

Conceptual Physics Scope & Sequence

Days	Unit	Standard(s)/Outcome(s)	Essential/Guiding Questions
10	Autonomous Cars <ul style="list-style-type: none"> ● Position/Distance/ Displacement ● Speed/Velocity ● Acceleration/Freefall 	HS-PS2-1 HS-ETS1-4	<i>Driving Question: How do autonomous cars work?</i>
15	Car Accident Safety <ul style="list-style-type: none"> ● Mass ● Newton's 1st Law ● Newton's 2nd Law ● Momentum ● Impulse 	HS-PS2-1 HS-PS2-2 HS-PS2-3 HS-ETS1-1 HS-ETS1-3	<i>Driving Question: How can we protect ourselves in a car collision? How can you explain and predict the movement of objects on the ground and through the air?</i>
15	Life in Space <ul style="list-style-type: none"> ● Newton's 3rd Law ● Apparent Weight ● Net Force ● Friction & Air Resistance ● Universal Gravitation ● Kepler's Laws ● Circular Motion 	HS-PS2-1 HS-PS2-4 HS-ESS1-4	<i>Driving Question: Could we stop an asteroid from hitting Earth? How can you explain and predict interactions between objects and within systems of objects?</i>
15	Roller Coasters <ul style="list-style-type: none"> ● Potential and Kinetic Energy ● Energy Transformation 	HS-PS3-1 HS-PS3-2 HS-PS3-3 HS-ETS1-2	<i>Driving Question: How do roller coasters work? How is energy transferred and conserved?</i>

	<ul style="list-style-type: none"> ● Thermal Energy ● Energy Conservation ● Work and Power 	HS-ETS1-3 HS-ETS1-4	
20	Cell Phones <ul style="list-style-type: none"> ● Waves ● Sound ● EM Waves ● Photoelectric Effect ● EM Radiation 	HS-PS4-1 HS-PS4-2 HS-PS4-3 HS-PS4-4 HS-PS4-5	<i>Driving Question: How do cell phones work? How are waves used to transfer energy and send and store information?</i>
15	Electric Boats <ul style="list-style-type: none"> ● Basic circuits ● Ohm's Law ● Coulomb's Law ● Electric Fields ● Magnetic Fields 	HS-PS2-4 HS-PS2-5 HS-PS3-5	<i>Driving Question: How do electric boats work?</i>