Contacts have opposite charges

Caused by a chemical reaction inside. Once the reactions are complete, the battery is dead.

Contacts have opposite charges

Which end are electrons attracted to?

A. +

B. -

C. Both

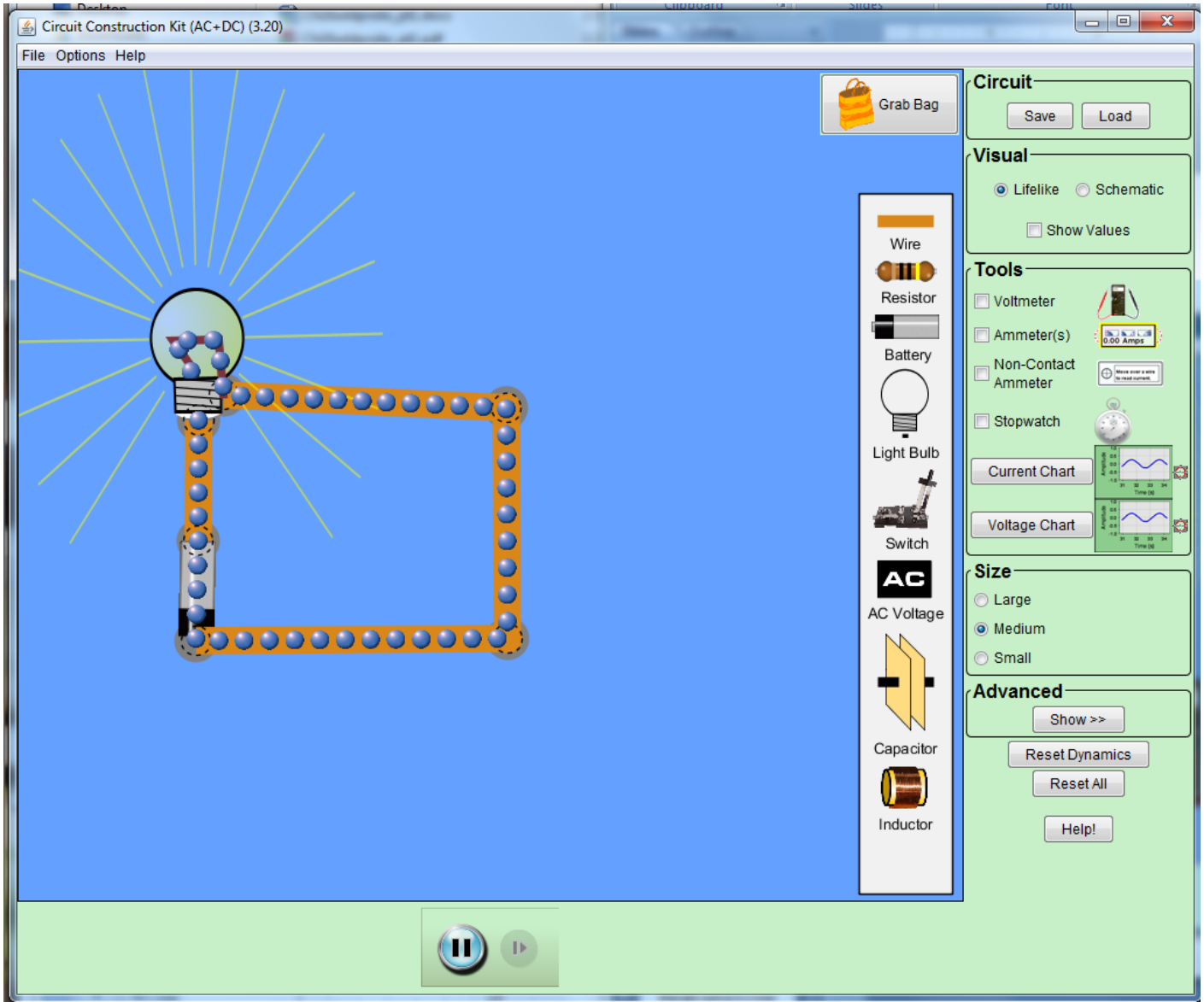
D. Not enough info

Contacts have opposite charges

Electrons are attracted to +

Electrons are repelled by -

PhET - CCK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0.00 Amps
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Stopwatch
Current Chart
Voltage Chart
Size
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Medium
Small
Advanced
Show >>
Reset Dynamics
Reset All
Help!

Bottom line

- **Current** is *flow of electrons* caused by opposite charges attracting and likes repelling.

- **Resistance** is *friction* acting on the electrons.

That's it!

What gets used up in a circuit

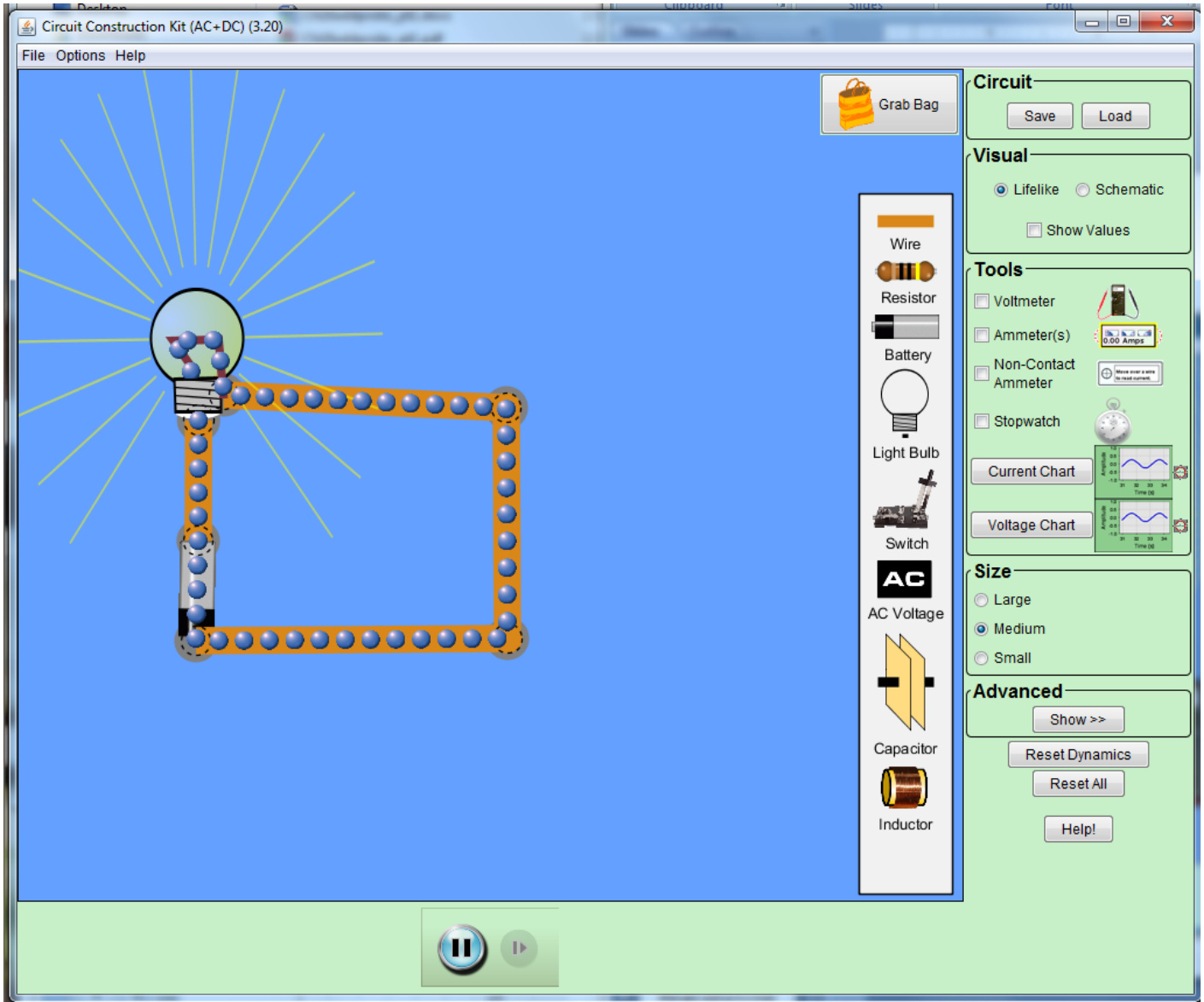
A. Current
B. Electrons
C. Voltage in the battery
D. Chemical Energy of the battery
E. None of the above

Chemical Energy of the battery…

Or power from power plant

- Burn Coal or Natural Gas
- Covert to mechanical energy
- Then to Electrical

PhET - CCK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AC Power in US

Everything is waves/oscillations

How many cycles per second is the sim?

A. ½ a cycle
B. 1 cycle
C. 2 cycles
D. 4 cycles

String circuit

Any idea what could cause a burner to heat up?

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What causes a burner or a toaster to heat up?

A. Complicated electronics
B. Magic
C. Simple circuit with lots of resistance
D. Other

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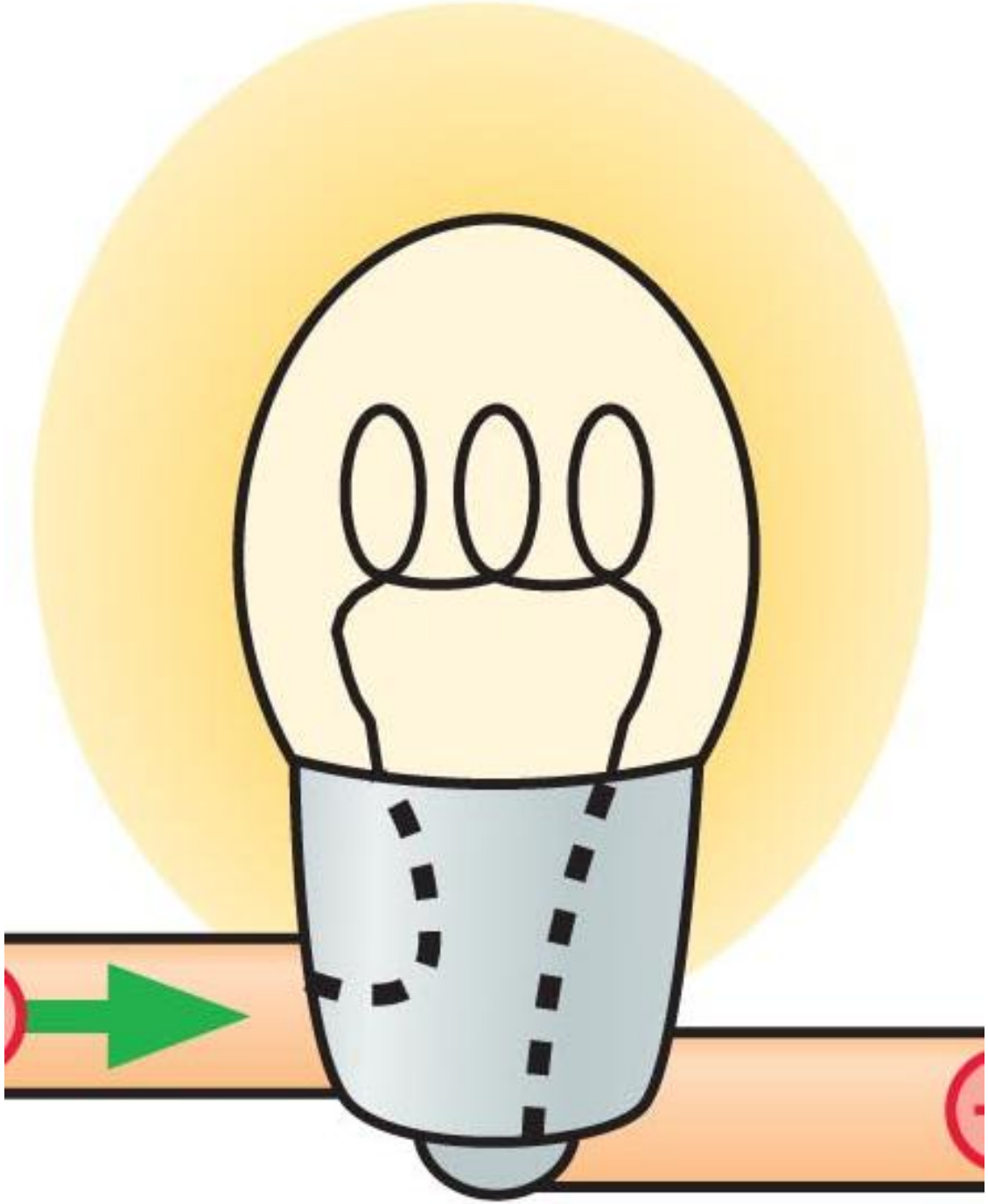
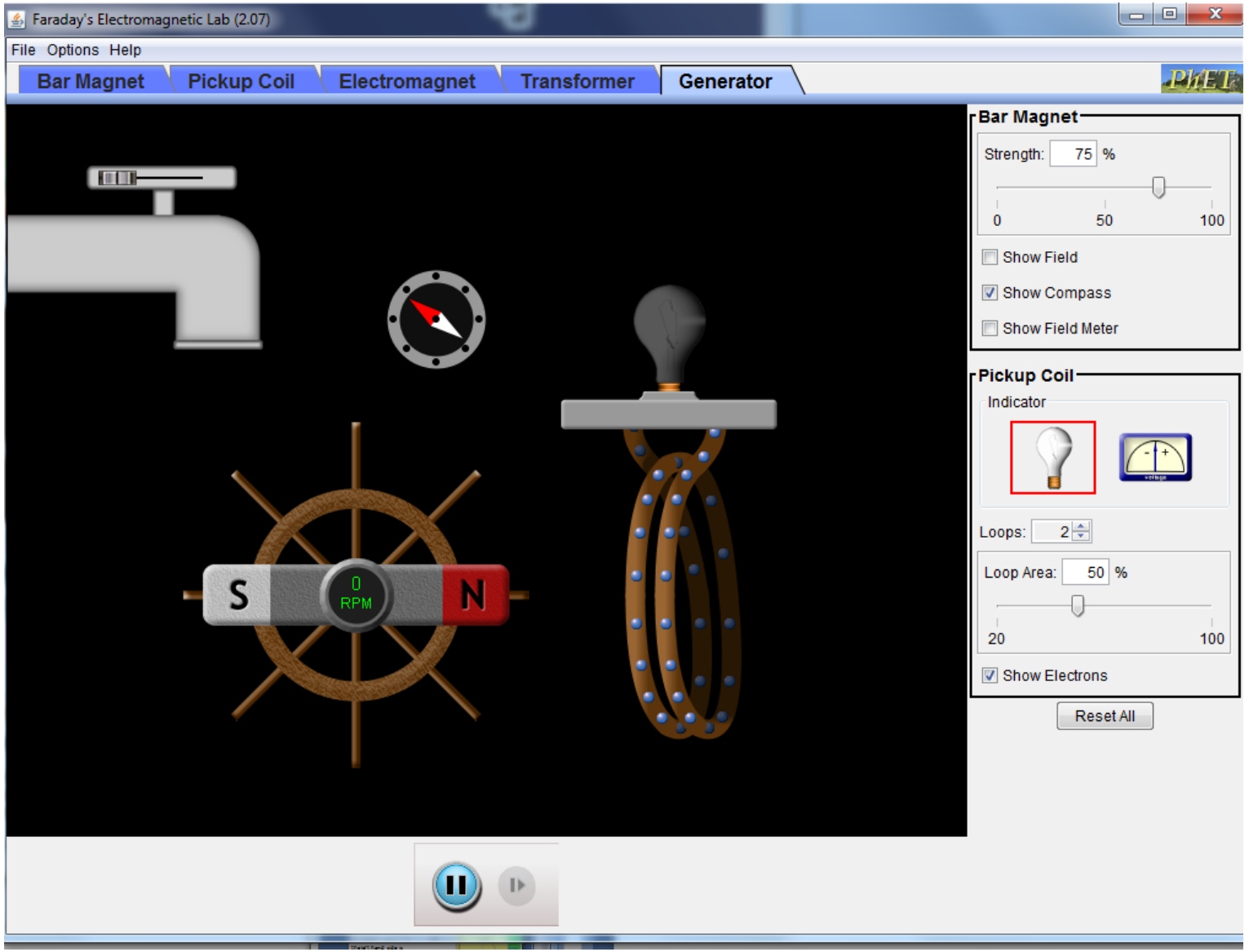


Induction is the

A. Creation of a magnetic field using a battery
B. A changing magnetic field
C. Creation of a current with a changing magnetic field
D. Lighting a light bulb with a current.
E. None of the above

Generators


Faraday's Electromagnetic Lab (2.07)
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Bar Magnet
Pickup Coil
Electromagnet
Transformer
Generator
PhET
Bar Magnet
Strength: 75 %
0
50
100
Show Field
Show Compass
Show Field Meter
Pickup Coil
Indicator
Loops: 2
Loop Area: 50 %
20
100
Show Electrons
Reset All
S
0
RPM
N

Power Plants

- Burn Coal or Natural Gas
- Covert to mechanical energy
- Then to Electrical via *induction*

Windmills

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