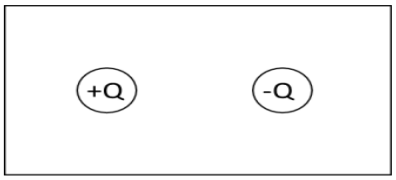
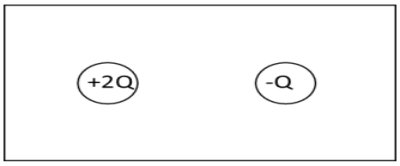
Laboratory 2

https://phet.colorado.edu/en/simulation/charges-and-fields

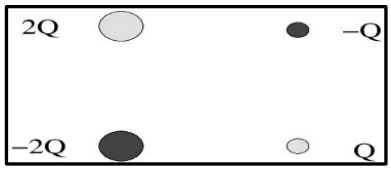
1. Plot the electrical field lines and equipotential surfaces by estimation for
   (i) Single positive charge (+1 Q),
   (ii) Single negative charge (-2 Q),
   (iii) Single dipole (one positive charge and one negative charge)

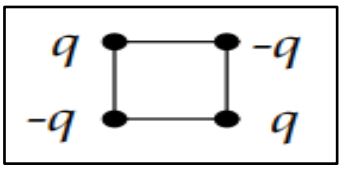


   (iv) One charge with +2Q and one charge with –Q

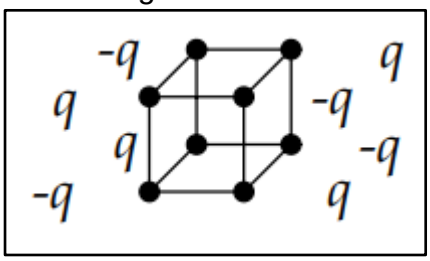


   (v) Quadrupole arrangement





   (vi) Octupole like arrangement



2. Determine the variables that affect the strength and direction of the electric field for a static arrangement of charges.
3. Investigate the variables that affect the strength of the electrostatic potential (voltage).

https://phet.colorado.edu/en/simulation/balloons-and-static-electricity

4. Describe and draw models for common static electricity concepts (transfer of charge, induction, attraction, repulsion, and grounding)