

**Scientific Research and Design Year-At-A-Glance**

Week	Unit Title	Overview	Readiness TEKS	Supporting TEKS
Week 1	What is Science	The student will define science and its limitations. The culminating activity for this unit will have students distinguish between scientific hypotheses and scientific theories and design and implement investigative procedures.	3.A, 3.B, 3.C, 3.D, 3.E	
Week 2				
Week 3				
Week 4	Laboratory and Field Investigations	Students will gather, organize, and measure various technological data using a variety of equipment.	3.F, 3.G, 3.H, 3.I, 3.J	
Week 5				
Week 6				
Week 7	Safety Precautions and Ethical Practices	In this unit, students will comply with federal and state safety regulations.	2.A, 2.B	
Week 8				
Week 9				
Week 10	Scientific Reasoning	Scientific inquiry is the planned and deliberate investigation of the natural world. Scientific methods of investigation can be experimental, descriptive, or comparative. The method chosen should be appropriate to the question being asked.	4.A, 4.B, 4.C, 4.D, 4.E, 4.F, 4.G	
Week 11				
Week 12				
Week 13	Formulating Hypotheses	In this unit, students will examine hypotheses generated to guide a research process by evaluating the merits and feasibility of the hypotheses.	5.A, 5.B	
Week 14				
Week 15				
Week 16	Analysis of Public Research	In this unit, students will build upon the prior unit and perform functions such as identifying the scientific methodology used by researchers.	6.A, 6.B, 6.C	
Week 17				
Week 18				
Week 19	Investigative Designs	In this unit, students will interact with the community and perform functions such as collaborating with scientific researchers or other members of the scientific community to complete a research project.	7.A, 7.B, 7.C, 7.D	
Week 20				
Week 21				
Week 22				
Week 23	Data Examined	Students should analyze a system in terms of its components and how these components relate to each other, to the whole, and to the external environment.	8.A, 8.B, 8.C, 8.D, 8.E, 8.F, 8.G	
Week 24				
Week 25				
Week 26	Filtering and Synthesis of Data	Students should be able to distinguish between scientific decision-making methods (science methods) and ethical and social decisions that involve science (the application of scientific information).	9.A, 9.B, 9.C,	
Week 27				
Week 28				
Week 29	Presenting the Facts	Students will get real world experience in this unit as they present upon conclusions derived using materials such as charts, tables and graphs with the use of technology.	10.A, 10.B	
Week 30				
Week 31				
Week 32				
Week 33	Employability Skills	In this unit, students are encouraged to expand their learning experiences through avenues such as STEM organizations and other leadership or extracurricular organizations.	1.A, 1.B	
Week 34				
Week 35				
Week 36				
Week 37				