

CLIL Lesson: Biology

Developer: Katingo Vati

Timing: 45 minutes

Age of students: 12-13

Context and Prior Knowledge: This lesson is part of the topic of Amphibians in 7<sup>th</sup> Grade Biology (Czech Republic). This lesson will give the students a deeper understanding of amphibians today by exploring their evolution. Learners already have knowledge on the topic, as well as fish, so this will support their learning when moving on to their next topic of reptiles.

English Level: B1

Lesson Steps

<p>1. 7' 0-7 mins</p>	<p>Lead in and Connection to previous learning: Teacher to link prior knowledge (on fish and amphibians) to lesson on evolution. Show children the PPT and discuss where evolution of life starts from and recount events until early amphibians. <i>Q1 From the timeline you have seen, name some events that took place before the first amphibians? (make sure they mention the first fish to prepare for Q2)</i> <i>Q2 You mentioned the first fish, does that mean that fish evolved into amphibians?</i> <i>Q3 How do we know that all fish did not evolved into amphibians? (Fish still exist)</i></p> <p>Make a quick referral to the use of different tenses (Past, Present and Future). <i>We are talking about events that took place over 340 mya, so what tense will we use? How do you know?</i> Encourage the students to use the correct tense as this will show their understanding of events that took place in the past and prediction of the future.</p>
<p>2. 8' 7-15 mins</p>	<p>Discuss the fact that even though the first sign of life was a single cell, complex creatures appeared and started filling up the waters. <i>Why did some of these creatures move onto land? (Because the waters got crowded).</i> Give example 'Imagine if every person in the world lived in Kladno...how would you feel? What would you want to do?' Then link this to the fact that creatures moved on to land because the seas got crowded. Discuss how a lot of fish-like creatures decided to move onto land and they started using their fins and/or tails to support them. They managed to adapt to their habitat because they have "2 lives" or a double life. <b>In and Out slide:</b> <i>How could they breathe? Do fish have lungs? How can we explain how these fish-like creatures were able to breathe?</i></p>
<p>3. 5' 15-20mins</p>	<p>Compare a life cycle to an evolution timeline, one continues/starts all over again and the other continues without starting over- it keeps evolving/changing and can't turn back. <i>In a frog's life cycle we see many changes happening and in each stage the frog turns into or evolves into something else. Why is it called a cycle? (Because the process starts over again)</i> <i>Let's look at the evolution timeline...We can see that different creatures evolve into something else, a different form. Is this the same as a life cycle?How? Can you explain the differences?</i></p>
<p>4. 16' 20-36mins</p>	<p>Show Ichthyostega, one of the first amphibians and explain the use of roots and affixes in scientific vocabulary. Mention that for many scientific words we use root words and affixes deriving from the Greek language and some will be used for the particular activity. Explain to Ss that they will create their own early amphibian in groups of 3. Give each group a set of cards (preferably 4) so they can use 2 and make a name in order to create their own amphibian- Teacher to show own example. Explain the meaning of each Greek root and affix on the PPT, for example ichthyo/ichthys=fish, stega=roof, in order to support their learning. Ask them to work as a group to decide the name and design the amphibian. Remind Ss that they need to present their example to the class and they need to explain why they chose this. Encourage them to be creative, using lots of detail both in their design and their oral, or if they choose written description. In order to keep them on task, tell them that you are setting a timer for 15' and when it goes off they have to stop even if they haven't finished.</p>

5. 9' 36-45 mins	<p><b>Feedback</b> Ss now have to present their amphibians and explain why they chose these names or characteristics. The compound words should represent their creation/product.</p>
6.  EXTRA	<p><b>Intro to next lesson/topic</b> <i>What came after the early amphibians? Keeping in mind that fish are only in the water and amphibians live both in the water and on land, which creatures live only on land and are closely linked/connected to the amphibians? (reptiles- see what Ss come up with).</i></p>

**Resources:**

Chandler,F., Taplin,S. & Bingham,J. (2011), The Usborne Prehistoric World, Usborne Publishing Ltd

Craig,A. (1986), The Usborne Book of Prehistoric Facts (Records, Lists, Facts, Comparisons), Usborne Publishing Ltd

McCord,A. (1977), Children's Encyclopedia of Prehistoric Life, Usborne Publishing Ltd

Wheatley,A. (2013), The Story of Planet Earth, Usborne Publishing Ltd

Pictures of trilobites include their sources on the pictures which were taken from  
<http://www.photosforclass.com/>

<http://faculty.fmcc.suny.edu/mcdarby/animals&plantsbook/History/07-Explaining-Life-on-Earth.htm>

<http://www.discussfossils.com/post/permian-amphibians-and-fish-from-czech-republic-8034664>

<http://blogorgonopsid.blog.cz/1604/pravek-v-cechach-cesky-discosauriscus>

<http://kiddyhouse.com/themes/frogs/life-cycle-of-a-frog/>

<http://www.bio.utexas.edu/faculty/sjasper/Bio213/chordates.html>