

Physics Study Guide

Name:

Date:

Block:

Create a study guide that includes the major vocabulary and concepts you learn in this unit. Include **definitions, examples, and relevant diagrams**. Your study guide can be a rewriting of your notes, a series of questions/answers, a brochure, a mind map showing the connections between concepts, or any other way you can think of. You can create your study guide on a regular sized piece of paper, a large piece of poster paper, or cue cards

Physics I: Energy

Vocabulary	Concepts
<ul style="list-style-type: none"> <input type="checkbox"/> Mechanical Kinetic Energy <input type="checkbox"/> Radiant/Solar/Light Energy <input type="checkbox"/> Thermal Energy (heat) <input type="checkbox"/> Sound Energy <input type="checkbox"/> Electrical Kinetic Energy <input type="checkbox"/> Elastic Potential Energy <input type="checkbox"/> Chemical Potential Energy <input type="checkbox"/> Gravitational Potential Energy <input type="checkbox"/> Nuclear Energy <input type="checkbox"/> Electrical Potential Energy <input type="checkbox"/> Magnetic Potential Energy 	<ul style="list-style-type: none"> <input type="checkbox"/> What types of energy are classified as kinetic or potential energy? <input type="checkbox"/> How does energy transform from one form to another? <input type="checkbox"/> Provide a few examples of energy transformations that we see in everyday life

Physics II: Static Electricity

Vocabulary	Concepts
<ul style="list-style-type: none"> <input type="checkbox"/> Protons <input type="checkbox"/> Electrons 	<ul style="list-style-type: none"> <input type="checkbox"/> Charged vs uncharged materials <input type="checkbox"/> Law of electric charge

Physics III: Circuits must be Complete for Electrons to Flow

Vocabulary	Concepts
<input type="checkbox"/> Anode <input type="checkbox"/> Cathode <input type="checkbox"/> Electrolyte <input type="checkbox"/> Voltage (electrical potential difference) <input type="checkbox"/> Current <input type="checkbox"/> Resistance <input type="checkbox"/> Source (battery/electrochemical cell) <input type="checkbox"/> Resistor/Load <input type="checkbox"/> Switch	<input type="checkbox"/> How does an electrochemical cell work? <input type="checkbox"/> Insulator vs. conductor <input type="checkbox"/> Short circuits

Physics IV: Circuit Diagrams and Ohm's Law

Vocabulary	Concepts
<input type="checkbox"/> Ammeter <input type="checkbox"/> Voltmeter	<input type="checkbox"/> How do we draw circuit diagrams (with symbols)? <input type="checkbox"/> How do we solve for Voltage, Current, and/or Resistance using Ohm's Law?

Physics V: Series and Parallel Circuits

Vocabulary	Concepts
	The definition of, how to draw circuit diagrams for, what happens to voltage/current in, and real-life examples of: <ul style="list-style-type: none"> <input type="checkbox"/> Series circuits <input type="checkbox"/> Parallel circuits

Physics VI: Power; Sustainability; Generating Electrical Energy

Vocabulary	Concepts
<input type="checkbox"/> Smart meter <input type="checkbox"/> Phantom load <input type="checkbox"/> Turbine <input type="checkbox"/> Shaft <input type="checkbox"/> Generator	<input type="checkbox"/> Calculating power <input type="checkbox"/> What are the EnerGuide and ENERGYSTAR® labels <input type="checkbox"/> How does electrical energy get generated? <input type="checkbox"/> Renewable vs non-renewable energy <input type="checkbox"/> Wind turbines, solar panels, geothermal sources