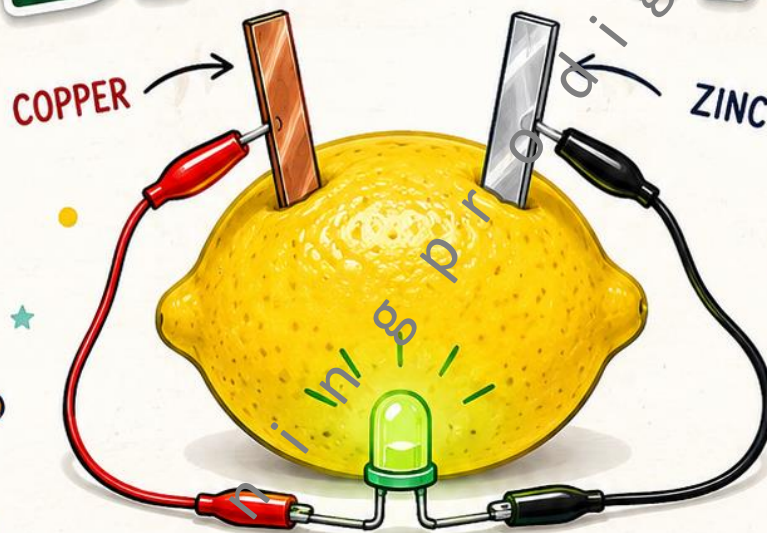


SCIENCE EXPERIMENT

LEMON BATTERY



Explore • Experiment • Discover



Name : _____



Class : _____



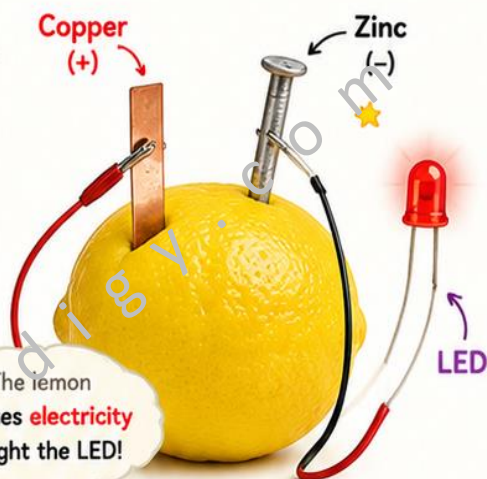
Date : _____

S.NO.	CONTENTS	PAGE NO.
1	EXPERIMENT	3
3	PREDICTION SHEET <i>(Complete before starting the experiment.)</i>	4
4	OBSERVATION SHEET <i>(Complete while performing the experiment.)</i>	5
5	RESULT SHEET <i>(Complete after the experiment.)</i>	6
6	REFLECTION SHEET <i>(Complete after discussing the results.)</i>	7

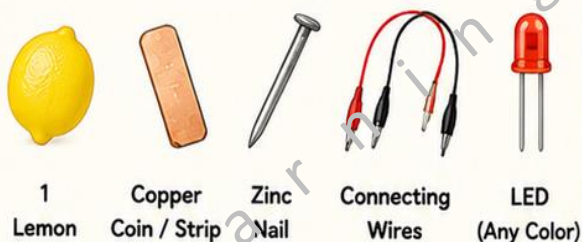
LEMON BATTERY

Power from Fruit? Yes, Please!

Let's turn a lemon into a battery and light up an LED!



MATERIALS YOU NEED

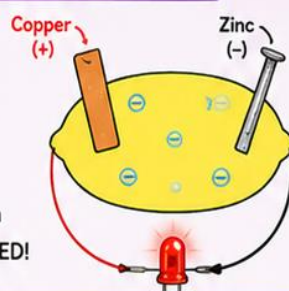


THE SCIENCE BEHIND IT!

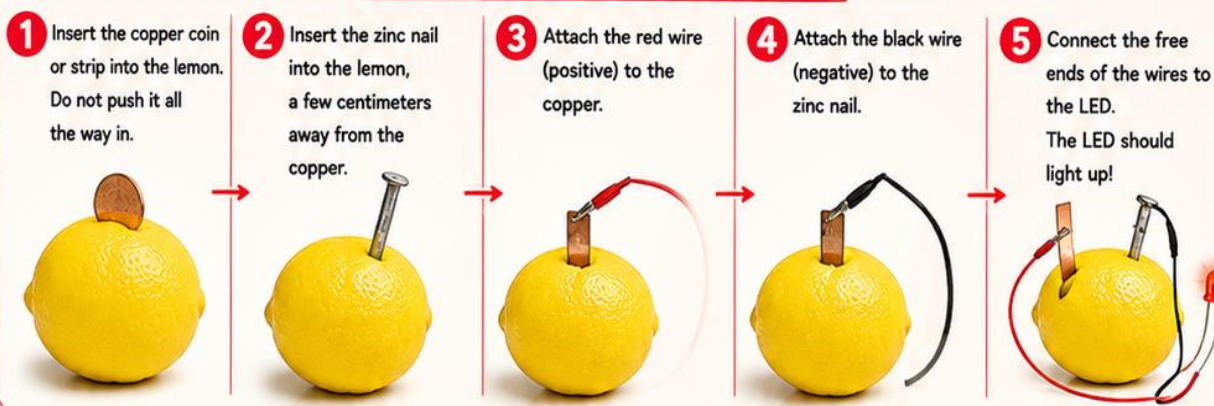
Lemon juice is acidic.

The acid reacts with the zinc and copper to produce electricity.

This electricity flows through the wires and lights up the LED!



STEP-BY-STEP INSTRUCTIONS



TIPS

- ★ Make sure the copper and zinc do not touch each other inside the lemon.
- ★ Try using more than one lemon to make the LED brighter!
- ★ Use fresh lemons for better results.



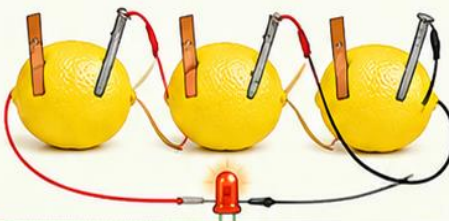
SAFETY FIRST

- ✓ This experiment uses low voltage and is safe.
- ✓ Do not eat or drink anything during the experiment.
- ✓ Wash your hands after the experiment.



TRY THIS!

Connect multiple lemons in a series to get more power!



DID YOU KNOW?

Fruits and vegetables contain natural acids that can produce electricity. Potatoes, oranges, and apples can work too!



SCIENCE IS ALL AROUND US.
KEEP EXPLORING, KEEP DISCOVERING!





SCIENCE EXPERIMENT

LEMON BATTERY



PREDICTION SHEET

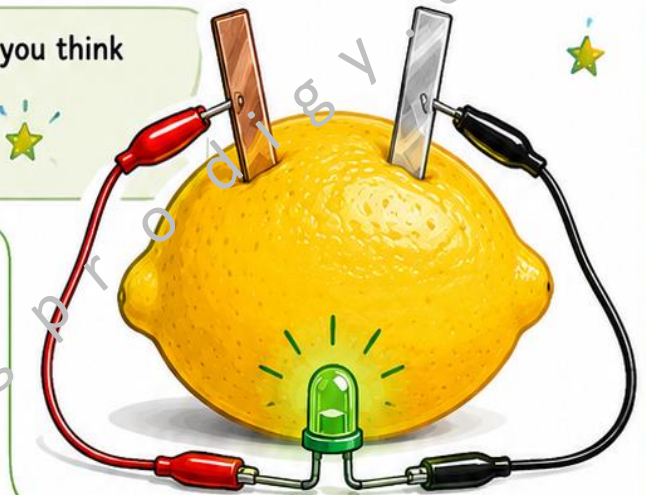


A prediction is a smart guess about what you think will happen in the experiment.

Think, Guess and Write!

- 1 What do you think will happen when we connect the lemon with copper and zinc?





- 2 Do you think the LED light will glow? Why or why not?



- 3 What do you think will happen if we use more lemons?





Name :



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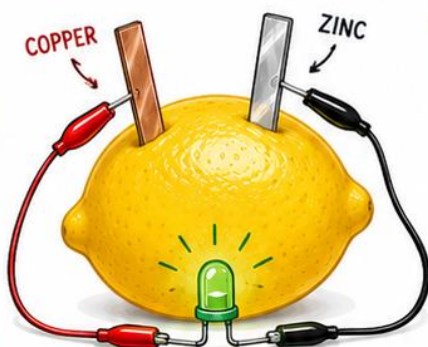
Date :





SCIENCE EXPERIMENT

LEMON BATTERY



OBSERVATION SHEET

Carefully observe the changes and record your observations.



1 Materials Used

Material	Observation / Description
 Lemon	
 Copper strip	
 Zinc strip	
 Connecting wires	
 LED bulb	

2 Observations

Step	What I observed
1. Inserted copper and zinc strips into the lemon.	
2. Connected the wires to the strips.	
3. Connected the wires to the LED bulb.	
4. LED light	

3 Draw what you saw



Draw the setup of your lemon battery and what happened when you connected the LED.

4 Other Observations



Write any other changes or things you noticed.



Name : _____



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SCIENCE EXPERIMENT

LEMON BATTERY

RESULT SHEET



After performing the experiment, we got the following results.



1. WHAT HAPPENED?

Write what happened in the experiment.

2. DID OUR PREDICTION COME TRUE?

Yes / No



Explain why.

3. WHAT DID WE LEARN FROM THIS EXPERIMENT?

Write the conclusion of your experiment.



4. KEY TAKEAWAYS

List the important things you learned.

- ---
- ---
- ---
- ---



5. HOW CAN WE IMPROVE?

How can we make the lemon battery work better?

- ---
- ---
- ---



Name :

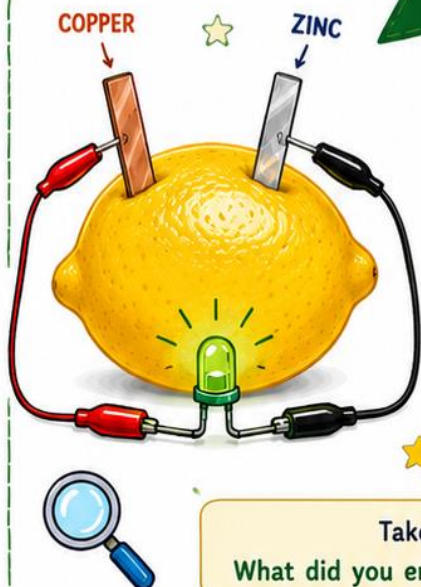


Class :



Date :

SCIENCE EXPERIMENT



LEMON BATTERY

REFLECTION SHEET

Take a moment to think about your experiment.
What did you enjoy? What did you learn? What would you do differently?

1 WHAT DID I ENJOY MOST?

Write about the part of the experiment you enjoyed the most and why.

2 WHAT WAS CHALLENGING?

What was difficult or tricky during the experiment?

3 WHAT DID I LEARN?

What new things did you learn from doing this experiment?

4 WHAT SURPRISED ME?

Was there anything that surprised you? Explain.

5 IF I COULD DO IT AGAIN...

What would you do the same?
What would you do differently?

6 HOW DOES THIS EXPERIMENT CONNECT TO REAL LIFE?

Where in real life do you think batteries are used? Why is this important?



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