Seguin ISD Tier I Science
High-Yield Instructional Strategies

Components of Effective Instruction	Description	Teacher Actions	Student Actions
High quality lesson planning: Planning Protocol	Teachers plan collaboratively with the end in mind to provide high-quality constructive learning experience.	Utilize the Seguin ISD Planning Protocol Steps 1-5 to plan effective instruction • Determine the concepts and standards for each unit and how they will be assessed • Determine what instructional resources are needed to teach the concepts • Incorporate 5-E Lesson design	• Students are engaged in science rich tasks that are aligned to the standards • Students are working collaboratively through purposeful grouping • Students are making connections and justifying solutions
Interactive Journal	Each student uses a journal to draw observations, collect data, record information, and summary reflections, etc.	• Model the use of the interactive notebook • Set expectations on the requirements for the interactive notebook • Allow students flexibility in how they will present their learning • Have an interactive notebook updated and available for students that are absent • Provide a rubric/guide for the interactive notebook	• Utilize the interactive notebook daily • Follow the expectations on the up keep of the interactive notebook • Use the interactive notebook to draw observations, collect data, record information, and write reflections. • Use interactive notebook as a study tool or resource • Turn in interactive notebook to the teacher every six weeks for secondary and every nine weeks for elementary
Hands-on experiences	The proper use of equipment and materials through the scientific process	• Model the use of the equipment prior to experiments • Set expectations for the use of the equipment • Expect group collaboration • Use high-level questioning strategies that promote critical thinking	• Students are expected to follow the appropriate handling of equipment • Students are required to follow specific laboratory rules • Students are expected to collaborate with peers • Students are expected to use the scientific process to arrive at a conclusion • Students make real world connections

Vocabulary rich environment	The use of academic vocabulary by teachers and students through oral, auditory and visual connections.	• Teacher models the use of academic vocabulary • Teacher uses manipulative to demonstrate the use of vocabulary • Teacher uses real world connections to relate to academic vocabulary • Teacher builds on the use of academic vocabulary to increase their knowledge of science	• Students are expected to use the academic vocabulary in the classroom • Students routinely use manipulative or tools that support the understanding of the concepts • Students make connections between abstract to concrete by visuals and or manipulatives
Incorporate Frequent Formative and Summative Assessment	Assessing students frequently to determine students' mastery of the content and TEKS.	• Teacher formally assesses the students regularly to check for understanding • Teacher uses a progress monitoring tools to track mastery of skills and SEs. • Teacher uses progress to drive planning and instruction • Teacher uses progress to create intervention groups	• Students monitor their own mastery of content • Students track their progress of mastery by TEK/SE • Students graph assessment data per unit assessment
Gradual Release of Learning (student-centered)	Students will take the lead to discuss, teach and explain the learning to their peers. The teacher will act as a facilitator.	• Teacher will model the expectations for the students. • Teacher will model the gradual release of learning. • Teachers will gradually release the learning to the students.	• Students will practice skills modeled by the teacher • Students will collaborate with other students • Students will interact in rich conversations