

## Food preservation

Many food products that we buy in shops have a small number of microorganisms. This does not mean that they can't be eaten but this means that if these microorganisms multiply they can make those products unsuitable to be eaten.

Here we propose you to investigate different methods to preserve food.

Needed material:

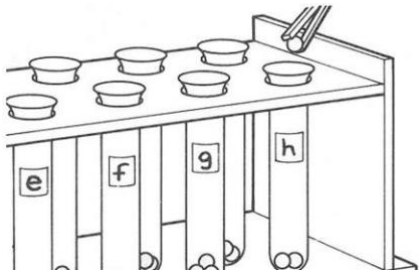
- Frozen peas	- 8 test tubes
- Diluted saline solution	- Tweezers
- Concentrated saline solution	- Cotton pads
- Solution of sodium nitrite	- marker
- Vinegar	

**Class 1:** You need to follow the procedure that it is indicated on the left part of the following diagram and write on the right part why you have done each of the indicated steps:

**Procedure:**

**why:**

With the marker write on the 8 test tubes letters: A, B, C...G and write down the date on each tube. With the tweezers insert 3 peas inside each tube.



Fill in until the middle the tubes from C to G by following these indications:

- C: distilled water
- D: Diluted saline solution
- E: concentrated saline solution
- F: vinegar
- G: solution of sodium nitrite

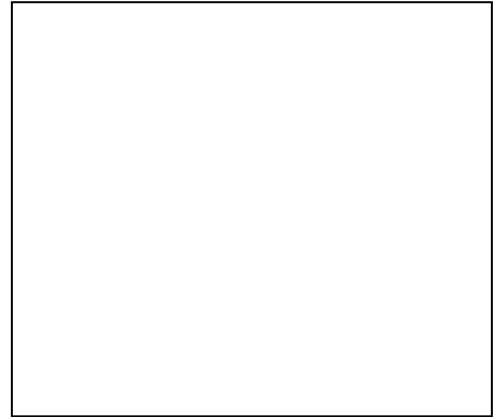
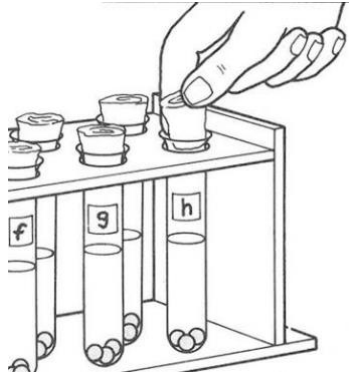


Aquesta proposta s'acull a una llicència Creative Commons BY-NC-SA.

<http://creativecommons.org/licenses/by-nc-sa/3.0/es/deed.ca>



Cover the tubes with the cotton pads. Insert the test tube A in the fridge. Leave the other tubes next to a heater, at around 30°C



## Class 2:

- Describe the aspect of the peas in each tube. Write on a Chart your observations about what has happened in each tube.
- From these observations, what effect does temperature have in the development of microorganism? Which two test tubes do you need to compare to answer this question?
- Why do food products become unsuitable to eat?
- How do the different food preservation methods work?
- Some food products are preserved thanks to vacuum packages. How do you think that vacuum packaging may influence in the development of bacteria? Why?
- Why do you think that may food products that have been packaged contain the sentence "Best before..."
- Which food preservation methods do you use at home?