Computer Science Essentials

Syllabus

Discovery Middle School
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Course Description:	*Computer Science Essentials will expose students to a diverse set of computational thinking concepts, fundamentals, and tools, allowing them to gain understanding and build confidence. In Computer Science Essentials, students will use visual, block-based programming and seamlessly transition to text-based programming with languages such as Python to create apps and develop websites, and learn how to make computers work together to put their design into practice. They'll apply computational thinking practices, build their vocabulary, and collaborate just as computing professionals do to create products that address topics and problems important to them. Computer Science Essentials helps students create a strong foundation to advance to Computer Science Principles, Computer Science A, and beyond.* *https://www.alabamaachieves.org/wp-content/uploads/2021/03/Final-2018-Digital-Literacy-and-Computer-Science-COS-5-14-19.pdf*
Course Objectives:	CS Essentials introduces students to coding fundamentals through an approachable, block-based programming language where they will have early success in creating usable apps. As students sharpen their computational thinking skills, they will transition to programming environments that reinforce coding fundamentals by displaying block programming and text based programming side-by-side. Finally, students will learn the power of text-based programming as they are introduced to the Python® programming language. The course engages students in computational thinking practices and collaboration strategies, as well as industry standard tools authentic to how computer science professionals work. Students will learn about professional opportunities in computer science and how computing can be an integral part of all careers today.

Classroom Expectations:	Classroom Rules and Procedures: 1. Be on time to class with all needed materials. 2. Each day, the class will begin with a problem of the day (POD-bell work). Each student is expected to start this upon entering the class and complete it in a timely fashion. 3. Students are to ask permission before leaving their seats. 4. Papers are to be appropriately headed. 5. It is the student's responsibility to check the designated area for make-up work. Make-up work should be done per Discovery policies. 6. Absent notes should be turned into the front office within 3 days of the absence. Make-up work is only accepted for EXCUSED absences. 7. Absent work can be found in folders by the classroom door or on Schoology. It is the student's responsibility to check the folders when they return to school to get their missed work.
Textbook:	https://my.pltw.org
Grading:	Test grades will account for 60% of the 9-weeks grade, with the remaining 40% being determined by quiz/daily grades. The grading scale is as follows: A (90-100), B (80-89), C (70-79), D (65-69), and F (below 65). Grades will be a reflection of mastery of the standards. Make sure all absences are excused as work can be made up and graded for excused absences only.
Make-up Work:	Under normal circumstances, it is expected that students will submit previously assigned work upon return to school after an excused absence. All work missed on the day(s) of excused absences must be made up within a timeframe determined by the teacher. **It is the responsibility of the student to ensure he or she makes up work following excused absences. Students will not receive credit for and will not be allowed to make up any assignments, tests, work, activities, etc., missed during unexcused absences.** (DMS 2022-2023 Student Handbook)
Late Work:	For work turned in late, the following policy will apply: • The assignment will drop one LETTER grade for each school day that passes. For example, if an assignment is turned in one school day late, the highest a student can receive is 89%; two days late, 79%, etc. 1 day late = maximum credit 89% 2 days late = maximum credit 79%

	3 days late = maximum credit 69% 4 days late = maximum credit 59% 5-10 days late = maximum credit 50% • Half credit is always better than no credit! Until work has been made up, "Missing" (which counts as a zero) will be put in the grade book. This will be updated once work is completed and turned in.
Accommodations:	Requests for accommodations for this course or any school event are welcomed from students and parents.
Turnitin Notice:	The majority of writing assignments in this course will be submitted to Turnitin via the Schoology learning platform. The primary focus of this software is to help students become better writers and scholars. Turnitin generates a report on the originality of student writing by comparing it with a database of periodicals, books, online content, student papers, and other published work. This program will help students discern when they are using sources fairly, citing properly, and paraphrasing effectively - skills essential to all academic work. Students will have the opportunity to review their Turnitin originality report and will have the opportunity to make revisions before submitting their work for grading. Once their work is submitted, teachers have the opportunity to view the student's originality report and grade accordingly.
Technology	Concerning laptop utilization: 1. Student laptops should not be hard-wired to the network or have print capabilities. 2. Use of discs, flash drives, jump drives, or other USB devices will not be allowed on Madison City computers. 3. Neither the teacher, nor the school is responsible for broken, stolen, or lost laptops. 4. Laptops will be used at the individual discretion of the teacher and should be brought to school daily.
Materials and Supplies:	*School Issued Chromebook (No Personal Computers when in class)* *Earbuds or Headset (When watching videos independently)* *Paper* *Pencil*

	Binder or Spiral Notebook *Index Cards* *Highlighters*

18 Week Plan **Subject to Change*	
Week	**Unit**
1	Rules and Procedures (Get to know students)
2	Unit 1 - Building with Blocks (Block-based Programming)
3	Unit 1 - Building with Blocks (Block-based Programming)
4	Unit 1 - Building with Blocks (Block-based Programming)
5	Unit 2 - Transitions to Text (VEX Robot Programming)
6	Unit 2 - Transitions to Text (VEX Robot Programming)
7	Unit 2 - Transitions to Text (VEX Robot Programming)
8	Unit 2 - Transitions to Text (VEX Robot Programming)
9	Unit 2 - Transitions to Text (VEX Robot Programming)
10	Unit 2 - Transitions to Text (VEX Robot Programming)
11	Unit 3 - Solving with Syntax (Text-based Programming, Python)
12	Unit 3 - Solving with Syntax (Text-based Programming, Python)
13	Unit 3 - Solving with Syntax (Text-based Programming, Python)
14	Unit 3 - Solving with Syntax (Text-based Programming, Python)
15	Unit 3 - Solving with Syntax (Text-based Programming, Python)
16	Unit 3 - Solving with Syntax (Text-based Programming, Python)
17	Unit 3 - Solving with Syntax (Text-based Programming, Python)
18	Semester Exams