

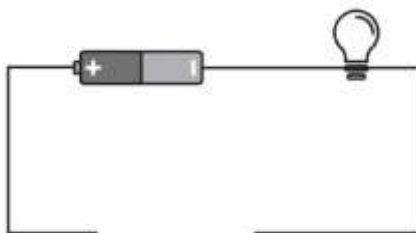
Curriculum Aligned Competency Based Test Items

Science

Class 8 – Chapter 14

Chemical Effects of Electric Current

Tia used four different objects to fill the gap in an electric circuit, separately. The table shows what she found.



Object in the gap	The bulb
Plastic	Does not glow
Copper wire	Glows brightly
Wooden block	Does not glow
Graphite stone	Glows dimly

SAS21S081401

1 Which of these **best** conducts electricity?

- A. Wood
- B. Plastic
- C. Copper
- D. Graphite

SAS21S081402

2 Which of these is a chemical effect of electric current?

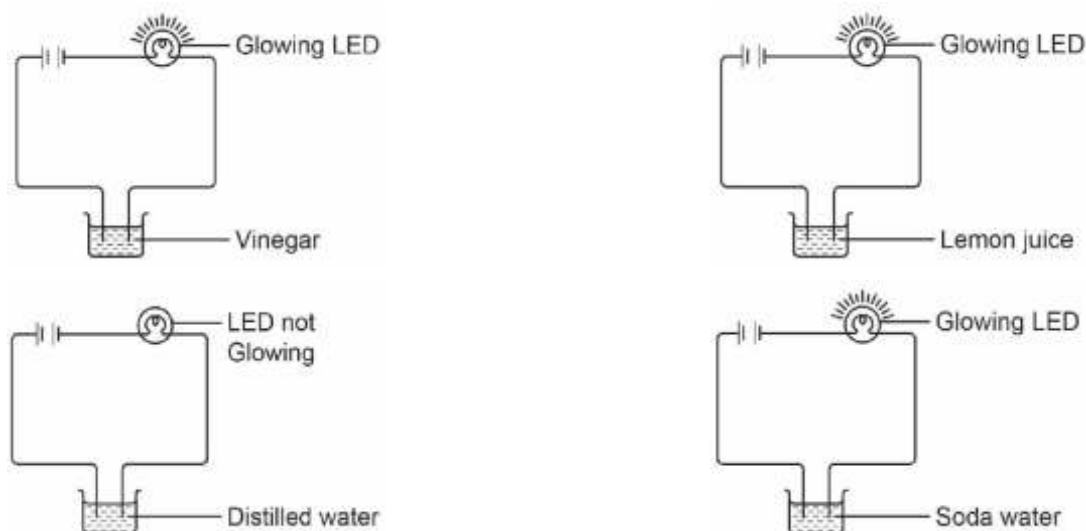
- A. Glowing of bulb
- B. Heating of water
- C. Ringing of mobile phone
- D. Chromium plating on iron

SAS21S081403

3 Which of these is a correct pair of an insulator and a conductor?

	Insulator	Conductor
A.	Aluminium	Cotton
B.	Thermocol	Rubber
C.	Copper	Iron
D.	Wax	Aluminium

Rashmi made separate electric circuits with four different solutions. The pictures show what she found.



SAS21S081404

4 What can be concluded from her activity?

- A. LED glows only in solutions
- B. All four solutions are insulators of electricity
- C. All four solutions are good conductors of electricity
- D. Acids and bases are good conductors of electricity

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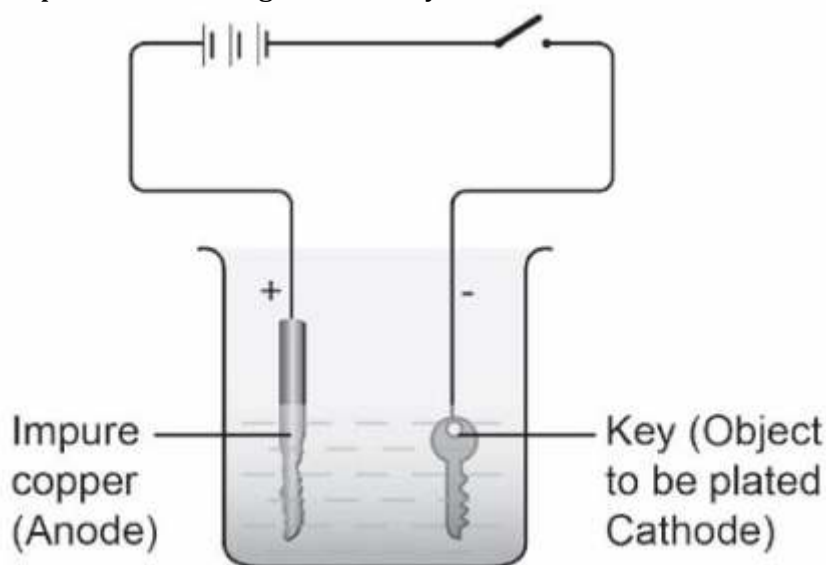
5 Which safety precaution must Rashmi follow while doing this activity?

- A. Wear boots
- B. Wear goggles
- C. Wear headphones
- D. Wear rubber gloves

SAS21S081406

- 6 Will an electric device work if we place the positive terminal of a battery towards the negative point of the device? Explain your answer.

Electroplating is the process of adding a surface layer of metal on another metal.



SAS21S081407

- 7 Which of these is true about electroplating?
Circle 'Yes' or 'No' for the correct response.

Is the statement true?	Yes or No
The solution used contains ions of two metals.	Yes/No
Metal gets deposited on the electrode connected to the negative terminal.	Yes/No
A non-metal is used as the electrode connected to the positive terminal.	Yes/No

SAS21S081408

- 8 Which of these is an example of electroplating?

- A. Colouring of jeans
- B. Painting of a wall
- C. Lamination of a photograph
- D. Gold plating of imitation jewelleryes

SAS21S081409

- 9 Sumit replaced all the bulbs in his home with LEDs.
After a month, he noticed that the electricity bill had decreased.
What was the most likely reason for the decrease in electricity bill?

SAS21S081410

- 10 Distilled water is a bad conductor of electricity.
Why does rainwater conduct electricity?

Answers

Science
Class 8 – Chapter 14

Item Number	Question 1
Question Code	SAS21S081401
Grade & Unit Name	Grade 8 Chemical Effects of Electric Current
Concept Sub-concept	Physical Sciences Conductors and Insulators
Competency	Interpreting Data and Evidence Scientifically
Item Type	Multiple Choice Question
Full Credit (Full Score)	C. Copper
No Credit (No Score)	Any other response or missing response

Item Number	Question 2
Question Code	SAS21S081402
Grade & Unit Name	Grade 8 Chemical Effects of Electric Current
Concept Sub-concept	Physical Sciences Chemical Effects of Electric Current
Competency	Explaining Phenomena Scientifically
Item Type	Multiple Choice Question
Full Credit (Full Score)	D. Chromium plating on iron
No Credit (No Score)	Any other response or missing response

Item Number	Question 3
Question Code	SAS21S081403
Grade & Unit Name	Grade 8 Chemical Effects of Electric Current
Concept Sub-concept	Physical Sciences Conductors and Insulators
Competency	Explaining Phenomena Scientifically
Item Type	Multiple Choice Question
Full Credit (Full Score)	D. Wax/Aluminium
No Credit (No Score)	Any other response or missing response

Item Number	Question 4
Question Code	SAS21S081404
Grade & Unit Name	Grade 8 Chemical Effects of Electric Current
Concept Sub-concept	Physical Sciences Do Liquids Conduct Electricity?
Competency	Interpreting Data and Evidence Scientifically
Item Type	Multiple Choice Question
Full Credit (Full Score)	D. Acids and bases are good conductors of electricity
No Credit (No Score)	Any other response or missing response

Item Number	Question 5
Question Code	SAS21S081405
Grade & Unit Name	Grade 8 Chemical Effects of Electric Current
Concept Sub-concept	Physical Sciences Properties of Acids and Bases
Competency	Evaluating and Designing Scientific Enquiry
Item Type	Multiple Choice Question
Full Credit (Full Score)	D. Wear rubber gloves
No Credit (No Score)	Any other response or missing response

Item Number	Question 6
Question Code	SAS21S081406
Grade & Unit Name	Grade 8 Chemical Effects of Electric Current
Concept Sub-concept	Physical Sciences Electric Circuits
Competency	Explaining Phenomena Scientifically
Item Type	Constructed Response
Full Credit (Full Score)	<p>Mentions that the electric device will not work as there will be insufficient current flow from the battery to the device.</p> <p>For example:</p> <ul style="list-style-type: none"> The electric device will not work as there will be insufficient current flow from the battery to the device.
No Credit (No Score)	Any other response or missing response

Item Number	Question 7
Question Code	SAS21S081407
Grade & Unit Name	Grade 8 Chemical Effects of Electric Current
Concept Sub-concept	Physical Sciences Electroplating
Competency	Interpreting Data and Evidence Scientifically
Item Type	Complex Multiple Choice Question
Full Credit (Full Score)	<p>No</p> <p>Yes</p> <p>No</p>
No Credit (No Score)	Any other response or missing response

Item Number	Question 8
Question Code	SAS21S081408
Grade & Unit Name	Grade 8 Chemical Effects of Electric Current
Concept Sub-concept	Physical Sciences Electroplating
Competency	Explaining Phenomena Scientifically
Item Type	Multiple Choice Question
Full Credit (Full Score)	D. Gold plating of imitation jewelleryes
No Credit (No Score)	Any other response or missing response

Item Number	Question 9
Question Code	SAS21S081409
Grade & Unit Name	Grade 8 Chemical Effects of Electric Current
Concept Sub-concept	Physical Sciences LED
Competency	Explaining Phenomena Scientifically
Item Type	Constructed Response
Full Credit (Full Score)	Mentions that LEDs consume less electricity than bulbs.
No Credit (No Score)	Any other response or missing response

Item Number	Question 10
Question Code	SAS21S081410
Grade & Unit Name	Grade 8 Chemical Effects of Electric Current
Concept Sub-concept	Physical Sciences Good/Poor Conducting Liquids
Competency	Explaining Phenomena Scientifically
Item Type	Constructed Response
Full Credit (Full Score)	Mentions that rainwater contains dissolved salts that conduct electricity.
No Credit (No Score)	Any other response or missing response