

GERMINATION AND POLLUTION

(Level: primary school to high school)

SUBJECT: BIODIVERSITY
EXPERIMENTS TO DO IN CLASS

1. THE QUESTION

“Can seeds germinate under any conditions?”

To answer this question, the association Planète Sciences and ADEME* propose the following experiment.

2. MATERIALS

- 2 transparent bowls
- 2 saucers
- 1 water vaporizer
- Paper towels
- Vinegar
- Watercress seeds

3. EXPERIMENT

1. Put a paper towel on each saucer.
2. Vaporize water onto 1 saucer and pour vinegar onto the 2nd saucer.
3. Place some watercress seeds onto each saucer and cover with the bowls.
4. Put the saucers in a warm place and wait 2 days.

4. GOING FURTHER

The seeds placed on the saucer with vinegar did not germinate. Actually, some plant and animal species can't support acidic conditions (vinegar is acidic) and they may perish when the environment becomes acidic. This acidification can be due to water polluted with acidic products, but can also result from a rise in atmospheric CO₂ which after becoming fixed in water, results in its acidification (see Experiment on Ocean Acidification).

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This experiment was designed by the association Planète Sciences.

