Sedalia School District #200

Level: Elementary **Subject Area:** Science **Unit/Grade:** Unit 1 - Kindergarten

Essential Questions:

1. Why is the sun important?
2. How can I protect myself from the sun?

Pacing	Priority Standards (Missouri Learning Standards and Show-Me Standards)	Big Idea	I CAN statements
First Quarter **UNIT 4: Sun Warms Earth** Aug. 27-Oct. 18	**K.PS3.A** Make observations to determine the effect of sunlight on Earth's surface. Missouri Learning Standards Show Me Standards	Sunlight affects Earth's surface. Students make observations about how water, soil, sand, and rocks are affected by sunlight. Students also make observations to explain the effects of the sun warming Earth.	• I can observe how sunlight affects land and water on Earth's surface. • I can design and build a structure to reduce the effect of sunlight on an area of Earth's surface.

Sedalia School District #200

Level: Elementary **Subject Area:** PLTW (Science) **Unit/Grade:** Module 2-Kindergarten

Essential Questions:

1. In what ways do forces impact your daily life?
2. How are pushes and pulls related?
3. How can a step-by-step process help you design or improve a solution to a problem?

Pacing	Priority Standards (Missouri Learning Standards and Show-Me Standards)	Big Idea	I CAN statements
First Quarter **Module 2: Pushes and Pulls** Aug. 27-Oct. 18	**PS1.A.1** Make qualitative observations of the physical properties of objects (size, shape, color, mass). **PS2.A.1** Plan and conduct an investigation to compare the effects of different strengths or different directions of pushes and pulls on the motion of an object. **PS2.A.2** Describe ways to change the motion of an object (slower, faster, farther, change direction, stop). Missouri Learning Standards Show Me Standards	Students explore and identify forces as pushes and pulls-through books, a scavenger hunt, learning centers, and observation of daily activities. Students identify the effects of different strengths or different directions of pushes and pulls on the motion of an object. Students use the design process to design, build, test, and reflect on a model that can move a heavy load using pushes and/or pulls.	• I can apply a step-by-step design process to solve a problem. • I can identify pushes and pulls on real-world objects. • I can demonstrate how friction affects a push or pull on an object. • I can show how a change in a push or pull can make objects speed up or slow down.

Sedalia School District #200

Level: Elementary **Subject Area:** Science **Unit/Grade:** Unit 5-Kindergarten

Essential Questions:

1. Why are weather patterns important?
2. Why so scientists measure weather?
3. Why do we need to learn about severe weather?
4. How can forecasts help us?

Pacing	Priority Standards (Missouri Learning Standards and Show-Me Standards)	Big Idea	I CAN statements
Second Quarter **UNIT 5: Weather** Oct. 21-Dec. 20	**K.ESS2.D.1** Use and share observations of local weather conditions to describe patterns over time. **K.ESS2.E.1** With prompting and support, construct an argument using evidence for how plants and animals (including humans) can change the environment to meet their needs. Missouri Learning Standards Show Me Standards	Students observe and describe different types of weather, weather patterns over time, and the four seasons. Students will also measure weather in order to identify patterns in local weather and explain how weather tools are used to collect data. Pictures and text will be used to describe patterns connected to severe weather and find out weather tools scientists use to make predictions for weather forecasts.	• I can observe and describe patterns in weather over time. • I can observe and measure weather in order to identify patterns in local weather. • I can identify patterns in different types of severe local weather. • I can use information to prepare for severe weather.

Sedalia School District #200

Level: Elementary **Subject Area:** Science **Unit/Grade:** Module 1 - Kindergarten

Essential Questions:

1. How can a step-by-step process help you design or improve a solution to a problem?
2. How do materials impact the structure and function of an object?
3. How does the structure of an object impact its function?

Pacing	Priority Standards (Missouri Learning Standards and Show-Me Standards)	Big Idea	I CAN statements
Second Quarter **Module 1: Exploring Design** Oct. 21-Dec. 20	**K.PS1.A** Make qualitative observations of the physical properties of objects (size, shape, color, mass). Missouri Learning Standards Show Me Standards	Students engage in learning science and engineering practices that include using a design process to solve a problem. They explore how engineers use problem-solving as they design innovations and inventions. Students apply their understanding of the design process as they use available materials to design, build, and test structures including a model of a house and a painting tool.	• I can describe how the shape of a structure helps it function as needed to meet a need or want. • I can describe how the function of an object relates to its structure. • I can identify how materials within an object impact its structure and function.

Sedalia School District #200

Level: Elementary **Subject Area:** Science **Unit/Grade:** Unit 6-Kindergarten

Essential Questions:

1. Why are natural resources important?
2. How can we save natural resources?

Pacing	Priority Standards (Missouri Learning Standards and Show-Me Standards)	Big Idea	I CAN statements
Third Quarter **UNIT 6: Earth's Resources** Jan. 7-Mar. 13	**K.ESS.3.A.1** Use a model to represent the relationship between the needs of different plants or animals (including humans) and the places they live. **K.ESS3.B.1** Communicate solutions that will reduce the impact of humans on the land, water, air, and/or other living things in the local environment. Missouri Learning Standards Show Me Standards	Natural resources include air, water, rocks, and soil. Students investigate how natural resources are part of a system with parts that work together in the natural world. Students will obtain, evaluate, and communicate information about ways people use natural resources, and the impact people have on their environment.	• I can build a model to use a natural resource. • I can identify ways people use natural resources.

Sedalia School District #200

Level: Elementary **Subject Area:** PLTW (Science) **Unit/Grade:** Module 4-Kindergarten

Essential Questions:

1. How can you use computer programming to complete a task?
2. Why should a step-by-step process be followed to solve a problem?

Pacing	Priority Standards (Missouri Learning Standards and Show-Me Standards)	Big Idea	I CAN statements
Third Quarter **Module 4: Animals and Algorithms** Jan 7- Mar. 13	**K.LS1.C** Use observations to describe patterns of what plants and animals (including humans) need to survive. Missouri Learning Standards Show Me Standards	In this module, students develop the ability to design simple algorithms and implement them digitally on a tablet. Students explore the sequential nature of computer programs through hands-on activities, both with and without a computer. Applying skills and knowledge learned from activities in this module, students work in small groups to design and program a simple digital animation about an animal in its habitat.	• I can work effectively within a team. • I can construct a sequence of steps to solve a simple problem. • I can fix 'bugs' or problems in my program.

Sedalia School District #200

Level: Elementary **Subject Area:** Science **Unit/Grade:** G1 Unit 6 - Kindergarten

Essential Questions:

1. How do objects in the sky seem to change?
2. How do the different amounts of daylight affect us?

Pacing	Priority Standards (Missouri Learning Standards and Show-Me Standards)	Big Idea	I CAN statements
Fourth Quarter **G1 UNIT 6: Objects and Patterns in the Sky** Mar. 23-May 21	**K.ESS1.B.1** Make observations during different seasons to relate the amount of daylight to the time of year. Missouri Learning Standards Show Me Standards	Students focus on observing, describing, and predicting patterns in the way of the sun, moon, and stars appear to move across the sky. They make observations of objects in the daytime sky and the nighttime sky. Students also focus on how the amount of daylight in a day is related to the time of year. Students observe, describe, and predict seasonal patterns of sunrise and sunset.	• I can identify and describe objects in the sky and observe patterns of the sun, moon, and stars. • I can make observations at different times of year to relate the amount of daylight to the time year.

Sedalia School District #200

Level: Elementary **Subject Area:** Science **Unit/Grade:** Module 3-Kindergarten

Essential Questions:

1. How are structure and function related?
2. How would we function if our bodies were structured differently?
3. How can a step-by-step process help you design or improve a solution to a problem?

Pacing	Priority Standards (Missouri Learning Standards and Show-Me Standards)	Big Idea	I CAN statements
Fourth Quarter **Module 3: Human Body** Mar. 23-May 21	**K.ETS1.A** Ask questions, make observations, and gather information about a situation people want to change to define a simple problem that can be solved through the development of a new or improved object or tool. Missouri Learning Standards Show Me Standards	Students learn about diagnosis and treatment of an injury. The explore the basic relationship between structure and function in the human body. They look at the major structures, or organs, within the body and investigate how the structure of each organ is related to its function. They assemble a skeleton and create a model x-ray of a hand. Students work through the engineering design process to design and build a cast.	• I can identify the major parts of the human body. • I can identify the function of bones in the human body. • I can understand how doctors diagnose and treat disease or injury. • I can describe how the structure of a body part is related to its function.