WARREN COUNTY SCHOOL DISTRICT

PLANNED INSTRUCTION

COURSE DESCRIPTION

Course Title: Science 5
Course Number: 08533
Course Prerequisites: None

Course Description: Students will describe that matter is made of particles too small to be seen through the development of a model and understand that regardless of the type of change that matter undergoes, the total weight of matter is conserved. Students determine whether the mixing of two or more substances results in new substances. Students will develop a model to describe ways the geosphere, biosphere, hydrosphere, and/or atmosphere interact. Students will describe and graph data to provide evidence about the distribution of water on Earth. Students will understand that plants get the materials they need for growth chiefly from air and water. Using models, students will describe the movement of matter among plants, animals, decomposers, and the environment and that energy in animals' food was once energy from the sun. Students will develop an understanding of patterns of daily changes in length and direction of shadows, day and night, and the seasonal appearance of some stars in the night sky.

Suggested Grade Level: Grade 5
Length of Course: Two Semesters
Units of Credit: None
PDE Certification and Staffing Policies and Guidelines (CSPG) Required Teacher Certifications:
CSPG 70 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: 03235
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 #:	978-0-07-678000-6
Copyright Date:	2017
WCSD Board Approval Date:	12/03/2018

Supplemental Materials: STEM Lab activities and science kits

Curriculum Document

WCSD Board Approval:

Date Finalized:	7/19/2022
Date Approved:	Click or tap to enter a date.
Implementation Year:	2023-2024

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

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

Marking Period 2

- Earth and Space Sciences: Earth and Human Activity
- Life Science: From Molecules to Organisms

Marking Period 3

- Life Science: Ecosystems
- Physical Science: Motion and Stability
- Physical Science: Energy

Marking Period 4

- Physical Science: Matter and its Interactions

Standards/Eligible Content and Skills

Performance Indicator	PA Core Standard and/or Eligible Content	Marking Period Taught
Support an argument that differences in the apparent brightness of the sun compared to other stars is due to their relative distances from Earth	3.3.5.A	MP1
Represent data in graphical displays to reveal patterns of daily changes in length and direction of shadows, day and night, and the seasonal appearance of some stars in the night sky.	3.3.5.B	MP1
Describe requirements of designing or making a product or system.	3.5.3-5.O	MP1, MP2, MP3
Practice successful design skills.	3.5.3-5.Q	MP1, MP2, MP3
Apply tools, techniques, and materials in a safe manner as part of the design process.	3.5.3-5.R	MP1
Illustrate that there are multiple approaches to design.	3.5.3-5.S	MP1, MP2
Apply universal principles and elements of design.	3.5.3-5.T	MP1, MP2
Evaluate designs based on criteria, constraints, and standards.	3.5.3-5.U	MP1, MP2, MP3
Develop a model using an example to describe ways the geosphere, biosphere, hydrosphere, and/or atmosphere interact.	3.3.5.C	MP1
Describe and graph the amounts of salt water and fresh water in various reservoirs to provide evidence about the distribution of water on Earth.	3.3.5.D	MP1, MP2
Analyze how living organisms, including humans, affect the environment in which they live, and how their environment affects them.	3.4.3-5.A	MP1
Make a claim about the environmental and social impacts of design solutions and civic actions, including their own actions	3.4.3-5.B	MP1
Examine ways you influence your local environment and community by collecting and displaying data.	3.4.3-5.C	MP1
Develop a model to demonstrate how local environmental issues are connected to larger local environment and human systems.	3.4.3-5.D	MP1
Construct an argument to support whether action is needed on a selected environmental issue and propose possible solutions.	3.4.3-5.E	MP1
Critique ways that people depend on and change the environment.	3.4.3-5.F	MP1
Investigate how perspectives over the use of resources and the development of technology have changed over time and resulted in conflict over the development of societies and nations.	3.4.3-5.G	MP1
Illustrate how, when parts of a system are missing, it may not work as planned.	3.5.3-5.BB	MP1
Describe how a subsystem is a system that operates as a part of another larger system.	3.5.3-5.CC	MP1
Demonstrate how simple technologies are often combined to form more complex systems.	3.5.3-5.DD	MP1

Performance Indicator	**PA Core Standard and/or Eligible Content**	**Marking Period Taught**
Obtain and combine information about ways individual communities use science ideas to protect the Earth's resources and environment.	3.3.5.E	MP2
Generate and design possible solutions to a current environmental issue, threat, or concern.	3.3.5.F	MP2
Evaluate the strengths and weaknesses of existing design solutions, including their own solutions.	3.5.3-5.P	MP2
Interpret how good design improves the human condition.	3.5.3-5.V	MP2, MP4
Explain how solutions to problems are shaped by economic, political, and cultural forces.	3.5.3-5.EE	MP2
Compare how things found in nature differ from things that are human made, noting differences and similarities in how they are produced and used.	3.5.3-5.FF	MP2
Describe the unique relationship between science and technology, and how the natural world can contribute to the human-made world to foster innovation.	3.5.3-5.GG	MP2
Differentiate between the role of scientists, engineers, technologists, and others in creating and maintaining technological systems.	3.5.3-5.HH	MP2
Support an argument that plants get the materials they need for growth chiefly from air and water.	3.1.5.A	MP2, MP3
Develop a model to describe the movement of matter among plants, animals, decomposers, and the environment.	3.1.5.B	MP2, MP3
Support an argument that the gravitational force exerted by Earth on objects is directed down.	3.2.5.F	MP3
Use models to describe that energy in animals' food (used for body repair, growth, motion, and to maintain body warmth) was once energy from the sun.	3.2.5.G	MP3
Develop a model to describe that matter is made of particles too small to be seen.	3.2.5.A	MP4
Make and communicate observations and measurements to identify materials based on their properties.	3.2.5.B	MP4
Interpret and analyze data to make decisions about how to utilize materials based on their properties.	3.2.5.C	MP4
Measure and graph quantities to provide evidence that regardless of the type of change that occurs when heating, cooling, or mixing substances, the total weight of matter is conserved.	3.2.5.D	MP4
Conduct an investigation to determine whether the mixing of two or more substances results in new substances.	3.2.5.E	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, 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, tests, writing, and quizzes.