** *What do you think this is. /Let's decide if it is biotic or abiotic.* **Classroom Interaction:** *I agree because…/ Another example is…*
Language THROUGH learning	❖ Developing new descriptive vocabulary as they observe forest organisms and abiotic factors (e.g., *moist soil, tall trees, shady areas*).

Assessment

Content Evaluation Criteria (Decree 61/2022)

2.1 Formulation of questions and reasoned predictions based on systematic observation.
2.2 Search and selection of information from safe and reliable sources, acquiring basic scientific vocabulary.
2.3 Performance of guided experiments using inquiry techniques, instruments and models, recording observations and measurements correctly.
2.4 Proposal of possible answers through the interpretation of information and results, comparing them with initial predictions.
2.5 Presentation of research results in different formats, using basic or applied scientific language and providing arguments.
5.1 Identification of characteristics, structure and properties of natural elements through inquiry and measurement techniques.

5.2 Identification of connections and relationships between natural elements, recognising their influence on the environment.

Language Evaluation Criteria (CEFR, 2018)

Sustained Monologue: Describing Experience

A2 → Can give short, basic descriptions of events and activities

Assessment Tools

For interaction	Checklist of cooperative role performance
For active observation	Teacher diary
For self-evaluation	Simple smiley-face holistic rubric for participation and task engagement
For summative assessment	Forest Ecosystem Diagram + Short description analytic rubric
Grading Criteria	**Formative assessment:** Interaction and cooperative work 20% Self-evaluation 10% **Summative assessment:** Forest Ecosystem Diagram + Description rubric 40% Challenge quiz 30%

Attention to Diversity

General measures: Providing structured support through clear instructions, visual scaffolding and predictable routines that help all learners access the content, while allowing flexible pacing and guided participation during ecosystem observation, classification and diagram-building tasks.

Use of different resources:

- Visual cards of biotic and abiotic elements.
- Simplified diagrams and labelled models of the forest ecosystem.
- Audio descriptions of organisms and environmental factors.
- Manipulatives (sorting cards, arrows, icons) to support classification.
- Digital tools (short videos, interactive images).

Assess flexibly:

- Allowing oral instead of written descriptions of interactions.
- Accepting simplified diagrams or partially guided templates.
- Providing sentence starters or word banks for the final product.
- Using alternative formats for the quiz (multiple choice, matching).
- Considering process evidence from the Field Notebook II.

LOTS → HOTS	**HOTS → LOTS**
In the *Identify the forest elements* activity, students begin by recognising basic biotic and abiotic components in a forest scene using picture cards (e.g., trees, mushrooms, soil, sunlight). To extend the task, they compare two forest micro-ecosystems and decide which elements are more important for maintaining balance, explaining briefly why certain components support survival more effectively than others.	In the *Ecosystem interactions* activity, students usually analyse how different forest organisms depend on abiotic factors and justify how these interactions help the ecosystem function. To make the task more accessible, they receive a guided model with icons and a partially completed chart showing (organism → needs → reason), so they only need to match the correct elements before giving a short oral explanation.

5.2.2. Challenge 7: Sky explorers

<table>
<tr><th colspan="2">LS2 Challenge 7: Sky Explorers</th></tr>
<tr><td colspan="2">Description: Students explore how birds are adapted to life in the air. Through guided observation, videos and simple experiments, they investigate the main features that allow birds to fly, move and survive in aerial environments. They also learn how birds interact with the air and other elements of their habitat.
Final product: A “Sky Explorers” page in the Field Notebook II, including a labelled diagram of a bird and a short description of how its features help it survive in the air.
Timing: Second Term – February (4-5 sessions)</td></tr>
<tr><td colspan="2">Challenge:
Detectives, a new alert from the Agency!
Strange flight patterns have been detected in the sky. Your mission is to investigate how birds manage to fly, glide, hunt and survive high above the ground. Become Sky Explorers and uncover the secrets of life in the air.
Are you ready to become real Sky Explorers?</td></tr>
<tr><th colspan="2">Content</th></tr>
<tr><td colspan="2">Curricular Content (Decree 61/ 2022)
A. Cultura científica
La vida en Nuestro planeta
- Características propias de los animales que permiten su clasificación y diferenciación en subgrupos relacionados con su capacidad adaptativa al medio: obtención de energía, relación con el entorno y perpetuación de la especie

Contribution to specific competences: 2- 5</td></tr>
<tr><td colspan="2">Language content: Description /Explanatory description</td></tr>
<tr><th colspan="2">Cognition</th></tr>
<tr><th>Learning Goals</th><th>Learning Outcomes (Standards)</th></tr>
<tr><td>Declarative knowledge
1. To remember the main characteristics of birds and to understand how these features help them live in the air.

Procedural knowledge
2. To apply observation routines to recognise simple examples of how birds interact with the air.

3. To analyze how different features support movement and survival in aerial environments.

Metacognitive knowledge
4. To evaluate the clarity and accuracy of their explanation about how birds survive in the air

Language learning goal connected to the content
5. To use descriptive vocabulary to communicate how a forest ecosystem works.</td><td>1.1. Students memorize basic features of birds (wings, feathers, beak).

1.2. Students describe the function of these features using simple language

2.1 Students demonstrate the observation routine to notice how birds move, feed or protect themselves in the sky.

3.1 Students compare two birds and identify which features are more relevant for flying or surviving in the air.

4.1 Students defend whether their explanation includes the key features and their function

5.1 Students produce short oral or written descriptions of how the forest ecosystem stays balanced.</td></tr>
<tr><th colspan="2">Culture</th></tr>
</table>

Learning Goals	Learning Outcomes (Standards)
❖ To **understand** that birds have cultural significance in different communities	❖ Students **identify** simple cultural references related to birds

Communication Coyle, Hood and Marsh (2010)	
Language OF learning	**Key Language:** Wings, feathers, tail, fly, flap, hunt, protect, catch, light, strong **Language content (Genre):** Description **Structure:** **Descriptive sentences:** *The wings help the bird…* *It uses its beak to…* **Cause-effect structures:** *Because the feathers are light, the bird can…* **Function statements:** *Its tail helps it change direction* **Language Input:** **Teacher modelling:** *This is a wing. Wings help the bird fly.* *The feathers are light, so the bird can glide.* *The beak is curved because it needs to catch insects.* **Visual prompts** (photos, diagrams) **Short oral explanations during guided tasks:** *First, we identify the feature. Then we check what it helps the bird do. If the bird has long wings, it can glide for longer distances.* **Academic Language:** **Present Simple for scientific description:** *Birds have wings and feathers.* *The tail helps the bird change direction.* **Adjectives for scientific description:** light, strong, curved, long, short, aerodynamic **Classification language:** *It is a bird. It is a feature for flying. It helps the bird survive in the air*
Language FOR learning	Language for memorising basic features of birds Language for comparing Language for defending explanations **Classroom language** **Group work:** turn-taking, agreeing/disagreeing politely, asking for clarification **Classroom Interaction:** *Another example is…/ It is... / This is...*
Language THROUGH learning	❖ Noticing how different bird features support movement and survival in the air. ❖ Exploring how bird features connect to their function during guided observation

Assessment
Content Evaluation Criteria (Decree 61/2022)
2.1 Formulation of questions and reasoned predictions based on systematic observation. 2.2 Search and selection of information from safe and reliable sources, acquiring basic scientific vocabulary. 2.3 Performance of guided experiments using inquiry techniques, instruments and models, recording observations and measurements correctly. 2.4 Proposal of possible answers through the interpretation of information and results, comparing them with initial predictions. 2.5 Presentation of research results in different formats, using basic or applied scientific language and providing arguments.

5.1 Identification of characteristics, structure and properties of natural elements through inquiry and measurement techniques.
5.2 Identification of connections and relationships between natural elements, recognising their influence on the environment.

Language Evaluation Criteria (CEFR, 2018)

Sustained Monologue: Describing Experience
A2 → Can give short, basic descriptions of events and activities

Assessment Tools

For interaction	Checklist of cooperative role performance during group discussions
For active observation	Teacher diary
For self-evaluation	Simple smiley-face holistic rubric for participation, observation and task engagement.
For summative assessment	Sky Explorers Bird Diagram + Short explanation analytic rubric.
Grading Criteria	**Formative assessment:** Interaction and cooperative work 20% Self-evaluation 10% **Summative assessment:** Sky Explorers Diagram + Explanation rubric 40% Challenge quiz 30%

Attention to Diversity

General measures: The learning sequence incorporates visual support, structured routines and scaffolded language to ensure all students can access the content. Cooperative roles, clear modelling and predictable task formats help learners participate confidently, while flexible grouping and guided observation allow each student to engage with the challenge at an appropriate level of cognitive and linguistic demand.

Use of different resources:

- Using labelled bird diagrams to support students who need help identifying features.
- Providing short video clips of birds flying or hunting for learners who benefit from dynamic visual input.
- Offering sentence starters ("The wings help the bird…") and word banks for students who require linguistic scaffolding.
- Giving tactile or manipulable models (feathers, wing shapes) for students who learn best through hands-on exploration.

Assess flexibly:

- Allowing students to give their explanation orally instead of writing if they need language support.
- Accepting simplified diagrams with fewer labels for learners who struggle with fine-motor or spatial organisation.
- Providing extended time or additional guided prompts during the observation routine for students who need processing support.
- Offering optional comparison tasks for high-achieving students who can analyse differences between bird species.

LOTS → HOTS	**HOTS → LOTS**
In the *Identify the bird features* activity, students begin by recognising simple external features of birds using picture cards (wings, feathers, beak, tail). To extend the task, they compare two different birds and decide which feature is more important for flying or surviving in the air, giving a short explanation supported by visual evidence.	In the *How it flies* activity, students usually analyse how different features help a bird move, glide or hunt in the air, justifying how these adaptations support survival. To make the task more accessible, they receive a guided model with icons and a partially completed chart showing (feature → function), so they only need to match the correct elements before giving a short oral description.

5.2.3. Challenge 8: Migration mysteries

<table>
<tr><th colspan="2">LS2 Challenge 8: Migration mysteries</th></tr>
<tr><td colspan="2">Description: Students explore why some animals migrate and how they adapt to long journeys. Through maps, videos and guided observation, they investigate simple reasons for migration and recognise basic patterns in animal movement.
Final product: A “Migration Map” poster, including a simple route and a short description of why the animal migrates.
Timing: Second Term – March (5 sessions)</td></tr>
<tr><td colspan="2">Challenge:
Detectives, strange animal movements have been detected across different regions. Some animals are travelling long distances, and we don’t know why.
Your mission is to investigate these mysterious journeys.
You will observe clues, follow routes, and discover the reasons behind their long trips.
Get ready, detectives
A new mystery is waiting for you!</td></tr>
<tr><th colspan="2">Content</th></tr>
<tr><td colspan="2">Curricular Content (Decree 61/ 2022)
A. Cultura Científica
La vida en Nuestro planeta
- Los reinos de la naturaleza desde un punto de vista general, basado en el estudio y análisis de las características de diferentes ecosistemas.
Contribution to specific competences: 2- 5</td></tr>
<tr><td colspan="2">Language content: Description /Explanatory description</td></tr>
<tr><th colspan="2">Cognition</th></tr>
<tr><th>Learning Goals</th><th>Learning Outcomes (Standards)</th></tr>
<tr><td>Declarative knowledge
1. To remember basic information about animal migration and to understand simple reasons why some animals migrate

Procedural knowledge
2. To apply observation routines to recognise simple patterns in animal migration
Metacognitive knowledge
3. To evaluate how clearly they can describe an animal’s migration route and reason.

Language learning goal connected to the content
4. To use descriptive vocabulary to explain animal migration routes and reasons.</td><td>1.1. Students state examples of animals that migrate

1.2. Students recognize simple reasons why these animals migrate

2.1 Students implement the observation routine to notice basic features of migration routes

3.1 Students support their explanation to see if it is clear and easy to follow.

4.1 Students produce short oral or written descriptions of an animal’s migration route and reason.</td></tr>
<tr><th colspan="2">Culture</th></tr>
<tr><th>Learning Goals</th><th>Learning Outcomes (Standards)</th></tr>
<tr><td>❖ To understand that animal migration has cultural significance in different communities.</td><td>❖ Students identify simple cultural references related to animal migration.</td></tr>
<tr><th colspan="2">Communication</th></tr>
</table>

<table>
<tr><th colspan="2">Coyle, Hood and Marsh (2010)</th></tr>
<tr><td>Language OF learning</td><td>Key Language: migrate, route, journey, season, distance, map, travel, reason, start/ end, move, cold/ warm, food, safe/danger, long/ short, winter/summer.
Language content (Genre) : Description / Explanatory Description

Structure:
Simple descriptive sentences:
The animal travels because…
Cause–effect structures:
It migrates in winter because….
Temporal sequencing
First, it leaves…, then it travels…, finally it arrives…
Route statements:
It moves from… to…
Language Input:
Teacher modelling:
This animal migrates because it needs warmer weather.
The route shows where the animal travels during the year. It moves long distances to find food.
Visual prompts:
Migration maps, arrows showing routes, seasonal icons.
Short oral explanations during guided tasks:
First, we identify the animal. Then we check why it travels. If the weather changes, the animal moves to another place.

Academic Language:
Present Simple for scientific description:
Some animals migrate every year. They travel long distances to survive.
Adjectives for scientific description:
long, seasonal, cold, warm, distant, safe
Classification language:
It is a migratory animal. It follows a route. It moves to find better conditions.</td></tr>
<tr><td>Language FOR learning</td><td>Language for stating examples
Language for recognize simple reasons
Language for implementing the observation routine
Classroom language
Group work: turn-taking, asking for clarification, agreeing/disagreeing
Classroom Interaction: I think this animal migrates because…/
Can you show me where the route starts?</td></tr>
<tr><td>Language THROUGH learning</td><td>❖ Identifying simple migration routes as they trace maps and discuss why animals travel.
❖ Recognising simple reasons for migration as they observe animal journeys and discuss seasonal changes.</td></tr>
<tr><th colspan="2">Assessment</th></tr>
<tr><td colspan="2">Content Evaluation Criteria (Decree 61/2022)</td></tr>
<tr><td colspan="2">2.1 Formulation of questions and reasoned predictions based on systematic observation.
2.2 Search and selection of information from safe and reliable sources, acquiring basic scientific vocabulary.
2.3 Performance of guided experiments using inquiry techniques, instruments and models, recording observations and measurements correctly.
2.4 Proposal of possible answers through the interpretation of information and results, comparing them with initial predictions.</td></tr>
</table>

2.5 Presentation of research results in different formats, using basic or applied scientific language and providing arguments.
5.1 Identification of characteristics, structure and properties of natural elements through inquiry and measurement techniques.
5.2 Identification of connections and relationships between natural elements, recognising their influence on the environment.

Language Evaluation Criteria (CEFR, 2018)

Sustained Monologue: Describing Experience
A2 → Can give short, basic descriptions of events and activities
Written reports and essays
B1→ Can present a topic in a short report or poster, using photographs and short blocks of text.

Assessment Tools

For interaction	Checklist of cooperative role performance during group discussions Random selection Mini whiteboards
For active observation	Teacher diary
For self-evaluation	Simple smiley-face holistic rubric for participation, map-reading effort and task engagement.
For summative assessment	Migration Map + Short description analytic rubric.
Grading Criteria	**Formative assessment:** Interaction and cooperative work checklist 20% Self-evaluation checklist 10% **Summative assessment:** Migration Map + Description rubric 40% Challenge quiz 30%

Attention to Diversity

General measures: The learning sequence integrates multiple entry points to the concept of migration, ensuring that students can engage through visual, spatial, linguistic or experiential pathways. Clear routines for map-reading, explicit modelling of cause–effect language and the use of seasonal cues help students anchor new ideas, while flexible pacing and targeted prompts allow each learner to build understanding progressively as they investigate animal journeys.

Use of different resources:

- Using simplified migration maps with arrows and icons for students who need visual scaffolding.
- Providing short video clips of migrating animals for learners who benefit from dynamic visual input.
- Offering sentence starters (“It migrates because…”) and word banks for students requiring linguistic support.
- Giving tactile or manipulable map pieces (arrows, animal tokens) for students who learn best through hands-on exploration.

Assess flexibly:

- Allowing students to explain their migration route orally instead of writing if they need language support.
- Accepting simplified maps with fewer route points for learners who struggle with spatial organisation.
- Providing extended time or guided prompts during the map-reading routine for students who need processing support.
- Offering optional comparison tasks for high-achieving students who can analyse differences between migration patterns.

LOTS → HOTS In the *Identify the migration reason* activity, students begin by matching simple reasons (weather, food, safety) to different animals. To extend the task, they compare two migratory animals and decide which one faces a more challenging journey, giving a short explanation based on distance, season or route complexity.	**HOTS → LOTS** In the *Analyse the migration route* activity, students usually interpret a full map and explain how seasonal changes affect the animal's journey. To make the task more accessible, they receive a guided template with arrows and icons already placed, so they only need to match the animal to the correct route and give a short oral description.

Procedure

Session 1 (50 mins)

Timing	Activities (T/S Role)	Grouping/ Spaces
5 mins	**Input- Reception Scaffolding** **Mission Hook:** A short introductory moment that activates curiosity and sets the narrative context of the Wild Detectives mission. During this moment, the final product of the challenge is presented so students understand the purpose of the learning sequence. **T:** Presents the new Wild Detectives alert (mystery introduction) (Appendix 2) **S:** React and predict what the mission may involve The assessment rubric (Appendix 3) helps learners know what they will need to achieve and how their work will be evaluated.	**Groups of 4** (Main classroom)
10 mins	**Short video:** Students watch a short video showing different migrating animals. This provides essential input for recognising basic migration patterns such as movement, distance, and seasonal changes. **Reception scaffolding:** The activity builds foundational declarative knowledge and supports early observation skills through multimodal input. **T:** plays a short video showing different migrating animals (birds, mammals, fish) (Appendix 4) **S:** Observe movements and basic patterns - **Info Hunter:** Identifies animals seen in the video and names them. - **Route Tracker:** Points out or signals the direction animals are moving (up, down, across). - **Reason Detective:** Suggests a simple reason if visible (food, weather, safety). - **Mission Speaker:** Shares one group observation with the class.	**Groups of 4** (Main classroom)
10 mins	**Vocabulary routine:** A structured routine using flashcards to introduce and reinforce key vocabulary related to migration. (Appendix 5) Students interact with visual supports to connect words with meaning, practise pronunciation, and produce guided sentences.	**Groups of 4** (Main classroom)

	Language Assistant: supports students when they repeat **T:** Introduces key vocabulary with flashcards, modelling pronunciation and meaning**:** migrate, route, journey, season, distance, map, travel, reason, start/ end, move, cold/ warm, food, safe/danger, long/ short, winter/summer. **S:** shows a flashcard. - **Info Hunter:** finds the matching mini-flashcard. - **Route Tracker** places it on the group mat next to the correct icon (weather / food / season / movement). - **Reason Detective** says a guided sentence using the word (*"Animals migrate in winter"*, *"This is a route"*)**.** - **Mission Speaker** shares one sentence with the class.	
15 mins	**Map modelling:** A modelling activity where students observe how a migration route is represented on a map (Appendix 6) and then recreate it on their own. They work with arrows, icons, and structures to understand how animals move from one place to another. **T**: Models a migration route on a large map (start → arrows → destination). Uses target structures: *It moves from… to… / First… then… finally…* Think-aloud to highlight route features (distance, direction, season icons) **S:** - **Route Tracker:** Draws arrows and marks start–end points on the group mini-map. - **Info Hunter:** Checks icons (weather / food / season) and selects the correct ones for the route. - **Reason Detective:** Produces a cause–effect sentence (*"It migrates because it needs warmer weather"*). - **Mission Speaker:** Summarises the group's route to the class.	**Groups of 4** (Main Classroom)
5 mins	**Cool down:** Reflective moment where students verbalise one idea they learned during the session. **T:** Asks: *'one thing we learned today'* **S:** Share one idea orally. - **Mission Speaker:** gives the group's final sentence.	**Groups of 4** (Main classroom)
Session 2 (50 mins)		
Timing	**Activities (T/S Role)**	**Grouping/ Spaces**
5 mins	**Intake- Transformation Scaffolding** **Warm up: Migratory or not:** An activation activity where students decide whether different animals migrate or not. This helps them recall prior knowledge from Session 1 and prepares them to work with reasons and routes. **T:** displays the animal cards and guides the decision routine to activate prior knowledge. (Appendix 7)	**Groups of 4** (Main classroom)

	S: - **Route Tracker:** points to the correct card (migratory / non-migratory). - **Info Hunter:** identifies the animal on the card. - **Reason Detective:** gives a reason if the animal migrates. - **Mission Speaker:** shares the group's final decision.	
15 mins	**Matching 'Animal-Reason' Cards:** Students work with pairs of cards (Appendix 8) showing animals and migration reasons (weather, food, safety). They must match each animal with the most plausible reason. **Language Assistant:** supports students when they repeat or identify the words during the activity. **T:** models one example and circulates to support reasoning and check understanding. **S:** - **Route Tracker:** places the animal card next to the correct reason. - **Info Hunter:** interprets the reason icons (weather / food / safety). - **Reason Detective:** justifies the match with a simple sentence. - **Mission Speaker:** reports one matched pair to the class.	**Groups of 4** (Main classroom)
10 mins	**Comparing Migration Challenges:** Students compare two migratory animals and decide which one faces a more challenging journey. They justify their choice using clues such as distance, season or route complexity. (Appendix 9) **T:** presents the two animals and prompts students to justify which journey is more challenging. **S:** - **Route Tracker:** compares distances or route lengths using the cards. - **Info Hunter:** identifies clues (season, weather, obstacles). - **Reason Detective:** decides which journey is more challenging and explains why. - **Mission Speaker:** presents the group's conclusion.	**Groups of 4** (Main classroom)
15 mins	**Map tracing: First-Then-Finally:** Students trace a simplified migration route using arrows and sequence markers. **T:** demonstrates the sequencing markers and monitors the tracing of routes and icons (Appendix 10) **S:** - **Route Tracker:** traces the route with arrows on the mini-map. - **Info Hunter:** selects the correct icons (weather / food / season). - **Reason Detective:** produces a cause–effect sentence. - **Mission Speaker:** summarises the traced route using First–Then–Finally.	**Groups of 4** (Main Classroom)

5 mins	**Cool down:** Students use a traffic-light card (green–yellow–red) (Appendix 11) to show how well they understood the session's content. **T:** displays the traffic-light system and guides students to choose the colour that reflects their understanding. **S:** individually points to the colour that reflects their understanding.	**Groups of 4** (Main classroom)
Session 3 (50 mins)		
Timing	**Activities (T/S Role)**	**Grouping/ Spaces**
5 mins	**Intake- Transformation Scaffolding (Consolidation)** **Warm up: 'Weather or food?':** Students look at two large icons (weather / food). The teacher says the name of a migratory animal, and students lift the icon they think represents the main migration reason. **T:** displays the two icons and prompts. (Appendix 12) students to lift the one that matches the animal's migration reason. **S:** - **Route Tracker:** lifts the icon they think matches the reason. - **Info Hunter:** identifies the animal mentioned by the teacher. - **Reason Detective:** checks whether the chosen icon makes sense. - **Mission Speaker:** shares the group's choice if asked.	**Groups of 4** (Main classroom)
10 mins	**Guided Route Analysis:** Students analyse a migration route using a guided template (Appendix 13) where arrows, icons and seasonal markers are already placed. They only need to match the animal to the correct route and give a short oral description. **T:** presents the guided template and supports students as they match the animal to the correct route. **S:** - **Route Tracker:** matches the animal to the correct guided route. - **Info Hunter:** identifies the icons and seasonal markers on the template. - **Reason Detective:** explains why the route fits the animal. - **Mission Speaker:** gives a short oral description of the route.	**Groups of 4** (Main classroom)
15 mins	**Route Comparison:** Students compare two migration routes and identify differences in distance, season or difficulty. **T:** provides two routes and prompts (Appendix 14) students to identify and explain key differences. **S:** - **Route Tracker:** points out differences in distance or direction.	**Groups of 4** (Main classroom)

	- **Info Hunter:** identifies seasonal or environmental clues. - **Reason Detective:** explains which route seems more difficult and why. - **Mission Speaker:** summarises the comparison for the group.	
15 mins	**Sequencing: First-Then-Finally:** Students organise a set of cards showing the steps of a migration journey. (Appendix 15) **T:** models the sequencing routine and checks that groups order the steps correctly. **S:** - **Route Tracker:** arranges the sequence cards in order. - **Info Hunter:** identifies key visual clues for each step. - **Reason Detective:** explains why the sequence follows that order. - **Mission Speaker:** presents the final sequence using First–Then–Finally.	**Groups of 4** (Main Classroom)
5 mins	**Cool down:** Students use a traffic-light card (green–yellow–red) to show how well they understood the session's content. **T:** displays the traffic-light system and guides students to choose the colour that reflects their understanding. **S:** individually points to the colour that reflects their understanding.	**Groups of 4** (Main classroom)
Session 4 (50 mins)		
Timing	**Activities (T/S Role)**	**Grouping/ Spaces**
5 mins	**Output- Production Scaffolding (Preparation)** **Warm up: 'Route Quick Recall':** Students look at three mini-routes from previous sessions and identify which animal belongs to each route. **T:** displays three mini-routes and prompts students to identify the animal that matches each one. **S:** - **Route Tracker:** points to the route that matches the animal. - **Info Hunter:** identifies key icons or clues on the route. - **Reason Detective:** checks if the match makes sense. - **Mission Speaker:** shares the group's answer.	**Groups of 4** (Main classroom)
10 mins	**Model Presentation 'My animal's journey':** The teacher presents a model of the final task: an oral explanation of an animal's migration using First–Then–Finally and 2–3 visual clues. Students listen and identify the structure and key elements they will need to include later. **T:** models a short migration presentation and highlights the structure and key elements students must include. (Appendix 16) **S:** - **Route Tracker:** follows the route on the model map. - **Info Hunter:** identifies the icons used in the model.	**Groups of 4** (Main classroom)

	- **Reason Detective:** identifies the reason for migration in the model. - **Mission Speaker:** summarises the model structure (First–Then–Finally).	
15 mins	**Group planning 'Our Migration Map draft':** Students begin drafting their own migration map for the final task. They choose an animal, identify its route, select icons (weather / food / season), and plan the sequence (First–Then–Finally). This prepares them for the final production in Session 5. **T:** guides groups as they choose an animal and draft the route, icons and sequence for their presentation. **S:** - **Route Tracker:** sketches the route with arrows. - **Info Hunter:** selects the correct icons for the animal. - **Reason Detective:** writes or says the migration reason. - **Mission Speaker:** organises the sequence (First–Then–Finally).	**Groups of 4** (Main classroom)
15 mins	**Rehearsal 'Say it together':** Students rehearse their mini-presentation using their draft map. They practise the structure (First–Then–Finally), pronunciation of key words, and clarity of explanation. **T:** listens to groups rehearse and gives feedback on clarity, sequence and key vocabulary. **S:** - **Route Tracker:** rehearses describing the route. - **Info Hunter:** rehearses naming the icons. - **Reason Detective:** rehearses explaining the migration reason. - **Mission Speaker:** rehearses delivering the full sequence.	**Groups of 4** (Main Classroom)
5 mins	**Cool down:** Students use a traffic-light card (green–yellow–red) to show how well they understood the session's content. **T:** displays the traffic-light system and guides students to choose the colour that reflects their understanding. **S:** individually points to the colour that reflects their understanding.	**Groups of 4** (Main classroom)
Session 5 (50 mins)		
Timing	**Activities (T/S Role)**	**Grouping/ Spaces**
5 mins	**Output- Production Scaffolding (Final task)** **Warm up: 'Ready-Not Ready':** Students look at three icons (ready / almost / not yet). The teacher names simple elements of the final task (route, icons, reason, sequence), and students show the icon that represents how confident they feel about each one. (Appendix 17) **T:** displays the three icons and prompts students to show how confident they feel about each element of the final task. **S:** shows the icon that reflects their confidence.	**Groups of 4** (Main classroom)

25 mins	**Final task 'Our migration Presentation:** Each group presents their migration map to the class. They describe the animal's journey using First–Then–Finally, explain the reason for migration, and point to the icons on their map. This is the main OUTPUT of the unit and aligns directly with the assessment rubric (route clarity, Sequence, Migration reason, Vocabulary & Icons) **Language Assistant:** Records each group's presentation and provides light pronunciation support when needed. **T:** listens to each group's presentation and uses the rubric to assess clarity, sequence and use of visual support. **S:** - **Route Tracker:** describes the route using arrows and gestures. - **Info Hunter:** names and explains the icons on the map. - **Reason Detective:** states the migration reason clearly. - **Mission Speaker:** delivers the full sequence (First–Then–Finally). -	**Groups of 4** (Main classroom)
15 mins	**Migration Quiz:** Students complete a quiz (6–8 items) about migration routes, reasons (weather/food), icons, and simple sequencing (First–Then–Finally). (Appendix 18) **T:** distributes the quiz, monitors students as they complete it individually, and collects it for assessment. **S:** completes the quiz	**Groups of 4** (Main classroom)
5 mins	**Cool down 'Smiley-Face Self-Evaluation':** Students think of one moment from today's session (presentation or quiz) that felt good for them: a part they understood, a step they completed well, or a moment when they tried hard. They show it by raising one finger (I have it), two fingers (I'm proud), or placing a hand on their heart (I tried my best). **T:** invites each child to choose one positive moment from today and show it with the agreed gesture. **S:** individually shows their positive moment with the gesture.	**Groups of 4** (Main classroom)

5.2.4. Challenge 9: Ocean zones

<table>
<tr><th colspan="2">LS2 Challenge 9: Ocean zones</th></tr>
<tr><td colspan="2">Description: Students explore the main ocean zones and how light, depth and conditions change across them. Through diagrams, videos and guided observation, they identify simple differences between zones and recognise basic adaptations of animals that live in each one.
Final product: An “Ocean Zones Chart” in Field Notebook II, including a labelled diagram and a short description of one animal and its zone.
Timing: Second Term – March (4-5 sessions)</td></tr>
<tr><td colspan="2">Challenge:
Detectives, we have a new underwater mission.
Strange clues have been found at different ocean depths. You have to investigate how ocean zones change and discover which animals live in each one.</td></tr>
<tr><th colspan="2">Content</th></tr>
<tr><td colspan="2">Curricular Content (Decree 61/ 2022)
A. Cultura Científica
La vida en Nuestro planeta
- Los reinos de la naturaleza desde un punto de vista general, basado en el estudio y análisis de las características de diferentes ecosistemas.

Contribution to specific competences: 2- 5</td></tr>
<tr><td colspan="2">Language content: Description /Explanatory description</td></tr>
<tr><th colspan="2">Cognition</th></tr>
<tr><th>Learning Goals</th><th>Learning Outcomes (Standards)</th></tr>
<tr><td>Declarative knowledge
1. To remember the main ocean zones and to understand simple differences between them.
Procedural knowledge
2. To apply observation routines to recognise simple patterns in animal migration.

3. To analyze the connection between an ocean zone, one characteristic and one animal adapted to it.

Metacognitive knowledge
4. To evaluate how clearly they can describe the connection between an ocean zone and an animal that lives there.
Language learning goal connected to the content
5. To use descriptive vocabulary to communicate differences between ocean zones.</td><td>1.1. Students repeat the main ocean zones

1.2. Students interpret simple differences between the zones (light, depth, conditions)

2.1 Students solve the observation routine to notice simple characteristics of the zones and the animals that live there.

3.1 Students question whether their explanation includes the zone, one characteristic and one adaptation.

4.1 Students use a checklist to assess the connection between and ocean zone and an animal that lives there.

5.1 Students produce short oral or written descriptions of an ocean zone and one animal adapted to it.</td></tr>
<tr><th colspan="2">Culture</th></tr>
<tr><th>Learning Goals</th><th>Learning Outcomes (Standards)</th></tr>
<tr><td>❖ To understand that oceans have cultural significance in different communities around the world.</td><td>❖ Students identify simple cultural references related to oceans and marine life.</td></tr>
<tr><th colspan="2">Communication</th></tr>
</table>

<table>
<tr><th colspan="2">Coyle, Hood and Marsh (2010)</th></tr>
<tr><td>Language OF learning</td><td>Key Language: ocean zone, sunlight, depth, pressure, surface, twilight, midnight, adapt, survive, conditions.
Language content (Genre): Description

Structure:
Simple descriptive sentences:
This zone has little light.
Comparative structures:
It is deeper than… There is less light in…
Cause–effect:
The animal has this feature because….
Classification:
It lives in the… zone.
Language Input:
Teacher modelling:
The ocean has different zones with different conditions.
In the twilight zone, there is very little light.
Some animals have special features to survive in deep water.
Visual prompts:
Layered ocean diagrams, light-gradient visuals, animal silhouettes.
Short oral explanations during guided tasks:
First, we check the light. Then we look at the depth. If the zone is very deep, the animal needs special adaptations.

Academic Language:
Present Simple for scientific description:
This zone receives sunlight. Animals in deep zones produce light.
Adjectives for scientific description: deep, dark, cold, bright, shallow, adapted
Classification language:
It belongs to the surface zone. It is adapted to low light.</td></tr>
<tr><td>Language FOR learning</td><td>Language for repeating
Language for select explanations
Language for interpreting
Classroom language
Group work: Sharing observations / Taking turns describing
Classroom Interaction: Can you explain why this animal lives here? / Does this zone have warmer or colder water?</td></tr>
<tr><td>Language THROUGH learning</td><td>❖ Describing simple features of each ocean zone as they analyse diagrams and match animals to their depth.
❖ Comparing basic conditions across ocean zones as they classify animals according to depth and light.</td></tr>
<tr><th colspan="2">Assessment</th></tr>
<tr><td colspan="2">Content Evaluation Criteria (Decree 61/2022)</td></tr>
<tr><td colspan="2">2.1 Formulation of questions and reasoned predictions based on systematic observation.
2.2 Search and selection of information from safe and reliable sources, acquiring basic scientific vocabulary.
2.3 Performance of guided experiments using inquiry techniques, instruments and models, recording observations and measurements correctly.
2.4 Proposal of possible answers through the interpretation of information and results, comparing them with initial predictions.
2.5 Presentation of research results in different formats, using basic or applied scientific language and providing arguments.</td></tr>
</table>

5.1 Identification of characteristics, structure and properties of natural elements through inquiry and measurement techniques.
5.2 Identification of connections and relationships between natural elements, recognising their influence on the environment.

Language Evaluation Criteria (CEFR, 2018)

Sustained Monologue: Describing Experience
A2 → Can give short, basic descriptions of events and activities

Assessment Tools

For interaction	Checklist of cooperative role performance during group discussions
For active observation	Teacher diary
For self-evaluation	Simple smiley-face holistic rubric for participation, diagram-reading effort and clarity of descriptions.
For summative assessment	Ocean Zones Chart + Short description analytic rubric.
Grading Criteria	**Formative assessment:** Interaction and cooperative work 20% Self-evaluation 10% **Summative assessment:** Ocean Zones Chart + Description rubric 40% Challenge quiz 30%

Attention to Diversity

General measures: The learning sequence offers multiple ways to access the concept of ocean zones by combining visual depth diagrams, light-gradient models and structured observation routines. Clear modelling of descriptive language, predictable steps for analysing diagrams and flexible grouping allow students to engage with the content at different levels of complexity.

Use of different resources:

- Using layered ocean diagrams with colour gradients for students who need strong visual cues.
- Providing short underwater clips showing changes in light and depth for learners who benefit from dynamic input.
- Offering sentence starters ("This zone is…", "It lives here because…") and word banks for students requiring linguistic support.
- Using manipulatives such as depth strips or animal tokens for students who learn best through hands-on exploration.

Assess flexibly:

- Allowing students to describe their chosen zone orally instead of writing if they need language support.
- Accepting simplified diagrams with fewer labels for learners who struggle with spatial organisation.
- Providing guided templates with partially completed descriptions for students who need processing support.
- Offering optional comparison tasks for high-achieving students who can analyse differences between zones and adaptations.

LOTS → HOTS	**HOTS → LOTS**
In the *Identify the ocean zone* activity, students begin by matching simple characteristics (light, depth, temperature) to the correct zone. To extend the task, they compare two zones and decide which one presents more extreme conditions, giving a short explanation based on light, pressure or depth.	In the *Explain an animal's adaptation* activity, students usually justify how a chosen animal survives in its zone using features and conditions. To make the task more accessible, they receive a guided template with the zone and feature already provided, so they only need to match the adaptation and give a short oral description.

4.2.5. Challenge 10: Coral guardians

<table>
<tr><th colspan="2">LS2 Challenge 10: Coral guardians</th></tr>
<tr><td colspan="2">Description: Students explore what coral reefs are, why they are important and what threatens them. Through videos, diagrams and guided observation, they identify simple features of coral reefs and recognise basic ways to protect them.
Final product: A “Coral Guardian Poster” in Field Notebook II, including a simple message and one action to protect coral reefs.
Timing: Second Term – April (4-5 sessions)</td></tr>
<tr><td colspan="2">Challenge:
Detectives, we have an urgent mission. Some coral reefs are in danger. Your task is to investigate what coral reefs need to stay healthy and discover how young detectives can help protect them.</td></tr>
<tr><th colspan="2">Content</th></tr>
<tr><td colspan="2">Curricular Content (Decree 61/ 2022)
A. Cultura Científica
La vida en Nuestro planeta
- Los reinos de la naturaleza desde un punto de vista general, basado en el estudio y análisis de las características de diferentes ecosistemas.

Contribution to specific competences: 2- 5- 6</td></tr>
<tr><td colspan="2">Language content: Description /Explanatory description</td></tr>
<tr><th colspan="2">Cognition</th></tr>
<tr><th>Learning Goals</th><th>Learning Outcomes (Standards)</th></tr>
<tr><td>Declarative knowledge
1. To remember what coral reefs are and to understand why they are important.

Procedural knowledge
2. To apply observation routines to recognise simple threats to coral reefs.

Metacognitive knowledge
3. To evaluate how effective their coral protection message is.

Language learning goal connected to the content
4. To use descriptive and action-oriented vocabulary to communicate how to protect coral reefs.
5.</td><td>1.1. Students define simple features of coral reefs.

1.2. Students identify why coral reefs are important for marine life.

2.1 Students interpret the observation routine to notice basic signs of damage or danger to coral reefs.

3.1 Students value on their whether message clearly includes the problem and one simple action to protect coral reefs.

4.1 Students produce short oral or written messages encouraging simple actions to protect coral reefs.</td></tr>
<tr><th colspan="2">Culture</th></tr>
<tr><th>Learning Goals</th><th>Learning Outcomes (Standards)</th></tr>
<tr><td>❖ To understand that oceans have cultural significance in different communities around the world.</td><td>❖ Students identify simple cultural references related to oceans and marine life.</td></tr>
<tr><th colspan="2">Communication
Coyle, Hood and Marsh (2010)</th></tr>
</table>

Language OF learning	**Key Language:** coral reef, polyps, protect, danger, pollution, climate, healthy, action, threat, clean water, sunlight. **Language content (Genre):** Description **Structure:** **Simple descriptive sentences:** *Coral reefs need clean water.* **Cause–effect:** *Coral reefs are in danger because…* **Action statements:** *We can protect reefs by…* **Classification:** *This is a living coral.* **Language Input:** **Teacher modelling:** *Coral reefs are living structures made of tiny polyps.* *They need clean water and sunlight to stay healthy.* *Pollution and climate change can damage coral reefs.* **Visual prompts (videos, diagrams, before/after images):** *Healthy vs. damaged reef images, simple polyp diagrams, threat icons.* **Short oral explanations during guided tasks:** *First, we look at what the reef needs. Then we check what is harming it. If the reef is in danger, we choose one action to protect it.* **Academic Language:** **Present Simple for description:** *Coral reefs are important for many animals. They are damaged by pollution.* **Action language:** *We can protect reefs by reducing waste. We can help by keeping the water clean.*
Language FOR learning	Language for defining simple features Language for identifying Language for interpreting observation routines **Classroom language** **Group work:** Choosing one feature of a healthy reef and explaining it to the group. Agreeing on the main threat shown in a video or diagram. **Classroom Interaction:** This reef is healthy because it has… I think the main threat is… We can protect it by…
Language THROUGH learning	❖ Identifying simple threats and protection actions as they compare healthy and damaged coral reefs. ❖ Comparing healthy and damaged coral reefs as they choose one clear action to protect them.

Assessment

Content Evaluation Criteria (Decree 61/2022)

2.1 Formulation of questions and reasoned predictions based on systematic observation.
2.2 Search and selection of information from safe and reliable sources, acquiring basic scientific vocabulary.
2.3 Performance of guided experiments using inquiry techniques, instruments and models, recording observations and measurements correctly.

2.4 Proposal of possible answers through the interpretation of information and results, comparing them with initial predictions.
2.5 Presentation of research results in different formats, using basic or applied scientific language and providing arguments.
5.1 Identification of characteristics, structure and properties of natural elements through inquiry and measurement techniques.
5.2 Identification of connections and relationships between natural elements, recognising their influence on the environment.
5.3 Recognising local environmental problems and taking simple responsible actions to care for and protect natural resources.
6.1 Identifying social and environmental problems, understanding the link between health and planet care, proposing solutions and practising responsible lifestyles that protect the environment.

Language Evaluation Criteria (CEFR, 2018)

Sustained Monologue: Describing Experience
A2 → Can give short, basic descriptions of events and activities

Assessment Tools

For interaction	Checklist of cooperative role performance during group discussions
For active observation	Teacher diary
For self-evaluation	Simple smiley-face holistic rubric for participation, observation effort and clarity of their protection message.
For summative assessment	Coral Guardian Poster + Protection message analytic rubric.
Grading Criteria	**Formative assessment:** Interaction and cooperative work 20% Self-evaluation 10% **Summative assessment:** Coral Guardian Poster + Message rubric 40% Challenge quiz 30%

Attention to Diversity

General measures: The learning sequence offers multiple entry points to understand coral reefs by combining short videos, simple diagrams and guided observation routines. Clear modelling of descriptive language, predictable steps for identifying features and threats, and flexible grouping allow students to participate at different levels of complexity. Scaffolded prompts support learners as they select one action to protect coral reefs, ensuring that all students can contribute meaningfully to the final poster.

Use of different resources:

- Using before/after reef images for students who need strong visual contrasts.
- Providing short clips showing healthy and damaged reefs for learners who benefit from dynamic input.
- Offering sentence starters (“This reef is…”, “It is in danger because…”, “We can protect it by…”) for students requiring linguistic support.
- Using threat icons (pollution, rubbish, warming) for students who learn best through concrete visual cues.

Assess flexibly:

- Allowing oral explanations instead of written messages for students needing language support.
- Accepting simplified posters with fewer elements for learners who struggle with spatial organisation.
- Providing guided templates with partially completed “feature–threat–action” sections for students who need processing support.

<table>
<tr><td colspan="2">❖ Offering optional comparison tasks for high-achieving students who can contrast healthy and damaged reefs.</td></tr>
<tr><td>LOTS → HOTS
In the Identify the threat activity, students begin by matching simple threat icons (pollution, rubbish, warming) to damaged reef images. To extend the task, they compare two threats and decide which one causes more harm, giving a short explanation based on what the reef needs to stay healthy.</td><td>HOTS → LOTS
In the Choose an action to protect reefs activity, students usually justify how their chosen action helps the reef by linking feature, threat and action. To make the task more accessible, they receive a guided template with the threat already selected, so they only need to choose one action and give a short oral message.</td></tr>
</table>

4.3. Learning situation 3: Earth Under Threat. The Final Investigation

Learning situation 3: Earth Under Threat. The Final Investigation			
Cycle	2nd	Year	3rd

Contextualization of the learning situation

In this final learning situation, students investigate how human actions affect ecosystems around the world. Working in cooperative groups, they explore food chains, habitats, environmental problems and endangered species. Instead of completing the Field Notebook, they apply everything learned about animals, plants and ecosystems by creating a maqueta, showing interactions, adaptations and human impact.

Source: Own creation made with Copilot

Timing	March - June	Genre	Description Objective description
Where?	Classroom, ICT room	Context	Students receive their most urgent mission from the Wild Detectives: investigating how human actions are threatening ecosystems around the world.
Final product	A maqueta of an ecosystem accompanied by a poster and an oral presentation explaining the environmental problem represented, its causes and consequences, and the solutions proposed to protect the ecosystem.		

Challenges

- Challenge 11: Food chains and food webs
- Challenge 12: Habitats around the world
- Challenge 13: Environmental problems
- Challenge 14: Endangered Species
- Challenge 15: Planet Earth project

4.3.1. Challenge 11: Food chains and food webs

<table>
<tr><th colspan="2">LS3 Challenge 11: Food chains and food webs</th></tr>
<tr><td colspan="2">Description: Students explore how living things in an ecosystem depend on each other through simple food chains and food webs. Through diagrams, videos and guided observation, they identify producers, consumers and predators, and recognise how changes in one part of the chain affect the whole ecosystem.
Final product: A Food Chain & Food Web Diagram in Field Notebook II that will later guide the construction of the final ecosystem model.
Timing: Third term- April-May (4-5 sessions)</td></tr>
<tr><td colspan="2">Challenge:
Detectives, listen carefully!
To build your final ecosystem model, you must first discover how living things are connected. Your task is to investigate who eats what, how energy moves through an ecosystem, and what happens when one species disappears.</td></tr>
<tr><th colspan="2">Content</th></tr>
<tr><td colspan="2">Curricular Content (Decree 61/ 2022)
A. Cultura científica
La vida en Nuestro planeta
- Características propias de los animales que permiten su clasificación y diferenciación en subgrupos relacionados con su capacidad adaptativa al medio: obtención de energía, relación con el entorno
Contribution to specific competences: 2- 5</td></tr>
<tr><td colspan="2">Language content: Description /Objective description</td></tr>
<tr><th colspan="2">Cognition</th></tr>
<tr><th>Learning Goals</th><th>Learning Outcomes (Standards)</th></tr>
<tr><td>Declarative knowledge
1. To remember the basic roles of a food chain and to understand how several chains connect to form a food web.
Procedural knowledge
2. To apply observation routines to build simple food chains and food webs.
3. To analyze how a change in one part of a food chain affects the rest of the ecosystem.

Metacognitive knowledge
4. To evaluate the stability of a simple food web by checking the balance between producers and consumers.

Language learning goal connected to the content
5. To use descriptive and vocabulary to communicate how food chains and food webs work.</td><td>1.1. Students define producers, consumers and decomposers in simple food chains.

1.2. Students identify how different food chains connect to form a food web.

2.1 Students use the observation routine to notice basic who is connected to whom in a simple food web.

3.1 Students compare what happens in two food chains when one species disappears and identify the resulting changes.

4.1 Students defend whether their food web remains stable when one element is removed.

5.1 Students use simple descriptive sentences to describe producers, consumers and predators in their diagram.</td></tr>
<tr><th colspan="2">Culture</th></tr>
<tr><th>Learning Goals</th><th>Learning Outcomes (Standards)</th></tr>
</table>

❖ To **understand** that different cultures represent nature and food relationships in diverse ways.	❖ Students **identify** simple cultural references related to animals and their roles in food webs.

Communication **Coyle, Hood and Marsh (2010)**	
Language OF learning	**Key Language:** *food chain, food web, producer, consumer, predator, prey, decomposer, herbivore, carnivore, omnivore, energy, arrow, link, connection, ecosystem, species.* **Language content (Genre):** Description **Structure:** **Simple descriptive sentences:** *The plant is the producer.* *The fox is a predator.* *The rabbit is the prey.* **Cause-effect sentences:** *The food web changes because one species disappears.* *The predator loses energy because the prey is gone.* **Action statements:** *Energy moves from the plant to the herbivore.* *The chains connect because they share the same consumer.* **Classification sentences:** *This is a producer.* *This is a primary consumer.* **Present Simple for description:** *Producers get energy from the sun.* *Predators eat other animals.* *Food webs show many connections.* **Language Input:** **Teacher modelling:** *A food chain shows how energy moves from one organism to another.* *Consumers eat plants or other animals to get energy.* *Several food chains connect to form a food web.* **Visual prompts:** *Simple food chain diagrams (e.g., grass → rabbit → fox).* *Food web diagrams showing shared organisms.* *Icons for producers, consumers, predators and prey.* **Short oral explanations during guided tasks:** *First, we identify the producer. Then we add the consumers. Finally, we connect the chains to build the food web.* **Academic Language:** **Action language:** *We connect the chains by adding arrows.* *We describe the role of each organism.* *We check how the web changes when one species disappears.*
Language FOR learning	Language for defining simple features Language for identifying Language for interpreting observation routines **Classroom language** **Group work:**

	Choosing one food chain and explaining each organism's role to the group. Agreeing on where two chains connect to form part of the food web. Identifying which organism appears in more than one chain and discussing why. **Classroom Interaction:** *This organism is a producer because it gets energy from the sun.* *I think these chains connect because they share the same consumer.* *This predator eats… so the arrow goes here.*
Language THROUGH learning	❖ Identifying how different food chains connect as they compare simple food webs. ❖ Comparing the effects of species changes as they choose how the food web is affected.

Assessment

Content Evaluation Criteria (Decree 61/2022)

2.1 Formulation of questions and reasoned predictions based on systematic observation.
2.2 Search and selection of information from safe and reliable sources, acquiring basic scientific vocabulary.
2.3 Performance of guided experiments using inquiry techniques, instruments and models, recording observations and measurements correctly.
2.4 Proposal of possible answers through the interpretation of information and results, comparing them with initial predictions.
2.5 Presentation of research results in different formats, using basic or applied scientific language and providing arguments.
5.1 Identification of characteristics, structure and properties of natural elements through inquiry and measurement techniques.
5.2 Identification of connections and relationships between natural elements, recognising their influence on the environment.

Language Evaluation Criteria (CEFR, 2018)

Sustained Monologue: Describing Experience
A2 → Can give short, basic descriptions of events and activities

Assessment Tools

For interaction	Checklist of cooperative role performance
For active observation	Teacher diary
For self-evaluation	Simple smiley-face holistic rubric for participation, observation effort and clarity when describing links and energy flow in their food web.
For summative assessment	Food Chain & Food Web Diagram analytic rubric.
Grading Criteria	**Formative assessment:** Interaction and cooperative work 20% Self-evaluation 10% **Summative assessment:** Food Chain & Food Web Diagram rubric 40% Challenge quiz 30%

Attention to Diversity

General measures: Flexible grouping, visual scaffolds (icons, arrows, colour-coded roles) and structured sentence frames support all learners in understanding trophic roles, energy flow and the construction of simple food chains and food webs, ensuring access to the descriptive language required in the challenge.

Use of different resources:

- Providing simplified food chains with fewer organisms for initial classification (producer → herbivore → predator).
- Offering guided arrow placement to support interpretation of energy flow.
- Using targeted vocabulary cards (producer, consumer, predator, prey) with pictorial cues during chain-building tasks.

Assess flexibly:

- Offering alternative ways to show understanding of food chains and food webs (oral description, labelled diagram, or simple digital model).
- Allowing students to explain energy flow using sentence frames, pictorial arrows or manipulatives.
- Providing options to demonstrate connections between chains (verbal explanation, pointing to links, or arranging organism cards).

LOTS → HOTS	**HOTS → LOTS**
In the *Identify the roles* activity, students begin by matching organisms to simple roles in a food chain (producer, consumer, predator, prey). To extend the task, they compare two food chains and decide which organism plays a more influential role in the food web, giving a short explanation based on how energy flows and where chains connect.	In the *Predict changes in the ecosystem* activity, students usually justify how the disappearance of one species affects several chains by analysing connections in the food web. To make the task more accessible, they receive a guided template with the key organism already selected, so they only need to identify its role and give a short oral description of one direct effect.

4.3.2. Challenge 12: Habitats around the world

<table>
<tr><th colspan="2">LS3 Challenge 12: Habitats around the World</th></tr>
<tr><td colspan="2">Description: Students explore different habitats around the world and identify simple features that make each habitat unique. Through maps, videos and guided observation, they recognise basic characteristics of global habitats and the animals that live in them.
Final product: A “World Habitats Map” in Field Notebook III, including a labelled habitat and a short description of one animal adapted to it.
Timing: Second Term – April-May (4-5 sessions)</td></tr>
<tr><td colspan="2">Challenge:
Detectives, we have a global mission. Strange clues have been found in habitats from different parts of the world. Your task is to investigate what makes each habitat special and discover which animals live there.</td></tr>
<tr><th colspan="2">Content</th></tr>
<tr><td colspan="2">Curricular Content (Decree 61/ 2022)
A. Cultura científica
La vida en Nuestro planeta
- Los reinos de la naturaleza desde un punto de vista general, basado en el estudio y análisis de las características de diferentes ecosistemas. Identificación de algunos ecosistemas (pradera, charca, bosque, litoral y ciudad) y los seres vivos que en ellos habitan.
Contribution to specific competences: 2- 5- 6</td></tr>
<tr><td colspan="2">Language content: Description</td></tr>
<tr><th colspan="2">Cognition</th></tr>
<tr><th>Learning Goals</th><th>Learning Outcomes (Standards)</th></tr>
<tr><td>Declarative knowledge
1.To remember different world habitats and to understand simple features that define them.

Procedural knowledge
2. To apply observation routines to recognise simple relationships between animals and their habitats.

Metacognitive knowledge
3. To evaluate which habitat best fits a given animal by checking essential environmental features.

Language learning goal connected to the content
4. To use simple descriptive language to describe a habitat and an animal adapted to it.</td><td>1.1. Students list simple examples of World habitats (desert, rainforest, tundra)

1.2. Students describe basic habitat features that make each unique

2.1 Students execute the observation routine to notice basic features that connect an animal to its habitat

3.1 Students value whether their comparison includes the habitat, one feature and one example of an adapted animal

4.1 Students use short descriptive sentences to label a habitat and describe one adapted animal in their World Habitats Map.</td></tr>
<tr><th colspan="2">Culture</th></tr>
<tr><th>Learning Goals</th><th>Learning Outcomes (Standards)</th></tr>
<tr><td>❖ To understand that habitats are valued and represented differently across cultures.</td><td>❖ Students identify simple cultural references related to world habitats and the animals associated with them.</td></tr>
<tr><th colspan="2">Communication
Coyle, Hood and Marsh (2010)</th></tr>
</table>

Language OF learning	**Key Language:** habitat, climate, temperature, rainfall, vegetation, desert, rainforest, Arctic, savanna, ocean, map, continent, region, adapted, features, survive. **Language content (Genre):** Description **Structure:** **Simple descriptive sentences:** *The desert is hot and dry.* *The rainforest has tall trees.* *The Arctic is very cold.* **Cause–effect sentences:** *The camel survives because it stores water.* *The polar bear stays warm because it has thick fur.* **Action statements:** *We locate the habitat on the world map.* *We describe the animal's adaptation.* **Classification sentences:** *This is a cold habitat.* *This is a rainforest animal.* **Present Simple for description:** *Habitats have different climates and vegetation.* *The desert is hot and dry.* *The rainforest has tall trees and heavy rain.* **Descriptive language for features** *The habitat is hot / cold / wet / dry.* *The climate is warm / freezing / rainy* *The vegetation includes grasses / tall trees* **Language Input:** **Teacher modelling:** *A habitat is a place with special features that help animals survive.* *Different habitats have different climates and vegetation.* *Animals have adaptations that match the habitat where they live.* **Visual prompts:** *World map with highlighted habitats.* *Images of deserts, rainforests, oceans, Arctic regions and savannas.* *Icons for climate features (sun, snow, rain, trees).* **Short oral explanations during guided tasks:** *First, we observe the habitat. Then, we identify its features. Finally, we describe one animal adapted to it.* **Academic Language:** **Action Language** *We locate the habitat on the world map.* *We identify the main features we observe.*
Language FOR learning	Language for listing examples Language for describing habitats Language for using short descriptive vocabulary Language for classifying **Classroom language** **Group work:** *Let's compare the two habitats.* *You describe the features; I describe the animal.* *Let's choose one animal for our map.*

	Classroom Interaction: *What can you see in this habitat?* *Why does this animal live here? Does it have any adaptations?* *Which habitat is more suitable for this animal?*
Language THROUGH learning	❖ Identifying features while observing habitats ❖ Comparing habitats during group tasks

Assessment

Content Evaluation Criteria (Decree 61/2022)

2.1 Formulation of questions and reasoned predictions based on systematic observation.
2.2 Search and selection of information from safe and reliable sources, acquiring basic scientific vocabulary.
2.3 Performance of guided experiments using inquiry techniques, instruments and models, recording observations and measurements correctly.
2.4 Proposal of possible answers through the interpretation of information and results, comparing them with initial predictions.
2.5 Presentation of research results in different formats, using basic or applied scientific language and providing arguments.
5.1 Identification of characteristics, structure and properties of natural elements through inquiry and measurement techniques.
5.2 Identification of connections and relationships between natural elements, recognising their influence on the environment.
5.3 Recognising local environmental problems and taking simple responsible actions to care for and protect natural resources.
6.1 Identifying social and environmental problems, understanding the link between health and planet care, proposing solutions and practising responsible lifestyles that protect the environment.
6.2 Recognition and demonstration of responsible habits that care for and protect the planet, identifying how people's actions affect natural elements and resources.

Language Evaluation Criteria (CEFR, 2018)

Sustained Monologue: Describing Experience
A2 → Can give short, basic descriptions of events and activities

Assessment Tools

For interaction	Checklist of cooperative role performance
For active observation	Teacher diary
For self-evaluation	Simple smiley-face holistic rubric for clarity of habitat description, adaptation explanation and task effort.
For summative assessment	*World Habitats Map* analytic rubric (habitat label, map placement, descriptive text, adaptation accuracy).
Grading Criteria	**Formative assessment:** Interaction and cooperative work 20% Self-evaluation 10% **Summative assessment:** *World Habitats Map* analytic rubric 40% Challenge quiz 30%

Attention to Diversity

General measures: Inclusive learning environment that supports all learners through visual scaffolding, flexible grouping and multimodal resources to ensure access to habitat descriptions, climate vocabulary and animal adaptations.

Use of different resources:

- Visual word banks with climate, vegetation and adaptation vocabulary.
- Sentence frames for habitat description ("It is…", "It has…", "This animal lives in…"). Mixed-ability pairs for map reading and animal–habitat matching.
- Simplified habitat cards with fewer features for emerging learners.
- Extended comparison tasks (two habitats, two animals) for advanced learners.
- Use of videos, images and real textures (sand, leaves, ice packs) to support comprehension. Alternative output formats for the final product (drawing + labels / short sentences / extended description).

Assess flexibly:

- Observation of descriptive language use with adjusted expectations.
- Evaluation of the *World Habitats Map* allowing varied formats (labels, drawings, short texts).
- Flexible criteria for vocabulary accuracy depending on learner profile.
- Self-evaluation adapted with visual supports (smiley rubric).
- Assessment of animal–habitat matching prioritising conceptual understanding over linguistic complexity.

LOTS → HOTS	**HOTS → LOTS**
In the *Identify habitat features* activity, students begin by recognising simple elements in a habitat image (sand, snow, tall trees, water). To extend the task, they compare two habitats and decide which animal would survive better in each one, giving a short explanation based on climate conditions and visible adaptations.	In the *Explain animal adaptations* activity, students usually justify how specific features help an animal survive in its habitat. To make the task more accessible, they receive a guided template with the animal already selected, so they only need to match it to the correct habitat and give a short oral description of one visible feature.

4.3.3. Challenge 13: Environmental problems

<table>
<tr><th colspan="2">LS3 Challenge 13: Environmental problems</th></tr>
<tr><td colspan="2">Description: Students explore simple environmental problems and how they affect living things. Through videos, images and guided observation, they identify basic environmental issues and recognise simple actions that help protect the planet.
Final product: An “Eco-Action Mini-Poster” in Field Notebook III, including one environmental problem and one simple action to help.
Timing: Second Term – May (4-5 sessions)</td></tr>
<tr><td colspan="2">Challenge:
Detectives, something worrying is happening around the world!
Some places are getting polluted, others are losing plants and animals, and some environments are struggling to stay healthy. Your mission is to investigate these simple environmental problems, discover what is causing them, and decide what young eco-detectives like you can do to protect our planet.</td></tr>
<tr><th colspan="2">Content</th></tr>
<tr><td colspan="2">Curricular Content (Decree 61/ 2022)
A. Cultura científica
La vida en nuestro planeta
- Ejemplos de buenos y malos usos de los recursos naturales de nuestro planeta y sus consecuencias.
- Los ecosistemas como lugar donde intervienen factores bióticos y abióticos, manteniéndose un equilibrio entre los diferentes elementos y recursos. Importancia de la biodiversidad. Factores estresantes y nocivos para el equilibrio de los ecosistemas.
Contribution to Specific Competences: 2- 5- 6</td></tr>
<tr><td colspan="2">Language content: Description</td></tr>
<tr><th colspan="2">Cognition</th></tr>
<tr><th>Learning Goals</th><th>Learning Outcomes (Standards)</th></tr>
<tr><td>Declarative knowledge
1. To remember simple environmental problems and to understand how they affect living things.

Procedural knowledge
2. To apply observation routines to identify an environmental problem and match it with a simple eco-action

3. To analyze simple relationships between environmental problems and eco-actions.

Metacognitive knowledge
4. To evaluate how clearly they can describe the environmental problem and the eco-action.

Language learning goal connected to the content
5. To use descriptive vocabulary to communicate an environmental problem and a simple eco-action</td><td>1.1. Students state simple environmental problems (pollution, rubbish, water waste).

1.2. Students recognize in simple terms how the environmental problem affects living things.

2.1 Students interpret the observation routine to notice clues that identify an environmental problem.

3.1 Students contrast two eco-actions and select the one that best fits the problem.

4.1 Students judge whether their description includes the problem, its effect and one action to help.

5.1 Students produce short oral or written descriptions using key descriptive words (dirty, clean, rubbish, protect, help).</td></tr>
<tr><th colspan="2">Culture</th></tr>
</table>

Learning Goals	Learning Outcomes (Standards)
❖ To **understand** that environmental problems are experienced and addressed differently across cultures.	❖ Students **identify** simple cultural references related to environmental problems and eco-actions around the world.

Communication Coyle, Hood and Marsh (2010)	
Language OF learning	**Key Language:** environmental problem, pollution, rubbish, water waste, smoke, dirty, clean, protect, help, recycle, reuse, save water, eco-action, effect, harm, living things. **Language content (Genre):** Description /Objective description **Structure:** **Simple descriptive sentences:** *The river is dirty.* *The beach has a lot of rubbish.* *The air is full of smoke.* **Action statements:** *We identify the environmental problem.* *We choose one eco-action to help.* *We describe the problem in our poster.* **Classification sentences:** *This is a pollution problem.* *This is a water-waste problem.* **Descriptive adjectives:** *dirty, clean, polluted, harmful, safe, dangerous, smoky, full, empty, wasted, healthy.* **Present Simple for description:** *The river is dirty.* *The air is polluted.* **Descriptive language for effects:** *The problem hurts animals.* *The water is unsafe.* **Eco-action vocabulary:** *We recycle paper.* *We save water.* **Action statements:** *We observe the problem.* *We choose an action.* *We describe our eco-poster.* **Language Input:** **Teacher modelling:** *An environmental problem is something that harms living things or the planet.* *Pollution makes the air, water or land dirty.* *We can help by recycling, cleaning up or saving water.* *First, we observe the picture. Then, we identify the problem. Finally, we choose an action.* **Visual prompts:** *Images of polluted rivers, beaches with rubbish, smoky cities, leaking taps.* *Icons for eco-actions (recycle, clean up, save water).* *Before–after images showing improvement.* **Short oral explanations during guided tasks:** *Look at the picture. What do you notice? What is the problem? How can we help?*

	Academic Language: **Cause–effect sentences:** *The animals are in danger because the water is polluted.* *Plants disappear because there is too much rubbish.* *We help the planet when we recycle.*
Language FOR learning	Language for classifying **Classroom language** **Group work:** *Let's identify the problem in the picture.* *You describe the problem; I describe the action.* *Let's choose one eco-action for our poster.* **Classroom Interaction:** *What can you see in this environment?* *Why is this a problem?* *Who does it affect?* *Which action helps more? Why?*
Language THROUGH learning	❖ Identifying environmental problems while observing images and videos. ❖ Comparing eco-actions during group tasks.

Assessment

Content Evaluation Criteria (Decree 61/2022)

2.1 Formulation of questions and reasoned predictions based on systematic observation.
2.2 Search and selection of information from safe and reliable sources, acquiring basic scientific vocabulary.
2.3 Performance of guided experiments using inquiry techniques, instruments and models, recording observations and measurements correctly.
2.4 Proposal of possible answers through the interpretation of information and results, comparing them with initial predictions.
2.5 Presentation of research results in different formats, using basic or applied scientific language and providing arguments.
5.3 Recognising local environmental problems and taking simple responsible actions to care for and protect natural resources.
6.1 Identifying social and environmental problems, understanding the link between health and planet care, proposing solutions and practising responsible lifestyles that protect the environment.
6.2 Recognition and demonstration of responsible habits that care for and protect the planet, identifying how people's actions affect natural elements and resources.

Language Evaluation Criteria (CEFR, 2018)

Sustained Monologue: Describing Experience
A2 → Can give short, basic descriptions of events and activities

Assessment Tools

For interaction	Checklist of cooperative role performance
For active observation	Teacher diary
For self-evaluation	Simple smiley-face holistic rubric for clarity of problem description, effect explanation and eco-action choice.
For summative assessment	*Eco-Action Mini Poster* analytic rubric
Grading Criteria	**Formative assessment:** Interaction and cooperative work 20% Self-evaluation 10% **Summative assessment:** *Eco-Action Mini Poster* analytic rubric 40% Challenge quiz 30%

Attention to Diversity

General measures: The challenge provides multiple entry points so that all learners can participate in identifying environmental problems and selecting simple eco-actions, offering visual, linguistic and cooperative supports that allow each child to contribute according to their needs and strengths.

Use of different resources:

- Visual glossary of environmental problems and eco-actions.
- Sentence frames for describing the problem and the action.
- Reduced-complexity images for learners who need fewer elements.
- Mixed-ability pairings with assigned roles.
- Extra challenge tasks for learners who can compare or justify actions.

Assess flexibly:

- Checklist adapted for different levels of detail in problem identification.
- Alternative formats for the eco-poster (drawing, labels, short sentences).
- Oral explanation option instead of written description.
- Teacher notes on clarity of description and appropriateness of the action.

LOTS → HOTS	**HOTS → LOTS**
In the *Identify the environmental problem* activity, students begin by matching simple pictures with basic labels (pollution, rubbish, water waste). To extend the task, they compare two environmental problems and decide which one has a more harmful effect on living things, giving a short explanation based on the clues they observe in the images.	In the *Choose the best eco-action* activity, students usually justify which action is more effective by analysing the problem's effects and comparing alternatives. To make the task more accessible, they receive a guided template with the eco-action already selected, so they only need to identify the problem in the picture and give a short oral description of one direct effect.

4.3.4. Challenge 14: Endangered species

<table>
<tr><th colspan="2">LS3 Challenge 14: Endangered species</th></tr>
<tr><td colspan="2">Description: Students explore what endangered species are, why some animals are at risk, and what can be done to help protect them. Through videos, images and guided observation, they identify simple causes of endangerment and recognise basic actions that support conservation.
Final product: An “Endangered Species Protection Card” in Field Notebook III, including one endangered animal, the problem and one simple action to help.
Timing: Second Term – May (4-5 sessions)</td></tr>
<tr><td colspan="2">Challenge:
Detectives, we have a critical conservation mission. Some animals are disappearing faster than expected. Your task is to investigate why certain species are endangered and discover what young detectives can do to protect them.</td></tr>
<tr><th colspan="2">Content</th></tr>
<tr><td colspan="2">Curricular Content (Decree 61/ 2022)
A. Cultura científica
La vida en Nuestro planeta
- Características propias de los animales que permiten su clasificación y diferenciación en subgrupos relacionados con su capacidad adaptativa al medio: obtención de energía, relación con el entorno

Contribution to specific competences: 2- 5- 6</td></tr>
<tr><td colspan="2">Language content: Description</td></tr>
<tr><th colspan="2">Cognition</th></tr>
<tr><th>Learning Goals</th><th>Learning Outcomes (Standards)</th></tr>
<tr><td>Declarative knowledge
1. To remember simple examples of endangered species and to understand why they are at risk.
Procedural knowledge
2. To apply observation routines to identify an endangered species and match it with a simple threat.

Metacognitive knowledge
3. To evaluate how clearly they can describe the endangered species, its threat and one action to help.

Language learning goal connected to the content
4. To use vocabulary to describe endangered species, its threat and a simple action to help.</td><td>1.1. Students memorize simple endangered animals (tiger, panda, turtle)

1.2. Students explain in simple terms the main threat (habitat loss, pollution, hunting).

2.1 Students implement the observation routine to notice clues that identify the endangered animal and its threat.

3.1 Students select whether their description includes the species, the threat and one action to protect it.

4.1 Students produce short oral or written descriptions using key descriptive words (endangered, protect, help, habitat, danger).</td></tr>
<tr><th colspan="2">Culture</th></tr>
<tr><th>Learning Goals</th><th>Learning Outcomes (Standards)</th></tr>
</table>

❖ To **understand** that endangered species and their threats are experienced and addressed differently across cultures.	❖ Students **identify** cultural references related to endangered animals and protection actions around the world.

Communication **Coyle, Hood and Marsh (2010)**	
Language OF learning	**Key Language:** endangered species, habitat loss, hunting, pollution, danger, protect, help, survive, threat, safe, unsafe, population, disappear. **Language content (Genre):** Description **Structure:** **Simple descriptive sentences:** *The tiger is endangered.* *The turtle is in danger.* *The panda has very few animals left.* **Action sentences:** *We identify the endangered species.* *We choose one action to help.* *We describe the threat in our poster.* **Classification sentences:** *This is an endangered animal.* *This is a habitat-loss problem.* *This is a hunting threat.* **Descriptive adjectives:** *endangered, rare, threatened, unsafe, protected, vulnerable, few, many***.** **Present simple for description:** *The tiger is endangered.* *The turtle is threatened.* **Simple language for effect:** *The threat hurts the species. The habitat is unsafe.* **Action verbs:** *We protect. We help. We observe. We choose.* **Protection statement:** *We choose one action. We describe the threat. We help the species.* **Language Input:** **Teacher modelling:** *An endangered species is an animal that may disappear.* *A threat is something that puts the animal in danger.* *We can help by protecting habitats or stopping hunting.* *First, we observe the picture. Then, we identify the threat. Finally, we choose an action.* **Visual prompts:** *Images of endangered animals (tiger, panda, turtle).* *Icons for threats (habitat loss, hunting, pollution).* *Before–after images showing protection actions.* **Short oral explanation during guided task:** *Look at the animal. What do you notice?* *What is the threat? How can we help?* **Academic Language:** **Cause–effect sentences:** *The species is endangered because it loses its habitat.* *Animals disappear because people hunt them.* *We help the species when we protect its home.*

Language FOR learning	Language for memorizing simple endangered animals Language for explaining in simple terms the main threat Language for implementing the observation routine **Classroom language** **Group work:** *Let's identify the endangered animal in the picture.* *You describe the species; I describe the threat.* *Let's choose one action to help this animal.* *Let's compare the threats and select the most serious one.* **Classroom Interaction:** *What animal do you see? Why is it endangered? What is the main threat?* *Which action helps more? Why? How can we protect this species?*
Language THROUGH learning	❖ Identifying endangered species and their threats while observing images and videos. ❖ Comparing simple protection actions during group tasks.

Assessment

Content Evaluation Criteria (Decree 61/2022)

2.1 Formulation of questions and reasoned predictions based on systematic observation.
2.2 Search and selection of information from safe and reliable sources, acquiring basic scientific vocabulary.
2.3 Performance of guided experiments using inquiry techniques, instruments and models, recording observations and measurements correctly.
2.4 Proposal of possible answers through the interpretation of information and results, comparing them with initial predictions.
2.5 Presentation of research results in different formats, using basic or applied scientific language and providing arguments.
5.3 Recognising local environmental problems and taking simple responsible actions to care for and protect natural resources.
6.1 Identifying social and environmental problems, understanding the link between health and planet care, proposing solutions and practising responsible lifestyles that protect the environment.
6.2 Recognition and demonstration of responsible habits that care for and protect the planet, identifying how people's actions affect natural elements and resources.

Language Evaluation Criteria (CEFR, 2018)

Sustained Monologue: Describing Experience
A2 → Can give short, basic descriptions of events and activities

Assessment Tools

For interaction	Checklist of cooperative role performance
For active observation	Teacher diary
For self-evaluation	Simple smiley-face holistic rubric for clarity of species description, threat explanation and protection action.
For summative assessment	*Endangered Species Mini-Poster* analytic rubric
Grading Criteria	**Formative assessment:** Interaction and cooperative work 20% Self-evaluation 10% **Summative assessment:** *Endangered Species Mini-Poster* analytic rubric 40% Challenge quiz 30%

Attention to Diversity

General measures: The challenge offers multiple access points so that all learners can participate in identifying endangered species, recognising simple threats and selecting basic protection actions, providing visual, linguistic and cooperative supports that allow each child to contribute according to their needs and strengths.

Use of different resources:

- ❖ Visual glossary of endangered animals and threats.
- ❖ Sentence frames for describing the species and the threat.
- ❖ Reduced-complexity images for learners who need fewer elements.
- ❖ Mixed-ability pairings with assigned roles.
- ❖ Extra-challenge tasks for learners who can compare threats or justify actions.

Assess flexibly:

- ❖ Checklist adapted for different levels of detail in species–threat identification.
- ❖ Alternative formats for the mini-poster (drawing, labels, short sentences).
- ❖ Oral explanation option instead of written description.
- ❖ Teacher notes on clarity of description and suitability of the protection action.
- ❖ Self-evaluation with simplified smiley-face rubric.

LOTS → HOTS	**HOTS → LOTS**
In the *Identify the endangered species* activity, students begin by matching simple pictures with basic labels (tiger, panda, turtle). To extend the task, they compare two endangered animals and decide which one is at greater risk, giving a short explanation based on the threat clues they observe in the images.	In the *Explain the main threat* activity, students usually justify how the threat affects the species by analysing pictures, labels and examples. To make the task more accessible, they receive a guided template with the threat already selected, so they only need to identify the species in the picture and give a short oral description of one direct effect.

4.3.5. Challenge 15: Planet Earth Project

LS3 Challenge 15: Planet Earth project
Description: Students synthesise everything learned across the Learning Situations by investigating one ecosystem and creating a visual product for an exhibition. Through guided research, diagrams and collaborative work, they prepare a final mission display that shows the habitat, food web, environmental problem and one action to help. **Final product:** A **'**Planet Earth Exhibition Panel" including: • one ecosystem • a simple food web • one environmental problem • one action to protect it **Timing:** Third Term – June (5-6 sessions)
Challenge: Detectives, this is your final mission. You must investigate an ecosystem and create a display for the Planet Earth Exhibition. Your task is to show how the ecosystem works, what problem it faces and how young detectives can help protect it.
Content
Curricular Content (Decree 61/ 2022) **A. Cultura científica** **La vida en Nuestro planeta** - Características propias de los animales que permiten su clasificación y diferenciación en subgrupos relacionados con su capacidad adaptativa al medio: obtención de energía, relación con el entorno - Ejemplos de buenos y malos usos de los recursos naturales de nuestro planeta y sus consecuencias. - Los ecosistemas como lugar donde intervienen factores bióticos y abióticos, manteniéndose un equilibrio entre los diferentes elementos y recursos. Importancia de la biodiversidad. Factores estresantes y nocivos para el equilibrio de los ecosistemas. - Los reinos de la naturaleza desde un punto de vista general, basado en el estudio y análisis de las características de diferentes ecosistemas. Identificación de algunos ecosistemas (pradera, charca, bosque, litoral y ciudad) y los seres vivos que en ellos habitan. **B. Tecnología y digitalización** **Proyectos de diseño y pensamiento computacional** - Estrategias básicas de trabajo en equipo. **Uso de los recursos digitales con responsabilidad** - Búsqueda guiada de información contrastando la información de algunas fuentes seleccionadas. **Contribution to specific competences:** 2- 5- 6
Language content: Description /Objective description
Cognition

Learning Goals	**Learning Outcomes (Standards)**

Declarative knowledge **1.** To **remember** simple characteristics of ecosystems, food webs and environmental problems and **to understand** the key features needed for the Planet Earth Exhibition Panel. **Procedural knowledge** **2. To apply** observation routines to investigate an ecosystem and construct a simple food web for the Planet Earth Exhibition Panel. **Metacognitive knowledge** 3. To **evaluate** the clarity, accuracy and completeness of the Planet Earth Exhibition Panel **Language learning goal connected to the content** 4. To **use** descriptive vocabulary to vocabulary to label and describe the elements of the Planet Earth Exhibition Panel.	1.1 Students **repeat** the basic elements and roles to include in their exhibition panel. 1.2 Students **select** the most relevant species and one environmental problem for their panel. 2.1 Students **demonstrate** a simple food web diagram for their chosen ecosystem. 3.1 Students **defend** the clarity, accuracy and completeness of their exhibition panel. 4.1 Students **produce** short descriptive labels for the ecosystem, food web, environmental problem and protection action.

Culture	
Learning Goals	**Learning Outcomes (Standards)**
❖ To **understand** how local and global cultural practices influence the chosen ecosystem and its use.	❖ Students **identify** cultural practices and local uses that affect the ecosystem.

Communication **Coyle, Hood and Marsh (2010)**	
Language OF learning	**Key Language:** ecosystem, producer, consumer, predator, prey, food web, arrow, habitat, pollution, rubbish, protect, action, balance, species, population. **Language content (Genre):** Description / Objective description **Structure:** **Simple descriptive sentence:** *The oak tree is a producer.* *The frog is a consumer.* **Food-web explanation:** *The fox eats the rabbit.* *The arrows show who eats whom.* **Action sentence:** *We choose one action to protect the river.* *We clean the area to help the ecosystem.* **Classification sentence:** *This is a pollution problem.* *This is a predator–prey relationship.* **Descriptive adjectives:** *clean, polluted, balanced, unbalanced, endangered, abundant, scarce, native, invasive, healthy, threatened.* **Present simple for description:** *The river is polluted. The oak tree is a producer. The fox is a predator. The ecosystem is unbalanced.* **Simple language for effect:**

	Pollution harms the ecosystem. The habitat is unsafe for fish. The rubbish hurts the species. The water becomes dirty. **Action verbs:** *We observe. We identify. We classify. We describe. We protect. We clean. We choose.* **Action / protection statements:** *We choose one action to protect the river. We describe the problem in our panel. We explain the food web with arrows. We help the ecosystem by reducing pollution.* **Language Input:** **Teacher modelling:** *A producer makes its own food, like the oak tree.* *First, we observe the picture. Then, we identify the species. Finally, we choose an action.* *A food web is a map of who eats whom.* **Visual prompts:** *Photos of the local river ecosystem* *Icons: producer, consumer, arrow, pollution, action* **Academic Language:** **Cause–effect sentence:** *The river is polluted because people throw rubbish.* *Birds decrease because insects disappear.*
Language FOR learning	Language for repeating basic elements and roles Language for selecting relevant information **Classroom language** **Group work:** *Let's choose our ecosystem.* *You draw the food web; I write the labels.* *Let's decide the problem and the action.* **Classroom Interaction:** *What ecosystem do you choose?* *What species live there?* *What is the problem?* *How can we help?*
Language THROUGH learning	❖ Constructing the exhibition panel collaboratively ❖ Discussing and selecting relevant information ❖ Explaining their final product to others

Assessment

Content Evaluation Criteria (Decree 61/2022)

2.1 Formulation of questions and reasoned predictions based on systematic observation.
2.2 Search and selection of information from safe and reliable sources, acquiring basic scientific vocabulary.
2.3 Performance of guided experiments using inquiry techniques, instruments and models, recording observations and measurements correctly.
2.4 Proposal of possible answers through the interpretation of information and results, comparing them with initial predictions.
2.5 Presentation of research results in different formats, using basic or applied scientific language and providing arguments.
5.3 Recognising local environmental problems and taking simple responsible actions to care for and protect natural resources.

6.1 Identifying social and environmental problems, understanding the link between health and planet care, proposing solutions and practising responsible lifestyles that protect the environment.
6.2 Recognition and demonstration of responsible habits that care for and protect the planet, identifying how people's actions affect natural elements and resources.

Language Evaluation Criteria (CEFR, 2018)

Sustained Monologue: Describing Experience
A2 → Can give short, basic descriptions of events and activities

Assessment Tools

For interaction	Checklist of cooperative work
For active observation	Teacher diary
For self-evaluation	Smiley-face rubric
For summative assessment	Planet Earth Exhibition Panel analytic rubric
Grading Criteria	**Formative assessment:** Interaction and cooperative work 20% Self-evaluation 10% **Summative assessment:** Exhibition panel rubric: 40% Final quiz: 30%

Attention to Diversity

General measures: This challenge is designed to ensure that all learners can successfully participate in the final project by providing structured guidance, visual scaffolding and flexible ways to demonstrate understanding. Students investigate ecosystems, construct a simple food web and propose an environmental action through differentiated supports such as modelling, guided templates and cooperative roles. The open-ended nature of the exhibition panel allows each learner to contribute according to their level, whether through drawing, labelling or simple descriptive sentences, ensuring accessibility while maintaining cognitive challenge.

Use of different resources:

- Visual glossary with labelled images of **ecosystems, species and food webs**.
- Sentence frames such as: *"The ___ is a producer"*, *"The problem is ___ because ___"*.
- Pre-designed food web templates with arrows already included.
- Simplified ecosystem images with fewer elements for students who need reduced complexity.
- Extension cards: *"Add another species to your food web"* or *"Explain what happens if one species disappears"*.

Assess flexibly:

- Students can present their panel as: drawing + labels / short sentences / oral explanation.
- Adapted rubric with fewer criteria (e.g. only ecosystem + problem + action).
- Oral defense instead of written explanation for students with language difficulties.
- Teacher observation checklist focused on participation and understanding, not only language accuracy.
- Possibility to complete the task with guided support (teacher).

LOTS → HOTS	**HOTS → LOTS**
In the *Build the food web activity*, students begin by identifying and naming basic elements of the ecosystem (plants, animals and habitat) using visual support and simple labels. To extend the task, they organise these elements into a simple food web using arrows and explain the relationships between	In the *Explain the environmental problem and action activity*, students usually analyse how an environmental problem affects the ecosystem and propose a suitable protection action, justifying their choice. To make the task more accessible, students are provided with a pre-selected problem and a set of visual action options, so they only need to

species, describing who eats whom and what happens if one element disappears.	match the problem with the correct action and give a short guided explanation.

5. Conclusion

The development of this annual syllabus has allowed me to design a coherent, motivating and competence-based proposal that integrates Natural Sciences and English through meaningful learning experiences. Throughout this process, I have confirmed the potential of the CLIL approach to create environments in which language becomes a functional tool for exploring, understanding and communicating scientific ideas. By combining multimodal input, scaffolded tasks and purposeful output, the syllabus demonstrates that content and language can be developed simultaneously when learning is situated in authentic and engaging contexts.

The narrative thread of *Wild Detectives* has been essential in giving unity, purpose and emotional meaning to the proposal. By adopting the role of young detectives, students engage in missions that require observation, analysis, experimentation and communication, transforming curricular content into experiences that are both cognitively rich and personally relevant. This storyline not only enhances motivation but also reinforces the methodological pillars of the syllabus, as it naturally supports cooperative learning, problem-solving and the functional use of English.

From a methodological perspective, the integration of CLIL, cooperative learning and narrative-based learning has proven to be a powerful combination for fostering interaction, autonomy and meaningful communication. These approaches promote active participation, shared responsibility and multiple ways of expressing understanding, which are essential for addressing the diversity present in today's classrooms. The design of the syllabus aligns with current educational regulations and encourages the development of scientific thinking, linguistic competence and social skills, all of which are fundamental for students' holistic growth.

On a personal level, this project represents a significant step in my development as a future teacher. Choosing Natural Sciences and English is not accidental; it reflects my own learning journey and the experiences that have

shaped my educational identity. My participation in immersive language environments, as well as my contact with international contexts, has strengthened my conviction that language learning becomes meaningful when it is connected to real purposes. Likewise, observing the curiosity and interests of children at this stage, including my own sister, has reminded me of the importance of designing learning experiences that are dynamic, emotionally safe and connected to their natural desire to explore the world.

Finally, this syllabus embodies my commitment to creating learning environments that are coherent, inclusive and engaging. The *Wild Detectives* project aspires to offer students the opportunity to investigate, understand and communicate scientific concepts while developing essential competences for their academic and personal lives. This work reinforces my belief that when learning is connected to curiosity, collaboration and meaningful contexts, it becomes a transformative experience, not only for students, but also for the teacher who guides them.

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7. Annexes

Annex 1. Stage objectives in the Royal Decree 157/2022 and the Decree of the Community of Madrid for Primary Education

a	Conocer y apreciar los valores y las normas de convivencia, aprender a obrar poniéndose en el lugar del otro, prepararse para el ejercicio activo de la ciudadanía y respetar los derechos humanos, así como su participación en una sociedad democrática.
b	Desarrollar hábitos de trabajo individual y de equipo, de esfuerzo y de responsabilidad en el estudio, así como actitudes de confianza en sí mismo, sentido crítico, iniciativa personal, curiosidad, interés y creatividad en el aprendizaje, y espíritu emprendedor
c	Adquirir habilidades para la resolución pacífica de conflictos y la prevención de la violencia, que les permitan desenvolverse con autonomía en el ámbito escolar y familiar, así como en los grupos sociales con los que se relacionan.
d	Conocer, comprender y respetar las diferentes culturas y las diferencias entre las personas, la igualdad de derechos y oportunidades de hombres y mujeres, y la no discriminación de personas por motivos de etnia, orientación o identidad sexual, religión o creencias, discapacidad u otras condiciones.
e	Conocer y utilizar de manera apropiada la lengua española y desarrollar hábitos de lectura.
f	Adquirir en, al menos, la lengua inglesa, la competencia comunicativa básica que les permita expresar y comprender mensajes sencillos y desenvolverse en situaciones cotidianas en este idioma.
g	Desarrollar las competencias matemáticas básicas e iniciarse en la resolución de problemas que requieran la realización de operaciones elementales de cálculo, conocimientos geométricos y estimaciones, así como ser capaces de aplicarlos a las situaciones de su vida cotidiana.
h	Conocer los aspectos fundamentales de las Ciencias de la Naturaleza, las Ciencias Sociales, la Geografía, la Historia y la Cultura.
i	Desarrollar las competencias tecnológicas básicas e iniciarse en su utilización, para el aprendizaje, desarrollando un espíritu crítico ante su funcionamiento y los mensajes que reciben y elaboran.
j	Utilizar diferentes representaciones y expresiones artísticas e iniciarse en la construcción de propuestas visuales y audiovisuales.
k	Valorar la higiene y la salud, aceptar el propio cuerpo y el de los otros, respetar las diferencias y utilizar la educación física, el deporte y la alimentación como me dios para favorecer el desarrollo personal y social.
l	Conocer y valorar los animales más próximos al ser humano y adoptar modos de comportamiento que favorezcan la empatía y su cuidado.
m	Desarrollar sus capacidades afectivas en todos los ámbitos de la personalidad y en sus relaciones con las demás personas, así como una actitud contraria a la violencia, a los prejuicios y estereotipos de cualquier tipo.
n	Desarrollar hábitos cotidianos de movilidad activa autónoma saludable, fomentando la educación vial y actitudes de respeto que incidan en la prevención de los accidentes de tráfico.

Annex 2. Curricular content distribution in the cycle

2º Cycle	Subject Block	Block Ítem	Content
Level 1. 3rd grade	A. Cultura Científica	Iniciación en la actividad científica	Vocabulario científico básico y adecuado a su edad, de tipo técnico y aplicado, relacionado con las diferentes investigaciones. Fomento de la curiosidad, la iniciativa y la constancia en la realización de las diferentes investigaciones
		La vida en nuestro planeta	Características propias de los animales que permiten su clasificación y diferenciación en subgrupos relacionados con su capacidad adaptativa al medio: obtención de energía, relación con el entorno y perpetuación de la especie. Características propias de las plantas que permiten su clasificación en relación con su capacidad adaptativa al medio: obtención de energía (fotosíntesis) Los reinos de la naturaleza desde un punto de vista general, basado en el estudio y análisis de las características de diferentes ecosistemas. Identificación de algunos ecosistemas (pradera, charca, bosque, litoral y ciudad) y los seres vivos que en ellos habitan. Las funciones y servicios de los ecosistemas. Ejemplos de buenos y malos usos de los recursos naturales de nuestro planeta y sus consecuencias Los ecosistemas como lugar donde intervienen factores bióticos y abióticos, manteniéndose un equilibrio entre los diferentes elementos y recursos. Importancia de la biodiversidad. Factores estresantes y nocivos para el equilibrio de los ecosistemas.
	B.Tecnología y digitalización	Uso de los recursos digitales con responsabilidad	Estrategias de búsqueda guiada de información segura y eficiente en internet (valoración, discriminación, selección y organización).
		Proyectos de diseño y pensamiento computacional	Técnicas sencillas de trabajo en equipo y estrategias para la gestión de conflictos

2º Cycle	Subject Block	Block Ítem	Content
Level 2. 4th Grade	A. Cultura Científica	Iniciación en la Actividad científica	Procedimientos de indagación y formulación de hipótesis adecuados a las necesidades de la investigación. Instrumentos y dispositivos apropiados para realizar observaciones y mediciones precisas, usados con seguridad, de acuerdo con las necesidades de la investigación. El ensayo y error como parte de los inicios de la actividad científica. Avances en el pasado relacionados con la ciencia y la tecnología que han contribuido a transformar nuestra sociedad mostrando modelos que incorporen la igualdad entre hombres y mujeres. La importancia del uso de la ciencia y la tecnología para ayudar a comprender las causas de las propias acciones, tomar decisiones razonadas y realizar tareas de forma más eficiente.
		La vida en nuestro planeta	Las formas del relieve más relevantes. Clasificación elemental de las rocas. Las funciones vitales del ser humano: características generales de las células, tejidos, órganos, sistemas y aparatos implicados en las funciones de nutrición, relación y reproducción. La relación entre las emociones y los principales sistemas y aparatos del cuerpo. Hábitos de vida saludables: la importancia de la higiene, una alimentación variada y equilibrada, el ejercicio físico, el ocio activo y el descanso. Hábitos saludables: identificación de las propias emociones y respeto por las de los demás. Sensibilidad y aceptación de la diversidad presente en el aula y en la sociedad.

		Materia, fuerzas y energía	El calor y la temperatura. Cambios de estado, efectos del calor sobre diferentes materiales, materiales conductores y aislantes, instrumentos de medición y aplicaciones en la vida cotidiana. Los cambios reversibles e irreversibles que experimenta la materia desde un estado inicial a uno final identificando los procesos y transformaciones que experimenta en situaciones de la vida cotidiana. Fuerzas de contacto y a distancia. Las fuerzas y sus efectos. Herramientas, máquinas e instrumentos. Propiedades de las máquinas simples y su efecto sobre las fuerzas. Aplicaciones y usos en la vida cotidiana. Diferencias entre las máquinas simples y las compuestas. Importantes descubrimientos e inventos. Las sustancias puras y las mezclas. Tipos de mezclas. Separación de las mezclas homogéneas mediante distintos métodos.
	B. Tecnología y digitalización	Uso de los recursos digitales con responsabilidad	Dispositivos y recursos digitales. Estrategias de búsqueda guiada de información segura y eficiente en internet Reglas básicas de seguridad y privacidad para navegar por internet. Recursos y plataformas digitales restringidas y seguras para comunicarse con otras personas. Etiqueta digital, reglas básicas de cortesía y respeto y estrategias para resolver problemas en la comunicación digital.
		Proyectos de diseño y pensamiento computacional	Fases de los proyectos de diseño: diseño, prototipado, prueba y comunicación. Materiales, herramientas y objetos adecuados a la consecución de un proyecto de diseño Iniciación en la programación a través de recursos analógicos o digitales
		Evolución de la tecnología y la digitalización en las diversas etapas de la historia de la humanidad	Hitos tecnológicos en cada etapa de la historia de la humanidad. Beneficios y perjuicios de algunas herramientas, máquinas e instrumentos a lo largo de la historia.

Annex 3. Specific competences and evaluation criteria

First Term: Learning Situation I **The Awakening of the Wild Detectives**		
Challenges	Specific competences	Evaluation criteria
1. Welcome Wild Detectives!	1 2 5	1.1 2.1-2.2 2.5 5.1
2. Living thing? What is it?	2 5	2.1- 2.5 5.1- 5.2
3. Vertebrates and invertebrates	2 5	2.1- 2.5 5.1- 5.2
4. Adaptations: How animals survive	2 5	2.1- 2.5 5.1- 5.2
5. Plants: from roots to leaves	2 5	2.1- 2.5 5.1- 5.2
Second Term: Learning Situation II **Secrets of Survival: Missions in Air, Land & Sea**		
Challenges	Specific competences	Evaluation criteria
6. The secrets of the forest	2 5	2.1- 2.5 5.1- 5.2
7. Sky explorers	2 5	2.1-2.5 5.1- 5.2
8. Migration mysteries	2 5	2.1-2.5 5.1- 5.2
9. Ocean zones	2 5	2.1-2-5 5.1- 5.2
10. Coral guardians	2 5 6	2.1-2.5 5.1-5.3 6.1
Third Term: Learning Situation III **Earth under threat. The final investigation**		
Learning situation	Specific competences	Evaluation criteria
11. Food chains and food webs	2 5	2.1-2.5 5.1 5.2
12. Habitats around the world	2 5 6	2.1-2.5 5.1-5.3 6.1-6.2
13. Environmental problems	2 5 6	2.1-2.5 5.3 6.1-6.2
14. Endangered species	2 5 6	2.1-2.5 5.3 6.1-6.2
15. Planet Earth project	2 5 6	2.1-2.5 5.3 6.1-6.2

8. Appendices

Appendix 1. Mysterious message from Wild Detectives Agency (LS1: Challenge 1)

Appendix 2. Wild Detectives Alert (Mystery Introduction Challenge 8)

Appendix 3. Assessment rubric

Migration Presentation Rubric

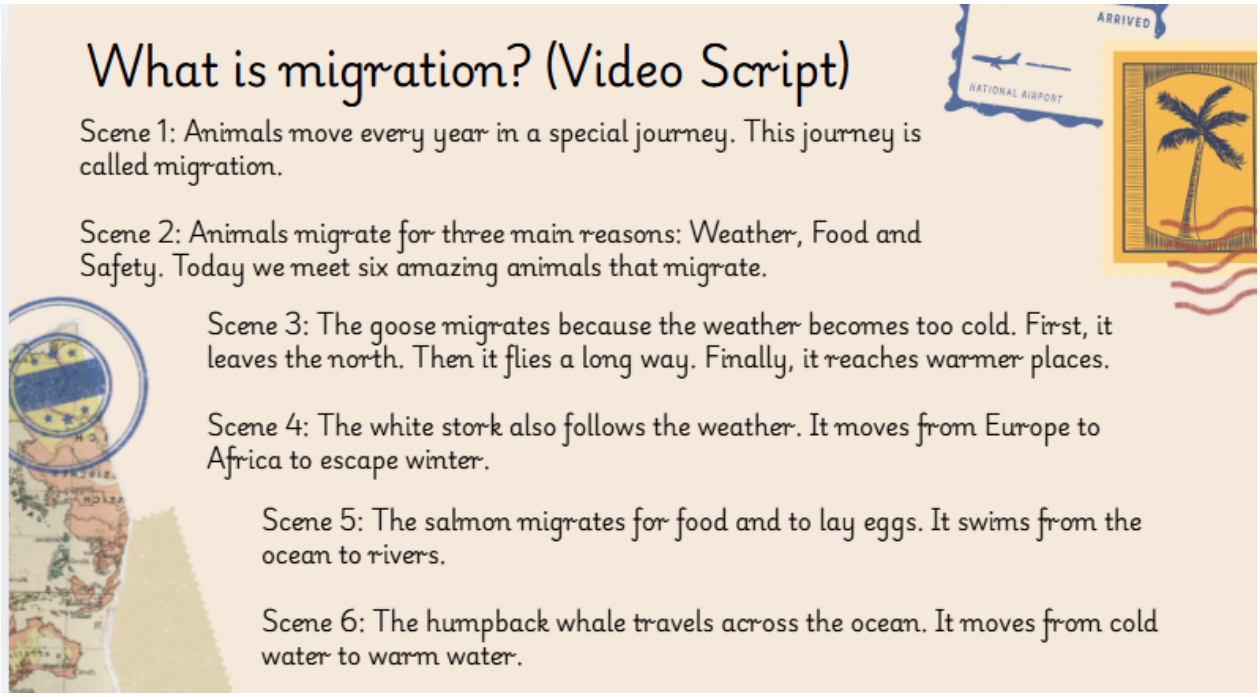
Group name(s):

Criteria	4: Excellent	3: Good	2: Developing	1: Beginning
Route Clarity	The route is very clear, complete and easy to follow. Arrows, start and end points are accurate.	The route is mostly clear; arrows or points may have small mistakes.	The route is partially clear but missing arrows or important parts.	The route is unclear, incomplete or confusing.
Sequence First-Then - Finally	Uses the full sequence correctly and confidently: First... Then... Finally...	Uses the sequence with minor errors or hesitation.	Attempts the sequence but misses steps or mixes the order.	Does not use the sequence or uses it incorrectly.
Migration Reason	Gives a clear, correct reason (weather/food/safety) using a complete sentence.	Gives a reason but it may be incomplete or not fully clear.	Gives a reason but it is incorrect or unrelated.	No reason is given.
Vocabulary & Icons	Uses key vocabulary accurately and points to icons correctly and confidently.	Uses some key vocabulary and icons, with minor mistakes.	Uses limited vocabulary; icons used inconsistently.	Uses almost no key vocabulary; icons not used or used incorrectly.

Teacher Notes:

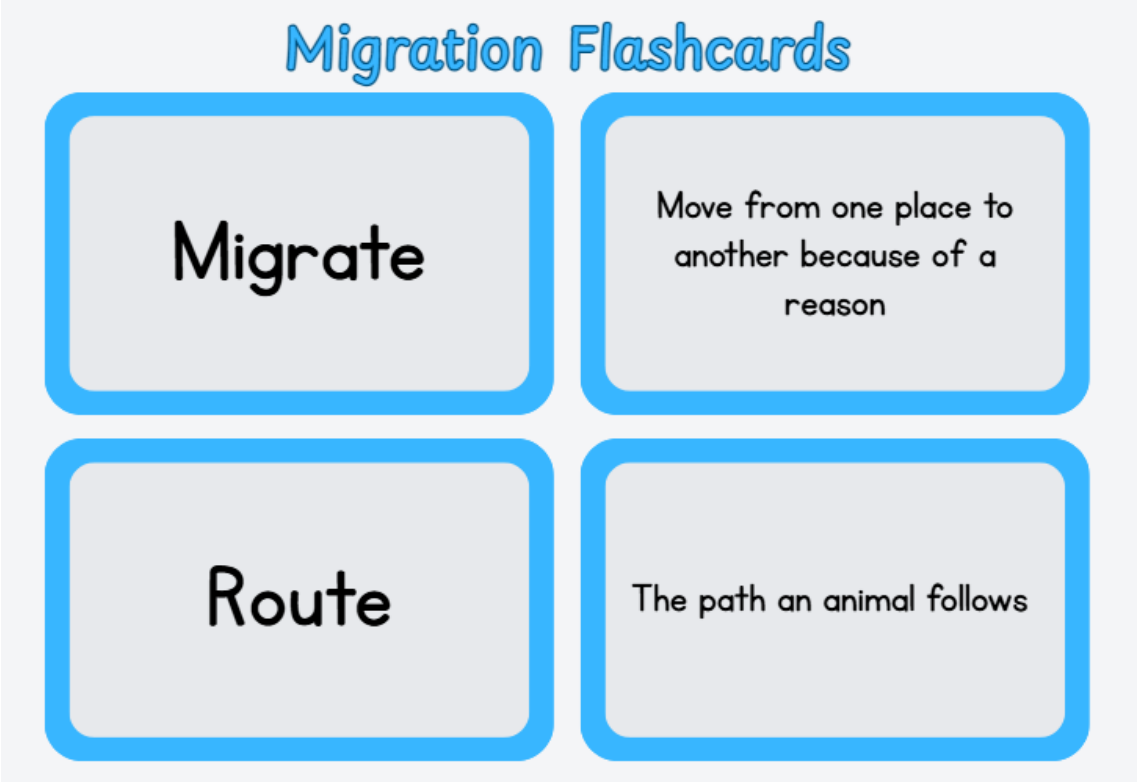
Appendix 4. Short video showing migrating animals (Script)

https://1drv.ms/v/c/563820f582084a09/IQDD28_RafHgTq0qmohd3t61AfhjhXuhyycwKPJ26GCXKF0?e=tDenEc

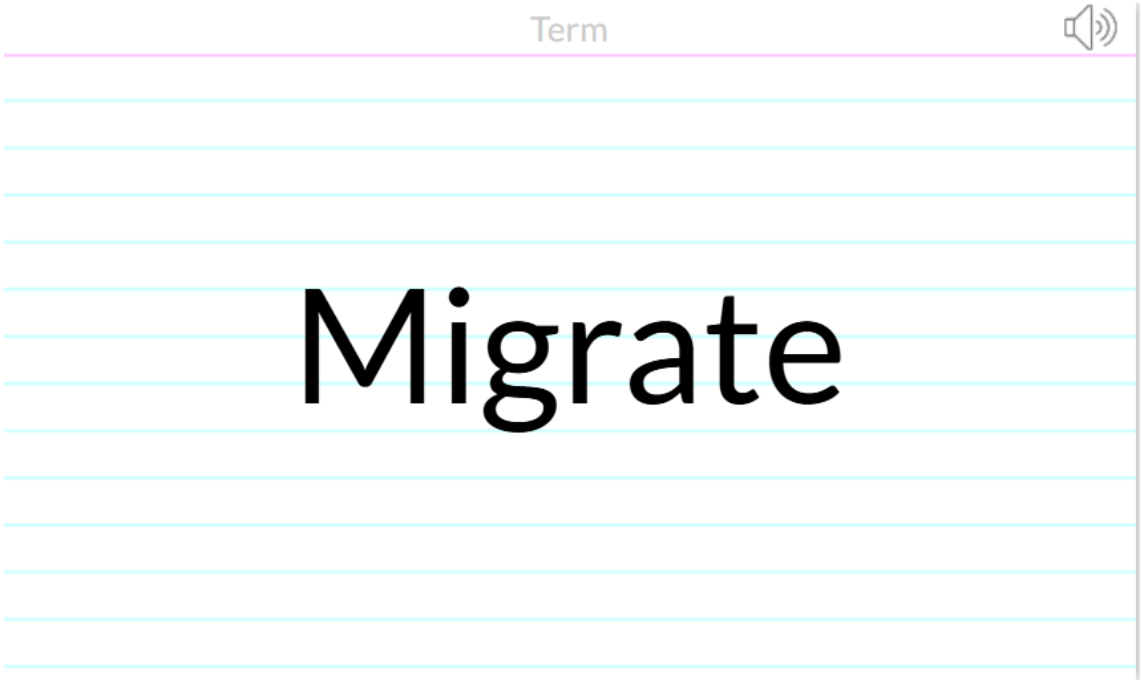


Appendix 5. Session 1: Vocabulary routine (Flashcards)

1st Option: Canva Flashcards (Click in the image to see the resource)



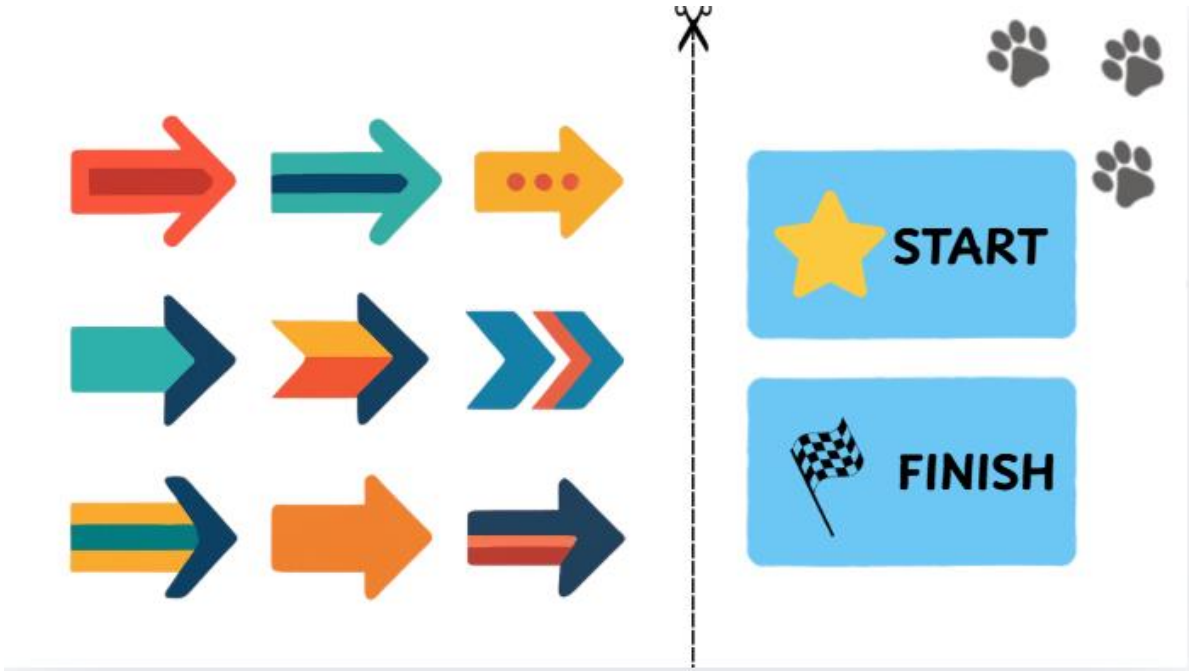
2nd Option Studystack: https://www.studystack.com/users/user-2037317/flashcards-4668240



Appendix 6. Session 1: Map modelling Activity

Printable Mini-Map

Cut-out migration icons (One full set per group) / Start and End cards



Animal Cards (Goose, Stork, Pacific salmon, Humpback whale, Monarch butterfly, Leatherback Sea turtle)

GOOSE

Type: Bird
Lives in: North America
Moves to: Central America
Reason: Weather (cold)
Distance: Short route

Model sentence: The goose moves because it is cold.
Fun fact: Geese fly in a V shape.

STORK

Type: Bird
Lives in: Europe
Moves to: Africa
Reason: Season
Distance: Long route

Model sentence: The stork moves in winter
Fun fact: Storks build very big nests

PACIFIC SALMON

Type: Fish
Lives in: Asia
Moves to: Rivers in Asia
Reason: Food
Distance: Short route

Model sentence: The salmon moves to find food
Fun fact: Salmon swim against the current

HUMPBACK WHALE

Type: Mammal
Lives in: Antartica
Moves to: Oceania
Reason: Season
Distance: Long route

Model sentence: The whale swims to warm water
Fun fact: Whales sing underwater

MONARCH BUTTERFLY

Type: Insect
Lives in: North America
Moves to: Central America
Reason: Weather
Distance: Long route

Model sentence: The butterfly travels to warm places
Fun fact: Monachs travel thousands of kilometers

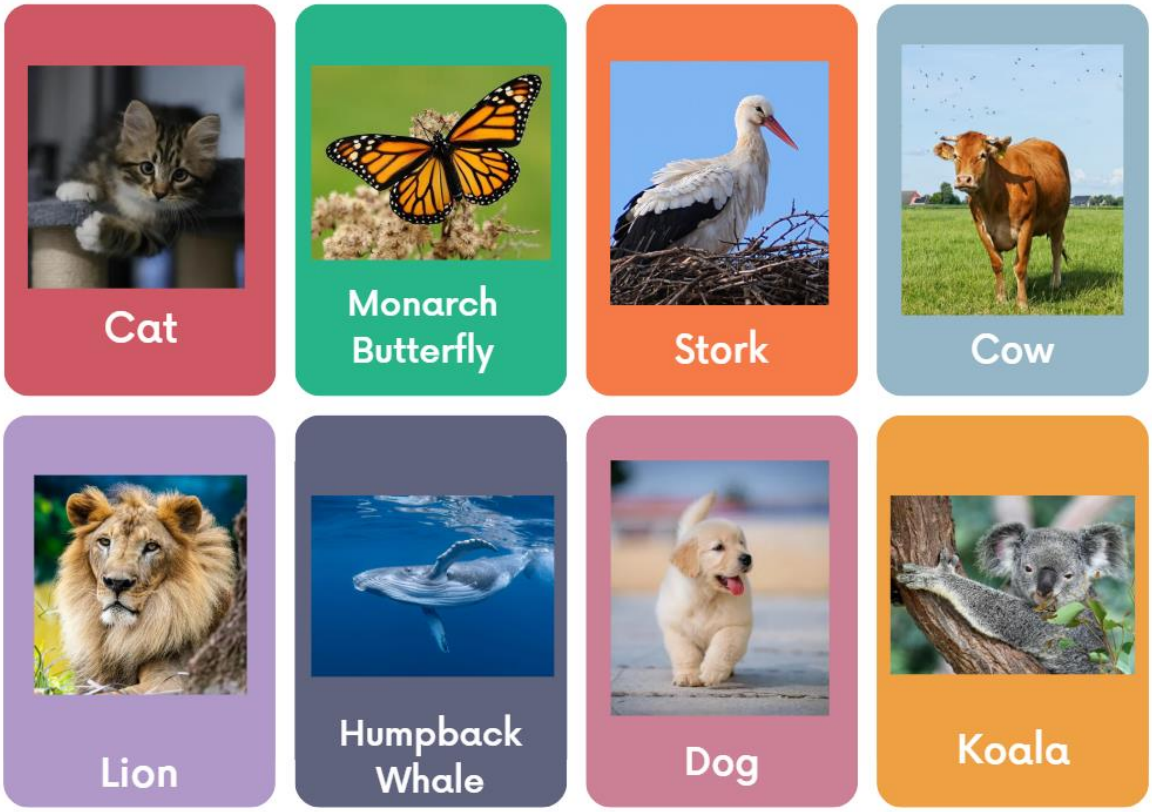
LEATHERBACK SEA TURTLE

Type: Reptile
Lives in: Africa
Moves to: South America
Reason: Food
Distance: Long route

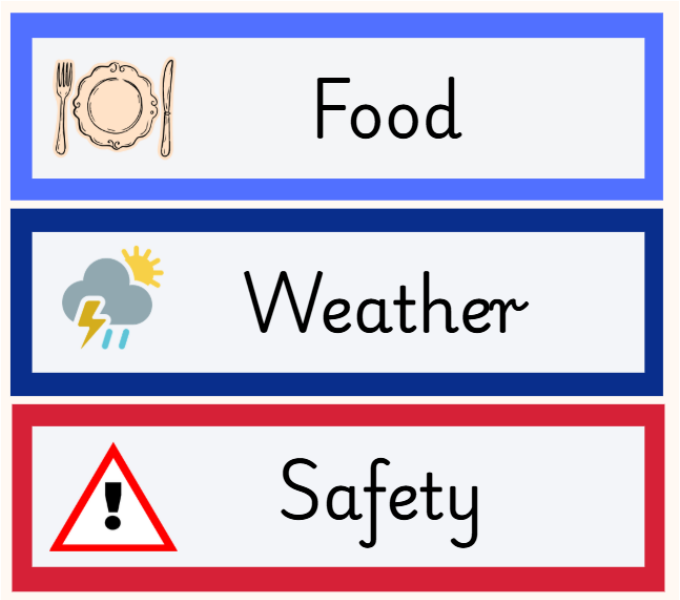
Model sentence: The turtle moves to a safe place
Fun fact: Baby turtles go to the sea at night

Cut-out migration icons (one full set per group)

Appendix 7. Session 2: Migratory or not

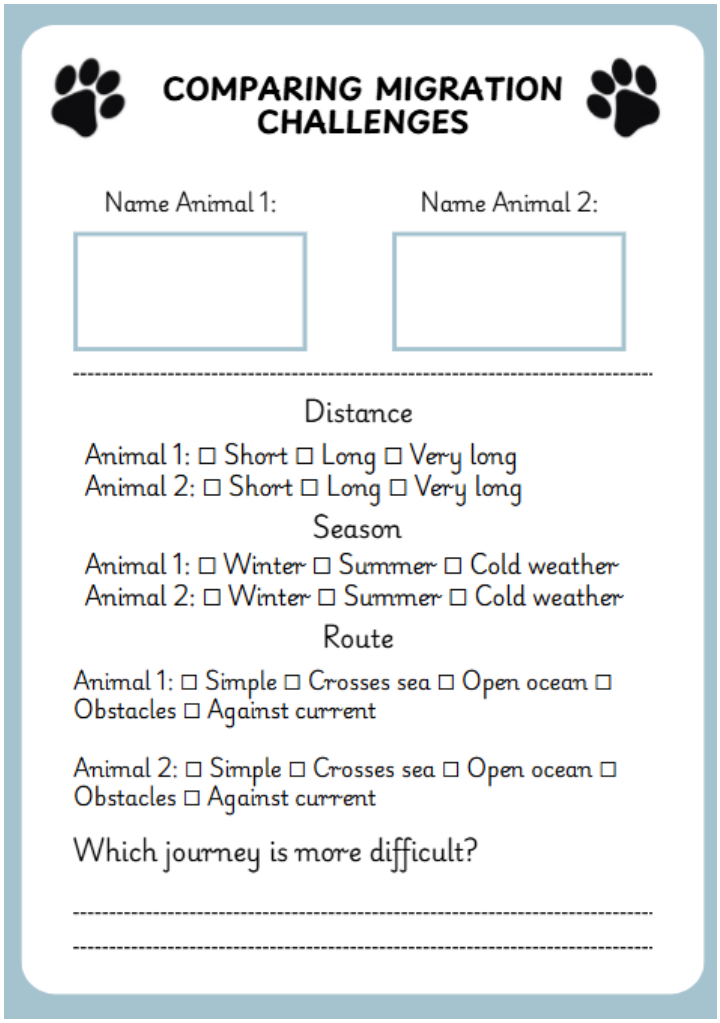


Appendix 8. Session 2: Matching ‘Animal-reason’ cards



(To be used with the animal cards from Appendix 7)

Appendix 9. Session 2: Comparing Migration challenges



COMPARING MIGRATION CHALLENGES

Name Animal 1:

Name Animal 2:

Distance

Animal 1: ☐ Short ☐ Long ☐ Very long
Animal 2: ☐ Short ☐ Long ☐ Very long

Season

Animal 1: ☐ Winter ☐ Summer ☐ Cold weather
Animal 2: ☐ Winter ☐ Summer ☐ Cold weather

Route

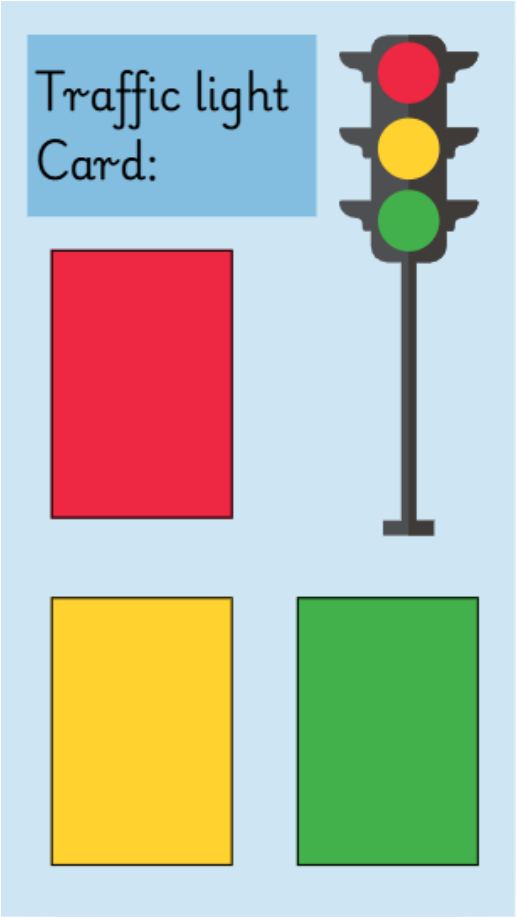
Animal 1: ☐ Simple ☐ Crosses sea ☐ Open ocean ☐ Obstacles ☐ Against current

Animal 2: ☐ Simple ☐ Crosses sea ☐ Open ocean ☐ Obstacles ☐ Against current

Which journey is more difficult?

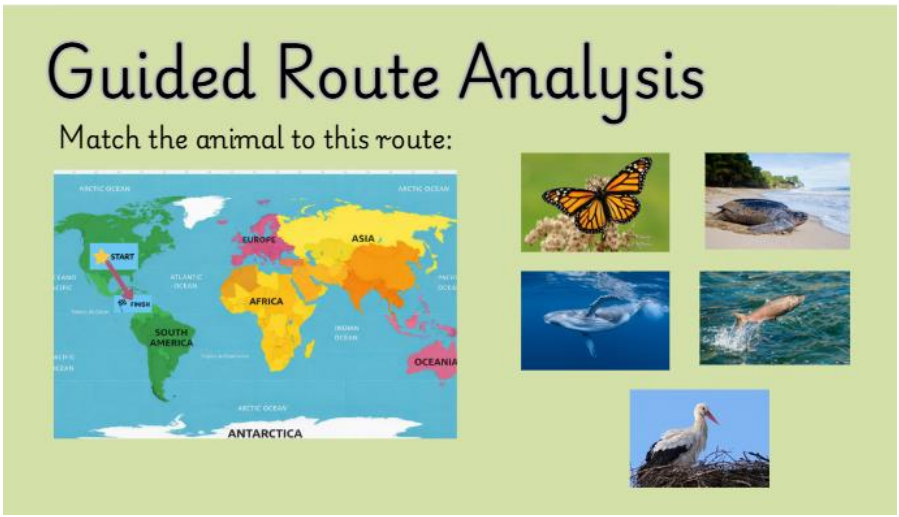
Appendix 10. Session 2: Map tracing: First-Then-Finally

Appendix 11. Traffic light card



Appendix 12. Session 3: Weather or food?

Appendix 13. Session 3: Guided route analysis



Appendix 14. Session 3: Route Comparison

ROUTE COMPARISON

Route Animal 1:

Route Animal 2:

Distance

Animal 1: ☐ Short ☐ Long ☐ Very long
Animal 2: ☐ Short ☐ Long ☐ Very long

Season

Animal 1: ☐ Winter ☐ Summer ☐ Cold weather
Animal 2: ☐ Winter ☐ Summer ☐ Cold weather

Route

Animal 1: ☐ Simple ☐ Crosses sea ☐ Open ocean ☐ Obstacles ☐ Against current

Animal 2: ☐ Simple ☐ Crosses sea ☐ Open ocean ☐ Obstacles ☐ Against current

Which journey is more difficult?

Appendix 15. Session 3: Sequencing: First-Then-Finally

First

Then

Finally

- First, it starts...
- Then, it moves because...
- Finally, it arrives in ...

Appendix 16. Session 4: Model presentation ‘My animal’s journey’

Appendix 17. Session 5: Ready-Not ready

Appendix 18. Session 5: Migration Quiz

https://create.kahoot.it/details/ad1b1e20-1485-4168-abba-da3c4ed50fb0

Why do animals migrate?

- ▲ For fun
- ◆ To explore
- ● To play with other animals
- ■ For food or weather ✓

Which option shows a correct sequence?

- ▲ Finally – First – Then
- ◆ Then – First – Finally
- ● First – Then – Finally ✓
- ■ Then – Finally – First

All migration routes are short

- ◆ Verdadero
- ▲ Falso ✓

A very long route means...

- ▲ The journey is easy
- ◆ The animal is small
- ● The animal doesn't migrate
- ■ The journey is difficult ✓

Which animal is migratory?

- ▲ Cow
- ◆ Stork ✓
- ● Koala
- ■ Cat

We use arrows to show the direction of the animal's journey.

- ◆ Verdadero ✓
- ▲ Falso