U

V

W

X

sand

clay
wax

regular

diet

Will they float
or sink?

Y

ripe

green

Which is denser?

Z

volume

mass

density=mass/volume

Atlantic Ocean

Europe

Asia

current

Mediterranean Sea

Strait of Gibraltar

AA

Africa

fresh water

fresh water

salt water

BB

salt water   salt water   ?

CC

? fresh water

DD

SALT

side view of dike

water line
tape
upper hole
lower hole

EE

"Mediterranean"   "Atlantic"

dike

saltier water   less salty water (pepper on top)

top view

"Mediterranean"   "Atlantic"

tape
dike

oblique view
Note: holes are at different depths!

GG

nail
can lid

FF

Cameroon

HH

CO_2

II

CO_2

JJ

air

CO_2

baking soda & vinegar

R
20 cm

free to pivot
about axis

4cm   4cm

length
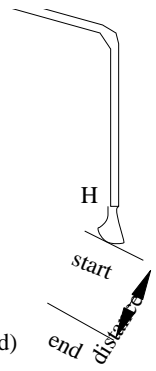
KK

free to slide
parallel to edge
of blade

resists lateral
motion

LL

H

start

end
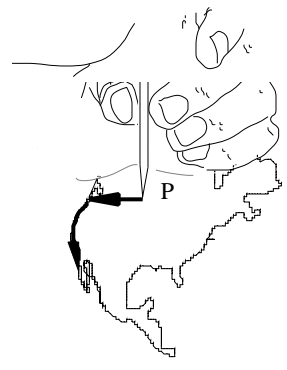
area=(length of rod)(distance traveled)
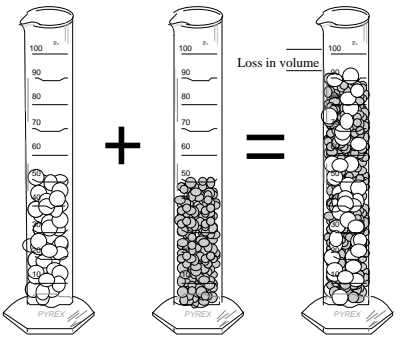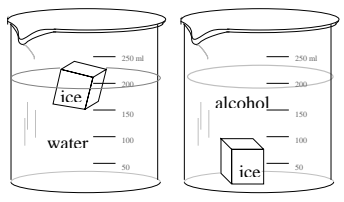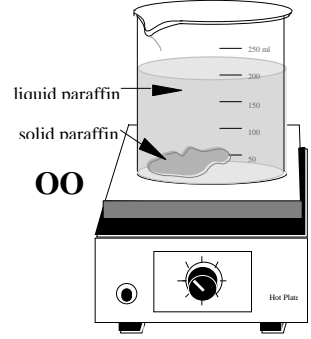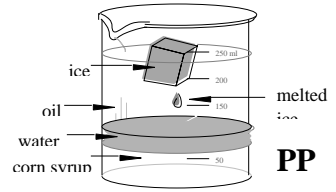
MM

100

90

80

70

60

+

100

90

80

70

60

50

Loss in volume

=

100

PYREX

PYREX

PYREX

NN

250 ml

200

150

ice

water

100

50

250 ml

200

alcohol

150

ice

100

50

OO

250 ml

200

liquid paraffin

150

100

solid paraffin

50

Hot Plate

PP

250 ml

ice

200

oil

150

melted
ice

water

corn syrup

50

QQ

green tomato

Diet
Soft Drink

Regular
Soft Drink

ripe tomato

RR

250 ml

200

150

fresh water

100

salty water

50

"Mediterranean"   "Atlantic"

dike
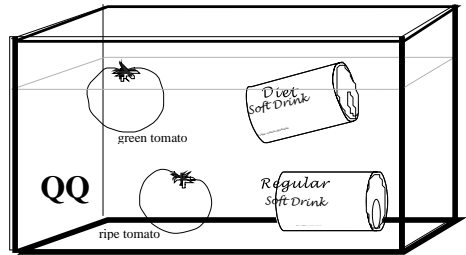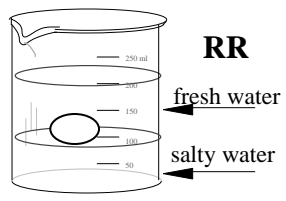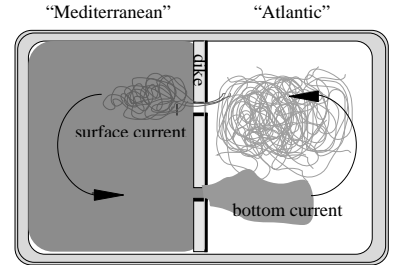
surface current

bottom current

top view

SS
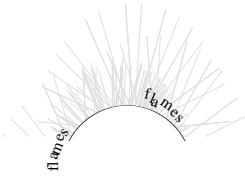
flames

flames
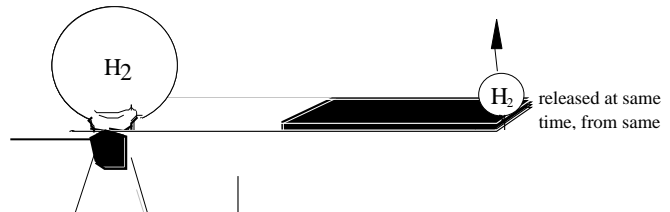
H_2

H_2 released at same
time, from same

TT

soap solution

CH4

UU

flames

Caution. Stay away from
methane bubbles. Wear
protective eyerware and
clothing

GAS

VV

$Zn + H_2SO_4 \quad\quad ZnSO_4 + H_2 (g)$

XX

air

CO₂

CO_2

WW

$NaHCO_3 + HC_2H_3O_2 \quad\quad Na^+ + C_2H_3O_2^- + CO_2 + H_2O$