Starting a CS Club & CS Honor Society Chapter to GROW your CS program!

CSTA Annual Conference July 9, 2018

B Holley

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Why are we here?

- **Why are you at CSTA?**
  - You are passionate about teaching computer science!
- **Why are you in this session?**
  - You want to grow your computer science program.
  - You want to know more about computer science honor society.
  - You wandered in room 215.

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Who am I?

- Buffie Holley
  - High School Teacher (Mathematics Certification)
  - Computer Science Honor Society Director
  - NCWIT Educator Award Winner 2018 (Virginia)
  - GenCyber and Tapestry Presenter
  - University Adjunct Professor (Principles)
  - National Board Certified Teacher
  - Graduate Student (M.S. Computer Science)

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Who are my lovely assistants?

- Anna Baber
  - Incoming freshman University of Rochester
  - Biomedical Engineering Major
  - Computer Science Honor Society Member (graduated)
  - NCWIT Aspirations National Certificate of Distinction Winner 2018
- Grace Barrett-Johnson
  - Incoming first year University of Virginia
  - Computer Science Major
  - Computer Science Honor Society Member (graduated)
  - AP CS A Senior Intern
  - NCWIT Aspirations State Runner-up 2017, State Winner 2018

Computer Science Club

- ▶ What does Computer Science Club look like?
  - ▶ Meeting schedule that works for you and your students
  - ▶ Variety of activities to engage new and veteran students
  - ▶ Fun atmosphere that fosters support and comradery
  - ▶ Open to ALL students

Suggested CS Club Activities

▶ Programming Competitions
  ▶ ACSL American Computer Science League
  ▶ Zero Robotics
  ▶ USA Computing Olympiad
  ▶ Virginia Tech High School Programming Contest

  ▶ Check with local Universities or Community colleges to see if they do any local competitions.

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Suggested CS Club Activities cont.

- **Cybersecurity Competitions**
  - **PicoCTF** 9-28-18 ➜10-12-18 (Registration September)
  - **EasyCTF** Usually February
  - **HSCTF** Usually May
  - **TJCTF** Usually June
  - **RUSecure CTF** Starts in Fall
  - **CyberPatriot** Registration Open NOW
  - Cyber Code Quest 10-20-18

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Suggested CS Club Activities cont.

- ▶ Logic
  - ▶ Puzzle Boxes
  - ▶ Logic Puzzles
  - ▶ Problem Solving
- ▶ CS Game Competitions
  - ▶ Potato Pirates (Programming Card Game)
  - ▶ Boolean (Logic Gate Card Game)
- ▶ Guest Speakers
  - ▶ Experts in the field (University, Companies, Local business)
  - ▶ Previous students

Suggested CS Club Activities cont.

- Community Outreach
  - Partner with a middle school or elementary school to have a monthly event
  - Host an Hour of Code (at your school or another)
  - Invite community members to see projects or activities
  - Host a CTF (Capture the Flag) or Programming Competition

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Why start a Computer Science Honor Society Chapter?

▶ Now that you have students engaged in your courses it is time to recognize their skills and achievements.

▶ Provide leadership opportunities for students.

▶ Provide you with an army of workers and walking advertisers for your program.

▶ Have a great time doing awesome things with your students to increase awareness around CS.

▶ Our graduation cords are the BEST!!!

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The Four Pillars of the Computer Science Honor Society

- 1. Service

- 2. Ethics

- 3. Honor

- 4. Leadership

How to start your own CSHS Chapter

▶ Handout provided with the steps

▶ Application copy provided

▶ Constitution copy provided

   ▶ Service centered organization (10 hours per year)

   ▶ Students must have taken highest level course at your school

   ▶ Minimum grade requirement B average in courses

Success Story #1

- **Powhatan High School**
  - Rural Virginia (1500 students)
  - 17 students 1st year (1500 service hours)
  - 50+ Members Currently (3000+ hours last year)
  - 50% female membership
  - Now TWO CS teachers!

Success Story #2

- Albemarle High School (Suburban Central VA)

  - 2000 Students

  - 1 Section of AP CSA 2012 ➜ 5 Sections AP CSA + AP CSP 2018

  - 21 Members Graduated 2018 with 50% Majoring in CS or related field

  - NCWIT Aspirations State and National winners each year

From the Advisor Perspective

- Lake Braddock High School (Northern VA)

  - "Although it has added to my workload, it has been such a pleasure to see these students working hard for CS. I wasn't sure if they would like the pins, they were wearing them and putting them on their backpacks when we left. So cute!" –Mrs. Anderson (CSHS Advisor)

From the Student Perspective

- Anna
- Grace

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Questions?

Resources

- Amazon
  - Parchment Paper
  - Rubber Ducks
- Etsy
  - Roll Book
- Potato Pirates