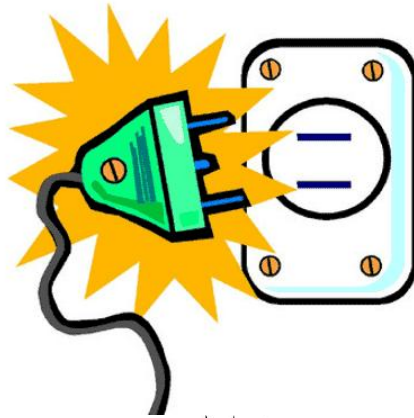
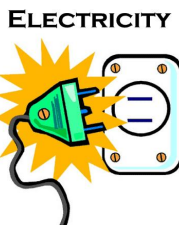


ELECTRICITY



gg59124350 www.gograph.com

Lesson 1 - What Do We Already Know About Electricity ?



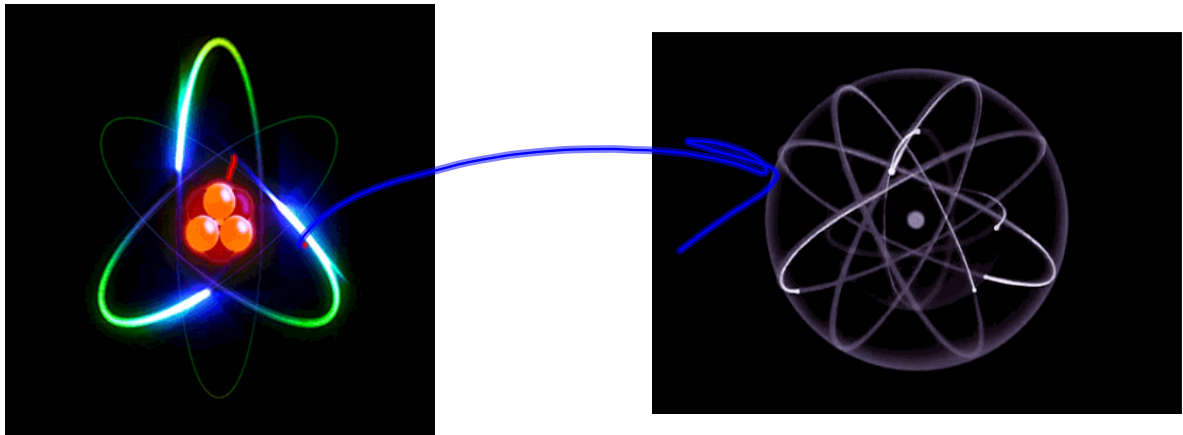
What we already Know about electricity:

1. It makes light
2. Helps power most of our life
3. Thomas Edison invented the lightbulb
4. Be careful around outlets
5. Cars can run on electricity
6. Ben Franklin Discovered Electricity
7. Lightning is electricity

What we Wonder about electricity:

1. What is electricity?
2. Where does lightning come from?
3. How long does it take for a light bulb to stop working?
4. Can electricity cause fire?
5. How does electricity travel?
6. How did Ben Franklin discover electricity?
7. Why do we have to learn about it?
8. How do they make electricity?

Atoms, Atoms EVERYWHERE!!



Lesson 2. What Can Electricity Do?

LIGHT

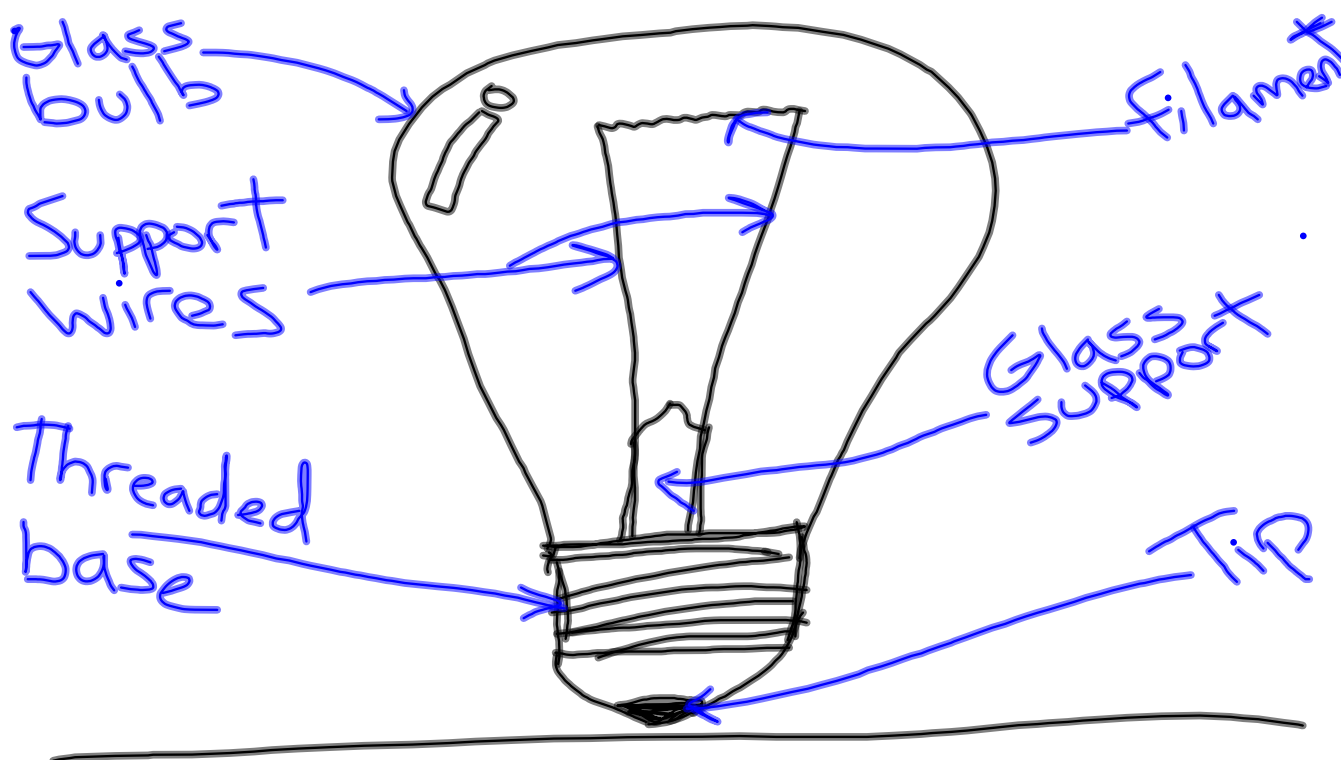
NO LIGHT

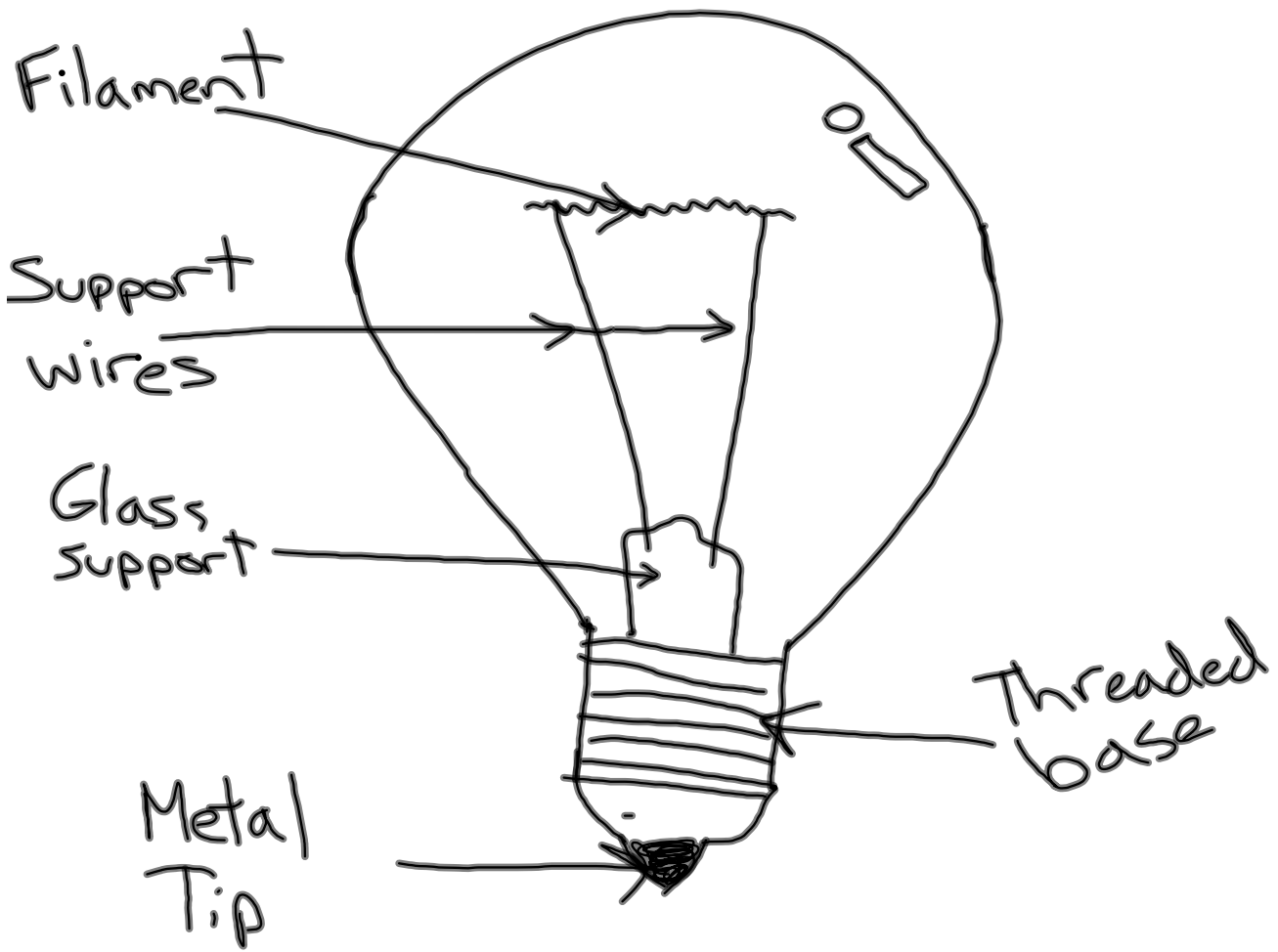
I notice

Lesson 3 - How can we get the bulb to light using a D-cell, wires, and a bulb?

I noticed

Lesson 4 - What is inside
of a light bulb?





Light bulbs
work by
heating up filament
and making it glow
bright.

Lesson 5 - How do we build circuits?

Circuit - a system that electricity flows through.

what powers the
circuit?

what receives
the energy?

Lesson 6 -

How can we troubleshoot
a circuit?

Troubleshoot - steps to
take to fix a problem.

- ① Check to make sure all wires are secure.
- ② Make sure battery is in the holder securely.
- ③ Get the light bulb bottom touching metal.

④ Test battery using the 1 wire circuit.

⑤ Test the light bulb using the 1 wire circuit

Lesson 7 - Which materials will complete a circuit?

Conductor →

materials that allow
electricity to flow through

Insulator →

materials that don't
allow electricity to flow
through

Lesson 8 - What makes
light in light bulbs?

Filament glows by

Read pgs 56-59

"Making a Living
from Lightning"

- ① Where does electricity come from?
pg 24-28
- ② The Battery Guy pg 13-16
- ③ The Edison Era pg 4-5
- ④ Ben Franklin pg 7-10
- ⑤ Electricity in your body pg 53-55
- ⑥ Best Bulb 36-38
- ⑦ Lightning pg 56-59

Lesson 9 - How can
we find the hidden
circuit?

1 → 2 -	2 - 3	3 - 4	4 - 5
1 → 3	2 - 4	3 - 5	4 - 6
1 → 4	2 - 5	3 - 6	4 - 7
1 - 5	2 - 6	3 - 7	4 - 8
1 - 6	2 - 7	3 - 8	
1 - 7	2 - 8	6 - 7	7 - 8
1 - 8	5 - 6	6 - 8	
	5 - 7		
	5 - 8		

5-6

6-7

7-8

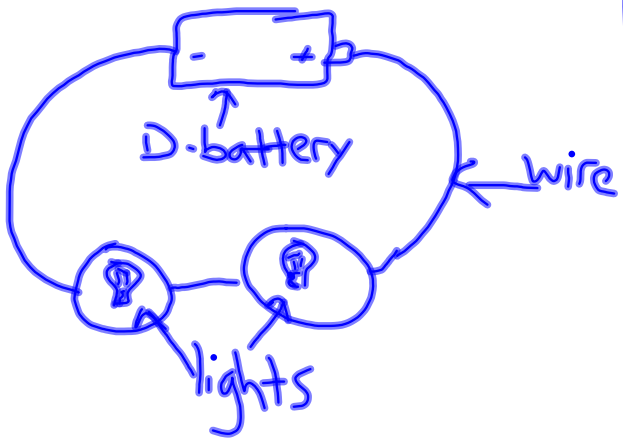
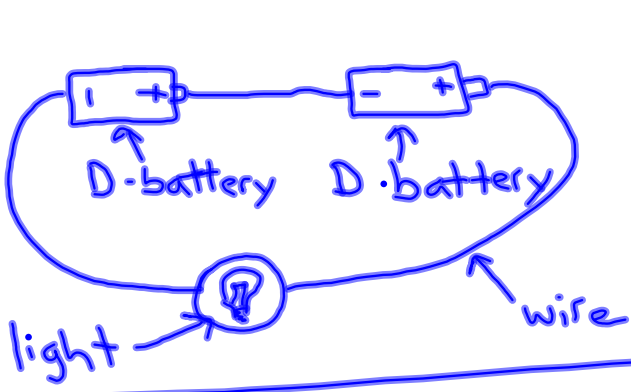
5-7

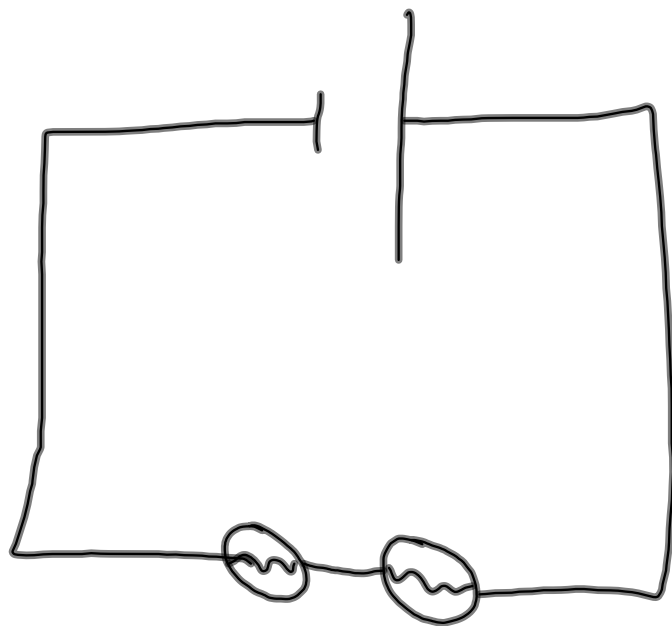
6-8

5-8

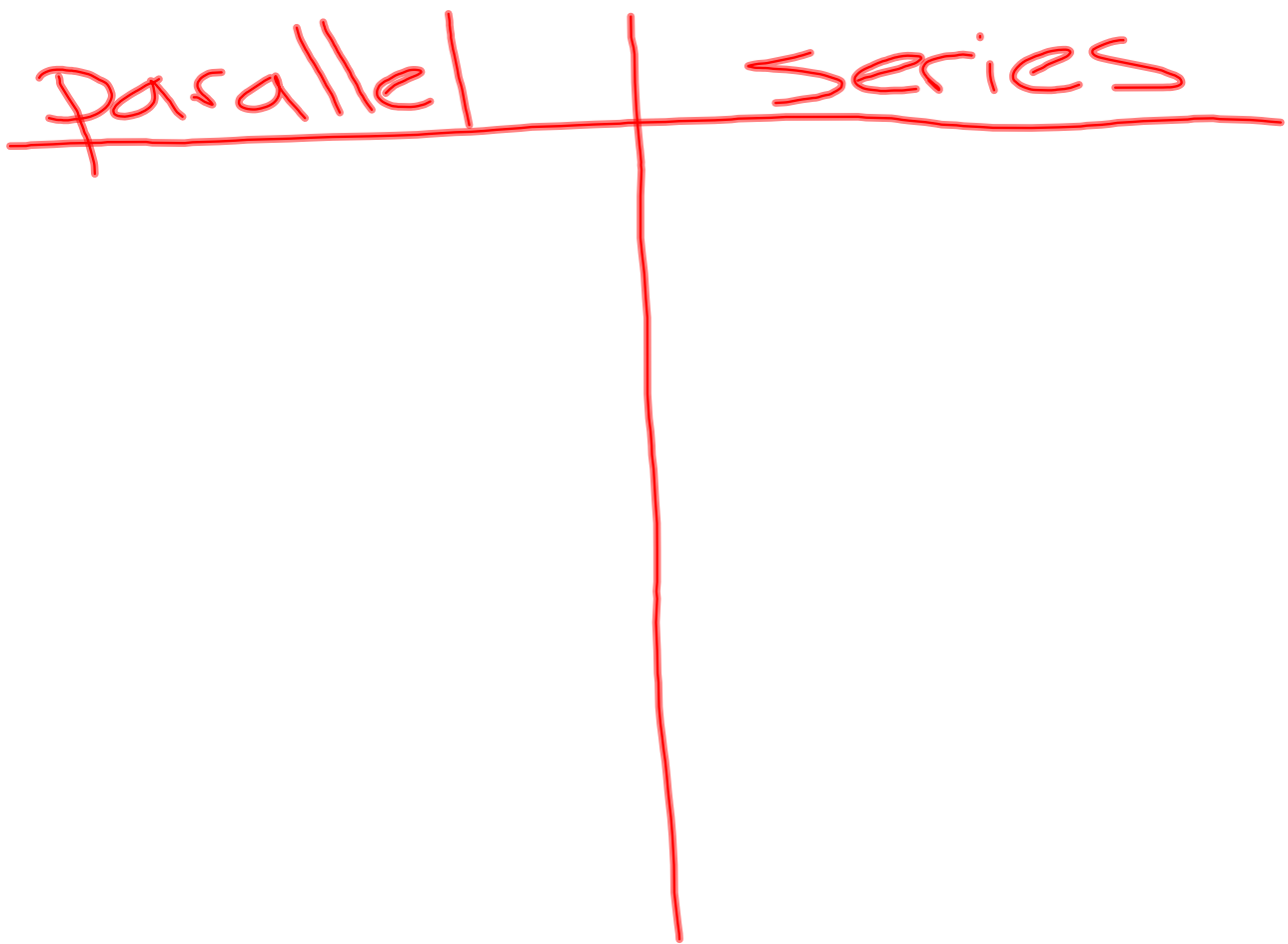
My light bulb lit up
when my two wires
touched brass fasteners
that were connected by
another wire.

Lesson 10- How Do ³⁻¹⁴⁻¹⁸
Electricians Represent
the Components of a
Circuit?





Lesson 11 - What is the difference between a series and a parallel circuit?



Series circuit

electricity flows along **one** path.

- uses a lot of electricity
- batteries die quickly

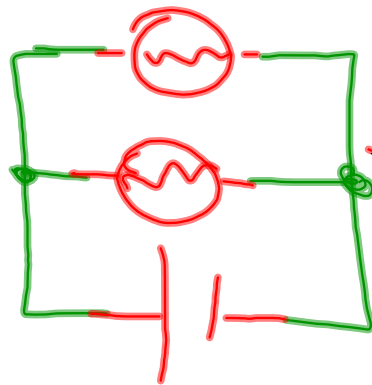
parallel circuit

Electricity flows along **several** paths.

batteries last longer

parallel circuit

Electricity flows along **several** paths.



→ When
|
goes
out,
the other
stays
lit

Lesson 12 - What is
the purpose of a
Switch?

The purpose of a switch is . . .

3-26-18

Lesson 13 - Using what
I know about electricity,
how can I make a
working flashlight?

Necessary Useful
↓

3-27-18

Lesson 14-

What is a diode
and how does it
work?

★ Circuit tester
diagram on page 16!

Diode - allows
electricity to
pass through
in only 1 direction!

Lesson 15 - 2-8-18
Planning to wire
a house