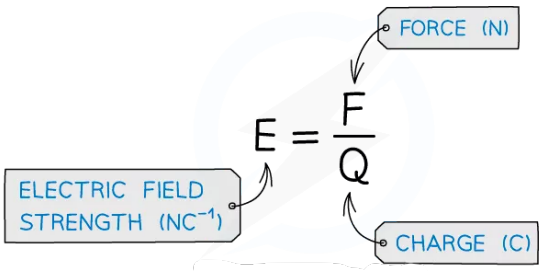
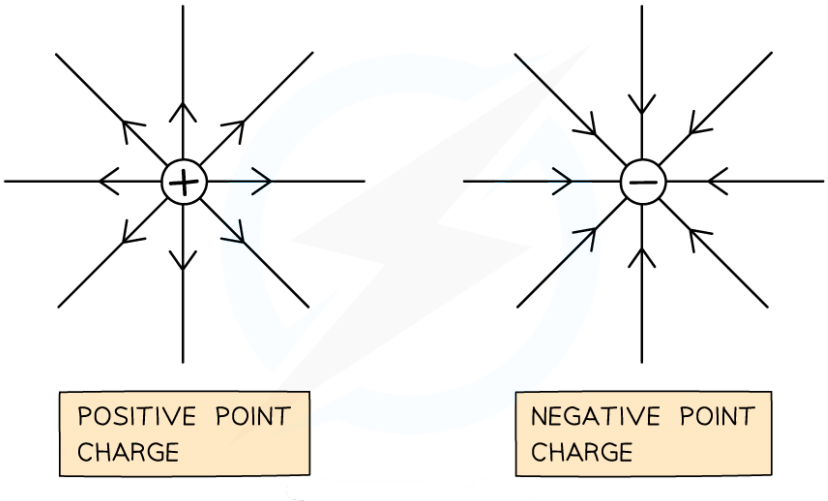
Electric Field Defination

- An electric field is a region of space in which an electric charge "feels" a force
- Electric field strength (N C^{-1}) is defined as the electric force per unit positive charge acting on a stationary point charge



Representing Electric Fields

- Electric field lines should always be drawn perpendicular to the source
  - Therefore, the lines must touch the surface of the charge
- The field lines are directed from positive to negative
  - Therefore, the field lines must be pointed away from the positive charge and towards the negative charge



Uniform & Non- Uniform Fields

- A uniform electric field is a field of force in which the strength of the electric force is the same throughout
- In a non-uniform electric field:
    - The strength increases where the lines of the field are closer to each other
    - A weaker field is represented by the region where the lines of electric fields are further apart