

Swain CORE (Year-long) Curriculum Map for 8th Grade Science

Transfer Goals:

Students will be able to independently use their learning to:

- Apply knowledge of the sciences to engage in writing and discussions.
- Conduct investigations, individually and collaboratively, to answer questions.
- Think critically and analytically to evaluate scientific claims for validity.
- Willingly take intellectual risks without fear of failure.

Unit #/Name	Unit #1	Unit #2	Unit #3	Unit #4	Unit # 5	Unit #6	Unit #7
Big Idea	Hydrology	Ecosystems	Energy Conservation and Transfer	Microbiology and Biotechnology	Earth History and Evolution	Chemistry Matter: Properties and Change	Molecular Biology: Cellular Respiration/Healthy Living
Timeline	5-6 Weeks	3-4 Weeks	2-3 Weeks	4-5 Weeks	4-5 Weeks	4-5 Weeks	2-3 Weeks
State Standards	8.E.1 Understand the hydrosphere and the impact of humans on local systems and the effects of the hydrosphere on humans.	8.L.3 Understand how organisms interact with and respond to the biotic and abiotic components of their environment.	8.P.2 Explain the environmental implications associated with the various methods of obtaining, managing, and using energy resources.	8.L.1 Understand the hazards caused by agents of diseases that affect living organisms. 8.L.2 Understand how biotechnology is used to affect living organisms	8.E.2 Understand the history of Earth and its life forms based on evidence of change recorded in fossil records and landforms. 8.L.4 Understand the evolution of organisms and landforms based on evidence, theories and processes that impact the Earth over time.	8.P.1 Understand the properties of matter and changes that occur when matter interacts in an open and closed container.	8.L.5 Understand the composition of various substances as it relates to their ability to serve as a source of energy and building materials for growth and repair of organisms.

Related Competencies	8.E.1.1	8.L.3.1	8.P.2.1	8.L.1.1	8.E.2.1	8.P.1.1	8.L.5.1
	8.E.1.2	8.L.3.2	8.P.2.2	8.L.1.2	8.E.2.2	8.P.1.2	8.L.5.2
	8.E.1.3	8.L.3.3		8.L.2.1	8.L.4.1	8.P.1.3	
	8.E.1.4				8.L.4.2	8.P.1.4	