

Unternehmerisches Denken und sprachliche Vielfalt – eine Brücke in die Zukunft (2015- 2018)

AUL 4: April, 24 – 28, 2017

Augustenborg/Denmark

Geography: The water cycle

Katharina Killmann - Europaschule Gymnasium Rhauderfehn, Rhauderfehn/ Germany

## lesson plan (3)

## Topic/Title of project:

The water cycle: The water of the earth

Goals:

- Students improve their language skills by repeating some pieces of information about the water cycle
- Students learn to know each other by working together and discussing their observations.
- Students practice their speaking skills while talking to each other while making experiments.
- Students deepen their knowledge by learning key terms on water abound on Earth.
- Students get to think about the need to save drinking water.

Time	Phases/content	<b>GA</b> <sup>1</sup>	Material	Comments/Notes
1.	Introduction/Warm up			
3'	<ul> <li>Today we are going to repeat the water cycle and discover the water storage on Earth.</li> <li>Let's start with a papercraft</li> </ul>			Total Time: 3 minutes
2.		I	I	
18'	→ Students work on their papercrafts as said on worksheet 1 and fill in the blanks.	Group arrange ment 3 or 4 students	Vocabulary cards (the same like lesson 2) 1 "worksheet 1" for every student 1 papercraft DIN A4 for every student Different color pencils 1 fineliner black	For all materials required (Papercraft) see the open source: http://www.srh.noaa.gov/jetstream/atmos/II _watercycle_craft.html Color pencils in blue, yellow, brown, green, grey are needed for each group of students

<sup>&</sup>lt;sup>1</sup> Group arrangement, e.g. team, partner, ...



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			scissors	Total time: 18 minutes					
			glue sticks						
3									
5'	<ul> <li>Teacher asks students to give their results and fill in the overhead transparency</li> <li>→ Students compare on their own the results of</li> </ul>	Group arrange ment	Individual papercrafts 1 overhead transparency	Overhead projector					
	their papercraft with the transparency	:)		Total time: 8 minutes					
4		וחטו	Monket+ 2						
5'	<ul> <li>Teacher introduces the new topics with worksheet 2</li> <li>→ Students fill in the missing key word on worksheet 2, exercise 1</li> </ul>		Worksheet 2 for every student 1 overhead transparency "worksheet 2,						
			exercise 1"	Total time: 5 minutes					
5	Projekt work II: The wate	r on Farth		Fotal time. 5 minutes					
10'	<ul> <li>Teacher explains the procedure, helps if necessary</li> <li>→ Students work in their groups following the indications on worksheet 2.</li> </ul>	Groups of 3 or 4 students	Worksheet 2 for every student, exercise 2	<ul> <li>You need</li> <li>8 labeled 1000ml beakers for each group.</li> <li>Beaker N° 1 "Oceans" filled with 1000ml of water.</li> <li>7 labeled beakers without water: N°2: Glaciers and icecaps N° 3: Groundwater N°4: Fresh-water lakes N° 5: Inland seas (like Kaspian Sea, Black Sea, Aral Sea) N° 6: Soil moisture N° 7: Atmosphere N° 8: Rivers</li> <li>1 injection Total time: 10 minutes</li> </ul>					
	Conclusion and discussion	n		I					
9'	<ul> <li>Teacher gives the solution of real water ratio and asks students to compare the results with their own estimates.</li> </ul>		overhead transparency 1 for teachers						





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$\rightarrow$ Students discuss the		
solution.		
Teacher asks		
students which		
water can be taken		
as fresh-water for		
drinking and which		
water is saltwater		
Teacher asks if		
students see any		
problems on the		
water ratio.		
$\rightarrow$ Students discuss the		
need to preserve water.		
	Total time: 9 minutes	

## Things to organize/prepare before the lesson:

- 8 labeled 1000ml beakers for each group. •
- Beaker N° 1 "Oceans" filled with 1000ml of water.
- 7 labeled beakers without water: •
  - N°2: Glaciers and icecaps
  - N° 3: Groundwater
  - N°4: Fresh-water lakes
  - N° 5: Inland seas (like Kaspian Sea, Black Sea, Aral Sea)
  - N° 6: Soil moisture
  - N° 7: Atmosphere
  - N° 8: Rivers
- 1 injection

