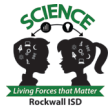




Rockwall ISD Physics Year-at-a-Glance



	Term 1	Term 2	Term 3	Term 4
Focus TEKS ESSENTIAL	<u>Unit 1</u> 1A, 1B, 2A, 2B, 2C, 2D, 2E, 2F, 2G, 2H, 2I, 3A, 3D, 3E <u>Unit 2</u> 1A, 1B, 2I, 2J, 3A, 3C, 3D, 3E, 4A, 4B <u>Unit 3</u> 1A, 1B, 2I, 2J, 3A, 3D, 3E, 4C, 4D, 5A, 5B	<u>Unit 4</u> 1A, 1B, 2I, 2J, 3A, 3E, 4A, 4B, 4C <u>Unit 5</u> 1A, 1B, 2I, 2J, 3A, 3E, 4B, 6C, 6D	<u>Unit 6</u> 1A, 1B, 2I, 2J, 3A, 3D, 3E, 6A, 6B, 6C, 6D <u>Unit 7</u> 1A, 1B, 2I, 2J, 3A, 3E, 7A, 7B, 7C, 7D <u>Unit 8</u> 1A, 1B, 2I, 2J, 3A, 3E, 7A, 7B, 7C, 7D, 7E, 8B <u>Unit 9</u> 1A, 1B, 2I, 3A, 3E, 5A, 5C, 5D, 5E	<u>Unit 10</u> 1A, 1B, 2I, 3A, 3D, 3E, 5E, 5F <u>Unit 11</u> 2I, 6E <u>Unit 12</u> 2I, 3A, 3C, 3D, 5A, 5D <u>Unit 13</u> 2I, 2J, 3A, 3D, 3E, 5A, 8A, 8B, 8C, 8D
Topic Focus	<u>Unit 1</u> Science Skills & Processes <u>Unit 2</u> One Dimensional Kinematics <u>Unit 3</u> Forces	<u>Unit 4</u> Two Dimensional Kinematics <u>Unit 5</u> Momentum	<u>Unit 6</u> Energy <u>Unit 7</u> Mechanical Waves <u>Unit 8</u> Electromagnetic Waves <u>Unit 9</u> Electrostatics	<u>Unit 10</u> Circuits <u>Unit 11</u> Thermodynamics <u>Unit 12</u> Magnetism <u>Unit 13</u> Modern
Resources	<u>Unit 1</u> Teacher selected options from Chapters 1 and 2 <u>Unit 2</u> Chapter 6: pgs 168-172, 177, 183, 186-191, 192-195 Chapter 7: 7.1 <u>Unit 3</u> Chapter 5: 5.1, 5.2, 5.4, 5.5 Chapter 7: 7.2	<u>Unit 4</u> Chapter 8: 8.1 <u>Unit 5</u> Chapter 11 (less pg 323)	<u>Unit 6</u> Chapter 9 pgs 254-265 Chapter 10 pgs 278-292, 294, 298 <u>Unit 7</u> Chapter 14 pgs 386-398, 401-407 Chapter 15 pgs 408-437 Chapter 16 pgs 438-448, 463-469 <u>Unit 8</u> Chapter 20 pgs 572-591, 596-599 Chapter 21 pgs 600-603, 606-615, 623-25 Chapter 22 pgs 626-644 (less pg 635) <u>Unit 9</u> Chapter 18 pgs 506-507, 517-530, 538-543	<u>Unit 10</u> Chapter 2: 2.3 Chapter 10 ALL Chapter 11: 11.1 Chapter 12: 12.1 <u>Unit 11</u> Chapter 23 pgs 660, 663,677 Chapter 24 pgs 692-694, 696-701, 708-709 Chapter 25 pgs 722-733,741 <u>Unit 12</u> Chapter 18 pgs 506-516, 567-571 Chapter 19 pg 544 <u>Unit 13</u> Chapter 22 pgs 642-643, 645-650, 655-657 Chapter 26 pgs 746-764, 768-770, 772-783 Chapter 27 pgs 784-817
Key Concepts	Unit 1 <ul style="list-style-type: none"> Students will make measurements, perform conversions, read and construct graphs, and perform algebraic manipulation. 	Unit 4 <ul style="list-style-type: none"> Students will perform calculations with horizontally fired projectiles. Students will conceptually describe the position, velocity and 	Unit 6 <ul style="list-style-type: none"> Students should conceptually describe energy transfer through the Law of Conservation of Energy. Students should calculate work, power, kinetic energy, 	Unit 10 <ul style="list-style-type: none"> Students will design, construct and analyze circuits in series and parallel. Students will apply the law of conservation of charge (electric



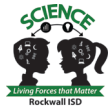
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	<p>Unit 2</p> <ul style="list-style-type: none">• Students will understand the vector nature of position and velocity.• Students will perform calculations with the equation for constant velocity.• Students will generate and interpret graphs describing the relationship between position, velocity, and time. <p>Unit 3</p> <ul style="list-style-type: none">• Students will conceptually describe Newton's Laws of Motion• Students will use free body diagrams and Newton's 2nd Law to solve for an unknown variable.• Students will conceptually describe and perform calculations with Newton's Law of Universal Gravitation.	<p>acceleration of projectiles moving in two dimensions.</p> <ul style="list-style-type: none">• Students will recognize circular motion as an example two dimensional motion. <p>Unit 5</p> <ul style="list-style-type: none">• Students should relate momentum, impulse, and conservation of momentum to Newton's Laws of Motion.• Students should recognize momentum as a universal conservation law.	<p>gravitational energy, and elastic energy is optional.</p> <p>Unit 7</p> <ul style="list-style-type: none">• Students will perform calculations with the wave equation.• Students will identify and describe the implications of wave properties (e.g. more energy = greater amplitude).• Students will describe the interaction of waves with a boundary and with other waves <p>Unit 8</p> <ul style="list-style-type: none">• Students will perform calculations with the wave equation.• Students will identify and describe the implications of wave properties (e.g. more energy = greater amplitude).• Students will describe the interaction of waves with a boundary and with other waves <p>Unit 9</p> <ul style="list-style-type: none">• Students will describe the transfer of charge using Law of Conservation of Charge.• Students will conceptually and mathematically describe the attraction between charged particles.• Students will also conceptually describe electric fields and electrical energy.	<p>current) and law of conservation of energy (voltage) to circuits.</p> <ul style="list-style-type: none">• Students will describe the advantages and disadvantages to series and parallel circuits. <p>Unit 11</p> <ul style="list-style-type: none">• Students will conceptually describe the laws of laws of thermodynamics and their application to real world scenarios.• Students will describe the methods of heat transfer.• Students will describe heat and work as an application of the law of conservation of energy. <p>Unit 12</p> <ul style="list-style-type: none">• Electromagnetism is responsible for a number of inventions critical to modern life.• Students will understand the interaction between work and that magnets can create electrical current <p>Unit 13</p> <ul style="list-style-type: none">• Students will apply modern physics concepts to modern life.• Students will calculate using mass energy equivalence.• Students will classify reactions as fission (decay) or fusion• Students will describe the photoelectric effect and the dual nature of light.• Students will compare and explain the emissions spectra produced in atoms
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				<ul style="list-style-type: none">• Applications include: imaging, standard model, solar cells, semi and superconductors, radiation therapy, and nuclear power.
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