



Rockwall ISD IPC Honors Year-at-a-Glance



	Term 1	Term 2	Term 3	Term 4
Focus TEKS ESSENTIAL	<u>Unit 1</u> 1A, 1B, 2E-H, 3A, 3E, 4B, 6B, 9A, 9C <u>Unit 2</u> 1A, 1B, 2E-H, 3A, 3E, 3F, 4B, 5A, 5B, 6A, 6B, 9A, 9C <u>Unit 3</u> 1A, 1B, 2E-H, 3A, 3E, 4B, 5B, 6A, 6B, 6C, 6D, 9A, 9C	<u>Unit 4 (started in Term 1)</u> 1A, 1B, 2E-H, 3A, 3E, 3F, 4A, 4B, 4C, 5B, 10C <u>Unit 5</u> 1A, 1B, 2E, 2H, 3A, 3E, 3F, 4Aii, 4B, 5A, 5B, 5C, 6A, 6B, 9A, 9C <u>Unit 6</u> 1A, 1B, 2E-H, 3A, 3E, 4B, 5B, 6A, 6E, 6G	<u>Unit 7</u> 1A, 1B, 2E-H, 3A, 3D, 3E, 3F, 6A, 6D, 6F <u>Unit 8</u> 1A, 1B, 2C, 2E, 2F, 3A, 3E, 3F, 4Aii, 7A, 7B, 7C, 7D, 7E, 7F, 8B, 12B	<u>Unit 9 (started in Term 3)</u> <u>Unit 10</u> STAAR Review <u>Unit 11</u> 1A, 1B, 2E-H, 3A, 3E, 4B, 4C, 9C, 10A, 10C, 11A
Topic Focus	<u>Unit 1</u> Properties <u>Unit 2</u> Atoms <u>Unit 3</u> Periodic Table	<u>Unit 4 (started in Term 1)</u> Reactions <u>Unit 5</u> Energy <u>Unit 6</u> Waves	<u>Unit 7</u> Motions <u>Unit 8</u> Force	<u>Unit 9 (started in Term 3)</u> Gravity & Space <u>Unit 10</u> STAAR Review <u>Unit 11</u> Electricity1
<u>Texas</u> <u>CCRS</u>	<u>Unit 1</u> 5A.2, 5C.1, 5D.1, 7A.1, 7A.2, 7I.1, 7I.4, 8A.2, 8A.4 <u>Unit 2</u> 7B.1 <u>Unit 3</u> 7C.1, 7C.2	<u>Unit 4 (started in Term 1)</u> 7E.1, 7E.5, 8H.1 <u>Unit 5</u> 8D.1, 8D.2 <u>Unit 6</u> 8G.1, 8G.2, 8G.3, 8G.4	<u>Unit 7</u> 8C.1 <u>Unit 8</u> 8A.3, 8C.2, 8C.3	<u>Unit 9 (started in Term 3)</u> 8A.5, 9A.2, 9B.1, 9C.1, 9D.2 <u>Unit 10</u> STAAR Review <u>Unit 11</u> 8I.1, 8I.5, 8I.7
Key Concepts	Unit 1 <ul style="list-style-type: none"> Distinguish between physical and chemical properties Relate properties of solids, liquids and gases to arrangement of molecules. Investigate the relationship of mass to volume in determining density of a substance. Describe matter in terms of buoyancy, viscosity, conductivity and reactivity Students will distinguish between elements, compounds, mixtures and solutions. Students will understand that as water changes state that it's 	Unit 4 <ul style="list-style-type: none"> Students will determine the number of atoms of each element in a chemical formula by the script. Students will need to witness changes and describe them as either chemical or physical changes. Balance equation (both in mass and atoms) Endo and exothermic Signs of a chemical reaction (CGLTP) Product is a new substance with different properties Chemical and physical changes happen in both the mouth and stomach Count atoms using subscripts, coefficients, and using parentheses 	Unit 7 <ul style="list-style-type: none"> Differentiate between speed, velocity and acceleration Describe and calculate displacement, speed, and acceleration Measure and graph distance and speed as a unit of time Unit 8 <ul style="list-style-type: none"> Investigate how an object's motion is affected by the application of a net force. Assess relationship between force, mass and acceleration. Calculate how unbalance forces change speed and direction 	Unit 9 <ul style="list-style-type: none"> Day/Night Seasons H-R Diagram Moon Phases Tides Newton's Law of Universal Gravitation / Gravity-Mass and distance Nuclear Reactions-Fission and Fusion Unit 10 STAAR Review Unit 11 <ul style="list-style-type: none"> Series Circuits Parallel circuits



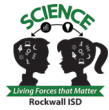
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	<p>physical properties change but not its chemical properties.</p> <ul style="list-style-type: none">• Students will describe how the arrangement and motion of atoms change when states of matter change.• Relate the structure of water to its function as a solvent• Investigate properties of water• Investigate factors affecting solubility such as nature of solute, temperature and concentration. <p>Unit 2</p> <ul style="list-style-type: none">• Students will describe properties and the structure of an atom including: mass/size comparisons, electrical charges, and locations of structures.• Students will identify that Protons determine an atom's Identity• Students will identify valence electrons determine an atom's chemical properties, including reactivity• Reference nuclear fission/fusion to make the connection when taught during space unit <p>Unit 3</p> <ul style="list-style-type: none">• Students will interpret the arrangement of the Periodic Table by groups and periods• Students will relate the placement of elements on the Periodic Table with their physical and chemical properties such as conductivity and reactivity.• Teach the concept of oxidation and electronegativity.	<ul style="list-style-type: none">• Differentiate between chemical symbols, formulas and equations• Spiral back to include water being a solvent• If time - introduce types of reactions <p>Unit 5</p> <ul style="list-style-type: none">• Investigate and demonstrate the movement of thermal energy• Understand different types of kinetic energy and potential energy• The transition between KE and PE in situations• Recognize and demonstrate that objects and substances in motion have kinetic energy.• Recognize and demonstrate common forms of potential energy including gravitational, elastic, and chemical.• Investigate the law of conservation of energy• Investigate and demonstrate energy transfer through states of matter• Calculate potential energy and kinetic energy time permitting but not a TEKS• Retouch on convection affecting weather systems that was taught in compacted 7th <p>Unit 6</p> <ul style="list-style-type: none">• Compare wavelength and frequency of different waves• Interpret the EM Spectrum scale• Identify a spectroscope and why it is used• Red shift blue shift		<ul style="list-style-type: none">• Moving Electrical Charges and magnetism• Electrical forces between 2 charged objects• Generators• fission/fusion again
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- Different types of telescopes are used to observe different types of EM waves
- Waves are everywhere
- The only waves we see are Visible light waves the others cannot be detected by our eyes therefore we need different tools to gain information about the waves.
- Objects in space give off various types of waves.
- Students explore the characteristics and behaviors of energy transferred by waves.
- Investigate reflections, refraction, diffraction, interference and absorption,
- Apply characteristics of waves to sound and light.
- Students will explore the characteristics and behaviors of energy transferred by waves, including acoustic, seismic, light, and waves on water, as they reflect, refract, diffract, interfere with one another, and are absorbed by materials.
- Relate the wavelength of light emitted to electron dropping or lowering an energy level
- Using terrestrial application of spectroscopy to observe celestial bodies.