

## WARREN COUNTY SCHOOL DISTRICT

### PLANNED INSTRUCTION

#### **COURSE DESCRIPTION**

**Course Title:** STEM 9

**Course Number:** 00767

**Course Prerequisites:** NONE

**Course Description:** This basic/introductory STEM course is an interdisciplinary class that integrates the four specific disciplines of Science, Technology, Engineering and Math into a cohesive real-world learning model. Students will explore hands on and experience project based learning on real world problems guided by the Engineering Design Process. This program allows hands-on inquiry and open ended exploration in STEM content areas.

**Suggested Grade Level:** Grade 9

**Length of Course:** One Semester

**Units of Credit:** .5

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

Required Teacher Certification: CSPG65 K-12 Technology Education

To find the CSPG information, go to <https://www.education.pa.gov/Educators/Certification/Staffing%20Guidelines/Pages/default.aspx>

**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:** Audio/Visual Production 11051, Computer Science Principles 10011

To find the State Course Code, go to <https://nces.ed.gov/forum/sced.asp>, 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:** NA  
**Publisher:** NA  
**ISBN #:** NA  
**Copyright Date:** NA  
**WCSD Board Approval Date:** NA

**Supplemental Materials:** Video Camera, Video Production Software (Adobe Premiere, Adobe Animate), Animation Software, Green Screening, Drones, Hummingbirds

**Curriculum Document**

**WCSD Board Approval:**

**Date Finalized:** 5/19/2020  
**Date Approved:** 6/8/2020  
**Implementation Year:** 2020-2021

**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).

**WARREN COUNTY SCHOOL DISTRICT****PLANNED INSTRUCTION****SCOPE AND SEQUENCE OF CONTENT, CONCEPTS, AND SKILLS**

<b>Performance Indicator</b>	<b>PA Core Standard and/or Eligible Content</b>	<b>Month Taught and Assessed for Mastery</b>
Capturing content digitally.	15.4.5.K. 15.4.2.K	September January
Develop, utilize, and navigate skills for basic production editing.	15.4.8.K. 15.4.12.K.	October January
Use appropriate technical skills to develop basic software competency.	15.4.12.G.	October February
Program basic functions of block coding.	3.4.10E4, 15.4.12.H	November March
Program basic functions of automation.	3.4.10E4	November March
Create a three dimensional design.	3.4.10.C1.	December April
Create a prototype of a three dimensional design out of a physical material.	3.4.10.C2, 3.4.10.D1	December April
Apply the design process to solve design problems.	3.4.10.C1, 15.4.8.J.	January May

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#### **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:** Teacher Questioning/Discussion, Terminology quiz, Entrance and Exit Questions, Individualized and Team Based Projects

**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:** STEM Portfolio