PLANNED INSTRUCTION

COURSE DESCRIPTION

| Course Title: Course Number: Course Prerequisites: | Science Kindergarten 08033 None | | | |
|--|---|--|--|--|
| Course Description: S | tudents will develop an understanding of patterns and variations in local weather, the purpose of weather forecasting, and how to prepare for and respond to severe weather. Students will apply an understanding of the effects of different strengths and/or different directions of pushes and pulls on the motion of an object to analyze a design solution. Students will develop an understanding of what people, plants, and animals need to survive and the relationship between their needs and where they live. | | | |
| Suggested Grade Level | : Kindergarten | | | |
| Length of Course: | Two Semesters | | | |
| Units of Credit: | None | | | |
| PDE Certification and Staffing Policies and Guidelines (CSPG) Required Teacher Certifications: | | | | |
| CSPG 69 or Elementary | К-6 | | | |
| To find the CSPG information, g | o to <u>CSPG</u> | | | |
| Certification verified by the WCSD Human Resources Department: Xes DNo | | | | |
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WCSD STUDENT DATA SYSTEM INFORMATION

| Course Level: | Academic |
|-------------------|---|
| Mark Types: | Check all that apply. |
| | \boxtimes F – Final Average \boxtimes MP – Marking Period \square EXM – Final Exam |
| GPA Туре : | 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: 03230

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.

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TEXTBOOKS AND SUPPLEMENTAL MATERIALS

Board Approved Textbooks, Software, and Materials:Title:Inspire SciencePublisher:McGraw HillISBN #:978-0-07-678000-6Copyright Date:2017WCSD Board Approval Date:12/03/2018Supplemental Materials:STEM Lab Activities and science kits

Curriculum Document

WCSD Board Approval:Date Finalized:6/9/2023Date 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).

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SCOPE AND SEQUENCE OF CONTENT AND CONCEPTS

Marking Period 1

• Physical Science: Motion and Stability

Marking Period 2

- Earth and Space Sciences: Earth's Systems
- Life Science: From Molecules to Organisms

Marking Period 3

• Physical Science: Energy

Marking Period 4

• Earth and Space Sciences: Earth and Human Activity

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Standards/Eligible Content and Skills

| Performance Indicator | PA Core Standard and/or Eligible Content | Marking Period Taught |
|---|--|-----------------------------|
| Analyze data to determine if a design solution works as intended to change the speed or direction of an object with a push or a pull. | 3.2.K.A | MP1, |
| 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. | 3.2.K.B | MP1, |
| Describe qualities of everyday products. | 3.5.K-2.B | MP1, |
| Explain the tools and techniques that people use to help them do things. | 3.5.K-2.G | MP1, |
| Compare simple technologies to evaluate their impacts. | 3.5.K-2.I | MP1, |
| Safely use tools to complete tasks. | 3.5.K-2.K | MP1, |
| Demonstrate essential skills of the engineering design process. | 3.5.K-2.M | MP1,MP2, MP3 |
| Analyze how things work. | 3.5.K-2.N | MP1,MP2, MP3 |
| Illustrate that there are different solutions to a design and that none are perfect. | 3.5.K-2.O | MP1,MP2, MP3 |
| Discuss that all designs have different characteristics that can be described. | 3.5.K-2.P | MP1,MP2, MP3 |
| Apply skills necessary for making in design. | 3.5.K-2.Q | MP1, MP2 |
| Apply design concepts, principles, and processes through play and exploration. | 3.5.K-2.S | MP1,MP2, MP3 |
| Demonstrate that designs have requirements. | 3.5.K-2.T | MP1,MP2, MP3 |
| Explain that design is a response to wants and needs | 3.5.K-2.U | MP1,MP2, MP3 |
| Explain that materials are selected for use because they possess desirable properties and characteristics. | 3.5.K-2.V | MP1,MP2, MP3 |
| Apply concepts and skills from technology and engineering activities that reinforce concepts and skills across multiple areas. | 3.5.K-2.W | MP1, |
| Develop a plan in order to complete a task. | 3.5.K-2.X | MP1, MP2 |
| Illustrate how systems have parts or components that work together to accomplish a goal. | 3.5.K-2.Z | MP1, MP2 |
| Demonstrate that creating can be done by anyone. | 3.5.K-2.AA | MP1, MP2 |
| Discuss the roles of scientists, engineers, technologists, and others who work with technology. | 3.5.K-2.CC | MP1, |
| Collaborate effectively as a member of a team. | 3.5.K-2.DD | MP1, MP2 |
| Construct an argument supported by evidence for how plants and animals (including humans) can change the environment to meet their needs. | 3.3.K.B | MP2 |
| Use a model to represent the relationship between the needs of different plants or animals (including humans) and the places they live. | 3.3.K.C | MP2 |

| Performance Indicator | PA Core Standard and/or Eligible Content | Marking Period Taught |
|---|--|-----------------------------|
| Communicate solutions that will reduce the impact of humans on the land, water, air, and/or other living things in the local environment. | 3.3.K.E | MP2,MP4 |
| Categorize ways people harvest, redistribute, and use natural resources. | 3.4.K-2.A | MP2 |
| Use observations to describe patterns of what plants and animals (including humans) need to survive. | 3.1.K.A | MP2 |
| Make observations to determine the effect of sunlight on Earth's surface. | 3.2.K.C | MP3 |
| Use tools and materials to design and build a structure that will reduce the warming effect of sunlight on an area. | 3.2.K.D | MP3 |
| Use and share observations of local weather conditions to describe patterns over time. | 3.3.K.A | MP4 |
| Ask questions to obtain information about the purpose of weather forecasting to prepare for, and respond to, severe weather. | 3.3.K.D | MP4 |
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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.