Trinity Lutheran School
Middle School Life Science
Science Essential Standards Chart

Essential Standards Chart: At Trinity Lutheran, we expect children to learn?

Grade:Middle School		Subject: Science				
Standard Description	**Common Core Standards**	**Proficiency**	**Prerequisite Skill**	**Assessment**	**When Taught?**	**Extension Standards**
What is the essential standard to be learned? Written in I Can Statements		**What does proficiency look like? Provide an example and/or description.**	**What prior knowledge, skills, and/or vocabulary is/are needed for a student to master this standard?**	**What assessments will be used to measure student mastery?**	**When will this standard be taught?**	**What will we do when students have learned the essential standard(s)?**
I can develop and use a model to describe the function of a cell as a whole and ways parts of cells contribute to the function.	MS-LS1-2	Students can show understanding by completing a lab that describes the function of a cell as a whole and ways parts of cells contribute to the function.		Lab Project Rubric		N/A
I can conduct an investigation to provide evidence that living things are made of cells; either one cell or many different numbers and types of cells.	MS-LS1-1	Students can show understanding by completing a lab that gives evidence that living things are made of cells.		Lab Project Rubric		N/A

I can develop a model to describe the cycling of matter and flow of energy among living and nonliving parts of an ecosystem. *	MS-LS2-3	Students can create a model that describes the cycling of matter and flow of energy among living and nonliving parts of an ecosystem.		Lab Project Rubric		N/A
I can develop a model to describe how food is rearranged through chemical reactions forming new molecules that support growth and/or release energy as this matter moves through an organism.	MS-LS2-3	Students can create a model to describe how food is rearranged through chemical reactions forming new molecules that support growth and/or release energy as this matter moves through an organism.		Lab Project Rubric	CKSci Unit 3- Modeling Earth's Systems	N/A
I can construct an explanation that predicts patterns of interactions among organisms across multiple ecosystems	MS-LS2-2	Students can brainstorm an explanation that predicts patterns among organisms across multiple ecosystems.		Written Assessment	CKSci Unit 4: Protecting Earth Resources	N/A
I can Develop and use a model to describe why asexual reproduction results in offspring with identical genetic information and sexual reproduction results in offspring with genetic variation.	MS-LS3-2 MS-LS1-4	Students can create a model to describe why asexual reproduction results in offspring with identical genetic information and sexual reproduction results in offspring with genetic variation.		Lab Project Rubric	CKSci Unit 5: Astronomy	N/A

I can Analyze and interpret data for patterns in the fossil record that document the existence, diversity, extinction, and change of life forms throughout the history of life on Earth under the assumption that natural laws operate today as in the past.	MS-LS4-1	Students can interpret data for patterns in the fossil record.		Written Assessment		N/A
I can construct an explanation based on evidence that describes how genetic variations of traits in a population increase some individuals' probability of surviving and reproducing in a specific environment.	MS-LS4-4	Students can use data to explain how genetic variations of traits in a population increase some individuals probability of surviving and reproducing in a specific environment.		Written Assessment		N/A
I can use mathematical representations to support explanations of how natural selection may lead to increases and decreases of specific traits in populations over time.	MS-LS4-6	Students can use data to understand how natural selection may lead to increases and decreases of specific traits in populations over time.		Written Assessment		N/A