WARREN COUNTY SCHOOL DISTRICT

PLANNED INSTRUCTION

COURSE DESCRIPTION

Course Title: Science 1
Course Number: 08133
Course Prerequisites: None

Course Description: Students will develop an understanding of the relationship between sound and vibrating materials. Students will develop an understanding that light travels from place to place and that the availability of light affect the ability to see objects. Students will learn how plants and animals use their external parts to help them survive, grow, and meet their needs as well as how behaviors of parents and offspring help the offspring survive. Students will observe, describe, and predict some patterns of movement of objects in the sky.

Suggested Grade Level: Grade 1
Length of Course: Two Semesters
Units of Credit: None
PDE Certification and Staffing Policies and Guidelines (CSPG) Required Teacher Certifications:
CSPG 69 or Elementary K-6
To find the CSPG information, go to CSPG
Certification verified by the WCSD Human Resources Department: ☒Yes ☐No

WCSD STUDENT DATA SYSTEM INFORMATION

Course Level: Academic
Mark Types: Check all that apply.
☒F – Final Average ☒MP – Marking Period ☐EXM – Final Exam

GPA Type: ☒ GPAEL-GPA Elementary ☐ GPAML-GPA for Middle Level ☐ NHS-National Honor Society
☐ UGPA-Non-Weighted Grade Point Average ☐ GPA-Weighted Grade Point Average

State Course Code: 03231
To find the State Course Code, go to State Course Code, download the Excel file for *SCED*, click on SCED 6.0 tab, and choose the correct code that corresponds with the course.

TEXTBOOKS AND SUPPLEMENTAL MATERIALS

Board Approved Textbooks, Software, and Materials:

Title:	Inspire Science
Publisher:	McGraw Hill
ISBN #:	978-0-07-678001-3
Copyright Date:	2017
WCSD Board Approval Date:	12/3/2018

Supplemental Materials: STEM Lab Activities

Curriculum Document

WCSD Board Approval:

Date Finalized:	7/19/2022
Date Approved:	Click or tap to enter a date.
Implementation Year:	2022-2023

SPECIAL EDUCATION, 504, and GIFTED REQUIREMENTS

The teacher shall make appropriate modifications to instruction and assessment based on a student's Individual Education Plan (IEP), Chapter 15 Section 504 Plan (504), and/or Gifted Individual Education Plan (GIEP).

SCOPE AND SEQUENCE OF CONTENT AND CONCEPTS

Marking Period 1

- Physical Science: Waves and Their Applications

Marking Period 2

- Earth and Space Sciences: Earth's Place in the Universe

Marking Period 3

- Life Science: From Molecules to Organisms
- Life Science: Heredity

Marking Period 4

- Life Science: Heredity

Standards/Eligible Content and Skills

Performance Indicator	PA Core Standard and/or Eligible Content	Marking Period Taught
Plan and conduct investigations to provide evidence that vibrating materials can make sound and that sound can make materials vibrate.	1-PS4.1	MP1
Make observations to construct an evidence-based account that objects can be seen only when illuminated.	1-PS4.2	MP1
Plan and conduct an investigation to determine the effect of placing objects made with different materials in the path of a beam of light.	1-PS4.3	MP1
Use tools and materials to design and build a device that uses light or sound to solve the problem of communicating over a distance.	1-PS4.4	MP1
Describe how the type of motion changes the speed or direction of an object.	3.2 1.B.1.c	MP1
Recognize the sun as a source of light.	3.2 1.B.5.a	MP1
Investigate the behavior of light with different objects (e.g., prisms, mirrors, different surfaces, colored glass).	3.2 1.B.5.b	MP1
Compare and contrast the properties of light on different surfaces (e.g., tissue and construction paper).	3.2 1.B.5.c	MP1
Discuss the characteristics of light.	3.2 1.B.5.d	MP1
Distinguish between scientific fact and opinion.	3.2 1.B.7.a	MP1, MP2
Ask questions about objects, organisms, and events.	3.2 1.B.7.b	MP1, MP2, MP 3, MP 4
Understand that all scientific investigations involve asking and answering questions and comparing the answer with what is already known.	3.2 1.B.7.c	MP1, MP2
Plan and conduct a simple investigation and understand that different questions require different kinds of investigations.	3.2 1.B.7.d	MP1, MP2
Use observations of the sun, moon, and stars to describe patterns that can be predicted.	1-ESS1.1	MP2
Make observations at different times of year to relate the amount of daylight to the time of year.	1-ESS1.2	MP2
Recognize the sun as a source of light.	3.2.1.B.5.a	MP2
Name the sun as the largest source of energy.	3.2 1.B.6.b	MP2
Recognize the sun is essential for survival.	3.2 1.B.6.c	MP2
Collect, describe, and record basic information about weather over time (e.g., calendar).	3.3 1.A.5.b	MP2
Transfer weather information collected on calendar to a bar graph (e.g., look for patterns).	3.3 1.A.5.c	MP2
Observe and illustrate own shadow outside at various times of the day (e.g., illustrate shadows outside three times during the day, record time, and measure).	3.3 1.B.1.a	MP2
Discuss various aspects of shadows (e.g., length, cause, position).	3.3 1.B.1.b	MP2

Performance Indicator	PA Core Standard and/or Eligible Content	Marking Period Taught
Describe how living things change with seasons (e.g., migration, hibernation, availability of sunlight, behavior).	4.1 1.E.a	MP2
Describe people, places, and things throughout the seasons (e.g., fall? apple harvest, leaves falling).	4.1 1.E.b	MP2
Explain how seasonal change affects the environment.	4.1 1.E.c	MP2
Use materials to design a solution to a human problem by mimicking how plants and/or animals use their external parts to help them survive, grow, and meet their needs.	1-LS1.1	MP3
Read texts and use media to determine patterns in behavior of parents and offspring that help offspring survive.	1-LS1.2	MP3, MP4
Make observations to construct an evidence-based account that young plants and animals are like, but not exactly like, their parents.	1-LS3.1	MP3, MP4
Discuss the differences between threatened, endangered, and extinct.	4.1 1.D.b	MP3
Identify living and nonliving things.	3.1 1.A.1.a	MP3, MP4
Define what makes an object living versus nonliving (e.g., grow, reproduce).	3.1 1.A.1.b	MP3, MP4
Sort animals according to their body coverings (e.g., fur, feathers, scales, number of appendages).	3.1 1.A.1.c	MP3, MP4
Sort plants (e.g., size, type of leaf, flowering, or non-flowering).	3.1 1.A.1.d	MP3, MP4
Identify what plants and animals need to survive in a suitable habitat (e.g., food, air, water, shelter, space, sunlight).	3.1 1.A.2.a	MP3, MP4
Identify how a plant or animal acquires basic needs in its habitat.	3.1 1.A.2.b	MP3, MP4
Compare and contrast ways plants and animals acquire basic needs	3.1 1.A.2.c	MP3, MP4
Describe functions of the parts of plants.	3.1 1.A.5.a	MP3, MP4
Distinguish between scientific fact and opinion.	3.1 1.A.9.a	MP3, MP4
Ask questions about objects, organisms, and events.	3.1 1.A.9.b	MP3, MP4
Understand that all scientific investigations involve asking and answering questions and comparing the answer with what is already known.	3.1 1.A.9.c	MP3, MP4
Plan and conduct a simple investigation and understand that different questions require different kinds of investigations.	3.1 1.A.9.d	MP3, MP4
Use data/evidence to construct explanations and understand that scientists develop explanations based on their evidence and compare them with their current scientific knowledge.	3.1 1.A.9.f	MP3, MP4
Explain and illustrate the similarities and differences between a young and adult plant.	3.1 1.B.1.b	MP3, MP4
Identify the cause-and-effect relationship and describe the process.	3.2 1.A.4.e	MP3, MP4
Identify elements within a habitat necessary for organisms to live.	4.1 1.A.a	MP3, MP4
Explain and illustrate how each element contributes to the basic need of an organism.	4.1 1.A.b	MP3, MP4
Identify the initial source of any food web.	4.1 1.C.a	MP3, MP4
Design a model of a food chain.	4.1 1.C.c	MP3, MP4

ASSESSMENTS

PDE Academic Standards, Assessment Anchors, and Eligible Content: The teacher must be knowledgeable of the PDE Academic Standards, Assessment Anchors, and Eligible Content and incorporate them regularly into planned instruction.

Formative Assessments: The teacher will utilize a variety of assessment methods to conduct in-process evaluations of student learning.

Effective formative assessments for this course include: **center activities, cooperative learning activities, games, online activities, oral responses, teacher observations, local assessments, writing, and worksheets.**

Summative Assessments: The teacher will utilize a variety of assessment methods to evaluate student learning at the end of an instructional task, lesson, and/or unit.

Effective summative assessments for this course include: **performance assessments, projects, writing, tests, and quizzes.**