

WARREN COUNTY SCHOOL DISTRICT

PLANNED INSTRUCTION

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:

CSPG-33 K-12 Computer Information Technology

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: 10001 Introduction to Computer Technology

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.

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TEXTBOOKS AND SUPPLEMENTAL MATERIALS

Board Approved Textbooks, Software, and Materials:

Title: N/A
Publisher: N/A
ISBN #: N/A
Copyright Date: N/A
WCSD Board Approval Date: 02/08/2021

Supplemental Materials: www.code.org, 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, AND CONCEPTS

Marking Period 1

- Web Development (9 Weeks)
 - Students will learn how to create and share the content on their own web pages. After deciding what content they want to share with the world, they will learn how to structure and style their pages using HTML and CSS. Students will also practice valuable programming skills such as debugging, using resources, and teamwork.

Marking Period 2

- Interactive Animations and Games (9 Weeks)
 - Students will build on their coding experience as they program animations, interactive art, and games in Game Lab. The unit starts off with simple shapes and builds up to more sophisticated sprite-based games, using the same programming concepts and the design process computer scientists use daily. In the final project, students will develop a personalized, interactive program.

Marking Period 3

- Repeat of Marking Period 1.

Marking Period 4

- Repeat of Marking Period 2.

WARREN COUNTY SCHOOL DISTRICT**PLANNED INSTRUCTION****Standards/Eligible Content and Skills**

Performance Indicator	PA Core Standard and/or Eligible Content	Marking Period Taught
Discuss and analyze problem solving process.	3B-AP-24	MP1, MP3
Explore and analyze the computer and central process unit.	1B-CS-02	MP1, MP3
Discuss the process of the input and outputs of the computer.	1B-CS-01	MP1, MP3
Explore Apps and storage solutions.	3A-AP-13	MP1, MP3
Plan, design, and present an App.	3A-AP-13, 3AAP-22	MP2, MP4
Explore websites and analyze how they are formatted.	3B-AP-19	MP2, MP4
Communicate with HTML language.	2-AP-14	MP2, MP4
Create and use the language of HTML.	-AP-14, 3B-AP19	MP2, MP4
Develop debugging skills within the HTML language.	1B-AP-15	MP2, MP4
Create and use the Styling Elements and Text with CSS.		MP2, MP4
Investigate sources and search engines.	1B-IC-21	MP2, MP4
Present and share creation of HTML Website.	3B-AP-24	MP2, MP4
Investigate programming entertainment such as game design.	1B-AP-12	MP2, MP4
Create variables and sprites with JavaScript.	-AP-11, 3A-AP14	MP2, MP4
Analyze Booleans and conditionals.	1B-AP-10	MP2, MP4
Create an interactive greeting card using JavaScript.	3B-AP-24	MP2, MP4
Investigate the game design process.	3A-AP-18	MP2, MP4
Design an interactive game using JavaScript.	A-AP-18, 1BAP-12	MP2, 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: Journal question responses, sharing projects using online platform, project progress checks.

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.