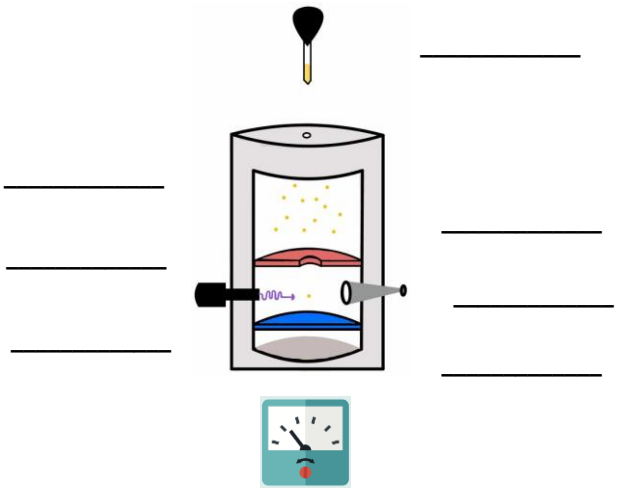
CONCEPT: MILLIKAN OIL DROP EXPERIMENT

- In 1897, J.J Thomson's cathode ray tube experiments led to the discovery of the negative charge of _____.
  - □ Thomson was unable to determine how much negative charge an electron possessed.
  - □ In 1913, _____ and Harvey Fletcher discovered the fundamental charge of an electron.

Experimental Setup

- Millikan and Fletcher used **oil droplets**, _____ plates, gravity and **X-rays** to determine the amount of charge.
  - □ **Atomizer**: The container used to disperse the individual oil droplets.
  - □ **Electric Force:** _____ or _____ forces between particles based on electric charges.

The Apparatus



The Experiment

1. The oil droplets are introduced through the _____.

2. The **X-Ray Source** gives a _____ charge to each droplet.

3. Turning on the power of the charged plates to create an Electric Field.

□ If the voltage is _____ than the force of gravity then the droplet _____.



□ If the voltage is _____ than the force of gravity then the droplet _____.



4. Through the suspension of the oil droplets the charge of an electron was determined as _____.