COURSE DESCRIPTION

Course Title: Computer Science Discoveries
Course Number: 00500
Course Prerequisites: None

Course Description: *Computer Science Discoveries* is an introductory computer science course that empowers students to create authentic artifacts and to engage with computer science as a medium for creativity, communication, problem solving, and enjoyment. The two coding languages that are explored include JavaScript and HTML.

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:
K-12 Business Information Technology – CSPG 33
To find the CSPG information, go to https://www.education.pa.gov/Educators/Certification/Staffing%20Guidelines/Pages/default.aspx
Certification verified by the office of Curriculum, Instruction, and Assessment: ☒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: 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.

TEXTBOOKS AND SUPPLEMENTAL MATERIALS

Board Approved Textbooks, Software, and Materials:
  Title:
  Publisher:
  ISBN #:
  Copyright Date:
  WCSD Board Approval Date:

Supplemental Materials: Computer Science Discoveries Curriculum from Code.org website, Spheros, iPad Pros, Hummingbird Kits

Curriculum Document

WCSD Board Approval:
  Date Finalized: 12/5/2019
  Date Approved: 1/13/2020
  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).

SCOPE AND SEQUENCE OF CONTENT, CONCEPTS, AND SKILLS

Performance Indicator	PA Core Standard and/or Eligible Content	Month Taught and Assessed for Mastery
Discuss and analyze problem solving process.	3B-AP-24	September January
Explore and analyze the computer and central process unit.	1B-CS-02	September January
Discuss the process of the input and outputs of the computer.	1B-CS-01	September February
Explore Apps and storage solutions.	3A-AP-13	September February
Plan, design, and present an App.	3A-AP-13, 3A-AP-22	September February
Explore websites and analyze how they are formatted.	3B-AP-19	October February
Communicate with HTML language.	2-AP-14	October March
Create and use the language of HTML.	2-AP-14, 3B-AP-19	October March
Develop debugging skills within the HTML language.	1B-AP-15	October March
Create and use the Styling Elements and Text with CSS.		October March
Investigate sources and search engines.	1B-IC-21	November March
Present and share creation of HTML Website.	3B-AP-24	November April
Investigate programming entertainment such as game design.	1B-AP-12	November April
Create variables and spirtes with JavaScript.	2-AP-11, 3A-AP-14	November April
Analyze Booleans and conditionals.	1B-AP-10	December May
Create an interactive greeting card using JavaScript.	3B-AP-24	December May
Investigate the game design process.	3A-AP-18	January May
Design an interactive game using JavaScript.	3A-AP-18, 1B-AP-12	January

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: Journal Question Responses, Sharing Projects using online platform, Progress Checks of 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: Creation of an App Project (Unit 1), HTML with CSS Styling Website (Unit 2), Interactive Game Design (Unit 3), quizzes, and tests.