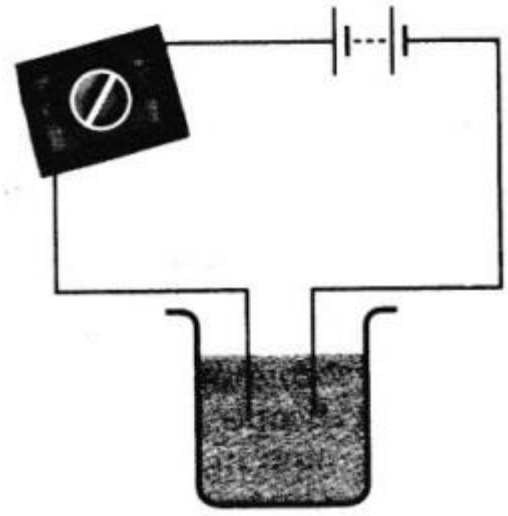
Grade 8 Chemical Effects of Electric Current Worksheets

A. Fill in the blanks:

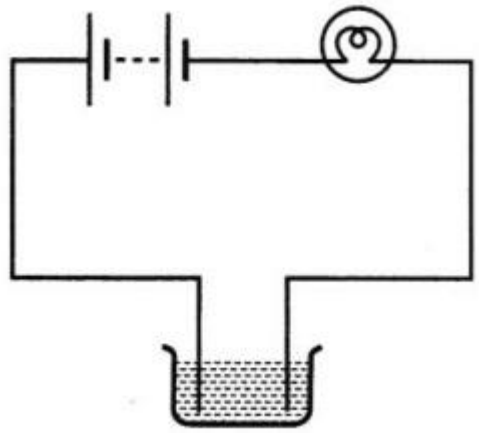
1. Most liquids that conduct electricity are solutions of …….. , …… and …… .
2. The passage of an electric current through a solution causes ……. effects.
3. If you pass current through copper sulphate solution, copper gets deposited on the plate connected to the ……. terminal of the battery.
4. The process of depositing a layer of any desired metal on another material by means of electricity is called …… .
5. Alcohol is a …….. .

B. Answer the following questions in short:

1. When the free ends of a tester are dipped into a solution, the magnetic needle shows deflection. Can you explain the reason?
2. Name three liquids, which when tested in the manner shown in Fig. given may cause the magnetic needle to deflect.



3. The bulb does not glow in the set up shown in Fig. given. List the possible reasons. Explain your answer.



4. Does pure water conduct electricity? If not, what can we do to make it conducting?
5. In case of a fire, before the firemen use the water hoses, they shut off the main electrical supply for the area. Explain why they do this.
6. A child staying in a coastal region tests the drinking water and also the seawater with his tester. He finds that the compass needle deflects more in the case of seawater. Can you explain the reason?
7. Is it safe for the electrician to carry out electrical repairs outdoors during heavy downpour? Explain.
8. Paheli had heard that rainwater is as good as distilled water. So she collected some rainwater in a clean glass tumbler and tested it using a tester. To her surprise she found that the compass needle showed deflection. What could be the reasons?
9. Prepare a list of objects around you that are electroplated.
10. The process that you saw (in Activity 14.7 of textbook) is used for purification of copper. A thin plate of pure copper and a thick rod of impure copper are used as electrodes. Copper from impure rod is sought to be transferred to the thin copper plate. Which electrode should be attached to the positive terminal of the battery and why?
11. Why should you not touch electrical appliances with wet hands?
12. Water from taps and handpumps conduct electricity but distilled water does not. Why?

C. Tick (✓) the correct option:

1. A tester is used to check the conduction of electricity through two liquids, labelled A and B. It is found that the bulb of the tester glows brightly for liquid A while it glows very dimly for liquid B. You would conclude that:
(a) liquid A is a better conductor than liquid B
(b) liquid B is a better conductor than liquid A
(c) both liquids are equally conducting
(d) conducting properties of liquid cannot be compared in this manner

2. Which of the following is preferred to make an electromagnet?
(a) Soft iron
(b) Steel
(c) Stainless steel
(d) Plastic

3. Current is the flow of:
(a) electrons
(b) protons
(c) neutrons
(d) charge

4. A positively charge ion is called:
(a) atom
(b) neutral ion
(c) anion
(d) cation

D. State True or False:

1. Pure water is a good conductor of electricity. ……
2. Distilled water is an insulator. ……
3. Leather is a good conductor of electricity. ……
4. Petrol is a good conductor of electricity. ……..

E. Match the following:

'A'	'B'
1. Kerosene is	a. conductor
2. Vinegar solution is	b. electroplating
3. Electroplating works at	c. insulator
4. Electrode at positive terminal	d. chemical effect of current
5. Used for coating a thin layer of metal	e. anode

F. Find out the health concerns associated with chronium electroplating. How are people trying to resolve them?

G. Complete the following table:

S. No.	Material	Compass Needle Shows Deflection Yes/No	Good Conductor/ Poor Conductor
1.	Common salt solution		
2.	Distilled water		
3.	Honey		
4.	Kerosene		
5.	Lemon juice		
6.	Milk		
7.	Tap water		
8.	Vegetable oil		
9.	Vinegar		