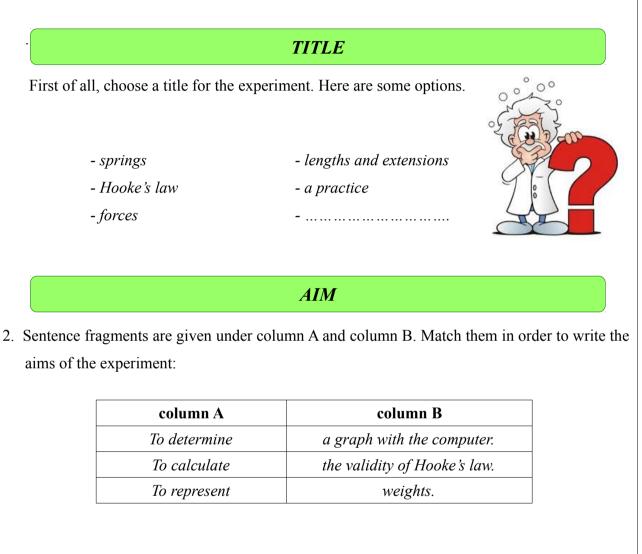
## Activity Sheet 3. Hooke's Law

## 2.3. Hooke's Law

1. In this exercise, you will measure lengths and calculate weights and extensions. You will present the results in a table and as a graph. You should upload the table and the graph to the moodle task.



## EXPERIMENTAL SETUP

3. Draw the experimental setup and write the name of the equipment you need:

meter – weights – spring – retort stand – a weight holder - clamp – ...

## PROCEDURE

- 1. To start with, hang the weight holder and submit the spring to no stress. Determine the original length ( $l_0 = \dots$ ).
- 2. A mass  $(m_1 = \dots )$  is insert using the weight holder and measure the final length  $(l_1 = \dots )$ .
- 3. Add a second mass ( $m_2 = m_1 + \dots = \dots$ ) and measure the final length ( $l_2 = \dots$ ).
- 4. Repeat this step and write all the values on the next table.

Mass (g)	Length (cm)

- 5. Using the computer (calc/excel), calculate forces (weights) and extensions ( $\Delta l$ ).
- 6. Plot a graph of F against  $\Delta l$ .

