

LEARNING UNIT

Istituto Comprensivo "Falcone Borsellino" Bardolino
Class 1-2-3 (middle school- secondary lower level)

Integrating Content L2 (English) digital technologies and science

Title of Learning Unit **OXYGEN AND LIFE ON EARTH**

We live on a planet where life is carbon-based and oxygen is one of the most important element to life

Referente: Erasmus group - Bardolino

Disciplines: English, Science, Technology Information, Music, Italian (literature),

European Framework Language level A1-A2

Goals: motivate students through approaching disciplines in a digital format, create an inclusive teaching/learning, inspire to cooperation and collaboration, strengthen the teaching research

let students be active during the lesson (flipped classroom), training language and communication competences

Final product: a digital presentation that includes various disciplines

Reality task performance Use multimedia devices to present the work done: G-Suit platforms

Key competences in the light of European reference levels

Communication in a foreign language (English)

Basic competence in science

Basic competence in technology

Basic digital competence

Social and civic competences

Learning to learn

Cultural awareness and expression

Specific Learning Outcomes

SCIENCE in English:

- explaining the formula of oxygen: O₂
- learning the process of photosynthesis
- understanding why the process of photosynthesis is so important for life on Earth
- learning how oxygen is absorbed through pulmonary alveoli;
learning how oxygen is carried around the body

PHYSICAL EDUCATION:

- learning to breathe (yoga)

- oxygen gives physical power
- learning the Heimlich Maneuver

MUSIC:

- listening to the symphony of a wood (video)
- technology helps to appreciate and respect what we can't hear due to our human limitation

ART

- Searching paintings, sculptures, murales, buildings with a connection to Nature
- Painting or creating (artcraft) an artwork with connection to Nature

TECHNOLOGY INFORMATION:

- - becoming aware that a natural eco-system no longer exists. Also the space isn't human-free anymore.
- - becoming aware of the effects of anthropic actions.
Pondering: "How can we better the evolution of our antropic system ?"

LITERARUREAND WRITING :

Reading a masterpiece (or a literary piece) of a national or European writer connected to Nature subject

Discuss

Write a short diary about a walk in the nature (wood, cuntry, park, garden...) observing what is artificial, what is natural, how oxygen is important to natural life

- :

ENGLISH:

- improving the competences in English and the abilities connected to it.
- learning lists of words referred to the topics of the different disciplines
- learning to look for information and new words on internet (Word-reference; Cambridge Dictionary, etc.)
- talking about the different topics

TIC

- Learn to surf in the Net, download materials for learning and studying, learn to make a selection of information and organize them
- build maps (also with digital tools)
- Lean how to do a presentation using PPT/ Prezi/ PowToon, video or other tools
- Communicate and work together, also with the teacher, through a Learning Management System: Edmodo/Google Drive

Work procedure

- The contents chosen are part of the curriculum of the disciplines
- The topics are not very broad but they are significant segments.

At the beginning of the Unit, in English and only if necessary in a mother language language (Code Switching), the teacher presents the reality task to be carried out: the objectives are presented, the work to be done is discussed.

Groups are organized and the class agrees on what is necessary to operate at the best during the various work phases of the activity.

- Pupils search for information and images relating to the authors and to paintings on Internet sites indicated by teachers and / or on texts taken from appropriately selected, adapted English Art books for children and integrated with didactic activities to promote understanding
 - The exchange of information in English is constant and developed with the supervision and coordination of teachers, also in co-presence, in order to guarantee a real collaboration between students.
- Teachers of other disciplines start from the paintings to carry on their lessons about Nature

Learning environment

- The methodological path is that of CLIL and cooperative learning.
- Pupils work in small groups, help each other, collaborate with their different predispositions, they share and compare solutions (peer education)
- Pupils use a variety of tools and information resources online in order to achieve the set common goals (problem solving).
- Individual work for the compilation of the glossary and for annotation of notes
- Work in groups of 4/5 in the various phases of work.

ATTENTION TO THE DIVERSITY

- Worksheets are prepared to facilitate the comprehension and oral production for pupils with difficulties in learning to be completed with the support teacher
- To facilitate the understanding of the activity, vocabulary lists will be prepared, with the explanation of the meaning in the mother language

.TOOLS AND TECHNOLOGIES

- The IWB: projection of presentations - Interactive explanations
- Document sharing in Edmodo and Google Drive
- Authentic texts adapted / taught according to pupils' needs
- Presentations in video format also with network links of best known and representative works of the chosen authors.
- PONS online dictionary
- PC, tablets
- PPT, PowToon, Prezi, Video app

EVALUATION

observation of the work and the acquiring/learning process

evaluation schedule of linguistic, transversal skills

evaluation grids of disciplines goals,

oral performance evaluation grid (content and language)

group reality task evaluation grid

self-assessment that pupils make of their work:

- they must be able to recognize which knowledge and which skills they have acquired in the disciplines
- be able to recognize what they need to achieve higher language and disciplinary skills.
- be able to reflect on their own learning, recognizing strength and weakness points in the abilities