1st Grade Science

The purpose of this document is to clarify what students should know and be able to do in each quarter.

The **Competencies** listed in the table below are developed from the Texas Essential Knowledge and Skills (TEKS) for that grade level. The chart defines which quarter the Competency is reported (Q1 = Grading Period 1, Q2 = Grading Period 2, etc.).

Teachers will report on the competencies using the **Grading Progressions** which are comprised of three proficiency levels (developing (DV), progressing (PG), and proficient (PF)) and defines the knowledge and skills students will master on their pathway to proficiency. The Grading Progressions for each Competency are below the yearlong outline of the Competencies. The Grading Progressions define what a student knows and is able to do related to that competency at the end of a unit or quarter. To see what success on each individual competency looks like in a particular unit, please see the **Public Overview** document for the course.

Students who receive a mark of "**Proficient**" meet the grade level expectation for that Competency.

Competencies	Q 1	Q 2	Q 3	Q 4
C1 Matter and its Properties The student classifies objects by physical properties, explains and predicts changes in materials caused by heating and cooling, and explains that a whole object is a system made of organized parts.	X			
C2 Forces and Motion The student plans and conducts an investigation to predict and explain how forces change the speed or direction of an object's motion.	X	X		
C3 Energy The student describes applications of heat in everyday life and how some changes from heat are reversible or not reversible.		X		
C4 Patterns in the Natural World The student describes and predicts patterns of seasons.		X		
C5 Earth Materials and Systems The student records the properties of soil, describes how water moves rocks and soil, compares bodies of water, and describes characteristics of weather.		X	X	
C6 Uses of Earth Materials The student describes how organisms use Earth materials, explains the importance of water conservation, and describes ways to conserve water.			X	X
C7 Interactions within Environments The student classifies living and nonliving things, describes how organisms depend on living and nonliving things, and identifies how organisms depend on each other in a food chain.				X
C8 Structures and Growth of Organisms The student compares structures of different animals that help them survive, records the life cycles of different animals, and compares how young animals resemble their parents.				X

Grading Progression for Competency 2: Forces and Motion

The student plans and conducts an investigation to predict and explain how forces change the speed or direction of an object's motion.

Developing	Progressing	Proficient

Makes or uses observations to recognize and describe pushes and pulls in everyday life.	Makes or uses observations to describe an object's motion by its speed and direction.	• Plans and conducts a descriptive investigation:
		  ○ Ask a testable question about pushes and pulls, and motion.
		  ○ Predict results of the investigation about pushes and pulls, and motion.
		  ○ Determine the materials and procedures to test pushes and pulls, and motion.
		  ○ Construct appropriate data tables to record data about pushes and pulls, and motion.
		  ○ Collect observations as evidence by conducting fair investigations that test pushes and pulls, and motion.
		  ○ Develops explanations for how pushes and pulls cause changes in motion.
		• Constructs an argument with evidence that supports a claim about how pushes and pulls cause changes in motion.

Grading Progression for Competency 3: Energy

The student describes applications of heat in everyday life and how some changes from heat are reversible or not reversible.

Developing	Progressing	Proficient
Identifies the presence of heat in objects. Describes how heat can be used in everyday life. Describes how heat is related to thermal energy.	Collects evidence on how heat is used in everyday life. Collects evidence to identify the changes in the physical properties of objects caused by heat.	Uses evidence to describe how heat can be used in everyday life. Describes how heat is related to thermal energy. Uses observations to describe the type of changes in objects caused by heat. Constructs an argument with evidence describing that some changes caused by heat can be reversed and some cannot.

Grading Progression for Competency 4: Patterns in the Natural World

The student describes and predicts patterns of seasons.

Developing	Progressing	Proficient
Makes or uses observations to describe the temperature of the air.	Makes or uses observations to identify characteristics of the seasons including: • Air temperature • Daylight hours • What plants look like • What animals do • Months of the year	Uses evidence to describe the pattern in the order of occurrence of the seasons of the year. Uses evidence to predict the pattern in the order of occurrence of the seasons of the year. Uses evidence to describe the pattern in the changes in nature of the seasons of the year. Uses evidence to predict the pattern in the changes in nature of the seasons of the year.

Grading Progression for Competency 5: Earth Materials and Systems

The student records the properties of soil, describes how water moves rocks and soil, compares bodies of water, and describes characteristics of weather.

Developing	Progressing	Proficient
Makes or uses observations to describe objects based on the properties of size, shape, texture, and color.	Makes or uses observations to record the components of different types of soil and their properties including particle size, shape, texture, and color.	Uses evidence to describe the components of different types of soil and their properties including particle size, shape, texture, and color. Uses patterns in the physical properties of soils as evidence to identify a type of soil.