

# IDENTIFICATION OF LIVING MOLECULES

Reference : KIMV



## The Earth in the universe, life and the evolution of life

Cognitive objectives:

Implement a process (chemical analysis) to identify certain characteristics of living molecules.  
The chemical elements of living organisms constitute molecules. Lipids, carbohydrates, proteins.

Proposed activity

Using conventional reagents, identify the presence of carbohydrates, proteins or fats in different fruits and vegetables and on egg white.

Four tests will be carried out:

- Revealing the presence of carbohydrates in an apple: Fehling liquor test
  - Demonstration of the presence of starch in the potato: Iodized water test
  - Demonstration of the presence of lipids in the nut: SUDAN red test
  - Demonstration of the presence of protides in the egg white: Biuret reagent test.  
For each test, in parallel a control test will be suggested on purified molecules (sucrose, starch ...)  
Composition for 20 pairs of students:
- 100ml of Fehling liquor

- 100ml of iodized water
- 100ml of SUDAN Red at 1%
- 100ml of Biuret reagent

Instructional and technical instructions available on our website.