**WARREN COUNTY SCHOOL DISTRICT**

PLANNED INSTRUCTION

## COURSE DESCRIPTION

**Course Title:** Science 3
**Course Number:** 08333
**Course Prerequisites:** None

**Course Description:** Students will organize and use data to describe typical weather conditions expected during a particular season and make claims about the merit of a design solution that reduces the impacts of weather hazards. Students will compare life cycles of organisms and learn about the impact of the environment on the development of traits. Students will use evidence to construct explanations regarding how the variations in characteristics among individuals of the same species may provide advantages in surviving, finding mates, and reproducing. Students will understand the types of organisms that lived long ago and the impact of environmental changes on organisms. Students will determine the effects of forces on the motion of an object and the relationships of electric or magnetic interactions between two objects not in contact with each other. Students will apply their understanding of magnetic interactions to define a simple design problem that can be solved with magnets.

**Suggested Grade Level**: Grade 3
**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**: 03233
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:**

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|---|---|
| **Title:** | Inspire Science |
| **Publisher:** | McGraw Hill |
| **ISBN #:** | 978-0-07-678003-7 |
| **Copyright Date:** | 2017 |
| **WCSD Board Approval Date:** | 12/03/2018 |

**Supplemental Materials:** STEM Lab Activities

## Curriculum Document

**WCSD Board Approval:**

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|---|---|
| **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

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

### Marking Period 2

- Physical Science: Motion and Stability

### Marking Period 3

- Earth and Space Sciences: Earth's Systems
- Earth and Space Sciences: Earth and Human Activity

### Marking Period 4

- Life Science: Ecosystems
- Life Science: Biological Evolution

## Standards/Eligible Content and Skills

| Performance Indicator | PA Core Standard and/or Eligible Content | Marking Period Taught |
|---|---|---|
| Develop models to describe that organisms have unique and diverse life cycles but all have in common birth, growth, reproduction, and death. | 3-LS1.1 | MP1 |
| Analyze and interpret data to provide evidence that plants and animals have traits inherited from parents and that variation of these traits exists in a group of similar organisms. | 3-LS3.1 | MP1 |
| Use evidence to support the explanation that traits can be influenced by the environment. | 3-LS3.2 | MP1 |
| Describe characteristics of living things that help to identify and classify them. | 3.1.3.A.1 | MP1, MP 4 |
| Describe the basic needs of living things and their dependence on light, food, air, water, and shelter. | 3.1.3.A.2 | MP1, MP 4 |
| Illustrate how plants and animals go through predictable life cycles that include birth, growth, development, reproduction, and death. | 3.1.3.A.3 | MP1, MP 4 |
| Identify the structures in plants that are responsible for food production, support, water transport, reproduction, growth, and protection. | 3.1.3.A.5 | MP1 |
| Understand that plants and animals closely resemble their parents. | 3.1.3.B.1 | MP1, MP 4 |
| Identify characteristics that appear in both parents and offspring. | 3.1.3.B.5 | MP1, MP 4 |
| Describe animal characteristics that are necessary for survival. | 3.1.3.C.2 | MP1, MP 4 |
| Differentiate between the living and nonliving components in an environment. | 4.1.3.A | MP1 |
| Plan and investigate to provide evidence of the effects of balanced and unbalanced forces on the motion of an object. | 3-PS2.1 | MP2 |
| Make observations and/or measurements of an object's motion to provide evidence that a pattern can be used to predict future motion. | 3-PS2.2 | MP2 |
| Ask questions to determine cause and effect relationships of electric or magnetic interactions between two objects not in contact with each other. | 3-PS2.3 | MP2 |
| Define a simple design problem that can be solved by applying scientific ideas about magnets. | 3-PS2.4 | MP2 |
| Differentiate between properties of objects such as size, shape, and weight and properties of materials that make up the objects such as color, texture, and hardness. Differentiate between the three states of matter, classifying a substance as a solid, liquid, or gas. | 3.2.3.A.1 | MP2 |
| Recognize that everything is made of matter. | 3.2.3.A.5 | MP2 |
| Explain how movement can be described in many ways. | 3.2.3.B.1 | MP2 |
| Explore energy's ability to cause motion or create change. Explore how energy can be found in moving objects, light, sound, and heat. | 3.2.3.B.2 | MP2 |
| Represent data in tables and graphical displays to describe typical weather conditions expected during a particular season. | 3-ESS2.1 | MP3 |

| Performance Indicator | PA Core Standard and/or Eligible Content | Marking Period Taught |
|---|---|---|
| Obtain and combine information to describe climates in different regions of the world. | 3-ESS2.2 | MP3 |
| Make a claim about the merit of a design solution that reduces the impacts of a weather-related hazard. | 3-ESS3.1 | MP3 |
| Connect the various forms of precipitation to the weather in a particular place and time. | 3.3.3.A.4 | MP3 |
| Explain how air temperature, moisture, wind speed and direction, and precipitation make up the weather in a particular place and time. | 3.3.3.A.5 | MP3 |
| Construct an argument that some animals form groups that help members survive. | 3-LS2.1 | MP4 |
| Analyze and interpret data from fossils to provide evidence of the organisms and the environments in which they lived long ago. | 3-LS4.1 | MP4 |
| Use evidence to construct an explanation for how the variations in characteristics among individuals of the same species may provide advantages in surviving, finding mates, and reproducing. | 3-LS4.2 | MP4 |
| Construct an argument with evidence that in a particular habitat some organisms can survive well, some survive less well, and some cannot survive at all. | 3-LS4.3 | MP4 |
| Make a claim about the merit of a solution to a problem caused when the environment changes and the types of plants and animals that live there may change. | 3-LS4.4 | MP4 |
| Recognize that plants survive through adaptations, such as stem growth towards light and root growth downward in response to gravity. Recognize that many plants and animals can survive harsh environments because of seasonal behaviors (e.g., hibernation, migration, trees shedding leaves). | 3.1.3.C.1 | MP4 |
| Recognize that fossils provide us with information about living things that inhabited the Earth long ago. | 3.1.3.C.3 | MP4 |
| Identify organisms that are dependent on one another in a given ecosystem. Define habitat and explain how a change in habitat affects an organism. | 4.1.3.D | MP4 |
| Identify changes in the environment over time. | 4.1.3.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, 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, tests, writing, and quizzes.**