

Subject	Biology		
Theme	<b>Some washing liquid examples are environmentally friendly, using red cabbage broth and test-strips</b>		
Teacher(s) name(s)	Biology teacher - Marina Seļionova English Language teacher - Nina Kokore	How many years of experience in CLIL	1
School	Daugavpils Saskana Basic School		
Students' age	12-14		

Lesson plan /  
activity description

**Check it: Some washing liquid examples are environmentally friendly, using red cabbage broth and test-strips**

- **Teacher chooses different kinds of washing liquid, brings red cabbage broth and test-strips**
- **Students do the experiments and write conclusions**

<b>Kinds of washing liquid</b>	<b>Environment using test-strip</b>	<b>Environment Using cabbage broth</b>
„Pure-Kleinz” hands disinfectant		
„ISANA” nail enamel remover		
Shower gel „Coconut”		
„Garnier” shampoo		
„Palmolive” shower gel		
„Peggi” shampoo for dogs		
„Fairy” washing up liquid		
„Garnier Fructis” shampoo		

**Conclusions:**

What kind of environment is it when you use test-strip?  
 What kind of environment does the cabbage broth show?  
 Do the results differ?

**Work order:**

Pour 30 ml (the amount is determined by a teacher) of red cabbage broth into a chemical glass.

Add some drops of washing liquid or lemon juice.

Evaluate the changes.

How has the colour changed?

Add some drops of lemon juice (if you want to test acid environment).

Put it on a tray.

Put down the test strip into the sample.

Compare the results.

**Questions for students:**

What colour do you see, when the liquid has got acid environment?

What colour do you see, when the liquid has got alkaline environment?

What kind of washing liquid is the best for your health and for your skin? What kind of washing liquid does not do any damages?

What kinds of environmentally friendly washing liquid do you know?

**How to make red cabbage broth?**

Take a bowl. Pour some water into it. Mix the water until it starts boiling.

Cut a red cabbage into pieces. Put the cabbage into the boiling water.

When the broth cools down, you can use it (for the lesson: the cabbage broth is made by teacher at home in advance).