Rockwall ISD IPC on-level Year-at-a-Glance

	Term 1	Term 2	Term 3	Term 4
Focus TEKS ESSENTIAL	Unit 1 1A, 1B, 1C, 2A, 2B, 2C, 2D, 2E, 3A, 3C, 3D, 3E, 3F Unit 2 1A, 1B, 1C, 2A, 2B, 2C, 2D, 2E, 3A, 3C, 3D, 3E, 3F, 6A, 6C Unit 3 1A, 1B, 1C, 2A, 2B, 2C, 2D, 2E, 3A, 3D, 3E, 3F, 7A, 7B, 7C Unit 4 1A, 1B, 1C, 2A, 2B, 2C, 2D, 2E, 3A, 3B, 3C, 3D, 3E, 3F, 6B, 6D, 7B	Unit 5 1A, 1B, 1C, 2A, 2B, 2C, 2D, 2E, 3A, 3C, 3D, 3E, 3F, 6B, 6D, 7B Unit 6 1A, 1B, 1C, 2A, 2B, 2C, 2D, 2E, 3A, 3C, 3D, 3E, 3F, 7B, 7C, 7D, 7E Unit 7 1A, 1B, 1C, 2A, 2B, 2C, 2D, 2E, 3A, 3C, 3D, 3E, 3F, 6E, 6F, 7F	Unit 8 1A, 1C, 2A, 2B, 2C, 2D, 2E, 3A, 3C, 3D, 3E, 3F, 4A, 4B Unit 9 1A, 2B, 1C, 2A, 2C, 2D, 2E, 3A, 3C, 3D, 3E, 3F, 4C, 4D, 4F, 4G Unit 10 1A, 2B, 1C, 2A, 2C, 2D, 2E, 3A, 3C, 3D, 3E, 3F, 4E Unit 11 1A, 1C, 2A, 2B, 2C, 2D, 2E, 3A, 3B, 3C, 3D, 3E, 3F, 5A, 5B, 5D	Unit 12 1A, 1C, 2A, 2B, 2C, 2D, 2E, 3A, 3B, 3C, 3D, 3E, 3F, 5E, 5H, 5I, 7E Unit 13 1A, 1C, 2A, 2B, 2C, 2D, 2E, 3A, 3C, 3D, 3E, 3F, 4G, 5C, 5F Unit 14 1A, 1C,2A, 2B, 2C, 2D, 2E, 3A, 3C, 3D, 3E, 5D, 5G
Topic Focus	Unit 1 Themes of IPC: Lab Safety & Processes Unit 2 Properties of Matter Unit 3 Changes in Matter Unit 4 Periodic Table	Unit 5 Bonding Unit 6 Reactions Unit 7 Solutions	Unit 8 Motion Unit 9 Forces Unit 10 Momentum Unit 11 Energy of Motion	Unit 12 Thermodynamics Unit 13 Electricity Unit 14 Waves
Resources	Unit 1 **Chapter 1** Unit 2 **Chapter 14** Unit 3 **Chapter 15** Unit 4 **Chapter 16** **Chapter 17**	Unit 5 **Chapter 18** Unit 6 **Chapter 19** Unit 7 **Chapter 21**	Unit 8 **Chapter 2** Unit 9 **Chapter 3** Unit 10 **Chapter 2** Section 2 Unit 11 **Chapter 4**	Unit 12 **Chapter 5** Unit 13 **Chapter 6** Unit 14 **Chapter 9** **Chapter 10** **Chapter 11**
Key Concepts	Unit 1 • Students need to know how to back up claims with evidence and reasoning in their writing. • Students need to know the basic ideas of what it means to be in equilibrium and the balance between two competing things. • Students need to know how to describe conservation in terms of their observations	Unit 5 • Determine the charge on elements. • Know the difference between ionic and covalent bonds • Recognize that valence electrons are responsible for the behavior and reactivity of elements including types of bonds. • Write chemical formulas and names for simple binary compounds with single bonds.	Unit 8 • Measure and graph distance and speed as a unit of time • Describe and calculate displacement, speed, and acceleration Unit 9 • Investigate how an object's motion is affected by the application of a net force.	Unit 12 • Movement of thermal energy through matter by conduction, convection and radiation such as in mechanical systems. • Analyze energy transformations of renewable and nonrenewable resources. • Critique the advantages and disadvantages of various energy

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	both quantitatively and qualitatively. • Students need to know how to operate in the lab in a safe manner and complete a lab safety contract. • Students need to use writing to communicate scientific ideas and support them using data. Unit 2 • Distinguish between physical and chemical properties • Relate properties of solids, liquids and gases to arrangement of molecules. • Calculate density • Investigate the relationship of mass to volume in determining density of a substance. • Describe matter in terms of buoyancy, viscosity, conductivity and reactivity. Unit 3 • Students will need to witness changes and describe them as either chemical or physical changes. • Students will distinguish between elements, compounds, mixtures and solutions. • Students will understand that as water changes state that it's physical properties change but not its chemical properties. • Students will describe how the arrangement and motion of atoms change at when states of matter change.	• Students will understand the octet rule for stability. Unit 6 • Understand that mass is conserved when substances undergo chemical change and the number and kinds of atoms remain the same. • Balance equations • Identify reactants and products • Classify types of reactions • Describe fission and fusion Unit 7 • Relate the structure of water to its function as a solvent • Investigate of solutions and factors affecting solubility such as nature of solute, temperature and concentration. • Decide among PLC how to assess 7F research.	• Assess relationship between force, mass and acceleration. • Describe gravitational attraction between of different masses and at different distances. • Examine electrical forces as a universal force. Unit 10 • Understand momentum as a quantity of motion. • Explain the concept of conservation of momentum using action and reaction forces. Unit 11 • Recognize and demonstrate that objects and substances in motion have kinetic energy. • Recognize and demonstrate common forms of potential energy including elastic and chemical. • Investigate the law of conservation of energy • Describe the work energy theorem	sources and their impact on society. Unit 13 • Evaluate the transfer of electrical energy in series and parallel circuits • Demonstrate that moving electric charges produce magnetic forces Unit 14 • 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.

	Unit 4 • Students will relate the chemical behavior of an element to its placement on the periodic table. • Students will learn the periodic table can be used to classify the properties of elements and identify trends.			