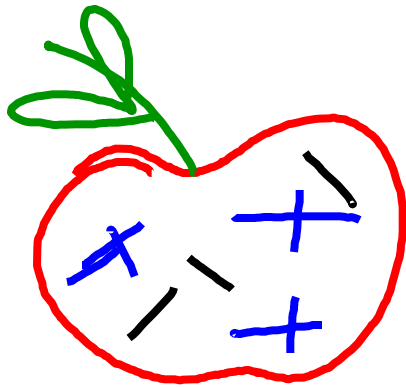
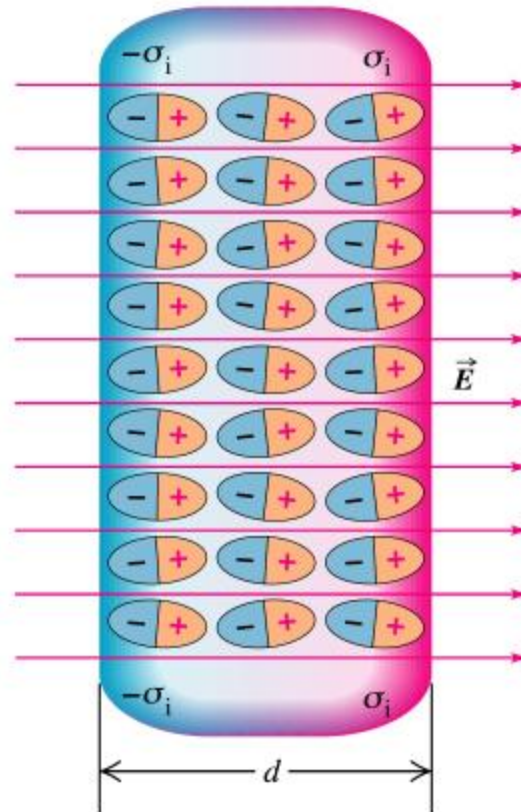


The Theory of Electricity

- All substances are made of protons (positive) and electrons (negative).
- Undisturbed objects have a neutral charge, since the number of protons and electrons is equal.

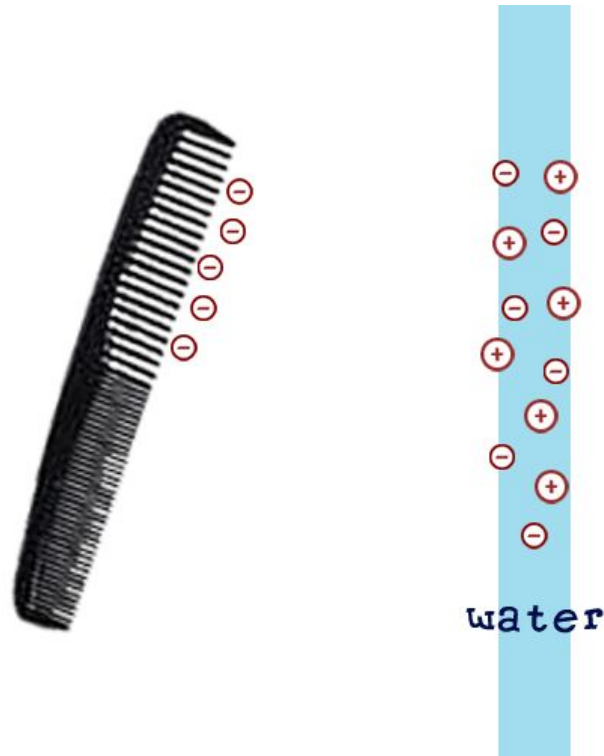


neutral
(no charge)



What is the charge on this object?

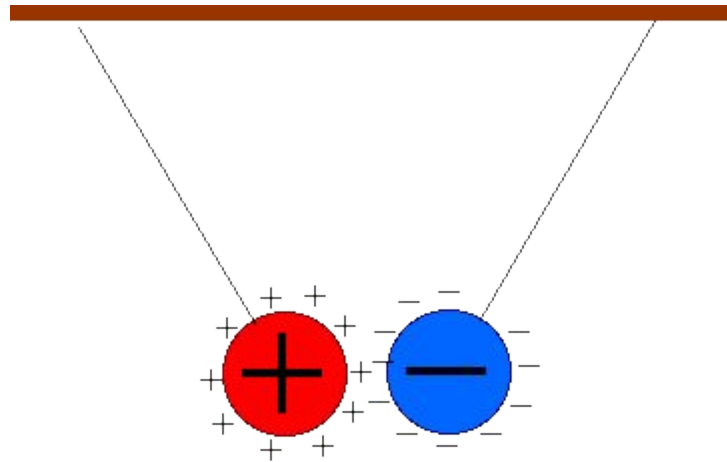
- Some objects, when rubbed, pick up electrons from the material that is doing the rubbing.
- As a result the rubbed object becomes negatively charged and the material becomes positively charged.



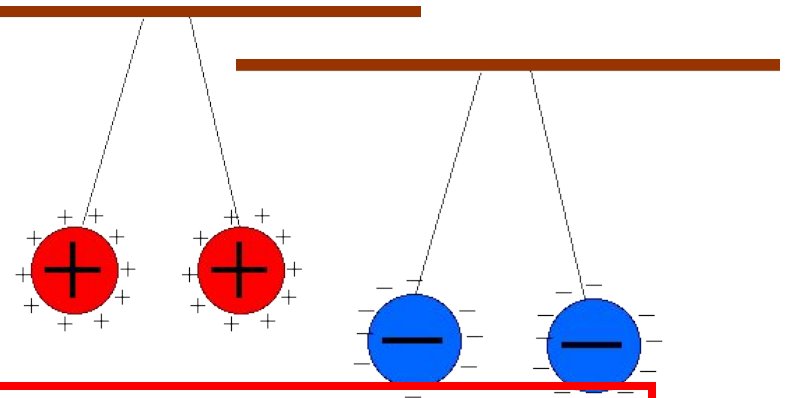
• <http://www.youtube.com/watch?v=BIDPviyrsvs&eurl=http://www.smarterthanthat.com/experiments/bending-water-with-a-plastic-comb/>

The 3 Laws of Electrical Charges

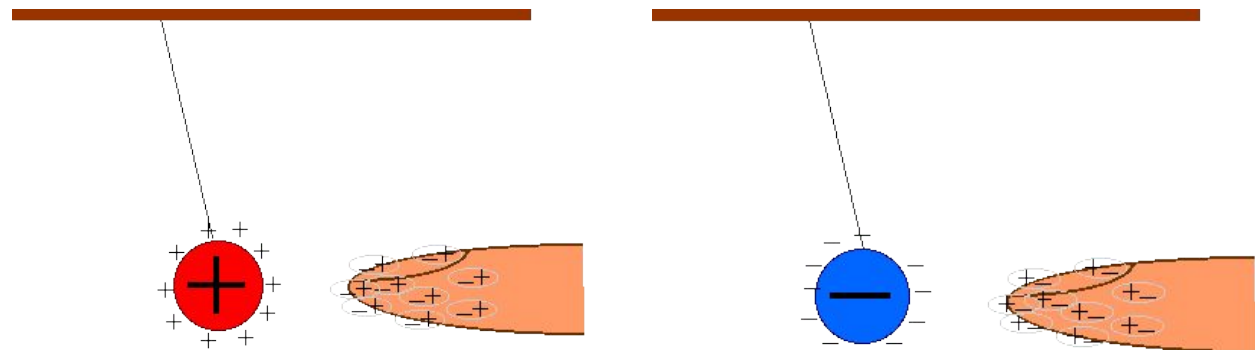
1) Opposite charges attract each other.



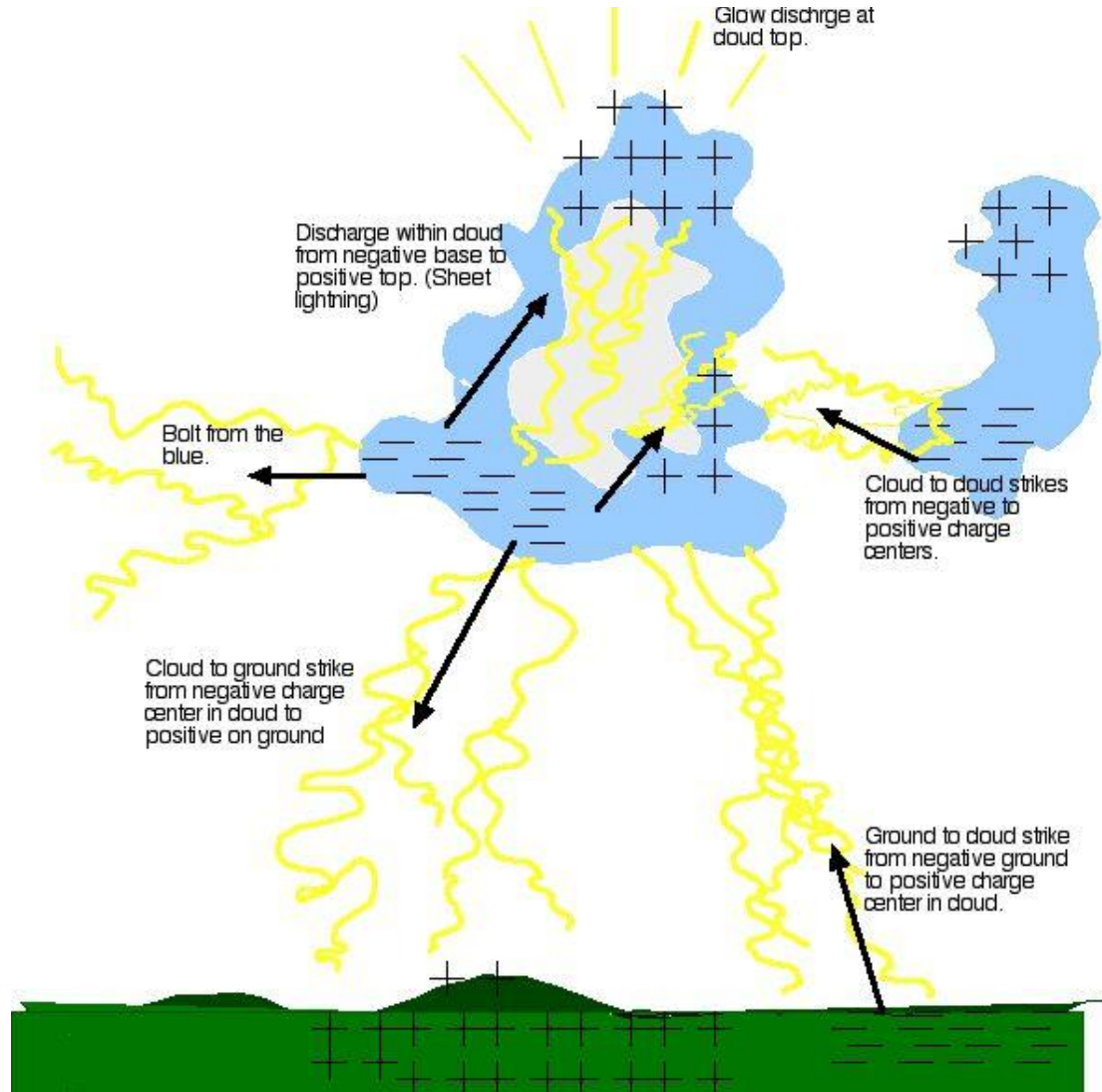
2) Like charges repel each other.



3) Charged objects attract neutral objects.



Lightning! Very Very Frightning!



Demonstrating the 3 Laws of Electrical Charges

Rubbed Object (+)	Rubbing Material (-)	Suspended Object	Object in Hand	Result
vinyl(+)	wool(-)	vinyl(+)	wool(-)	
2 vinyl(+)	wool(-)	vinyl(+)	vinyl(+)	
vinyl(+)	wool(-)	vinyl(+)	pen (neutral)	