

A diagram illustrating the relationship between electricity and magnetism. On the left, a vertical bar magnet is shown with a blue top half and a red bottom half. White magnetic field lines emerge from the blue pole, curve around the magnet, and enter the red pole. The background is divided into three horizontal bands: orange at the top and bottom, and yellow in the middle. The title 'ELECTRICITY & MAGNETISM' is centered in the yellow band.

ELECTRICITY & MAGNETISM

EDITABLE student notebook pages - digital links included for students to complete guided notes on Google Drive

Question: How is lightning similar to getting an electric shock when you reach for a metal doorknob?

ELECTRICITY

Electric charges are from protons which are positive (+) and electrons, which are negative (-)

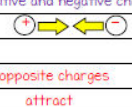
Static Electricity - accumulation of excess electric charges on an object

Atoms become charged by gaining or losing electrons.

Law of Conservation of Charge -

object to object but cannot be cr

Positive and negative charges ex



opposite charges attract

CONDUCTORS

Conductors - material in which electrons move easily (metals)

CHARGING

Charging by Contact - process of transferring charge by touching or rubbing



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CONDUCTORS VS INSULATORS

Electric charges are from protons which are positive (+) and electrons which are negative (-)

Static Electricity - accumulation of excess electric charges on an object




Atoms become charged by gaining or losing electrons.

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Law of Conservation of Charge
electric charges can be transferred from object to object, but it cannot be created or destroyed.


Positive and negative charges exert forces on each other.



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Electric Current
net movement of electric charges in a single direction through a wire or conductor.

Voltage Difference
Force that causes electric charges to flow, charges flow from high voltage low voltage.



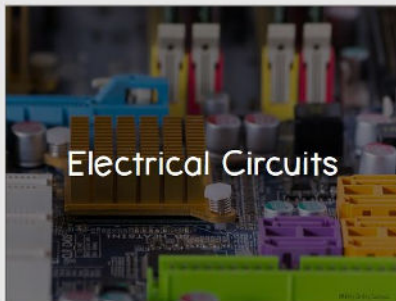
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Circuit - a closed path that electric current follows.




Battery, wires, and voltage difference allows current to flow.



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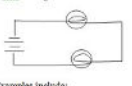
CIRCUIT SYMBOLS

WIRE (conductor) ——— LIGHTBULB 

CLOSED SWITCH  BATTERY 

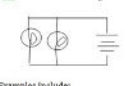
OPEN SWITCH 

SERIES CIRCUIT
Current has only one loop to flow through.



Examples include: flashlight, holiday lights

PARALLEL CIRCUIT
Contains two or more branches for current to flow through.



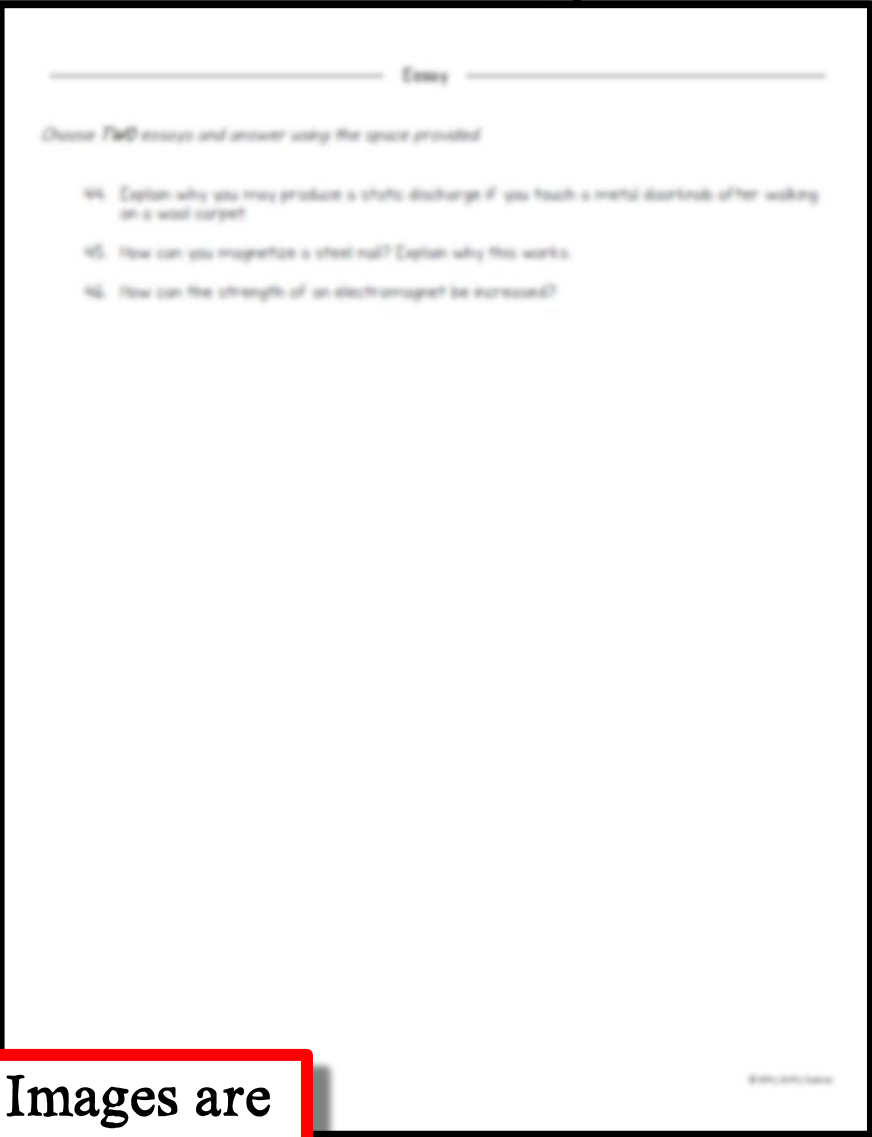
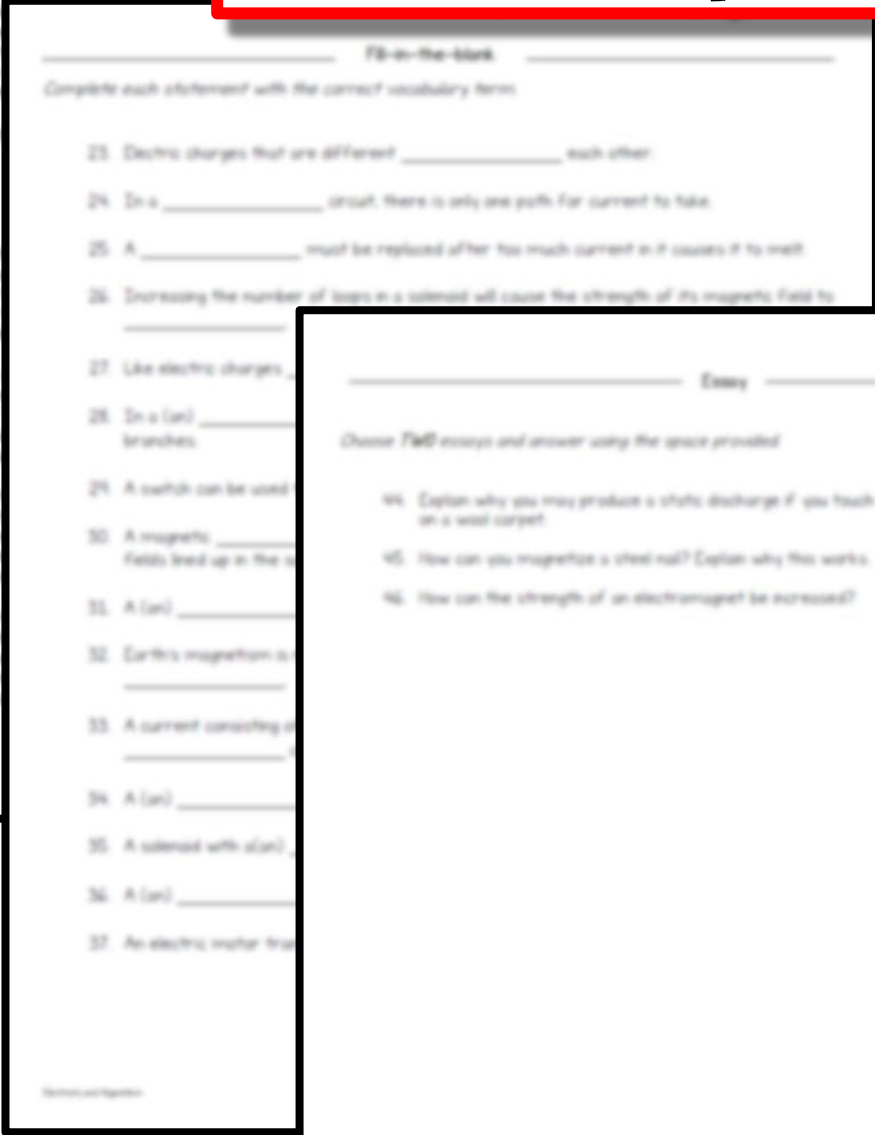
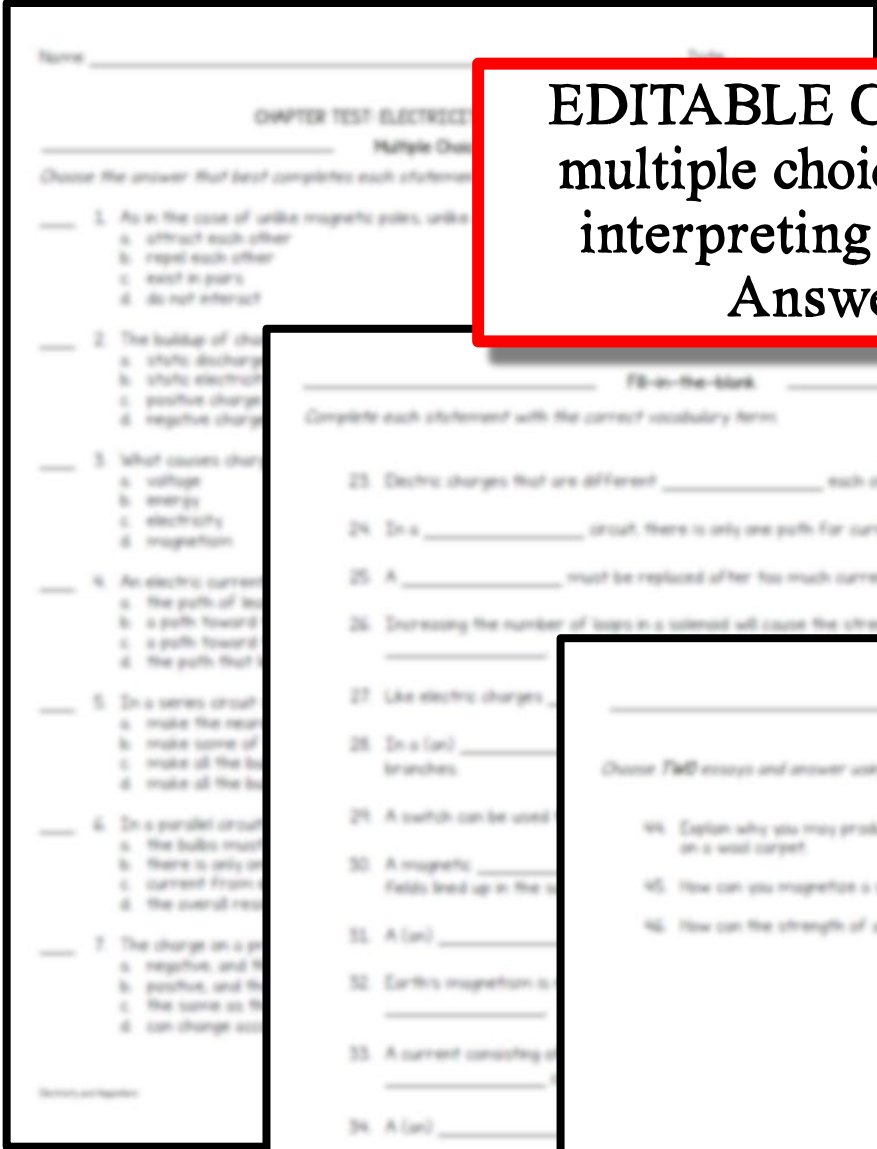
Examples include: Homes, automobiles

COMPLEX CIRCUIT
A circuit composed of both series and parallel circuits.

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EDITABLE PowerPoint presentations include high-resolution graphics and feature all topics and vocabulary covered in the notes

EDITABLE Chapter test includes multiple choice, fill in the blank, interpreting diagrams, & short Answers questions



Answer key included – Images are blurred for copyright reasons



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Contact Information:

Email: admin@nittygritty.com

Website: www.NGSmagnified.com

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