

Name: _____

Date: _____

Insulators and Conductors (continued)

WHILE YOU READ

Stop after each paragraph to think about what you just read. In the chart below, write brief notes to summarize the main idea of the paragraph.

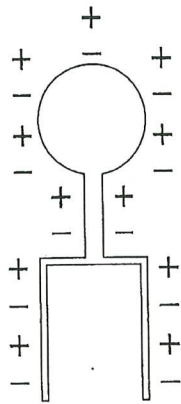
Paragraph	Main idea of the paragraph
1	
2	
3	
4	
5	

AFTER YOU READ

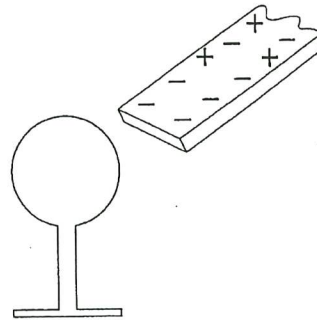
Explain to another student what this section is about. What are the main things you want to remember from this section?

Charging an Electroscope by Induction with a Negatively Charged Rod

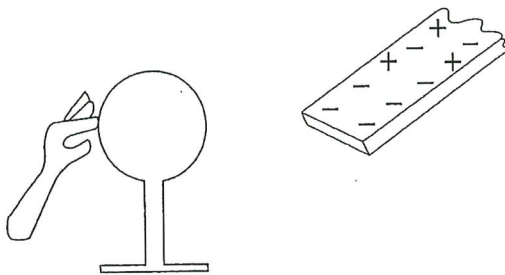
In (a), the metal leaves of the electroscope are neutral and hang straight down. For each subsequent picture, show the effect of the charged rod on the electroscope by drawing the change in electron distribution and the position of the leaves.



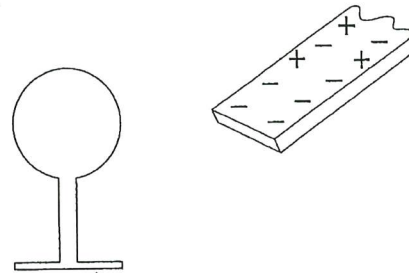
(a) Neutral electroscope



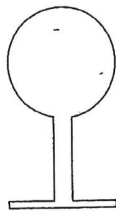
(b) Approach by negative rod



(c) The electroscope is grounded.



(d) The ground is removed, but the charged rod is not.

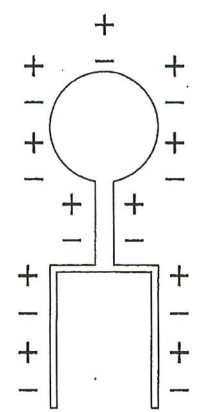


(e) The charged rod is removed.

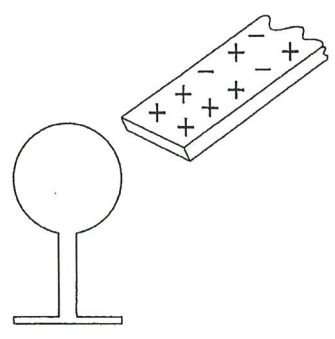
An object charged by induction receives a charge opposite to that of the charged rod.

Charging an Electroscope by Induction with a Positively Charged Rod

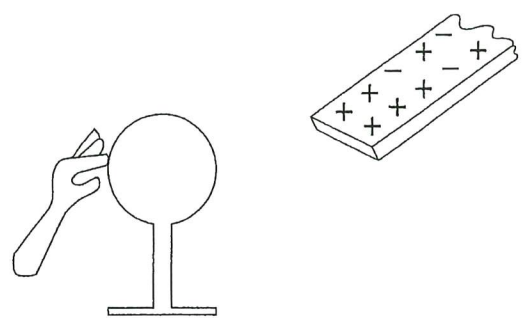
In (a), the metal leaves of the electroscope are neutral and hang straight down. For each subsequent picture, show the effect of the charged rod on the electroscope by drawing the change in electron distribution and the position of the leaves.



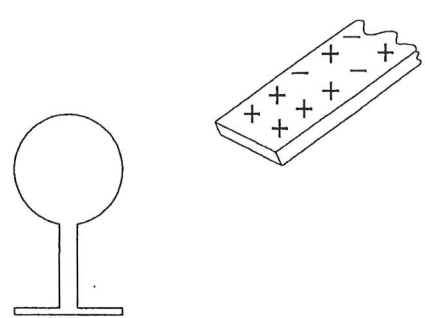
(a) Neutral electroscope



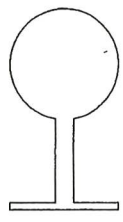
(b) Approach by positive rod



(c) The electroscope is grounded.



(d) The ground is removed, but the charged rod is not.



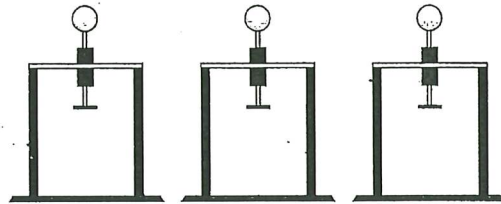
(e) The charged rod is removed.

An object charged by induction receives a charge opposite to that of the charged rod.

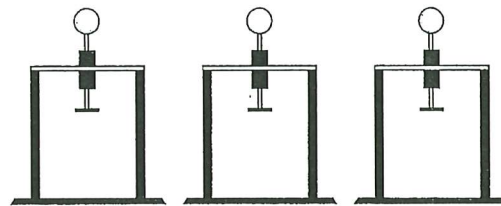
Investigation: The Electroscope

Complete the diagrams for the following Analysis questions.

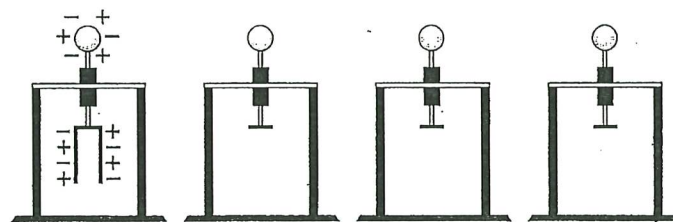
(b)



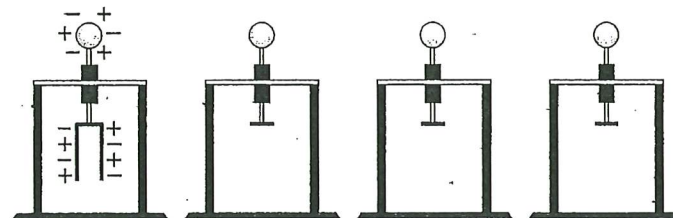
(c)



(g)



Step 5



Step 6