CLIL "ROBOTICS" - LESSON PLAN

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Subjects: ICT, English language, science

Title: Robots in daily Life

Age Group: Secondary School (13 - 16)

Pre-Intermediated, Mixed Ability Class

B1 according to CEF (Common European Framework)

Group size: 30 students in class (6 pupils in a group)

Timing: 45 – 55 minutes

Place: Computers` Lab

Introduction: The aim of the lesson is studying the Use of robots in daily life. The students acquire knowledge that will help them understand what robots are used in different life situations and why are we using robots. They will be invited to create one common robot and write a description of it. The description should include the unknown fields of the robot use in daily life.

Learning Outcomes:

- Be able to check understanding about Robots by watching presentation of theoretical part.
- To improve communication skills doing a few words tasks in English.

- To practice in presenting the description of Robot functions and purpose in daily life.
- To develop critical thinking and creativity.

Subject Content:

- The purpose of Robotics, Sciences and Technology.
- The possibilities to use different types of robots in daily life.

- To enrich their vocabulary.
- To practice the use of vocabulary and internet resources doing different tasks about robots.
- To improve spoken and written language.

Tasks: The tasks are different according to the different level of students' abilities.

1. Solve the crossword.

2. Fill in the gaps with correct words.

3. Match the pictures with correct definition.

4. A description about robot in daily life "My robot"

Activities:

Session 1. Watching presentation and videos about robots in daily life;

Session 2. Check the understanding and useful information by doing WORDS tasks.

Session 3. Practical activity – creating a part of a common robot in groups.

Session 4. Presentations of descriptions.

Session 5. Feedback voting for the best function of final common robot.

Session 1: 20 (minutes)

- Create 5 groups of pupils, one or two students from every country in each group. Students are given the crossword which should be completed while listening the presentation.
  https://docs.google.com/spreadsheets/d/1BFBqtObBr9NtCIr0eyLSuwjHFqfripvK649y5l2Pq-s/edit?usp=sharing
  The keys:
  https://docs.google.com/spreadsheets/d/1IsFQOK8Aud9if3Eahvok4SlWzH0OVN-EzESH7ehwNV4/edit?usp=sharing
- Presentation of the information about the use of robots in daily life.
  http://prezi.com/4ehg68v3njaq/?utm_campaign=share&utm_medium=copy&rc=ex0share

Session 2. (10 minutes)

- Students check their vocabulary by doing different words tasks.

Task 1. Fill gaps with the correct word

WORD LIST: robots; programmed; vacuum; humanoid; designed.

1. ………….. are mechanical devices, programmed to perform specific repetitive functions.
2. Remotely controlled robots are used to check out suspect cars for booby traps, which they are also ………….. to disarm.
3. Robot, called the ………….. cleaner with a brain, covers every area of every room.
4. Nao is an autonomous, programmable ………….. robot developed by Aldebaran Robotics.
5. The delivery robots are ………….. to bring food directly from restaurants to customers doors.

The keys: 1. ROBOTS; 2. DESIGNED; 3. VACUUM; 4. HUMANOID; 5. PROGRAMMED.

Task 2. Match the pictures with correct definition.

https://docs.google.com/document/d/1kqNiWYtiKbdnBW4jNWVeagzX_UWxjMqi5s2mCKchpqc/edit?usp=sharing

The keys: 1. NAO robot; 2. Crime fighting robot; 3. Vacuum cleaner robot; 4. Sushi robot; 5. Food delivery robot.

Session 3. (15 minutes) Practical activity – creating a part of a common robot in groups. Each group gets different material and the part of Robot's body: (hands, legs, heard, body, base). Then they use their creativity and make the parts of the Robot. Then join their part to the whole common robot.

Session 4. (5 minutes) Presentations of descriptions. Students prepare the description and discuss the possible functions of the robot.

https://docs.google.com/spreadsheets/d/1qnE9VAEBazV1j_hZQK8p8qYV3TLe3lMQvSQm9MmOftE/edit?usp=sharing

Session 5. (5 minutes) Feedback: voting for the best function of final common robot.

Resources:

- The theoretical content about the robots in daily life.
  http://prezi.com/4ehg68v3njaq/?utm_campaign=share&utm_medium=copy&rc=ex0share
- Words Tasks handouts.
- Different material for making robot: matches boxes; foil; plasticine; paper; lego bricks.
- Computers with Internet connection (access in smartphones appropriate).