

Lab 1:

Coulomb's Law

Augustin de Coulomb:

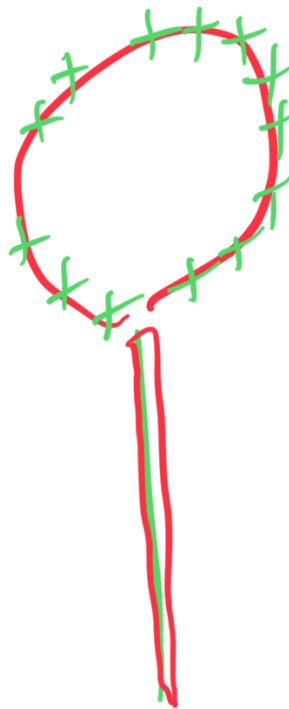
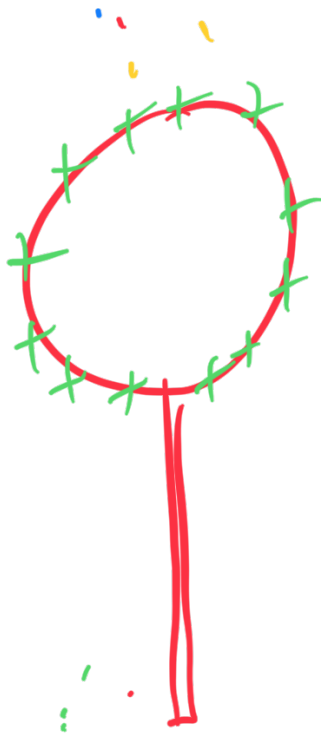
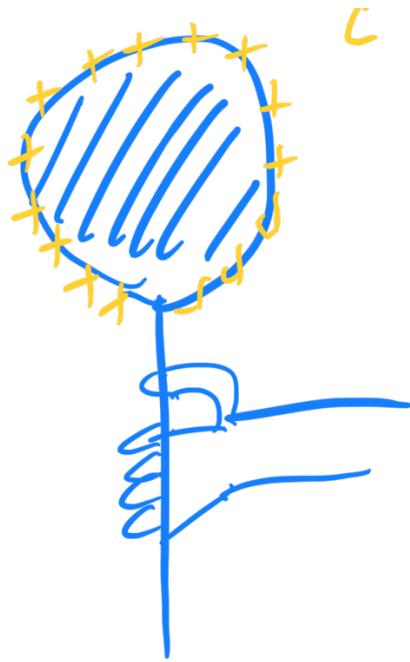
"electricity" → "FLUID"

current

THEORY → fluid mechanics

electric charge. Ben Franklin





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Investigate the nature of  
n - electric force!!

The idea

Physics  $\rightarrow$  greek word  $\rightarrow$  nature  
"physiki"

① trees and stuff  $\rightarrow$  universe

② underlying structure/  
workings / details  
"human nature"

"the nature of nature"

MATH

!!!  
ooo

kin. / c)

Theory:  $\Rightarrow$  Equation

Lab: Test  $\nearrow$

~~① Cause pain to students.~~

① Learn that the process of doing experiments is

HARD!

$$d = \frac{1}{2}gt^2$$

10%

1%

0.1%

$\leftarrow$  doable (not easy)

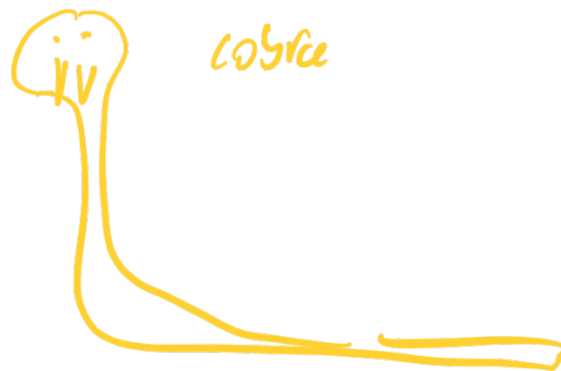
$\leftarrow$  super hard!

$\leftarrow$  impossible.



1 mm

$\pm 0.5$  mm



② Wheel of Science.



