

Texas Recurring Themes & Concepts (RTCs)

Vertical Articulation by Grade Band, Grades K-8

The following table references the integration of RTCs, Content TEKS, and phenomena as articulated across Grades K through 8. For additional instructional materials, including science TEKS and RTC posters, see the Texas Education Agency’s website, search “science teks posters”.

RTC	K-2	3-5	6-8
Patterns	Identify and use patterns to describe phenomena or design solutions.	Identify and use patterns to explain scientific phenomena or to design solutions.	Identify and apply patterns to understand and connect scientific phenomena or design solutions.
Cause and Effect Relationships	Investigate and predict cause-and-effect relationships in science.	Identify and investigate cause-and-effect relationships to explain scientific phenomena or analyze problems.	Identify and investigate cause-and-effect relationships to explain scientific phenomena or analyze problems.
Scale, Proportion, and Quantity	Describe the properties of objects in terms of relative size (scale) and relative quantity.	Use scale, proportion, and quantity to describe, compare, or model different systems.	Analyze how differences in scale, proportion, or quantity affect a system’s structure or performance.
Systems and System Models	Examine the parts of a whole to define or model a system.	Examine and model the parts of a system and their interdependence in the function of the system.	Examine and model the parts of a system and their interdependence in the function of the system.
Matter and Energy	Identify forms of energy and properties of matter.	Investigate the flow of energy and cycling of matter through systems.	Analyze and explain how energy flows and matter cycles through systems and how energy and matter are conserved through a variety of systems.
Structure and Function	Describe the relationship between the structure and function of objects, organisms, and systems.	Explain the relationship between the structure and function of objects, organisms, and systems.	Analyze and explain the complementary relationship between the structure and function of objects, organisms, and systems.
Stability and Change	Describe how factors or conditions can cause objects, organisms, and systems to change or stay the same.	Explain how factors or conditions impact stability and change in objects, organisms, and systems.	Analyze and explain how factors or conditions impact stability and change in objects, organisms, and systems.