Sparta Area School District

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Course Outcome Summary

Course Information: Science Grade 1

Description: This course is about building and applying science knowledge through the study of light, solar patterns, sound, basic concepts of heredity, structure, and function relationships in organisms.

Instruction Level: Grade 1

Course Standards:

- Use the Scientific Method (Observe, question, research, predict, experiment, collect data, conclusion).
- Space
  - Be able to watch the sun, moon, and stars to see patterns.
- Plants and Animals
  - Be able to explain how plants and animals have different parts that help them survive and grow.
  - Be able to use materials to design a solution to a human problem by mimicking a plant or animal.
  - Be able to find patterns in behavior of parents and young that help them survive.
  - Be able to watch and see that plant and animal young are like, but not exactly like their parents.
  - Be able to explain that the same kinds of plant and animal can be different in many ways.
- Waves: Sound and Light
  - Understand that sounds are made from vibrations and can cause vibrations.
  - Observe that objects can only be seen when there is light.
  - Plan and conduct an experiment to understand what happens when objects are placed in the path of a light.
  - Understand that we use sound and light to communicate.

Unit

1. **Space**
2. **Plants and Animals**
3. **Waves: Sound and Light**

Unit Outlines

1. **Space**

Standards:

- Students will be able to watch the sun, moon, and stars to see patterns.

Essential Question(s):

Students will be able to answer the following question(s):

- How do the sun and moon help us live on Earth?
- What objects are in the sky and how do they seem to move?

Essential Knowledge:

- Motion of the sun, stars, and moon in the sky
- Seasonal patterns of the sun

2. Plants and Animals

Standards:

- Be able to explain how plants and animals have different parts that help them survive and grow.
- Be able to understand the basic needs of plants and animals.
- Be able to use materials to design a solution to a human problem by mimicking a plant or animal.
- Be able to find patterns in behavior of parents and young that help them survive.
- Be able to watch and see that plant and animal young are like, but not exactly like their parents.
- Be able to explain that the same kinds of plant and animal can be different in many ways.

Essential Question(s):

Students will be able to answer the following question(s):

- What are some ways plants and animals meet their needs so they can survive and grow?
- How are parents and their children similar and different?

Essential Knowledge:

- Review needs of plants and animals
- Characteristics and attributes of plants and animals that help them survive and grow.
- How animals mimic other plants and animals.
- How adults and young are similar and different
- Ways in which like animals or plants can be different

3. Waves: Sound and Light

Standards:

- Understand that sounds are made from vibrations and can cause vibrations.
- Observe that objects can only be seen when there is light.
- Plan and conduct an experiment to understand what happens when objects are placed in the path of a light.
- Understand that we use sound and light to communicate.

Essential Question(s):

- What happens when materials vibrate?
- What happens when there is no light?
- How do we use sound and light to communicate?

Essential Knowledge:

- Sounds comes from vibrations
- Sounds can be loud or soft and high or low
- We use sound and light to communicate
- A shadow is made when something blocks light