

WARREN COUNTY SCHOOL DISTRICT

PLANNED INSTRUCTION

COURSE DESCRIPTION

Course Title: Science 6
Course Number: 00303
Course Prerequisites: None

Course Description: Students will explore different types of minerals and rocks, the structure of the earth, and how plate tectonics influence earthquakes, and volcanoes. Students will learn about the geologic time scale, and how erosion and deposition affect the mineral components of the earth. Students will also explore aquatic and marine environments, as well as how the water component of planet Earth determines our temperature and weather patterns. Additionally, students will explore how climate changes could affect life on earth.

Suggested Grade Level: Grade 6
Length of Course: Two Semesters
Units of Credit: 1

PDE Certification and Staffing Policies and Guidelines (CSPG) Required Teacher Certifications:
CSPG 32 Biology, CSPG 46 General Science, CSPG 43 Environmental Science, CSPG 40 Earth Science, CSPG 54 Middle Level Science, CSPG 70 Grades 4-8

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: 03236

To find the State Course Code, go to [State Course Code](#), download the Excel file for SCED, click on SCED 6.0 tab, and chose the correct code that corresponds with the course.

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TEXTBOOKS AND SUPPLEMENTAL MATERIALS

Board Approved Textbooks, Software, and Materials:

Title: Title: Earth and Space iScience
Publisher: McGraw Hill Education
ISBN #: 978-0-07-677385-5
Copyright Date: 2017
WCSD Board Approval Date: April 9, 2018

Supplemental Materials:

Curriculum Document

WCSD Board Approval:

Date Finalized: 2/20/2018
Date Approved: 4/9/2018
Date(s) Revised: 12/7/2020
Implementation Year: 2018-2019

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, CONCEPTS, AND SKILLS

Performance Indicator	PA Core Standard and/or Eligible Content	Month Taught and Assessed for Mastery
State how people and other living things use water Describe how Earth's water is disturbed Explain how Earth's water moves through the water cycle	3.1.A, B, C, D, E	October
Tell why a river system is. Explain how ponds and lakes form Describe the changes that occur in ponds and lakes	3.2.A, B, C, D	October
Describe how water moves through underground layers of soil and rock Explain how people obtain water from an aquifer	4.2.6 A, B, C, D	October
Describe the common types of freshwater wetlands Explain important functions wetlands serve	4.2.7. A, B	October
Describe how water moves to and from the atmosphere during the water cycle. (Reference "Water & Atmosphere" manual chapter 1, lesson 1 and chapter 4, lesson 1)	3.3.A	October
Describe repeated processes or recurring elements in natural, scientific, and technological patterns.	3.2.B	October
Explain the parts of a simple system, their roles, and their relationships to the system as a whole.	3.2.B	October
Apply knowledge of scientific investigation or technological design in different context to make inferences to solve problems.	3.2.B	October
Identify and analyze evidence that certain variables may have caused measurable changes in natural or human -made systems.	3.2.B	October
Explain, interpret, and apply scientific, environmental, or technological knowledge presented in a variety of formats.	3.2.B	October
Identify characteristic of the ocean and ocean water Identify the features and main sections of the ocean floor	3.3.6.A.4	October
Explain how waves form and change and describe the characteristics of waves Describe how waves affect shorelines and beaches	4.2.6.C	October
Identify what causes surface currents and explain how surface currents affect climate Identify the causes of deep currents and describe the effects that deep currents have	3.1.A, B, C, D, E	October
Describe how scientists divide the ocean into zones and classify marine organisms	3.2.A, B, C	October
Describe how temperature is measured Describe how heat is transferred (Reference - "Water and the Atmosphere" manual chapter 2, lesson 5, and "Earth's Structure" manual chapter 1, lesson 3)	3.1 A, B, C, D, E	November
Describe the composition of the atmosphere State how the atmosphere is a system	3.2.A,B, C	November

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Performance Indicator	PA Core Standard and/or Eligible Content	Month Taught and Assessed for Mastery
Explain how scientists describe and explain winds Distinguish between local winds and global winds and identify major global wind belts	3.5.C	November
Identify some properties of air Describe how barometers can be used to measure air pressure Explain how altitude affects air pressure and density	3.5.D	November
Identify the four main layers of the atmosphere and their characteristics. (Reference - Water and the Atmosphere Manual and Earth's Structure Manual) Explain the characteristics of the atmosphere's layers	3.5.D	November
Identify factors used to identify climates Describe the six main climate regions	3.1.A,B,C,D,E	December
Identify factors that influence temperature Identify factors that influence precipitation	3.1.A,B,C,D,E	December
State in what form energy travels from the sun to Earth Explain what happens to the sun's energy in the atmosphere and at Earth's surface	3.2.A,B,C	December
Explain how human activities are affecting the temperature of the atmosphere	3.1.A, B, C, D, E	January
Explain the principle that scientists follow in studying ancient climates Identify the natural factors that can cause climate change	3.2.A,B, C	January
categorize minerals by their properties	3.1.A, B, C, D	February
Interpret how heat is transferred within the Mantle	3.2.A, B, C, D	February
Model the parts of the Earth System	3.5.A, B	February
Construct the rock cycle.	3.1. A, B, C, D, E	March
Argue Wegner's hypothesis about the continents, cite evidence supporting the hypotheses and show why the hypothesis was rejected.	3.2. A, B C	March
Describe and classify the three types of rocks and describe how they are used.	3.5. A, B	March
Explain how seismographs work Analyze patterns that the seismographic data reveal	3.1.A, B, C, D, E	April
Describe how the energy of an earthquake travels through Earth Identify the scales used to measure the strength of an earthquake Explain how scientists locate the epicenter of an earthquake	3.2.A, B, C	April
Make connections between stress in the Earth's crust and changes in Earth's surface Describe the three major types of faults Compare and contrast land features that result from plate movement	3.5.A,B	April

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Performance Indicator	PA Core Standard and/or Eligible Content	Month Taught and Assessed for Mastery
Identify where volcanic regions and hot spot volcanoes are found on Earth's surface. Investigate why volcanic regions and hot spots are found in certain locations. Interpret patterns in volcanic locations	3.1.A,B,C,D,E 3.2.A, B, C 3.5.A,B	May

ASSESSMENTS

PSSA 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: Exit tickets, project, labs, etc.

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: Teacher created tests, quizzes, etc.