

Guidelines for CLIL Units

Unit Title: Stars, life and chemistry

Topic: hypothesis about life formation on the earth

Subject area: Chemistry, biochemistry and cross circular: physics, astronomy, biology.

Language: English

Language Level A1 A2 B1 B2 C1 C2

Target group: technical high secondary school

Time: 10 academic hours

Aims:

An approach to the extraordinary mechanisms that probably started the life on our planet, through the chemical processes which are the basis of life, as a means to awake interest in scientific researches

skills: developing a methodology for dealing with an interdisciplinary study

knowledge:

- notions about organic chemistry, nuclear chemistry, biochemistry, cell structure, physics, astronomy.
- cooperative learning using web tools
- scaffolding techniques to improve learning

Methodology, classroom activities:

- Teacher's presentation
- Peer tutoring
- Individual activities
- Pair/Group work
- Internet research
- Multimedia tools

Assessment tools: oral tests, conversation, written test, homework, feedback

Evaluation criteria:

- **for language**

use of grids to evaluate both oral and written linguistic production

congruence between technical and academic language

- **for content**

basic knowledge about:

- the structure of fundamental bio molecules and their functions in cell

- the mechanisms of transcription and translation

- fundamental differences between eukaryotic and prokaryotic cell

- the formation of elements and bio molecules in the universe

Students will be able to relate the above mentioned contents in English language

Documents and materials:

File power point, word, photocopies

Description:

Steps

- Power point presentation.

The presentation of the topic in the classroom through a power point file will include the following activities:

- reading and content understanding

- explanation and debate with the students

- listening to sound files and audio-visual archive for the understanding of the language

2) questions assigned to groups of students as homework

3) Review and discussion of the homework

4) Assign final test