AlloSchool

Physique et Chimie : 1ère Année Collège

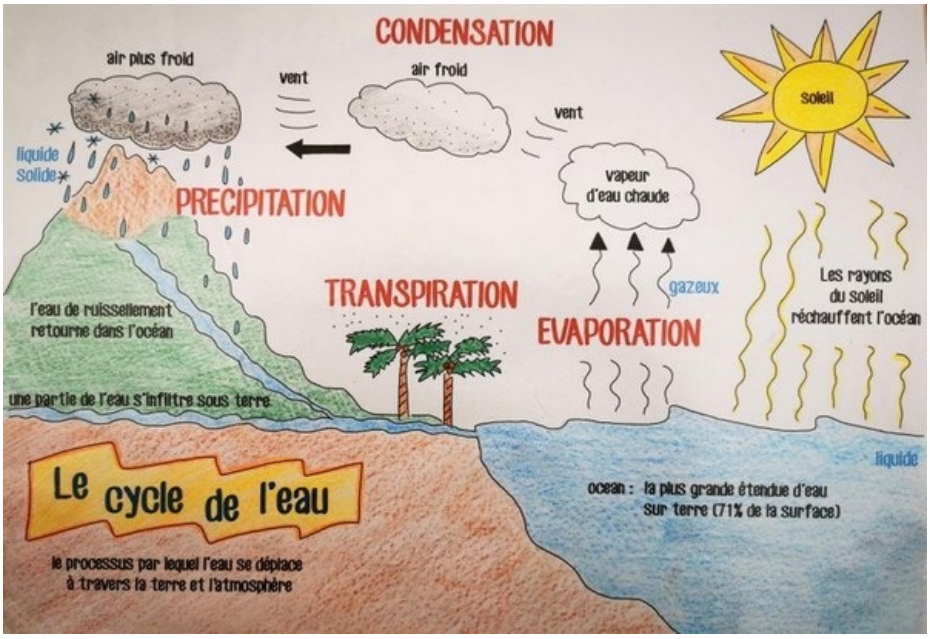
Révision Semestre 1

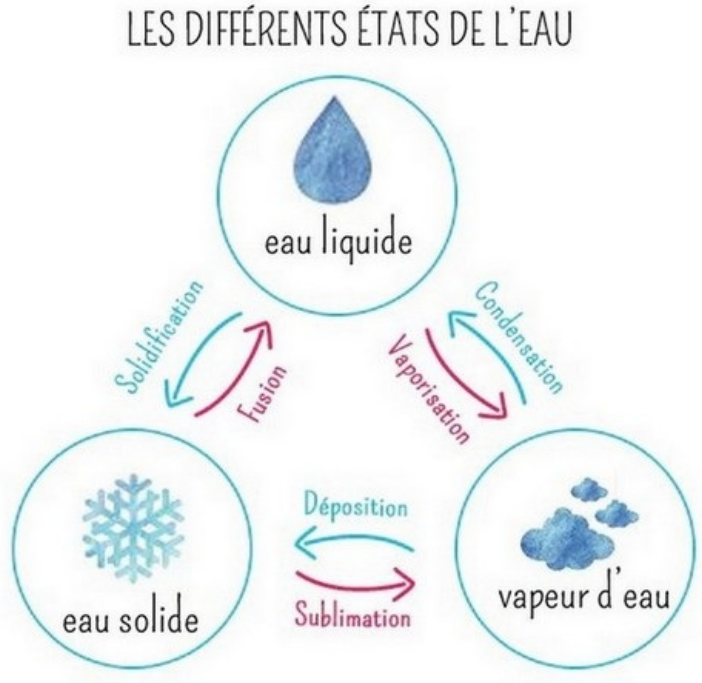
Professeur : Mr El GOUFIFA Jihad

Sommaire

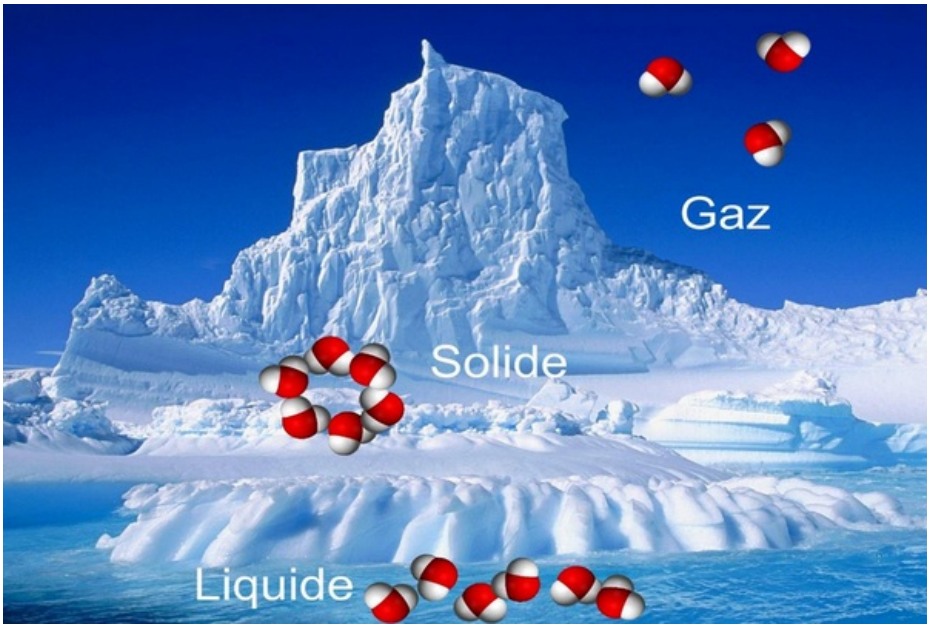
1- L'eau dans notre environnement

Mers et océans	$97,2\%$
Glaces polaires et glaciers	$2,15\%$
Eaux souterraines	$0,63\%$
Lacs et rivières	$0,01\%$
Atmosphère	$0,001\%$





2- Les états physiques de la matière



	Les solides compacts	Les solide non compacts (divisés)
Les propriétés physique	• Faits d'un seul bloc • Ont une forme propre • Ont un volume constant • On peut les saisir avec les doigts	• Formés de grains ou fragment très petits • N'ont pas une forme propre (ils prennent la forme de récipient dans lequel ils sont placés) • On ne peut pas les saisir avec les doigts
Exemples	Un bol, un cahier, un crayon	La farine, le café moulu, le sel

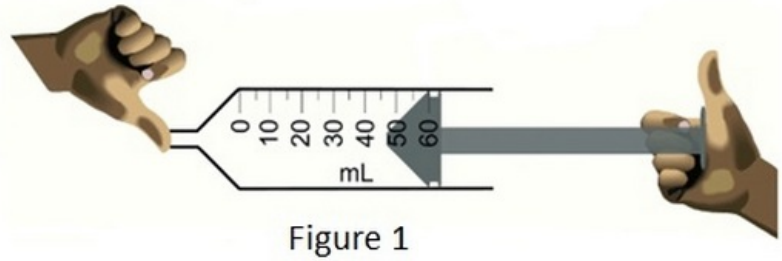
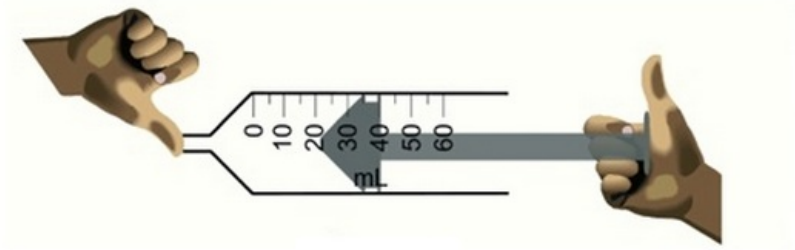
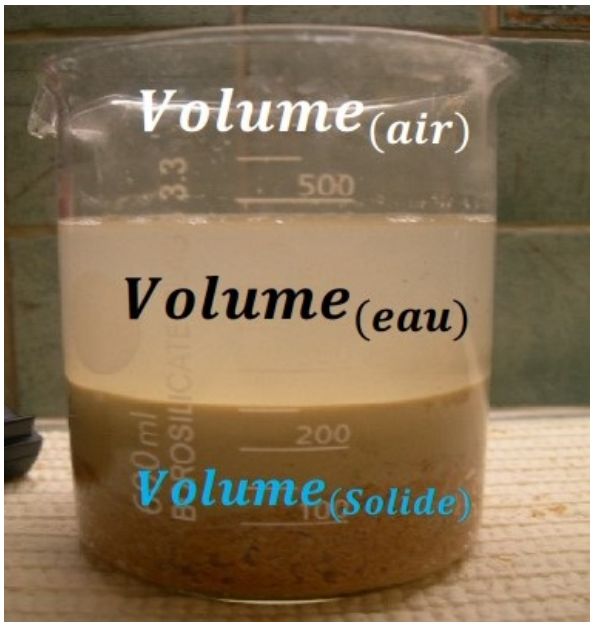


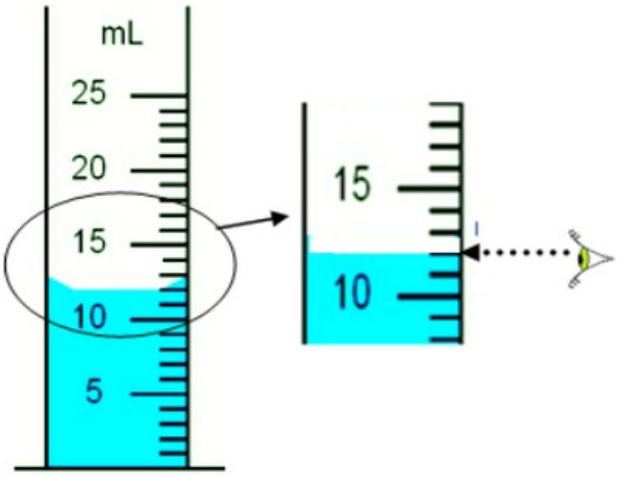
Figure 1

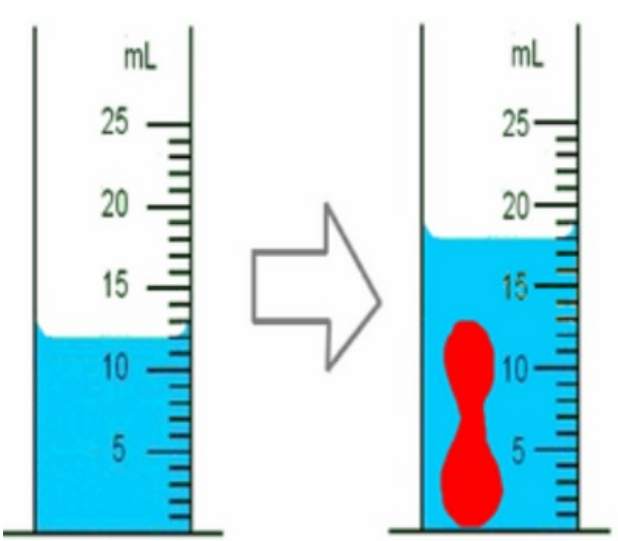


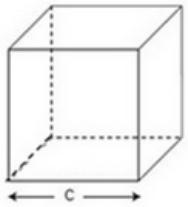
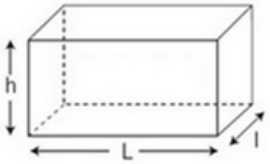
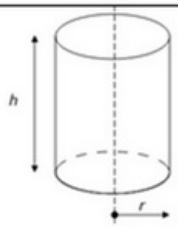
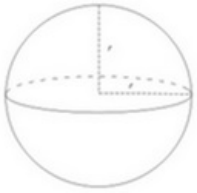
3- Mesure du volume des solides et des liquides



hm³			dam³			m³			dm³			cm³			mm³		
											L	dl	cl	ml			

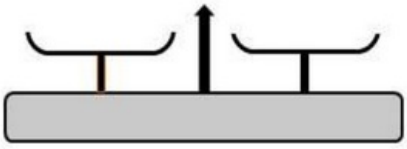


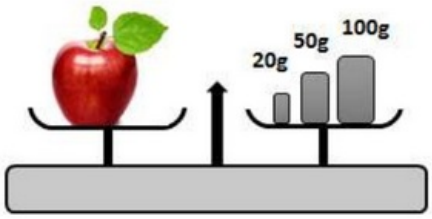


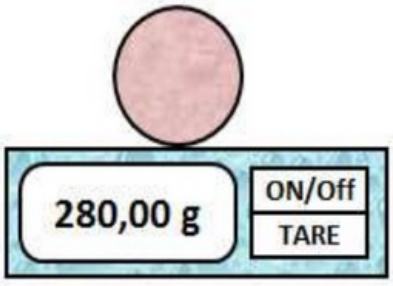
solide	cube	Parallélépipède rectangle	cylindre	sphère
Forme géométrique				
Volume V	V= c x c x c V= c^3	V = L x l x h	V= π x r x r x h V= π x r^2 x h	V=4/3 x π x r x r x r V= 4/3 x π x r^3

4- Mesure de la masse des solides et des liquides

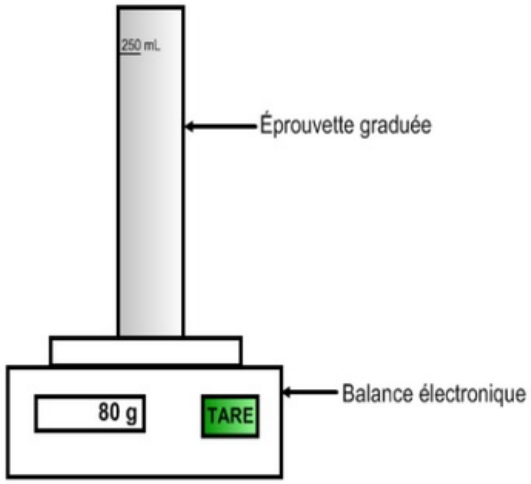
Unité	tonne	quintal		kilogramme	hectogramme	décagramme	gramme	décigramme	centigramme	milligramme
Symbole	t	q		kg	hg	dag	g	dg	cg	mg

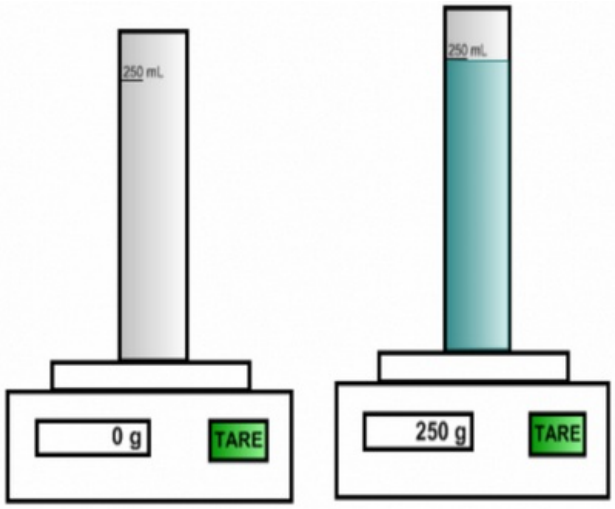




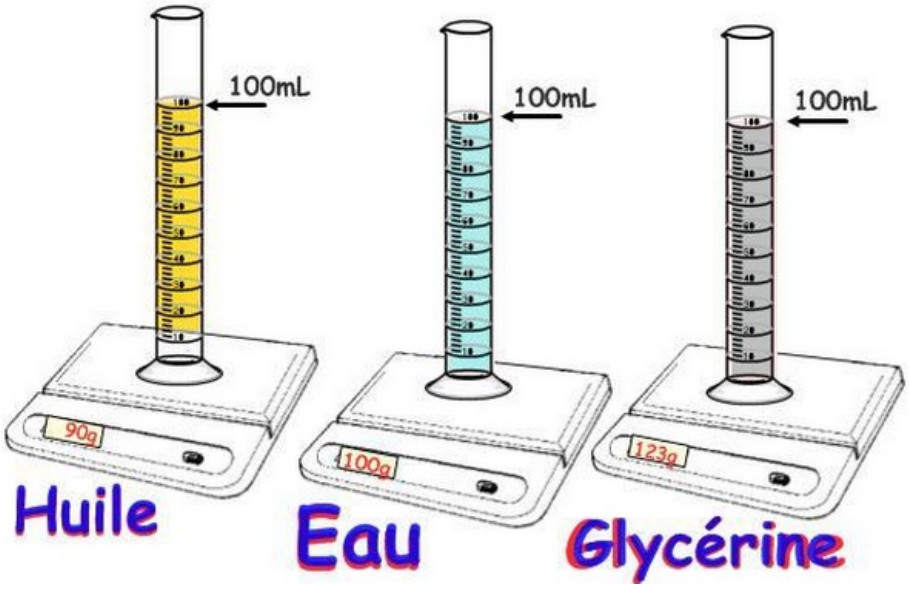


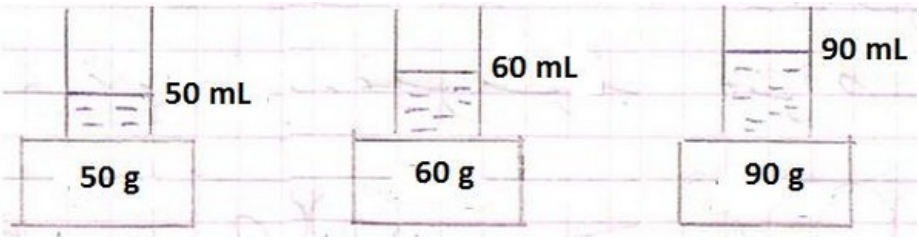
la balance est remise à zéro | *m = 280 g*

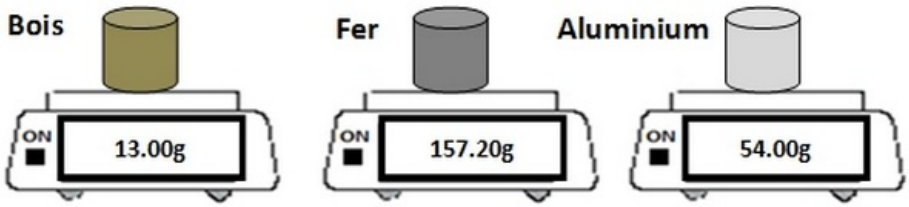


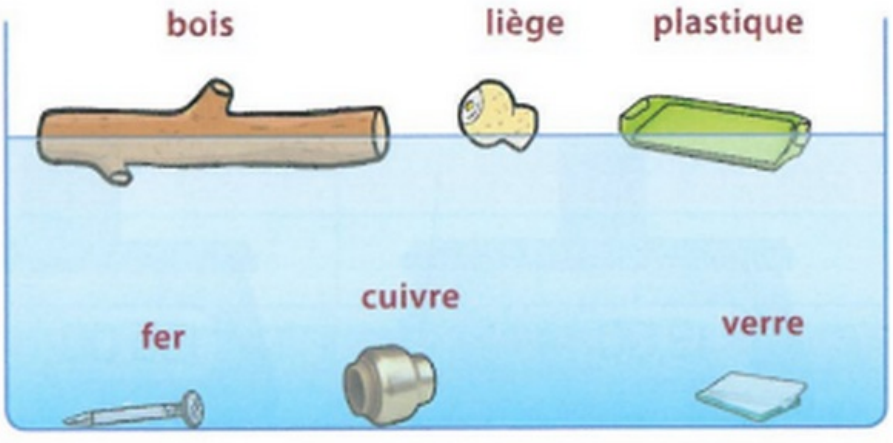


5- La masse volumique

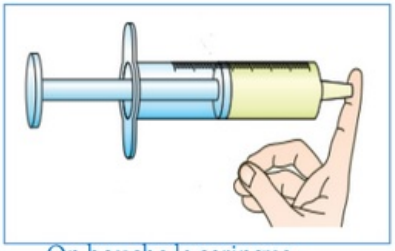


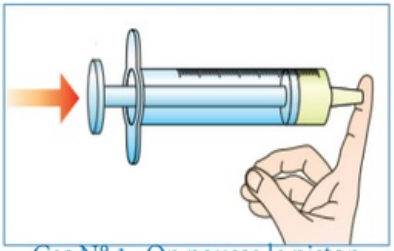


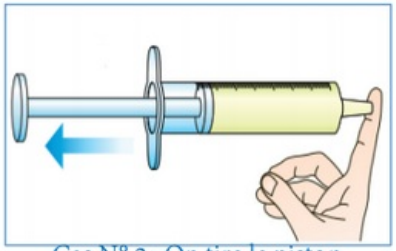


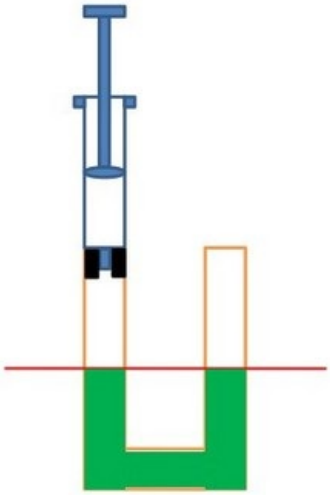


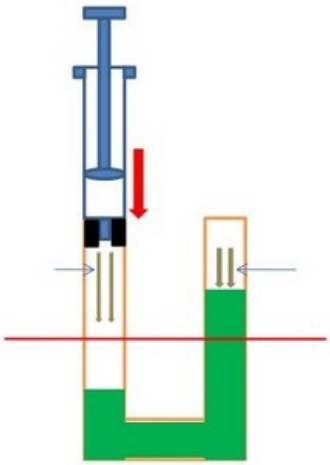
6- La pression et la pression atmosphérique

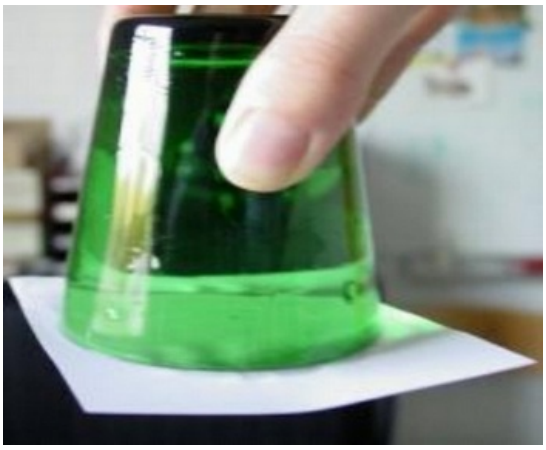

On bouche la seringue


Cas N° 1 : On pousse le piston

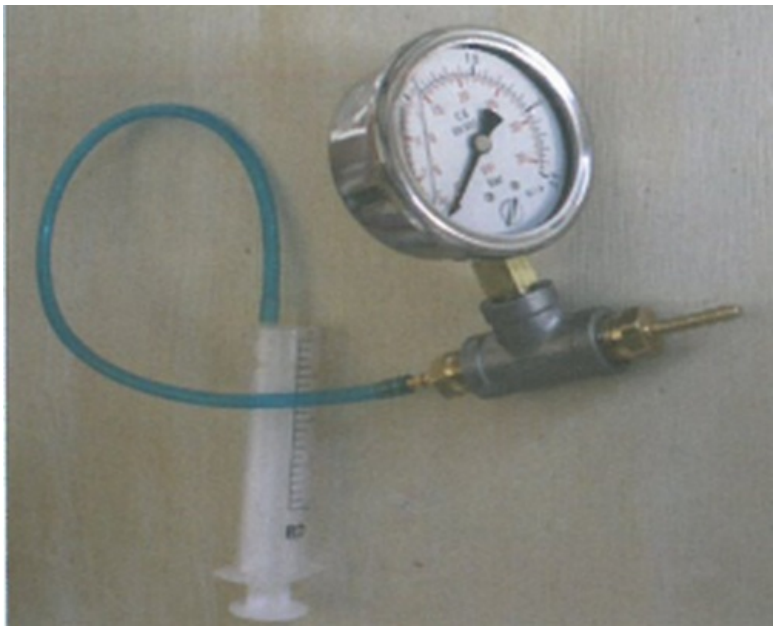

Cas N° 2 : On tire le piston



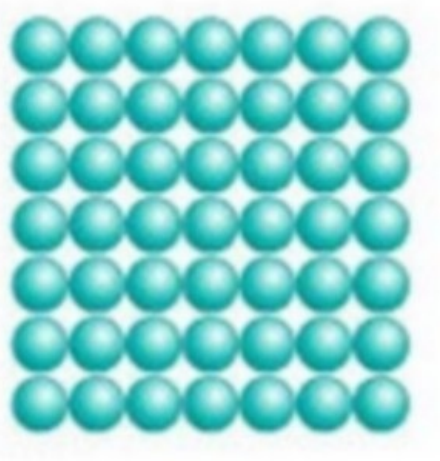




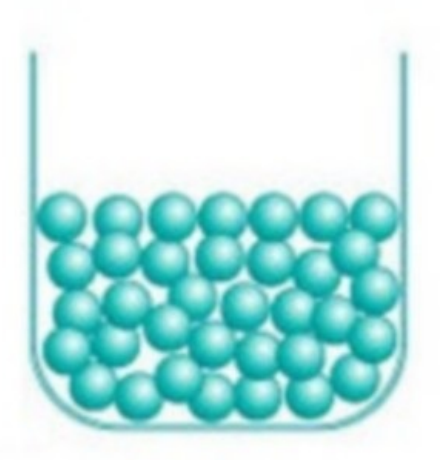

Graduations
Aiguille
L'unité utilisée
L'entrée du gaz
0
2
4
6
8
10
bar



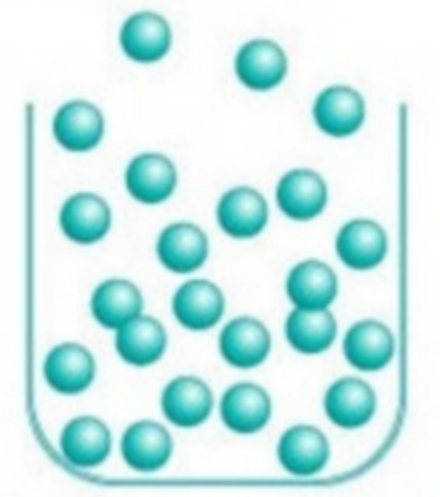
7- Le modèle particulaire de la matière



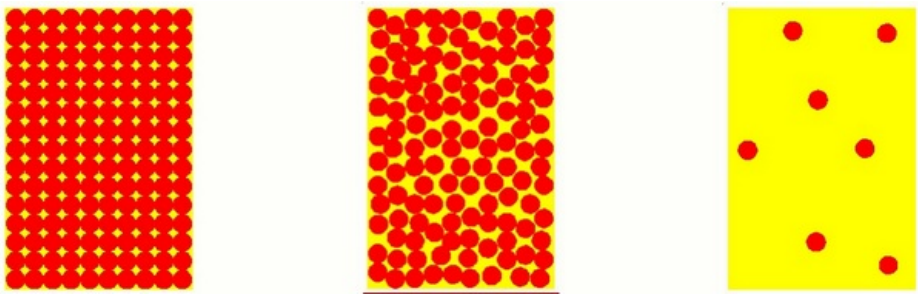
solide



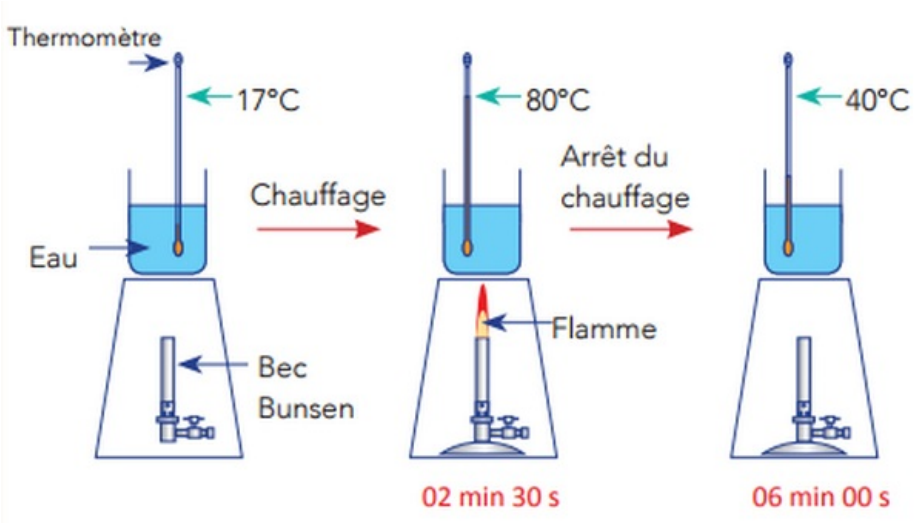
liquide

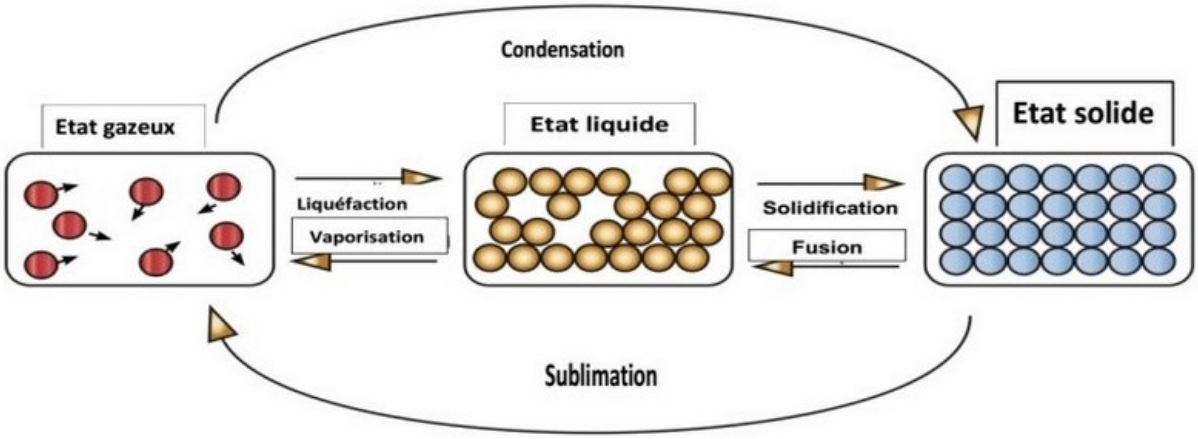


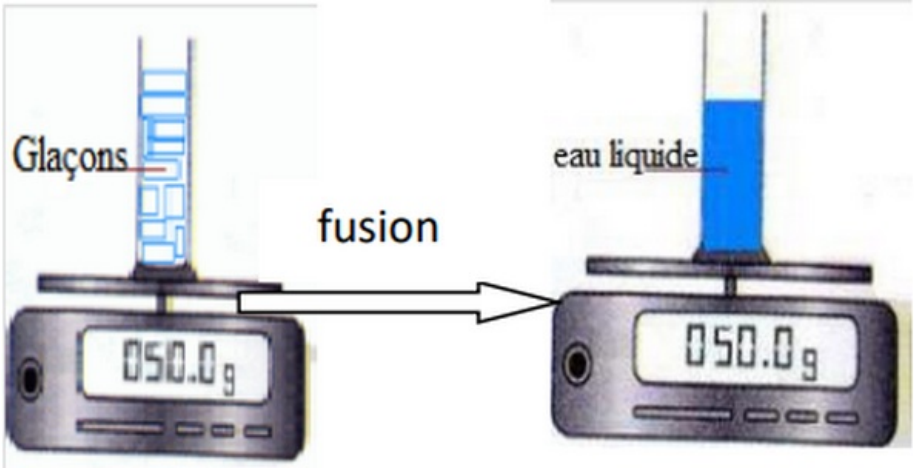
gaz



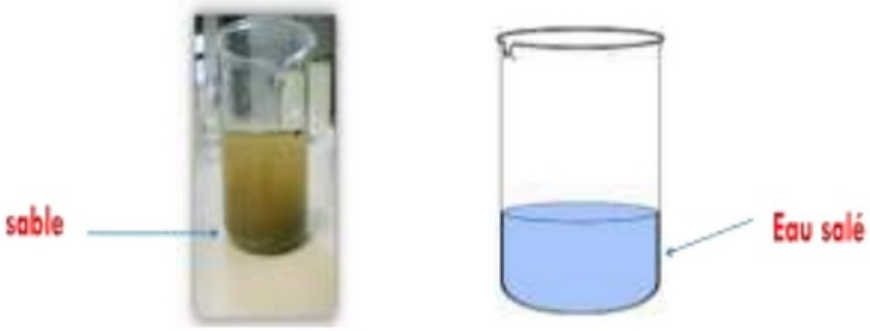
8- La chaleur et les changements d'état physique de la matière

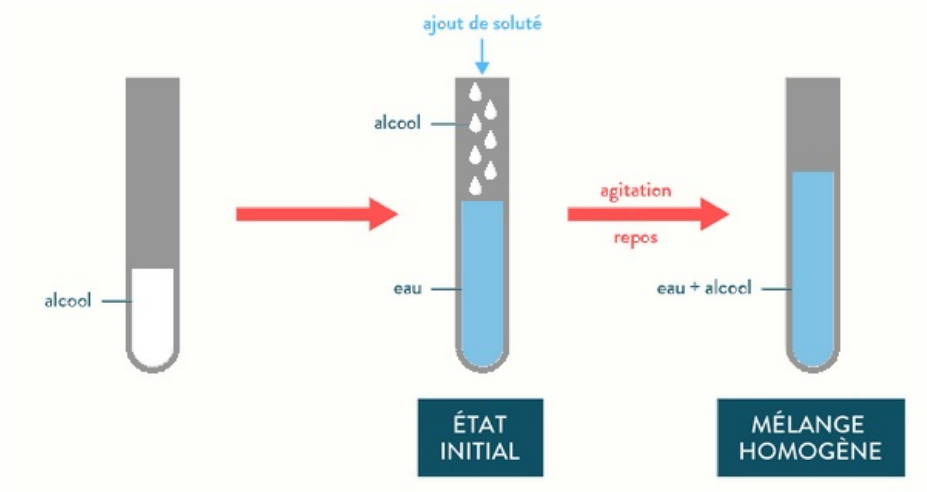


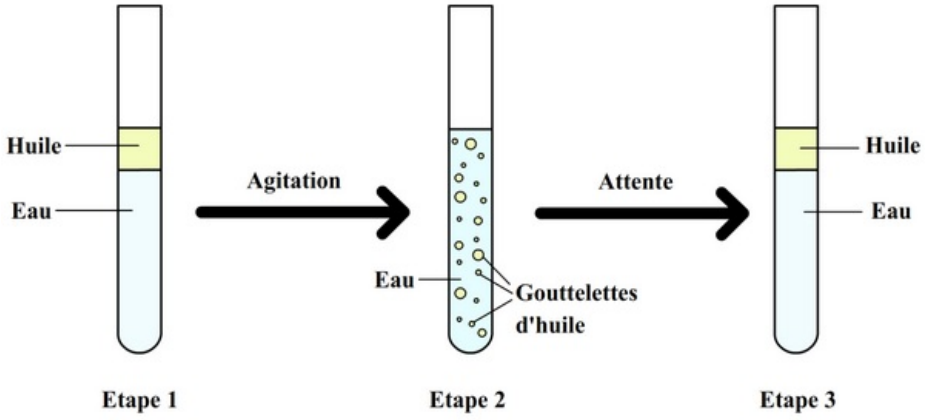




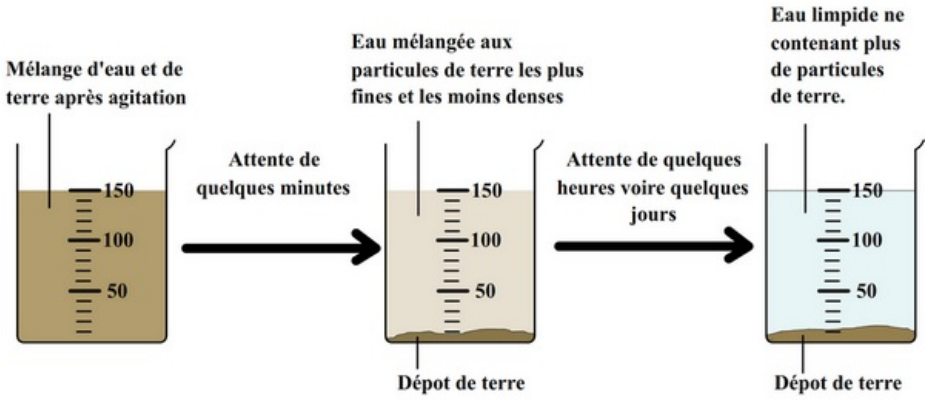
9- Les mélanges

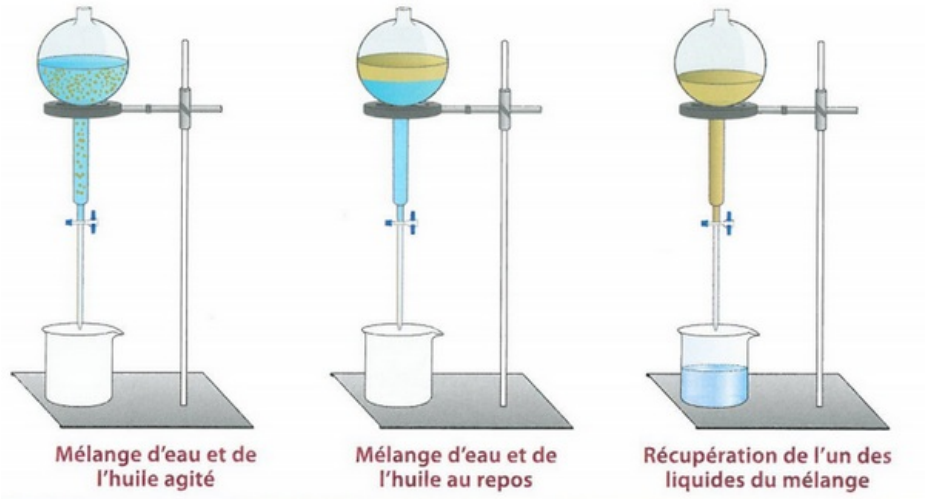


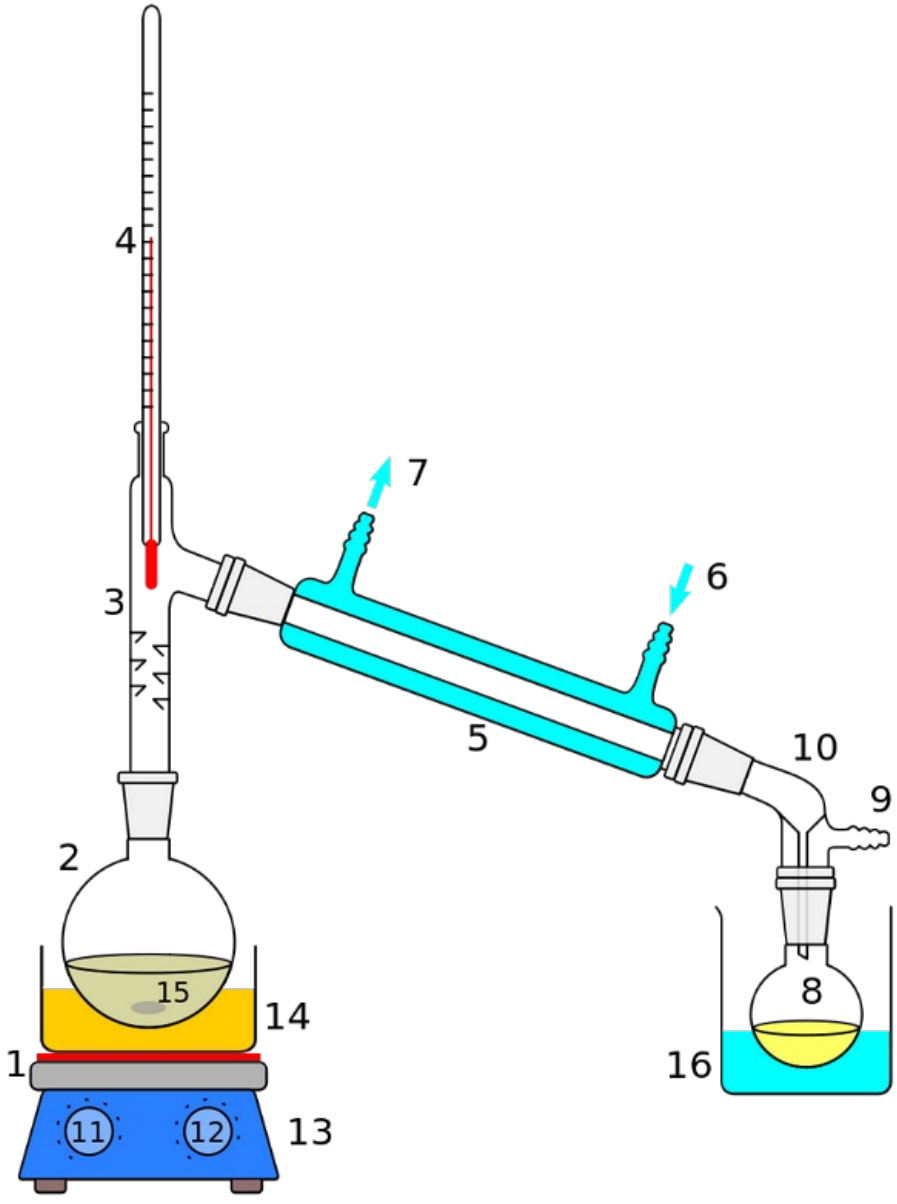




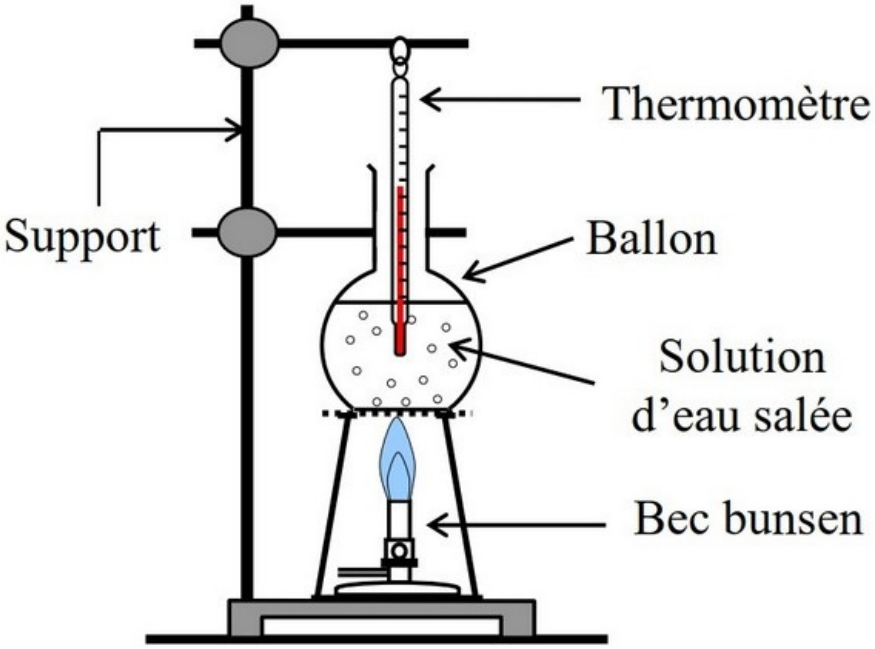
10- La dissolution dans l'eau

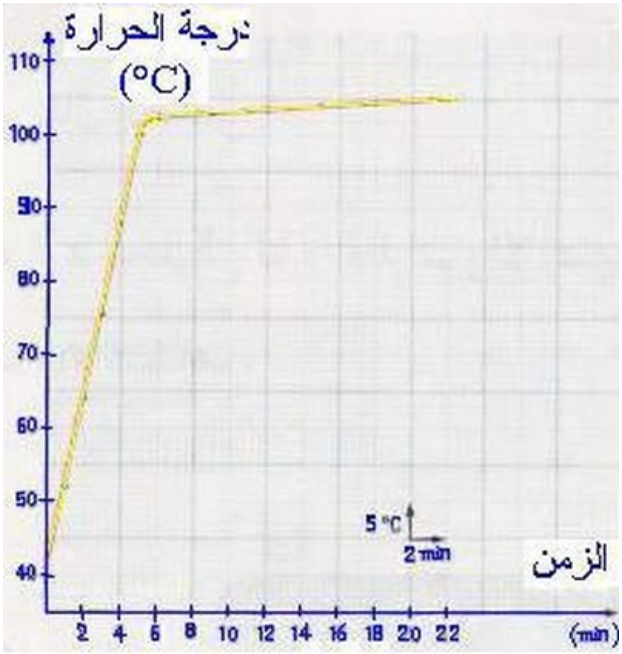


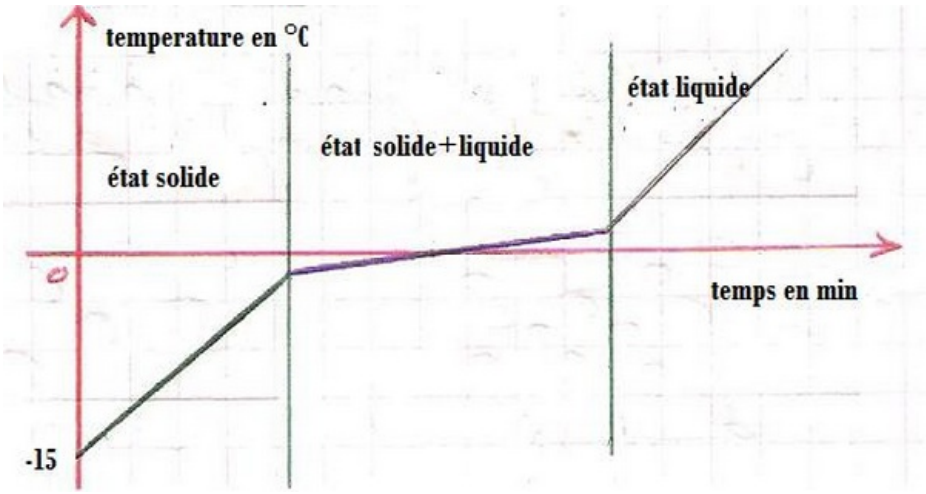


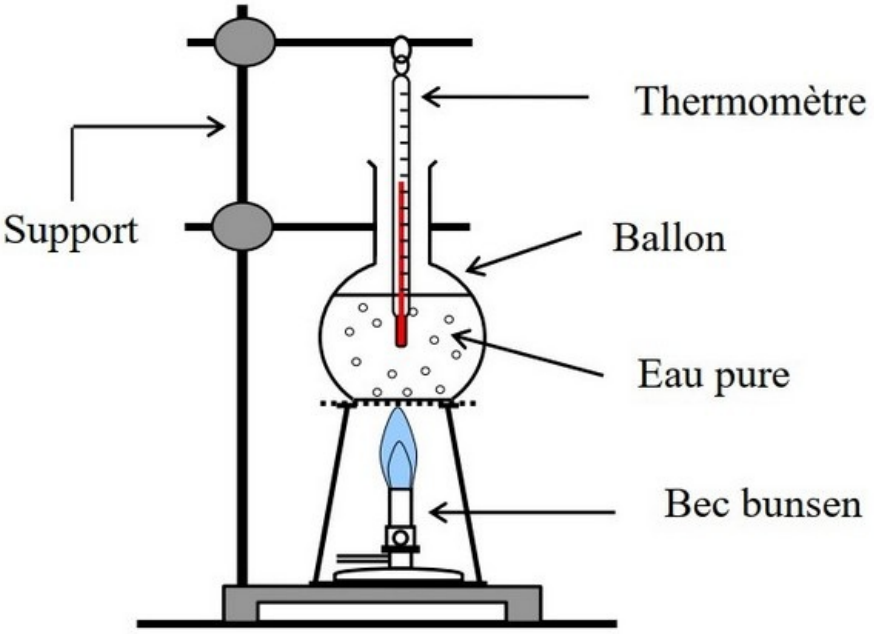


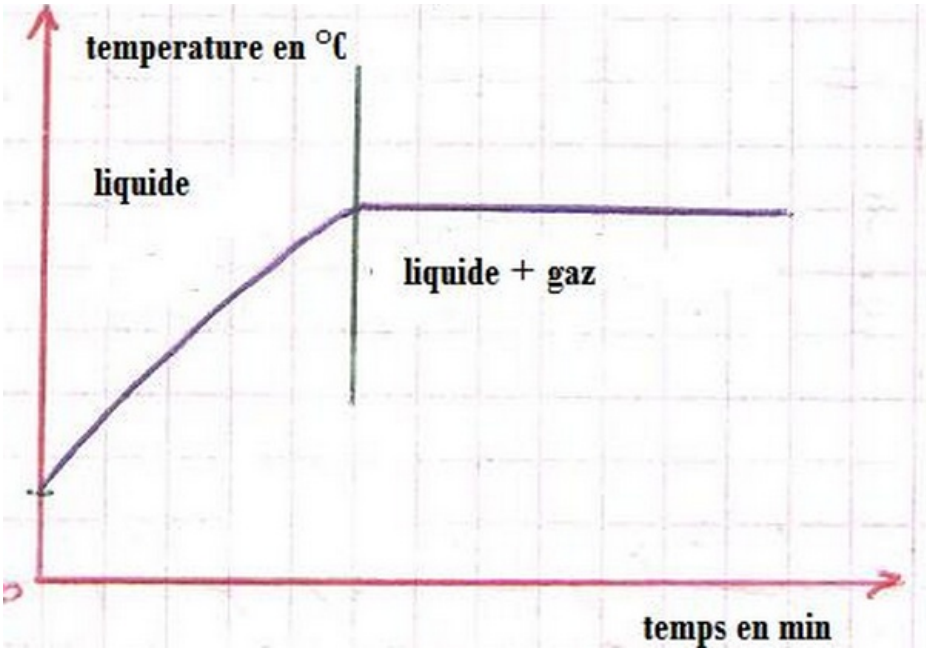
12- Le corps pur et ses caractéristiques

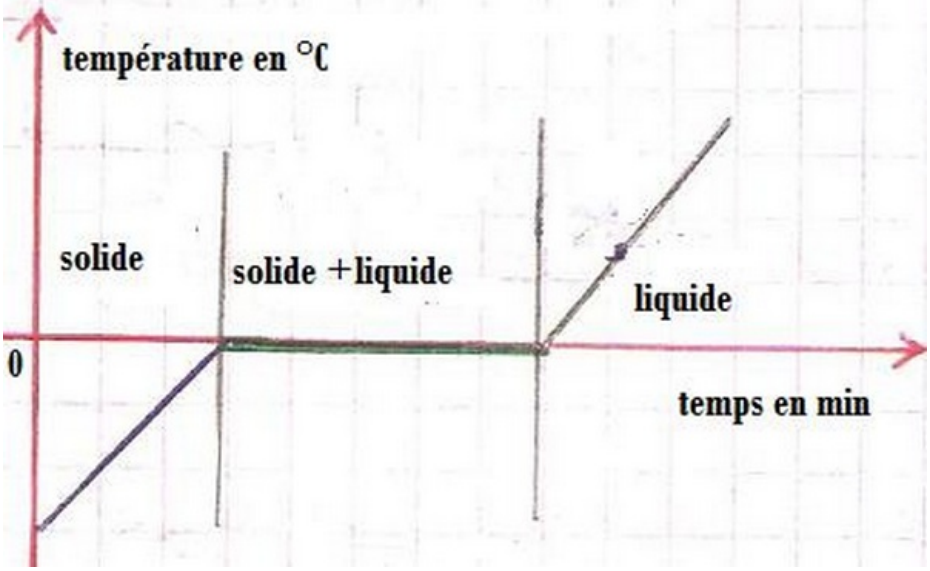

Thermomètre
Support
Ballon
Solution
d'eau salée
Bec bunsen


درجة الحرارة
(°C)
110
100
90
80
70
60
50
40
5 °C
2 min
الزمن
2 4 6 8 10 12 14 16 18 20 22
(min)

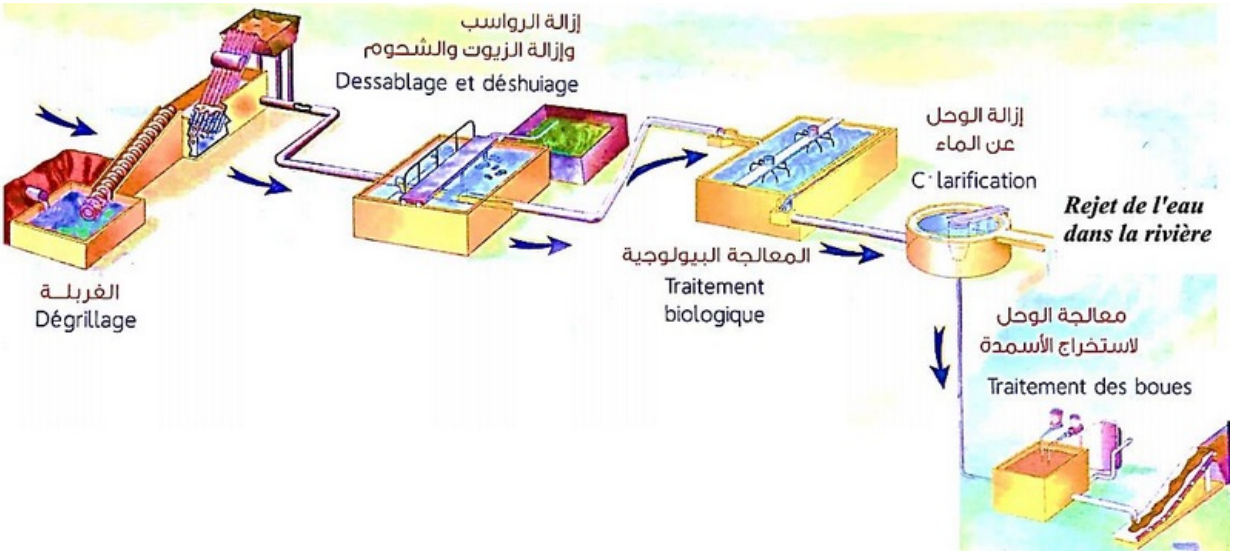

temperature en °C
état solide
état solide+liquide
état liquide
0
temps en min
-15

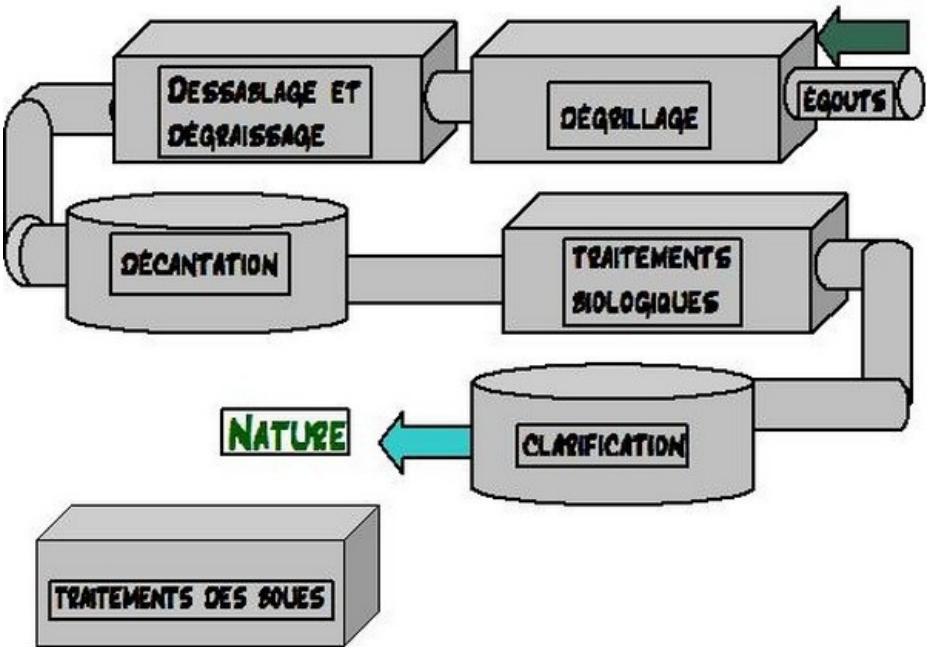






13- Le traitement des eaux

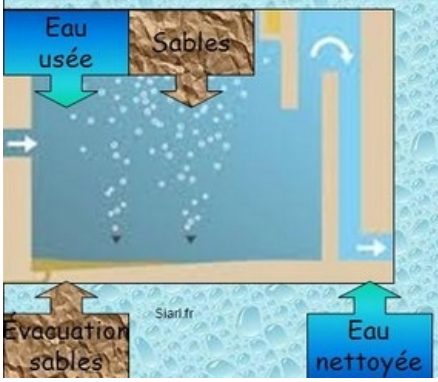

إزالة الرواسب
وإزالة الزيوت والشحوم
Dessablage et déshuiage
إزالة الوحل
عن الماء
C·larification
Rejet de l'eau
dans la rivière
المعالجة البيولوجية
Traitement
biologique
الغربلـة
Dégrillage
معالجة الوحل
لاستخراج الأسمدة
Traitement des boues


DESSABLAGE ET
DÉGRAISSAGE
DÉGRILLAGE
ÉGOUTS
DÉCANTATION
TRAITEMENTS
BIOLOGIQUES
NATURE
CLARIFICATION
TRAITEMENTS DES BOUES


Un dégrilleur:
Fonctionnement d'un dégrilleur:
observatoire-eau.vendee.fr
Eau
usée
Dégrilleur
Eau
nettoyée

Un dessableur:

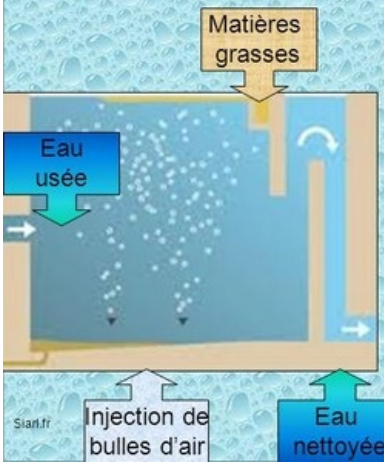
Pour le moment, nous nous intéressons seulement à la partie dessablage:



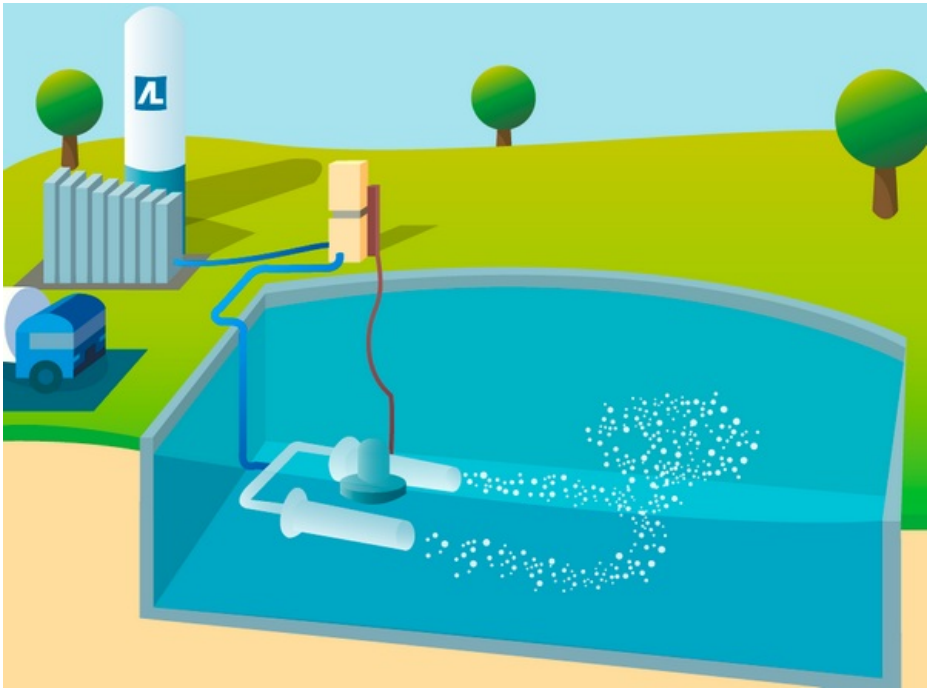
step.ouvaton.org

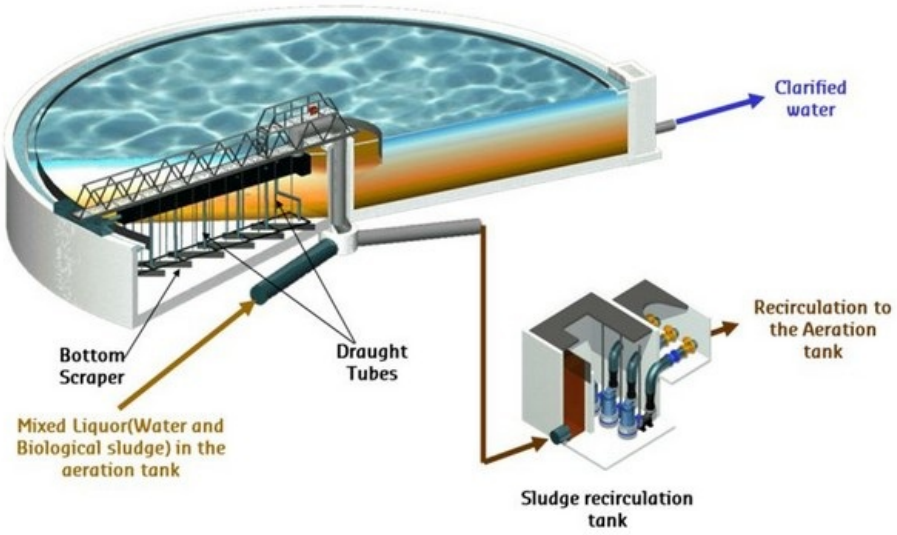
Un dégraisseur:

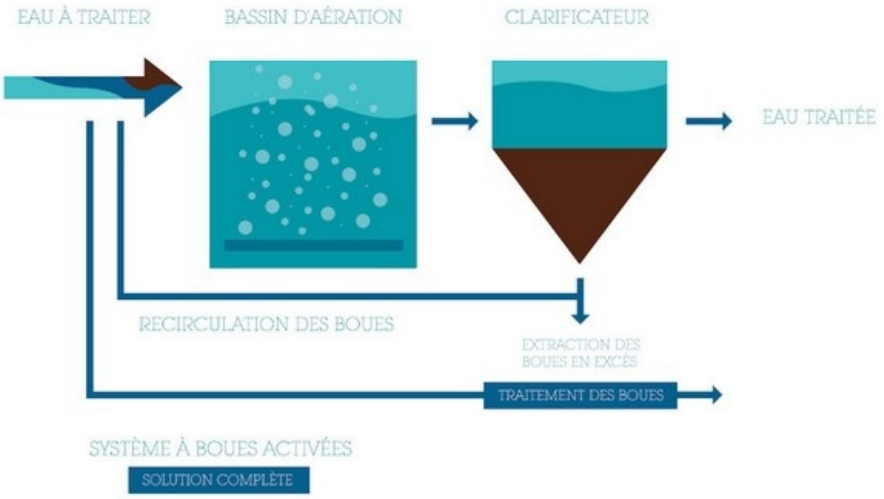
Maintenant, nous nous intéressons à la partie dégraissage:



ecoledeleau.eau-artois-picardie.fr




Clarified water
Recirculation to the Aeration tank
Bottom Scraper
Draught Tubes
Mixed Liquor(Water and Biological sludge) in the aeration tank
Sludge recirculation tank


EAU À TRAITER
BASSIN D'AÉRATION
CLARIFICATEUR
EAU TRAITÉE
RECIRCULATION DES BOUES
EXTRACTION DES BOUES EN EXCÈS
TRAITEMENT DES BOUES
SYSTÈME À BOUES ACTIVÉES
SOLUTION COMPLÈTE