



# WILDCATS

## Union R-XI School District

Course Title: 4th Grade Science	
Course Purpose	Students will distinguish body structures and their function for survival. Students will demonstrate how their environment changes natural resources. Students will explore various types of energy and circuits and how they change the object's motions.
Outcome #	Course Outcomes
Outcome 1	Students will explore how different organisms use their body structures in order to sense, respond to their environment, and survive. Students will focus on adaptations in terms of external and internal structures and how those structures work together to help an organism respond to stimuli in order to survive. Students will make a model and use it to explain a specific response to stimuli. Students will compare animal structures across animal classes. Students will design an ideal habitat for an organism.
Outcome 2	Students will apply map reading skills to explore both slow and fast changes to Earth's surface. Students will examine geologic time and the fossil record. Students will demonstrate an understanding of weathering, erosion, and soil through hands-on activities. Students will look for patterns in locations where fast changing natural disasters occur. Students will design, test, and refine a structure to resist the destructive power of a natural disaster.
Outcome 3	Students will learn about energy through the lens of sound, light, and electrical energy. Students will develop models that show how light, sound, and motion are produced from movement of electrical energy in a circuit. Students will construct their own circuit, observing the cause and effect relationships between energy transforming in a circuit and the construction of the circuit. Students will explore how technology has enhanced human communication. Students will create a device that communicates over long distances.
Outcome 4	Students will identify examples of energy all around them to develop a definition for this complex term. Students will test and observe how energy makes things move and study collisions in order to demonstrate that moving objects contain energy and colliding objects transfer energy and change the object's motion. Students will construct an understanding of speed to make the connection that the faster an object moves, the more energy it has. Students will apply this knowledge to design a ramp that can make an object go a certain distance. Students will examine simple machines and how they make work easier and can solve specific problems using the structure and function of the simple machine.



Resource Used in this Course: mySci - Washington University