

CLIL LESSONS PLAN

Title of Lessons		The Airframe Structure
Class		5° A dell'I.T.S.T. "G.C. Falco" di Capua (CE) indirizzo in Trasporti e Logistica, articolazione "Costruzione del Mezzo" opzione in "Costruzioni Aeronautiche"
Subject		Struttura, Costruzione, Sistemi e Impianti del Mezzo Aereo
Time frame		8 H (4 lessons - 2 hours each)
Learning Outcomes/Objectives:	Content	→ Students should improve their knowledge about airplanes and should also be able to describe the parts of an airplane and give their functions; → Students should know the movements that an aircraft can perform in space and associate them with organs that ensure maneuverability and stability; → Identify the main constructive solutions for airplanes of different categories and for each of them define the fundamental constructive elements, advantages and disadvantages deriving from their use.
	Language	→ Learn the right vocabulary of the parts of an airplane; → Develop all four language skills within a content-based context; → Learn to search and select material and information in English using multimedia tools
Content		1. The aircraft design and structure; 2. Lifting surfaces; 3. The body of the aircraft: fuselage; 4. Controlling the flight of an airplane.
Language	Specific lexis	<u>Nouns:</u> aileron, airfoil, alloy, aspect ratio, bending, bracing strut, bolt, cantilever, cargo, cockpit, compression, design, efficiency factor, elevator, flap, framework, fuselage, induced drag, landing gear, pitch, rivet, roll, rudder, screw, shear, spar, stabilizer, stall, stringer, tension, turbulence, torsion, welding, wing root, wing span, yaw, horizontal and vertical tail; <u>Verbs:</u> arrange, attach, control, drop, flow, hinge, made up (of), roll, spread, swing, take off, turn.
	Syntax Structures	Grammar: comparison, modal verb, passive forms, conditional sentences.
	Skill focus	Reading, Listening, Writing, Speaking

CLIL academic Functions	Identifying, Classifying, Explaining, Comparing, Analysing, Evaluating.
EFL/ESP teacher involvement	Joint participation of the English teacher for both her specialized contribution (parallel structure lesson) and as a "critical friend" in the research-action process.
Personalization of content	Students realize that airplanes improve our lives and promote closer contacts among different cultures.
Teacher Activities 1. Warm-up elicitation activity 2. Presentation of content 3. Asking for feedback	Lesson ONE : The aircraft design and structure
	1. The teacher asks students if they have ever travelled by planes , if they know what a plane is made up of; 2. The teacher gives students a text about aircraft design and structure; 3. Individually questions and whole class activity
	Lesson TWO : Lifting surfaces
	1. The teacher asks students if they know what is the function of the wing and what are the basic wing plane shapes ; 2. The teacher shows students a Power Point presentation about wing structure and wing design ; 3. Individually questions, group and pair exercises. Correction of assigned exercises.
	Lesson THREE : The body of the aircraft
	1. The teacher supports learners showing pictures and photos on LIM and explaining specific and technical words; 2. The teacher gives students a L2 text about the different types of fuselage construction; 3. Complete a chart about the main types of fuselage structure.
	Lesson FOUR : Controlling the flight of an airplane
	1. The teacher asks students if they know what is meant by "control surfaces" and where are they located ; 2. The teacher illustrates, with the help of a movie, the movements of the aircraft in flight, which are produced and controlled by the control surfaces ; 3. FINAL TEST with multiple choice and open-answers questions.

Student activities	Lesson ONE : The aircraft design and structure
	1. Complete a spidergram with words related to the parts of an aircraft (warming up); 2. Reading a L2 text about stresses to which the parts of an airplane are subjected and take notes; 3. Students are given a gap-fill version of the text and asked to complete the text.
	Lesson TWO : Lifting surfaces
	1. Labeling a wing picture with words related to the different parts (warming up); 2. Watching a L2 PPT slideshow about the wing structure and the transmission of loads on the wing; 3. Students are given an exercise in which they match each term with its definition and then write a specific glossary.
	Lesson THREE : The body of the aircraft
	1. Listening to the teacher by looking at the LIM and asking questions for clarification; 2. Reading a L2 text about stresses to which the parts of fuselage are subjected and take notes; 3. Students have to examine or look for the differences between the monocoque type and the semi-monocoque type fuselage construction.
	Lesson FOUR : Controlling the flight of an airplane
	1. Complete some drawings in which are shown the effects of ailerons, elevators and rudder ; 2. Watching a video about the attitudes of flight and control surfaces; 3. Students have to do the final test.
Group dynamics	Students may work in groups, in pairs and individually and compare answers in pairs or groups.
Final product	Prepare a ppt presentation including information from the teacher's handouts, notes taken in class and from internet .
Resources / Materials	→ PC and Interactive whiteboard (LIM) → English textbook, handouts provided by the teacher and technical manuals. → Internet.

Evaluation/ Assessment	It will be used an analytic assessment grid for the oral performance in which language and content are evaluated separately. Language will be assessed in its communicative dimension and the criteria will be accuracy, fluency & interaction. Instead, for the content assessment, we adopt as criteria the different levels in knowledge of concepts and principles, elaboration and evaluation, referred to the specific subject. For the evaluation of writing it will be used a holistic rubric to assess both the language skills and content. The rubric presents descriptors and scores, so it is appropriate to check specific knowledge, such as in activities where only one answer is required, for example, multiple choice or true/false, and where students "creativity" is not required.
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Il docente


