

		
	<p>CHANGING FOR CLIMATE CHANGES</p>	

Experiment 5: Consequences of more CO₂ on acidification of sea-water

1. INTRODUCTION

According to the researchers, more than half of the CO₂ absorbed worldwide ends up in the ocean. Krill, plankton and seaweed play a significant role in this. ... The ocean stores 50 times more CO₂ than the atmosphere and 20 times more than plants on land. But since we produce more and more CO₂ we have to look at the consequences of that on the sea-water and the living organisms in the water.

2. ORIENTATION

What are the consequences of more CO₂ on acidification of sea-water?

3. PREPARATION

3.1. Materials:

- 2 cups
- (distilled) water
- Straw
- pH test strips

3.2. Method:

- Fill the cups half way with (distilled) water
- Put in each cup a pH test strip – cup 1 is the reference-cup
- Blow into cup 2 for one minute

4. RESULTS

Observations:

Compare the pH of the 3 cups – is the water acid, basic or neutral?

The water in cup 1 was neutral, which you can tell by looking at the pH test strip, which was dark green and on a scale had a value of 6,8. The second pH test strip turned from dark green to a yellowish color. On a scale it has a value of 5,9. The water in the glass was acidic.

5. REFLECTION

Can you make the connection between this experiment and the effect of greenhouse gases on the ocean?

Yes, we can. More greenhouse gases equals lower pH and unfortunately more acidic water, which is not good for all the creatures living in the ocean.

6. e-book

Take several pictures during the experiment. You can also film it.