

Explore CLIL by Using Robotics

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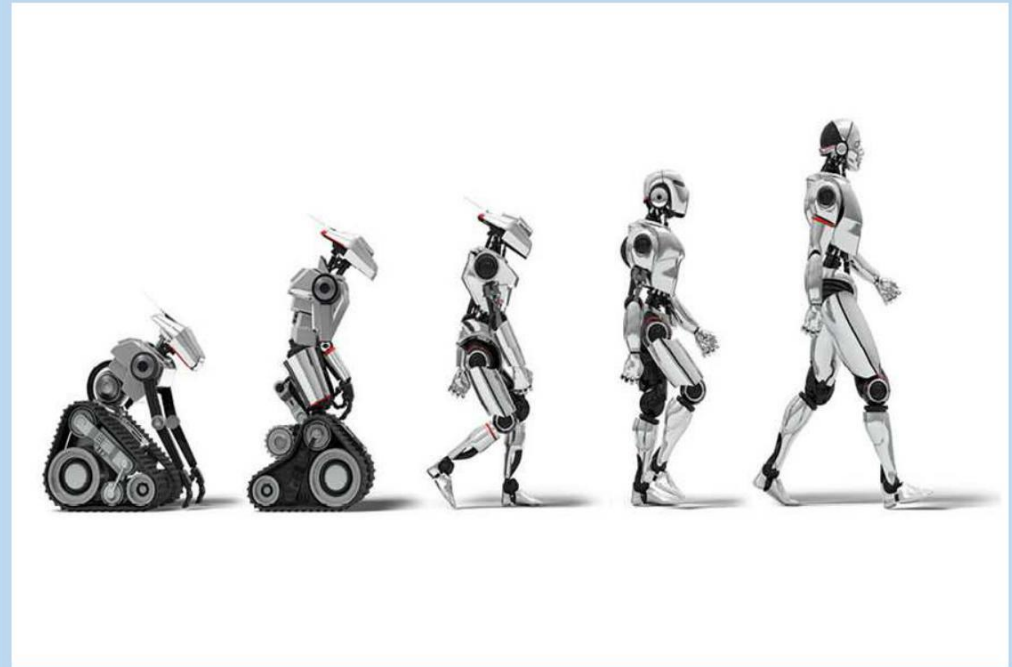
Topic:	Nature and robotics	
Age:	12-16	
Time:	45 minutes	
Competences:	Partner work / Group work / Listening skills	
Aim of this lesson:	Raise awareness of the possibilities and the dangers new technologies present	
Introduction:	Lesson topic 'Nature and Robotics' introduced via photos	
Tools:	Video / smartboard / document camera / worksheets	
Process		
	Step 1	Lesson topic 'Nature and Robotics' is introduced and 2 photos (see appendix) shown: <i>Talk to your neighbor for 2 minutes. Is there any connection? (2min)</i> Students remark on what they think about the connection of the presented photos.
	5 min	
Teacher's notes (if needed)	Sitting arrangement: one German student and one student from a partner school are arranged to sit next to each other at a group table so that they are forced to speak English and work together (partner work – students discuss photos)	
	Step 2	1 st presentation of video <i>Awesome Boston</i> (https://www.youtube.com/watch?v=3OKZ_n8QW4w) Students watch video and fill in chart
	15min	
Teacher's notes (if needed)	Before watching the video teacher distributes worksheets and explains the chart. Tasks are explained if necessary.	
	Step 3	In partner work students compare and discuss their results (chart) before the 2nd presentation of the video: Students complement their results by watching for details. After the 2nd presentation students talk about the video and the conclusions they have drawn.
	15 min	
Teacher's notes (if needed)		
	Step 4	In groups students think about and discuss possible fields of application for one robot as well as advantages and disadvantages
	5 min	
Teacher's notes (if needed)	Group work	
	Step 5	Groups present their findings and discuss the advantages and dangers of technical advances.
	5 min	
Teacher's notes (if needed)	(Results can be shown to the plenum by a document camera)	

<i>Robot's name</i>	<i>Are there any creatures that look or move like the robot?</i>	<i>What can the robot do?</i>	<i>Fields of use?</i>	<i>Benefits and risks</i>
Spot			2	
Spot mini				
Sand Flea	1			
Handle				
WildCat				
BigDog				
Atlas				

Nature



Robotics



Is there any connection? (2 minutes )

Source 1 (Nature):

Deer in the woods <https://www.zastavki.com/eng/Animals/Wild_artiodactyls/wallpaper-34364.htm>, 2018-11-28.

Source 2 (Robotics):

Ryan Etter : Envisioning the future of robotics <<https://robohub.org/envisioning-the-future-of-robotics/>>, 2018-11-28.