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CLIL LESSON PLAN

The Human Engine: Analysis of the Systems That Keep Us Running

📋 LESSON OVERVIEW

Subject(s)	Biology · Arts
Age Group	11–14 years old
Duration	45 minutes
CEFR Level	B1

🎯 LEARNING OBJECTIVES

Content Objectives

- Students will be able to identify and name the four main systems (circulatory, respiratory, digestive and nervous) in a diagram.
- Students will be able to associate a key organ (e.g., heart, lung) with the system to which it belongs and describe its main function in a simple sentence.
- Students will be able to apply their knowledge by classifying daily actions (e.g., being physically active, eating, breathing) and identifying which system is most active during each action.
- Students will be able to explain, using one or two simple sentences, why physical activity is beneficial for at least two of the four body systems studied.

Language Objectives

- Students will be able to identify and correctly use key vocabulary related to body systems and organs (e.g., heart, lungs, stomach, brain, circulatory, respiratory, digestive, nervous). Key vocabulary is displayed on a classroom poster throughout the lesson; pronunciation is modelled by the teacher and practised chorally at the start of the session.
- Students will be able to read and write the names of body systems in the correct area of a human body diagram (e.g., writing 'circulatory system' in the chest area).
- Students will be able to label the main organs on a blank diagram by writing the correct term in each space, without printed labels as support.
- Students will be able to write simple descriptive sentences about the function of an organ using the structure: 'The [organ] + [verb phrase]' (e.g., 'The heart pumps blood'; 'The stomach digests food'; 'The lungs take in air').
- Students will be able to orally describe the location of an organ in the body using spatial vocabulary (e.g., 'The heart is inside the chest'; 'The brain is in the head').

- Students will be able to construct simple sentences to answer questions about function (e.g., 'What does the stomach do?' → 'The stomach digests food').
- Students will be able to interact in the classroom using Language for Learning to request materials and exchange simple ideas.

💬 COMMUNICATION SKILLS

- Locate and write the name of each organ in the correct area of a blank human body diagram (e.g., write heart in the chest area, brain in the head area).
- Read and follow up to three-step instructions for the diagram assembly activity (e.g., 'Find the heart label,' 'Place it in the chest area,' 'Draw a line to connect it to the circulatory system').
- Label the four main systems and their key organs on a blank diagram by writing the correct term in each designated space.
- Complete simple summary sentences using key vocabulary (e.g., 'I breathe with my ___'; 'The heart pumps ___').
- Make a simple list of actions that help keep a system healthy (e.g., 'Circulatory system: 1. Be physically active. 2. Eat a balanced diet.').
- Orally describe the location of an organ or system using spatial prepositions (e.g., 'The brain is in the head'; 'The stomach is below the lungs').
- Use Language for Learning to exchange simple ideas and cooperate with a partner (e.g., 'Where does the stomach go?'; 'Please pass me the scissors').
- Explain in one or two sentences what a body system does and what it needs to stay healthy.

📖 GRAMMAR, VOCABULARY & PRONUNCIATION

Language of Learning (CALP)

Process Concepts (Identification): Nutrient absorption, gas exchange, oxygenated/deoxygenated blood, blood circulation, nerve impulses.

Function Terms: System responsible for, main function, process of.

Language for Learning (BICS)

Phrases for asking for help and resources:

- 'Can you give me the diagram, please?' • 'I don't understand the function of the [organ].' • 'How do you spell [keyword]?'

Confirmation / Verification Phrases:

- 'Is this the circulatory system?' • 'Do we put the lung here?' • 'I think the answer is [simple word].'

Location Descriptive Phrases:

- 'The [organ] is [preposition] the [other organ/area].' (e.g., 'The stomach is below the lungs'; 'The brain is inside the skull'.)

Instructions for a Partner:

- 'Cut out the shape.' • 'Stick the heart next to the lung.' • 'Draw the path of the blood.'

Language Through Learning (not planned)

Reactions of Surprise / Doubt: Expressions when they realise a connection or a fact about the body (e.g., 'That's disgusting!', 'I didn't know blood flowed so fast!', 'Is the intestine really that long?').

Negotiating Meaning: Questions to a partner about terminology (e.g., 'What does "heart" mean in your language?', 'What is a vein?').

Mutual Correction: Simple phrases to correct a label or location (e.g., 'No, the stomach isn't there, it's further down').

Personal Comparative Language: Use of personal experiences to relate to the content (e.g., 'My brother is very physically active, that's why his heart is strong').

🧠 COGNITION

LOTS — Remembering, Understanding, Applying

- 'What system is in your head?'
- 'When you are physically active, which system works harder: the digestive or circulatory system?'
- 'How can you take care of your respiratory system?'

HOTS — Analysing, Evaluating, Creating

The objective of this lesson plan for ages 11–14 (B1) is identification and basic application (LOTS). HOTS tasks are none or minimal, serving only as a small optional extension at the end of the lesson.

🔍 GUIDING QUESTIONS FOR TEACHERS

Pre-lesson and in-lesson self-reflection:

- Have I displayed the key vocabulary (the four systems and their main organs) on a classroom poster before the lesson begins, and have I modelled pronunciation chorally so students can use the terms confidently during the diagram activity?

- Do my students know the four body systems and their main organs in their first language, and have I planned a moment to elicit that prior knowledge before introducing the English equivalents?
- Have I ensured the blank diagram requires students to write the terms rather than paste pre-printed labels, and is the word list on the board visible and legible from all seats in the room?
- Have I assigned roles within groups for the diagram assembly and the classification of actions, and do I have a plan for groups that finish early or struggle to complete the labelling within the allocated time?
- After the lesson, do the completed diagrams and the pair presentations provide sufficient evidence that students can identify the four systems, describe their functions and use the target vocabulary correctly?

🌍 CULTURE

Health Routines: Students share a routine they follow at home to take care of their bodies (e.g., 'I sleep regularly', 'I drink water', 'I go for walks'). The teacher accepts a wide range of responses and avoids prescribing specific habits, as health routines vary across cultures and individual circumstances.

Sports and Physical Activity: Discuss which body systems are most active during physical activities typical of students' daily lives or cultural backgrounds (e.g., football, dancing, cycling, yoga). Note: examples are not limited to competitive sports to ensure inclusion.

Food for Energy: Connect the digestive system with the foods that give students energy in their daily lives, acknowledging the diversity of diets and avoiding value judgements about specific foods or eating habits.

Different Perspectives on Health: Open a brief discussion about how different cultures approach body care (e.g., the importance of rest, traditional remedies, specific diets). The teacher facilitates without presenting any one cultural approach as the norm.

Responsibility for the Body: Promote awareness that caring for the body is both a personal and a shared responsibility, connecting to national health systems — the institutions that provide medical care, vaccinations and public health services that students are likely to have experienced directly.

The Body as Common Ground: Reflect on the idea that all human beings share the same vital systems, regardless of their background, which makes us biologically equal and promotes inclusion in the classroom.

⭐ 21ST-CENTURY SKILLS

BICS-Related Skills

Communication: Students describe the location and function of body systems orally during the

CALP-Related Skills

Critical Thinking: Students analyse the relationship between physical actions and body

warm-up and in the pair presentation, using the sentence frames practised throughout the lesson.

Collaboration: Students work in pairs throughout the diagram assembly and the classification of actions, negotiating decisions and dividing the labelling task.

Flexibility & Adaptability: During the Mimicking Function activity, pairs must agree on a gesture that best represents each system, requiring students to listen to their partner's suggestion and adapt their own idea if needed.

Social & Cross-Cultural Skills: The Health Awareness activity invites students to share personal health habits without prescribing specific behaviours. The Culture section extends this by discussing different cultural perspectives on body care.

Time Management: Students must complete the diagram labelling within the allocated time in order to move on to the classification activity and the pair presentation.

Initiative: During the Mimicking Function warm-up, pairs must independently decide on and propose a gesture for each system before it is agreed collectively.

systems during the classification activity, applying conceptual knowledge to concrete cases rather than simple recall.

Problem-solving: The diagram assembly presents a genuine problem: students must determine where each organ belongs within the correct system without a pre-printed answer key.

Productivity & Accountability: Students produce a completed, written diagram that is cross-checked against the reference sheet and assessed by the teacher. The self-assessment form requires each student to evaluate their own learning against specific, verifiable criteria.

Leadership & Responsibility: During the pair presentation, one student takes the lead in delivering the spoken summary while the other supports. The teacher assigns these roles, but the presenting student is responsible for preparing and delivering the content accurately.

📚 METHODOLOGY

Duration	Lesson Flow	Activities	Materials Needed	AI Tools Integration
5'	**Warm-up Activities**	**Mimicking Function** The teacher displays the list of the four systems on the board. Students are asked: 'Do you know any of these words in your language?' The teacher elicits L1 equivalents, writes the English term alongside each one, and models pronunciation for choral repetition. Working in pairs, students discuss and agree on a gesture for each	Board or screen. • Vocabulary poster: four systems and main organs. • Agreed gesture chart (created during warm-up).	**TTS (Text-to-Speech) Tool:** Use a TTS tool to clearly pronounce the names of the systems (Circulatory, Respiratory, etc.), facilitating the understanding and repetition of complex vocabulary.

Duration	Lesson Flow	Activities	Materials Needed	AI Tools Integration
		system's function. Suggested gestures: • Respiratory: hands on chest, breathing in and out deeply. • Circulatory: fist opening and closing rhythmically (heartbeat). • Digestive: hands rubbing the stomach in a circular motion. • Nervous: fingers tapping the temples or mimicking an electric signal. The teacher names a system; students perform the agreed gesture and respond: 'The [system] + [verb phrase]' (e.g., 'The respiratory system takes in air'). **Location Circle** The teacher names an organ and students touch the corresponding area of their body. Before confirming, the teacher asks: 'What is this organ called in your language?' and writes the English term on the board alongside the L1 equivalent.		
20'	**Main Activities**	**Diagram Assembly** Working in pairs, students receive a blank diagram of the body with numbered spaces for each system and organ. Using the word list displayed on the board as a spelling reference, they write the correct term in each space. Once completed, pairs check their diagram against the reference sheet. **Classification of Actions** Students receive cards with actions (e.g., sleeping, eating, being physically active, laughing) and classify them under the system that works hardest during each action (e.g., being physically active → circulatory and respiratory systems).	Printed blank diagrams (one per pair). • Reference sheet with labelled systems (one per pair). • Word list displayed on the board. • Scissors and glue. • Daily action cards.	**Visual Quiz Generator:** The teacher uses an AI tool to create a short 5-question visual quiz where students must identify the organ just by looking at its image.
15'	**Wrap-Up & Sharing**	**Simple Presentation**	Diagrams assembled by students.	—

Duration	Lesson Flow	Activities	Materials Needed	AI Tools Integration
		Each pair presents one of the four systems from their diagram — the teacher assigns a different system to each pair to ensure all four are covered. Students use the sentence frame: 'This is the [system]. The [organ] + [verb phrase]' (e.g., 'This is the respiratory system. The lungs take in air'). After each presentation, the class adds one detail or asks one question using the Language for Learning phrases on the board. **Health Awareness** Each student shares one action they personally take to look after one of the four systems. Sentence frame: 'I take care of my [system] by ___.' The teacher accepts and validates all reasonable responses without correcting lifestyle choices. The focus is on using the target vocabulary correctly, not on prescribing specific health behaviours.	• Blackboard for summarising health actions.	
15'	**Evaluation & Feedback**	**Teacher Assessment (Observation)** • Observation of the use of Language for Learning during pair work (cooperation and clarification phrases). • Correct identification and written labelling of the four systems and their key organs in the blank diagram. • Accurate classification of at least three action cards under the correct body system. **Student Self-Assessment** • I can name the four main systems (circulatory, respiratory, digestive and nervous). • I can describe what each of the four systems does using a simple sentence (e.g., 'The stomach digests food'; 'The lungs take in air').	Teacher observation sheet. • Self-assessment sheet with simple icons.	—

Duration	Lesson Flow	Activities	Materials Needed	AI Tools Integration
		• I can identify which body system works hardest during a given action (e.g., 'The circulatory system works hardest when I am physically active'). • I know how to ask my partner or teacher for help using phrases from class. • I worked well with my partner and we finished the diagram.		

Co-Funded by the European Union. Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union or the Foundation for the Development of the Education System (FRSE). Neither the European Union nor FRSE can be held responsible for them. *Project number: 2024-1-PL01-KA220-SCH-000256498*