



Computer Science for All
San Francisco Unified School District

MyCS Course Syllabus

Teacher

Name:

Email:

Course Description

In this introductory course, students will learn the foundational concepts and skills of computer science (CS). They will explore using computers to solve problems and to express themselves. The course is designed to be engaging and relevant to student lives. Students build, remix and share animations, games, stories, music and art, in a collaborative environment.

Course Goals

- Introduce computer science as an engaging and relevant discipline.
- Demonstrate that *all* students can be successful in computer science.
- Develop foundational skills and knowledge in computer science.
- Strengthen problem solving and critical thinking skills.
- Foster creativity, collaboration, and communication.
- Explore issues raised by present and future societal impacts of computing.

What is Computer Science?

Computer science (CS) is the *science* behind computing. In other words, it is **learning how to use the power of computers to solve big problems and express ourselves.**

Instead of just using technology, students will learn to become creators of technology.

CS is important to learn because it teaches students to think critically, solve problems, supports science and math knowledge, can engage all students, and can lead to multiple careers.



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Curriculum Overview tinyurl.com/csinsf6

Coding Units

1. **Events and Motion:** Introduction to Scratch
2. **Loops and Animation:**
Animate sprites by looping through costumes.
3. **Conditions and Games:**
Build games using IF and IF ELSE statements.
4. **Conditions and Maze Games:**
Make your own maze game, test what you know.
5. **Data and Stories:**
Tell animated stories using variables and lists.
6. **Procedures and Art:**
Use procedures to make cool artwork.

Non-Coding Units

0. **Introduction:** What is CS?
Why is it relevant to my life?
- A. **Hardware & Software**
What makes a computer?
- B. **Encoding & Decoding**
Data representation.
- C. **The Internet**
How does the internet work?
- D. **Finch Robots**
- E. **Makey Makeys** (input)
- F. **Microbits** (tiny computers)

Standards Alignment

The MyCS course is aligned to the [Computer Science Teachers Association \(CSTA\) K-12 Standards](#) and [SFUSD's PK-12 Computer Science Scope and Sequence](#).

Student Accounts

Students will be provided with an account to access Scratch at scratch.mit.edu. They will also use their SFUSD accounts to access tools including Google Classroom and Google Drive.

Student Expectations

It is essential to make mistakes in computer science, as that is how you learn. In this class, we will work and learn together to achieve more than we could do alone. Work hard and follow all rules that outlined in the [SFUSD student and family handbook](#). Have fun!



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Student Agreement

I commit to respect myself, my classmates, my school, my teacher, and my classroom. I will try my best to learn in class. I will not give up, even when the work becomes very challenging. I will work well with others and support my teammates to the best of my ability. I have read and understand this course syllabus, including the classroom policies and procedures. I will follow all rules and understand that I choose to receive consequences if I do not follow these rules.

Student Name: _____ Period: _____

Student Signature: _____ Date: _____

Family Agreement

I have read and understand this course syllabus, including the classroom policies and procedures. I will do my best to help my child succeed in this class.

Guardian Name: _____

Guardian Signature: _____ Date: _____

(Next section is optional. It is for the teacher's reference only and will not be shared.)

Phone Number: _____ Type (circle one): Home / Work / Mobile

Email Address: _____

Preferred Language(s): _____

Anything important to know about your child: _____

Other questions / comments: _____
