

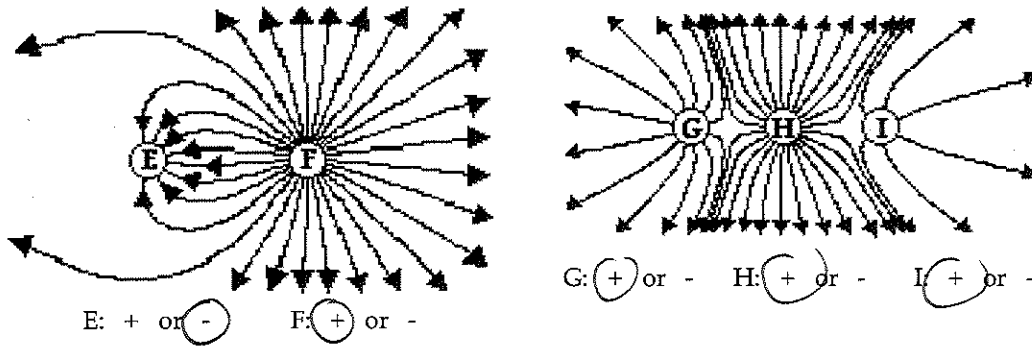
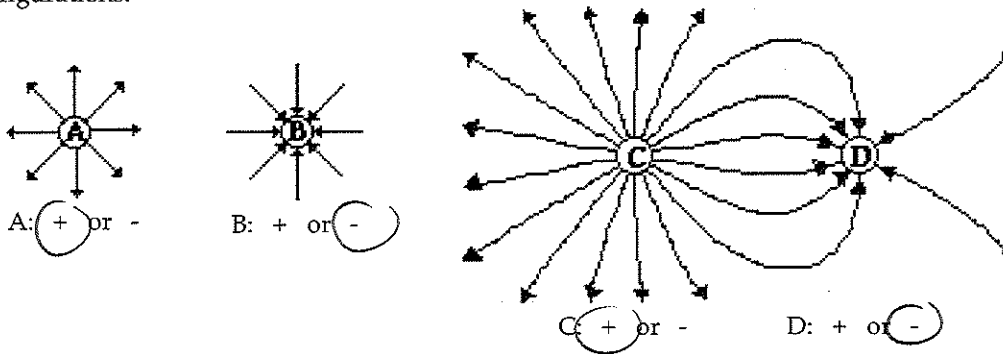
### Electric Field Lines

Read from Lesson 4 of the Static Electricity chapter at The Physics Classroom:

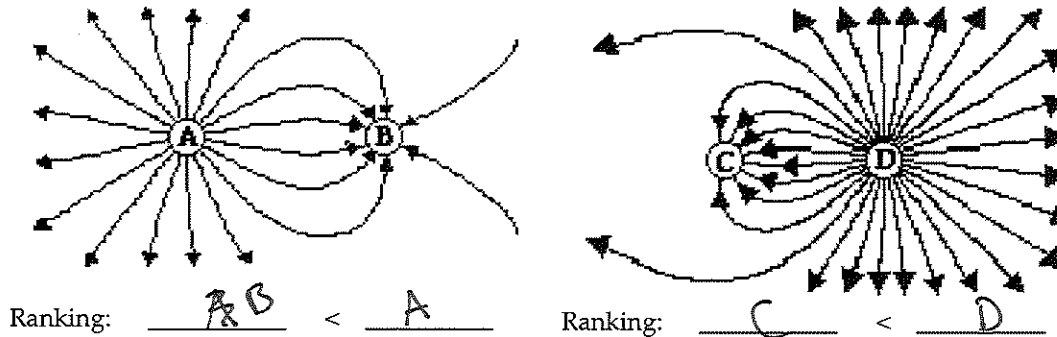
<http://www.physicsclassroom.com/Class/estatics/u814c.html>  
<http://www.physicsclassroom.com/Class/estatics/u814d.html>

MOP Connection: Static Electricity: sublevel 12

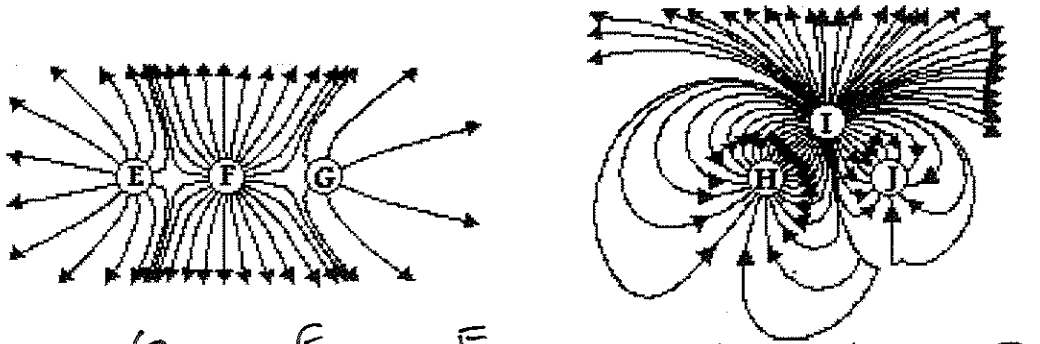
- Electric field lines begin on + (+) charges or at infinity and terminate on - (-) charges or infinity. The number of lines that emanate from a charge or approach a charge depends upon size of + charge. At locations where a line meets the surface of a charge, the lines are drawn in a ⊥ (tangent, radial) direction. The strength of the electric field is \_\_\_\_\_ (smallest, greatest) wherever the lines are closest together.
- Use your understanding of electric field lines to identify the charges on the objects in the following configurations.



- Observe the electric field lines below for various configurations. Rank the objects according to which has the greatest magnitude of electric charge, beginning with the smallest charge.



Static Electricity



Ranking: G < E < F      Ranking: J < H < I

4. Draw the electric field lines for the following configurations of charges. Place arrows upon your electric field lines.

