

# Trenton Rosenwald Middle School

## 6<sup>th</sup> Grade Science – Tennessee

### 2024-2025 Syllabus

Unit	Chapter	Standards	Major Topics/Concepts
Energy	1: Energy and Energy Resources 2: Thermal Energy	PS3.1 PS3.2 PS3.3 PS3.4	Properties of kinetic, potential, chemical, and thermal energy Transformations between potential and kinetic energy Relationship between kinetic energy and the mass of an object in motion and its speed Demonstrate the way heat moves among objects through radiation, conduction, or convection
Energy Transfer	2: Thermal Energy	ETS1.2	Solutions that impact energy transfer
Heating of the Earth	7: Climate 9: Oceans	ESS2.1 ESS2.2 ESS2.3	Oceanic convection currents – Sun’s transfer of heat energy/salt concentration-global water movement Diagram convection patterns Explanation of atmospheric flow, geographic features, and ocean currents-affect climate of a region
<b>1<sup>st</sup> Cumulative Assessment (covering all content to this point)</b>			
Weather	6: Weather 8: Earth’s Water	ESS2.4 ESS2.5 ESS2.6	Analyze and interpret impact of humans/organisms on hydrologic cycle Analyze and interpret data about weather to predict probable patterns and conditions Explain relationships in weather
Factors in an Ecosystem	4: Biomes and Ecosystems	LS2.1 LS2.4 LS2.6	Environmental variables on population size Using climate data, draw conclusions about patterns of abiotic and biotic factors in ecosystems Research how ecosystems change
<b>2<sup>nd</sup> Cumulative Assessment (covering all content to this point)</b>			
Transfer of Energy within Ecosystems	3: Interactions Within Ecosystems	LS2.3	Draw conclusions about the transfer of energy through a food web and energy pyramid
Interactions Between Organisms	3: Interactions Within Ecosystems	LS2.2 LS2.5	Determine competitive, symbiotic, and predatory interactions

		LS2.7	Specific invasive species in Tennessee Auditory and visual methods of communication among organisms
Biodiversity	3: Interactions Within Ecosystems 10: Using Earth's Resources	LS4.1 LS4.2 ETS1.1	Changes in biodiversity/impacts ecosystem stability and natural resources Maintaining biodiversity – human resources – environmental equilibrium Constraints on solutions for maintaining ecosystems and biodiversity
Conservation	10: Using Earth's Resources	ESS3.1 ESS3.2 ESS3.3	Renewable and nonrenewable resources/availability and sustainability Technologies that utilize renewable and alternative energy resources Impacts of human activities on the biosphere
Earth's Atmosphere	5: Earth's Atmosphere	ESS2.2 ESS2.3	Atmospheric flow, geographic features Convection patterns

**FINAL Comprehensive Assessment (covering all content)**