

# AP CSP

## Chapter 1

Ms. Klug

(Curriculum adapted from [code.org](https://code.org))

Day 1

# Attendance

and Syllabus

# Welcome to AP CSP!!!

- 2<sup>nd</sup> year in the U.S.!
- This course will be tough, but it will be worth it if you are willing to put in the time and excellence.
- If you are not willing to put in college-level work, this is not the course for you.

# What do I need to know about CS?

- The good news: not a whole lot
- This course is designed with YOU in mind
- You do not have to know anything about coding to take this class
- If you already know a lot about coding, that's great! But not a requirement.

# About Ms. Klug

# My name is Ms. Klug

- Third year at Berkley High School
- U of M Alumna and Grad Student at MSU
- Passionate about teaching math, computer science, and health
- I love: my family, friends, hiking, Lake Michigan, board games, swimming, and being on boats







Let's get some logistical  
stuff out of the way...

# A few websites:

- [www.msklug.weebly.com](http://www.msklug.weebly.com) – ALL the links 😊
- Google Classroom - 9s1066
  - 2020sarahk@berkleyschools.net
- Code.org – need to create account with your school's Google account

# About you!

- First assignment → Answer the questions in the Google form in Google Classroom

# When you are done...

- Join my Remind 101 classroom 😊

# Video!

- <https://code.org/educate/resources/videos>
  - Computer Science Changes Everything
  - What Most Schools Don't Teach (if time)

# Chapter 1: Big Questions

- Why do computers use binary to represent digital information?
- How does data physically get from one computer to another?
- Are the ways data is represented and transmitted with computers laws of nature or laws of man?

# Lesson 1

Personal Innovations



# What could you teach somebody?

- **“What is Something that you know a lot about? Something that you could teach somebody?”**
  - This doesn't have to be a subject in school
- In 1 minute, write it down on the post-it and post this on the board

# Let's Talk About It

- In groups of 4, explain the thing you know a lot about (2 minutes each)



# Prototype?

- Technological innovation is about recognizing a problem that needs to be solved, or recognizing something needs improving and then building a tool to solve it
- As a class we are going to see how innovative we can be. We're going to do something called "rapid prototyping"
  - **Prototype:** a preliminary sketch of an idea or model for something new. It's the original drawing from which something real might be built or created.

# Brainstorm Technological Innovation

- In your group of four:
  - Identify some way that technology is used with, or affects that thing you talked about earlier
- Make a suggestion for either:
  - A way that technology might be improved to make it better, faster, easier to use
  - A creative or innovative new technology might help solve some problem within that area, or at least make it better.

# Rapid Prototype One Idea

- As a group, nominate one idea you've discussed that you think would be the most interesting to everyone else in the class.
- Start to sketch out that idea on a poster. Make a visual representation of your ideas.
- We will share out after 10 minutes (pick 1-2 people in your group to share)

# What's the point?

- This course is about personal interest (explore task)
- This is course is about collaboration
- This course is about innovation (create task)