



pLatform for INnovation in Natural science onlinE education

Didactic Unit (DU)/Lesson plan

The Frog

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OVERALL DESCRIPTION

| Sections | Description |
|---|---|
| 1. Topic/DU Title | The Frog |
| 2. Brief description of the DU | Students learn what an ecosystem is and in particular the pond and the pool. They have to know the different stages of the frog life and the characteristics of the amphibians. They learn a study method through a mind map. The methodology adopted is CLIL (Content and Language Integrated Learning) |
| 3. Beneficiaries | Pupils age from 9 to 10 |
| 4. Total hours | 14 hours |
| 5. Situation problem / reality or authentic task | Students should tell the frog's life and its different stages with a storyboard for younger schoolmates. |
| 6. Aim/s | <ul style="list-style-type: none"> • Earn a study method with mind maps • Improve the specific l2 vocabulary • Use the mind map software and slides for the storyboard • Recognize the different ecosystems and their characteristics, in particular the pond and the pool • Know the life stages of the frogs • Recognize amphibians through the characteristics of their body • Know how to draw the frog's body |
| 7. Subjects | Sciences, ICT, L2, L1, Art |
| 8. Expected results | An eBook about the frog life for young children using book creator |

WORKPLAN

| Phase/Title/ Lessons | Brief description | Subjects | Objectives | Knowledge and Competences | Educational strategy | Tools and resources | Setting* | Evaluation and assessment | Duration |
|-------------------------|---|-------------------------|---|---|---|--|---------------------------|---|----------|
| Ecosystem | <p>Getting to know the ecosystems.</p> <p>The teacher introduces the subject of ecosystems through the video 1</p> <p>The teacher introduces the materials including some keywords in L1, L2.</p> <p>Then Teacher presents a whole class activity- Students look and listen out for keywords whilst watching the video and try to answer the questions about the ecosystem</p> <p>Worksheet: 'Ecosystem keywords'</p> | Sciences L1, L2, Art | <p>Learning about living and non-living interactions</p> <p>L2 learning specific language and vocabulary in ecosystems.</p> | <p>Organise, categorise and classify knowledge of ecosystems</p> <p>Listening skills in English</p> <p>English Vocabulary for ecosystems.</p> | <p>CLIL Science: Directive - interactive, collaborative lesson.</p> | <p>Video1 YouTube video from Science for kids What are Ecosystems</p> <p>Keywords in L1 and L2</p> <p>Worksheet 'Ecosystem Keywords'</p> | Classroom PC or tablet | <p>Multiple-choice question sheet created by the teacher</p> <p>(see for example Ecosystems on www.ecosystemsforkids.com)</p> | 2 hours |

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|---|---|-------------------------------|--|--|---|--|---------------|---|----------------|
| <p>Animals living in fresh water or semi-aquatic environments.</p> | <p>The teacher explains the differences between ponds and pools and the ecosystems linked to each environment using the video 2 from the Linneo platform: Natural Lake and artificial pond https://youtu.be/p8q9UZQKCM.</p> <p>Then the teacher organises the students into pairs and asks them to make a mind map of what they have learned using Canva</p> <p>At the end of the lesson pupils present the maps they created to classmates</p> | <p>Sciences, ICTS, L1, L2</p> | <p>Learning about the inhabitants of Pond and Pool ecosystems and characteristics of their life cycle.</p> <p>Use of video to extract information and create mind maps to synthesise and collate the data.</p> | <p>To be able to identify the differences between two ecosystems (pools and ponds). Learning how to use mind maps and how they work to help summarise and analyse information collected.</p> | <p>Collaborative lesson in pairs, on the collection of information.</p> | <p>Video 2 from LINNEO project Natural lake and artificial pond</p> <p>Canva platform for creating the mind map.</p> | <p>IT Lab</p> | <p>Pupils draw individually a mind map about pools and ponds with Canva or another platform</p> | <p>6 hours</p> |

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| Lesson 3. The frog | After watching the video on Linneo platform (Video 3) and other videos about frogs (es: Video 4), students have to explain the life cycle of the frog from spawn to adult. Pupils are, then, divided into groups, and each group will be assigned a stage of development of the frogs (spawn, tadpole, froglet and frog). Students are asked to create a storyboard using slides, to explain to younger students the lifespan of frogs. | Sciences, ICTS, L1, L2, Art | Learn about the different aspects that influence the metamorphosis of frogs. How frogs adapt to these aspects in each cycle. | To be able to describe and explain To be able to describe and explain the biological changes in the life of frogs in their natural environment. | Teacher-guided group work lesson on the different stages of the life of frogs. | Video 3 from LINNEO project Fresh water and semi-aquatic environments Video 4 YouTube video from Free school The Life Cycle of a Frog: Metamorphosis from Tadpole to Frog for Kids Worksheet about the life of a frog created by the teacher Book creator | Classroom , IT Lab | In L2 students complete a question sheet about the lifecycle of the FROG created by the teacher (see for example Activity 3 Frog Life Cycle on Tilgate Nature Centre website) | 6 hours. |



*Setting: organisation of classroom space (physical and virtual) functional to the activity, provision of resources (technological and others), management of resources.

ECOSYSTEM KEYWORDS

Match the Keywords on the left to the correct definitions.

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|----|------------------|--|--|
| 1 | Biome | | Non living components of an eco system. For example -soil |
| 2 | Ecosystem | | Trees that lose their leaves in the Autumn. The temperate forest does not experience temperature extremes. Average temperatures range from 0-20c and the annual rainfall - 800mm |
| 3 | Abiotic | | A global scale ecosystem. Each biome has its own distinctive plants and animals. Biomes include- Tundra, Coniferous forest (taiga) temperate forest, desert ect. |
| 4 | Biotic | | Trees which are evergreen. They have needle like leaves. Example are the- fir, spruce and pine. |
| 5 | Deciduous Trees | | A small body of water found in the natural environment. Often inhabited by amphibians |
| 6 | Coniferous Trees | | The ways in which plants and animals evolve so that they can live in certain environments. They can survive in certain rainfall and temperature because they have been adapted. |
| 7 | Adaptation | | The interaction of living (biotic) and non-living(abiotic) components in a community. They depend on each other. |
| 8 | Meadow | | Living components of an ecosystem. For example birds |
| 9 | Pond or Pool | | An area of open grassland. |
| 10 | Rainforest | | Large woodland subjected to heavy tropical rainfall. |

Reproduce Monet's Painting "WATER LILIES"

