

WARREN COUNTY SCHOOL DISTRICT

PLANNED INSTRUCTION

COURSE DESCRIPTION

Course Title: Science 6 Core Elective (Astronomy & Space Science)
Course Number: 00300
Course Prerequisites: None

Course Description: Astronomy and Space Science is a one semester elective designed for sixth grade students. It will reinforce the middle level Earth science standards. Students will examine how the earth is part of a larger system in the universe. Students will learn how the sun and moon affect the earth as well as our solar system and the stars and galaxies that lay beyond it. Students will learn how scientists study such large and distant expanses of our universe.

Suggested Grade Level: Grade 6

Length of Course: One Semester

Units of Credit: .5

PDE Certification and Staffing Policies and Guidelines (CSPG) Required Teacher Certifications:

CSPG 54, 40, General Science, Elementary

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: 03010

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: Earth and Space Science
Publisher: McGrawHill
ISBN #: 978-0-07-677385-5
Copyright Date: 2017
WCSD Board Approval Date: 3/12/2018

Supplemental Materials: NASA: http://coolcosmos.ipac.caltech.edu/education_resources

Curriculum Document

WCSD Board Approval:

Date Finalized: 2/14/2018
Date Approved: 3/12/2018
Date(s) Revised: 3/11/2019
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
Identify how scientists use the electromagnetic spectrum to study the universe	3.3.6.B.1 3.3.8.B.2 RST.6-8.1	September January
Determine what conditions are required for life on earth	3.3.6.B.2 3.3.8.A.4 3.3.7.B.1	September January
Explain how light, measured remotely, can be used to classify objects in the universe	3.3.8.B.1	September February
Construct a simple telescope	3.3.7.B.2 RST.6-8.3	September February
Identify what is shown in satellite images	RST.6-8.4 3.3.8.A.6	September February
Model how the Sun strikes Earth's surface	3.3.7.A.5	October February
Model Earth's orbit	3.3.7.A.5 3.3.7.A.6 3.3.7.B.1 3.3.6.B.1 3.3.8.A.4	October March
Investigate how the Moon looks from different angles	3.3.7.B.2	October March
Simulate how the Moon moves around the Earth	3.3.7.A.4 3.3.6.A.5 RST.6-8.3 RST.6-8.4	October March
Make a scale model of the inner planets	3.3.7.B.2 3.3.6.B.1 RST.6.8.1 RST6.8.3 RST6.8.4 RST.6.8.7	November March
Graph planet characteristics and establish relationships	3.3.7.B.2 3.3.6.B.1 RST.6.8.1 RST6.8.3 RST6.8.4 RST6.8.7	November April
Observe the challenges in discovering the outer planets	3.3.7.B.1 3.3.6.B.1 3.3.8.B.1 3.3.8.B.2 RST.6.8.1 RST6.8.3 RST6.8.4 RST6.8.7	December April
Make a scale model of the solar system	3.3.7.B.2 3.3.6.B.1 RST.6.8.1 RST6.8.3 RST6.8.4 RST.6.8.7	December May

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Performance Indicator	PA Core Standard and/or Eligible Content	Month Taught and Assessed for Mastery
Model the parts of the sun	3.3.6.B.1 3.3.8.B.1 3.3.8.B.2 RST.6.8.1 RST6.8.3 RST6.8.4 RST.6.8.7	December May
Model the life cycle of a star	3.3.6.B.1 3.3.8.B.1 3.3.8.B.2 RST.6.8.1 RST6.8.3 RST6.8.4 RST.6.8.7	January May
Model universe expansion	3.3.6.B.1 3.3.8.B.1 3.3.8.B.2 RST.6.8.1 RST6.8.3 RST6.8.4 RST.6.8.7	January May
Investigate types of galaxies	3.3.6.B.1 3.3.8.B.1 3.3.8.B.2 RST.6.8.1 RST6.8.3 RST6.8.4 RST.6.8.7	January June

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.