de bron	eTwinning	ITET RAPISARDI DA VINCI
LICEO LINGUISTICO STATALE ILARIA ALPI CESENA	**CHANGING FOR CLIMATE CHANGES**	Zespół Szkół nr 1 im. Stanisława Staszica w Szczytnie

Experiment 4: consequence of acidification on sea-shells

1. INTRODUCTION

The increase in CO2 in the oceans resulting from human activities is the cause of ocean acidification. This phenomenon is a danger that should not be underestimated as it attacks very fragile balances within the ecosystem and food chains. Among them the best known is the dissolution of coral reefs for which a point of no return is expected already at the end of this century.

2. ORIENTATION

We discuss the phenomenon of ocean acidification by showing a simple experiment in which the dissolution of a shell in vinegar is observed. This will give us an idea of the impact of carbon dioxide emissions on the health of our oceans.

3. PREPARATION

3.1. Materials:

- 1 sea-shell
- 1 glass
- Some vinegar
- A clock

3.2. Method:

- Pour the vinegar into the transparent glass;
- Insert the shell inside the glass and begin to measure the time;
- The experiment will end when the shell has dissolved.

4. RESULTS

Observations:

When the shell is put in vinegar the reaction begins very quickly. Calcium carbonate comes into contact with acetic acid CH3COOH (normally present in vinegar with a concentration around 5%) to give the following reaction:

Gas bubbles from at the shell, this means that the shell is starting to dissolve. After a few days, the shell is gone

5. REFLECTION

We saw in the previous paragraph that a shell dipped in vinegar dissolves after a few hours. But what conclusion do we want to draw with this experiment of dissolving a shell??

Acidification of the oceans causes mollusk shells to become thinner and coral reefs to disappear..

6. e-book

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