Date

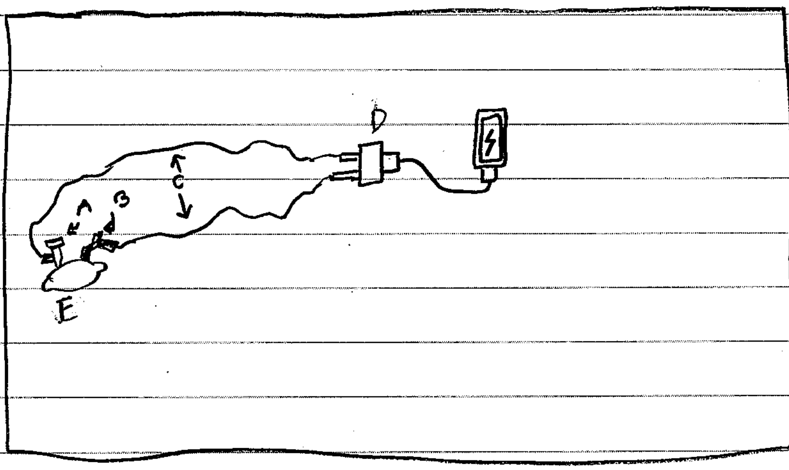
Topic: Charging a phone using lemons

1 Lemon produces 0.9-1.0 volts

Quantity of amps tells you how much electricity is being drawn through the power cable - Volts also must be correct for a product to function

1000 miliamps = 1 amp

Hyphosis (Plan if works)



Find Wattage

= # Volts

x

Amps

=

Watts

A) Zinc covered nails (-)

B) Medium gauge copper wire (+)

C) Aligator Clips

D) Outlet + USB Cable

E) Lemons

USB 2.0

5V x 0.5A

2.5W

USB 3.0

5V x 0.9A

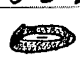
4.5W

USB 3.2

5V x 3A

15W

USBC

 (No wrong way of Putting it in)

Has the potential to transfer a lot more power

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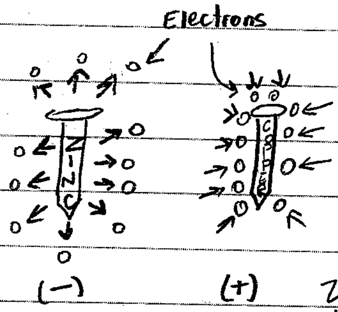
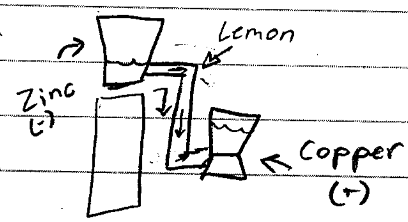


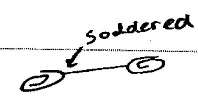
Ie.



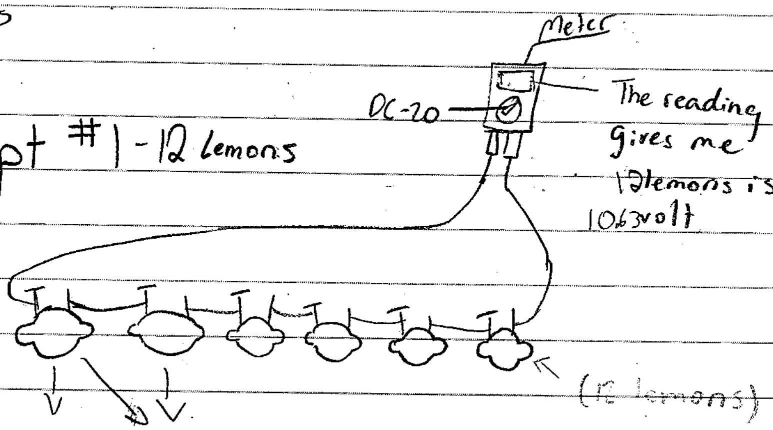
Cathodes usually made of copper
Anodes usually made of zinc

30 Lemons produce 26 volts (18 Batteries)

New Procedure:



Attempt #1 - 12 Lemons



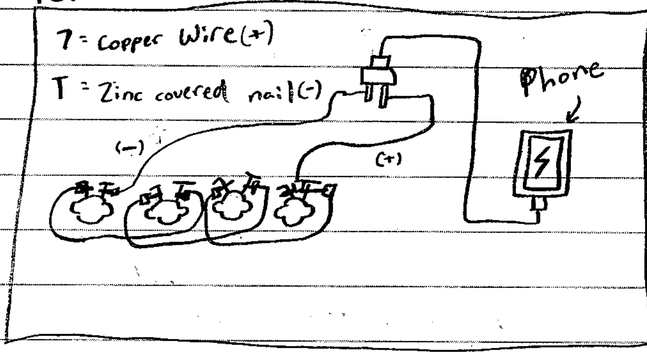
0.93 1.9

	DC	AC		DC		DC	AC
1st	0.93	N/A	6	4.93	11	9.56	N/A
+2	1.89	N/A	7	5.87	12	10.47	0.006
3	2.84	N/A	8	6.78			
4	3.34	N/A	9	7.79			
5	4.02	N/A	10	8.68			

Manufacturers want to make more powerful devices that have higer energy requirements

Lemon circuit

ie:



To find how much lemons needed to charge

example:

5 ÷ 0.9 = 5.55 ← Round to nearest whole so 6 lemons

(Volts) (Lemon Charge) (# of lemons needed)

12\26\23

Established standard for charging mobile phones is 5volts DC from a USB port or charger + 2.4 amps

Quantity of lemons needed to charge phone (Hypothesis)

5 ÷ 0.9 = 5.55 = 6 lemons needed

Date

AC → Alternate Current - Crucial in Phone charging

Conclusion: When it was revealed later that the charger is a AC to DC coverter, the DC somehow didnt go through. To possibly do this, we need to have at least a thousand lemons to match the AC to DC converter.