

AccessCS10K

Founded 2014

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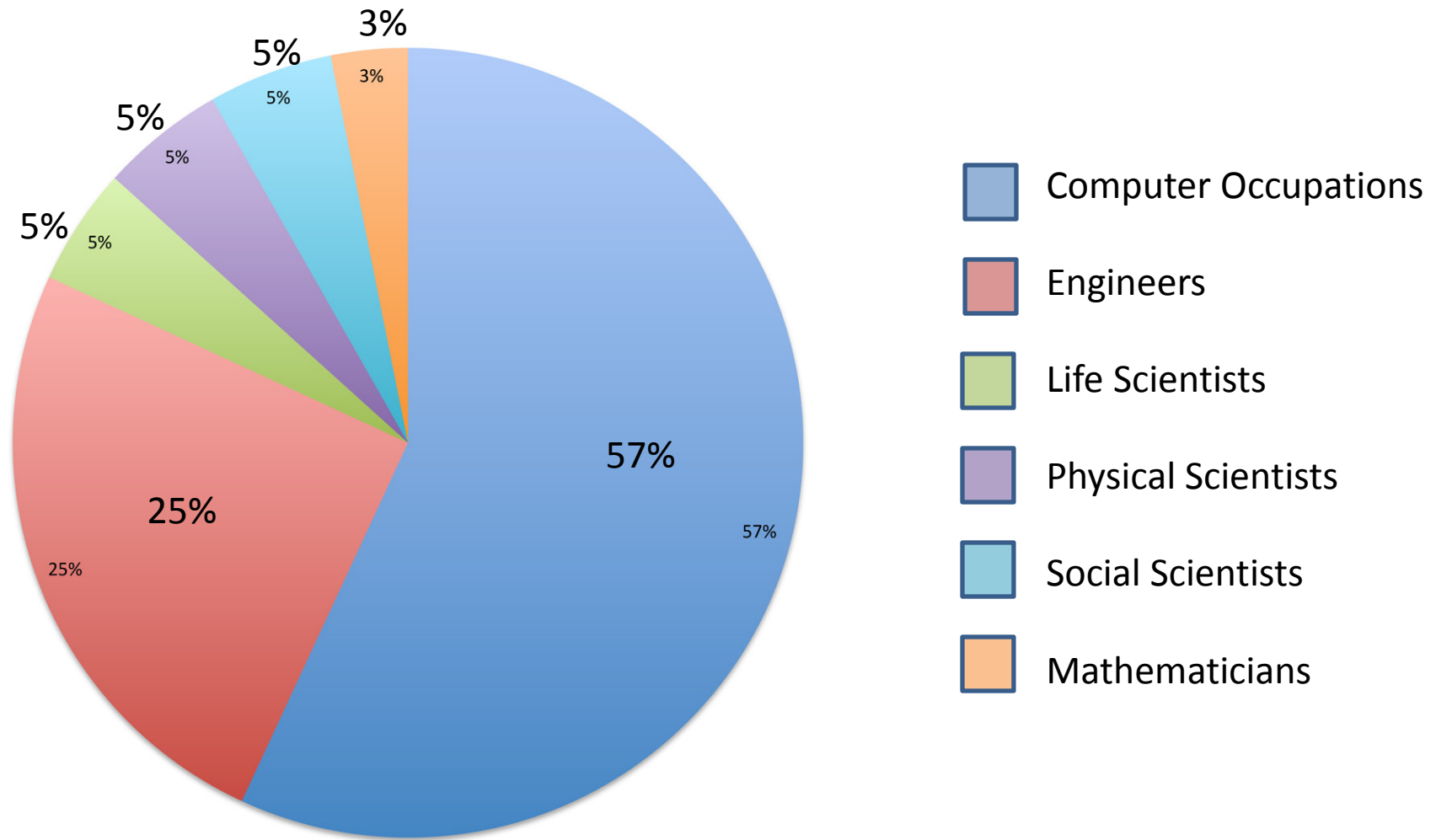
CS 10K



- Part of STEM + Computing Partnerships (STEM+C), NSF 15-537
- CS 10K awards aim to develop the knowledge and evidence-based foundation needed to support the teaching of introductory rigorous, academic computing courses in high schools.

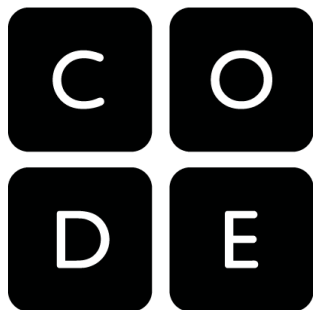


Job Openings 2012-2022



CS 10K

- NSF initiative to get computer science into 10 thousand high schools nationwide.
- Focus on in-service professional development of existing teachers.
- Approximately 20 active NSF funded projects
- Coordination with non-profits



Broadening Participation



Attention to diversity. To ensure that advances in computing education are inclusive of our diverse student populations, ***all*** proposals must address, as a significant component, the longstanding underrepresentation in computing of women, persons with disabilities, African Americans, Hispanics, Native Americans, and indigenous peoples.

AccessCS10K Goal

- Increase the participation and success of students with disabilities in
 - Exploring Computer Science (ECS)
 - Computer Science Principles (CSP)



AccessCS10K Strategies

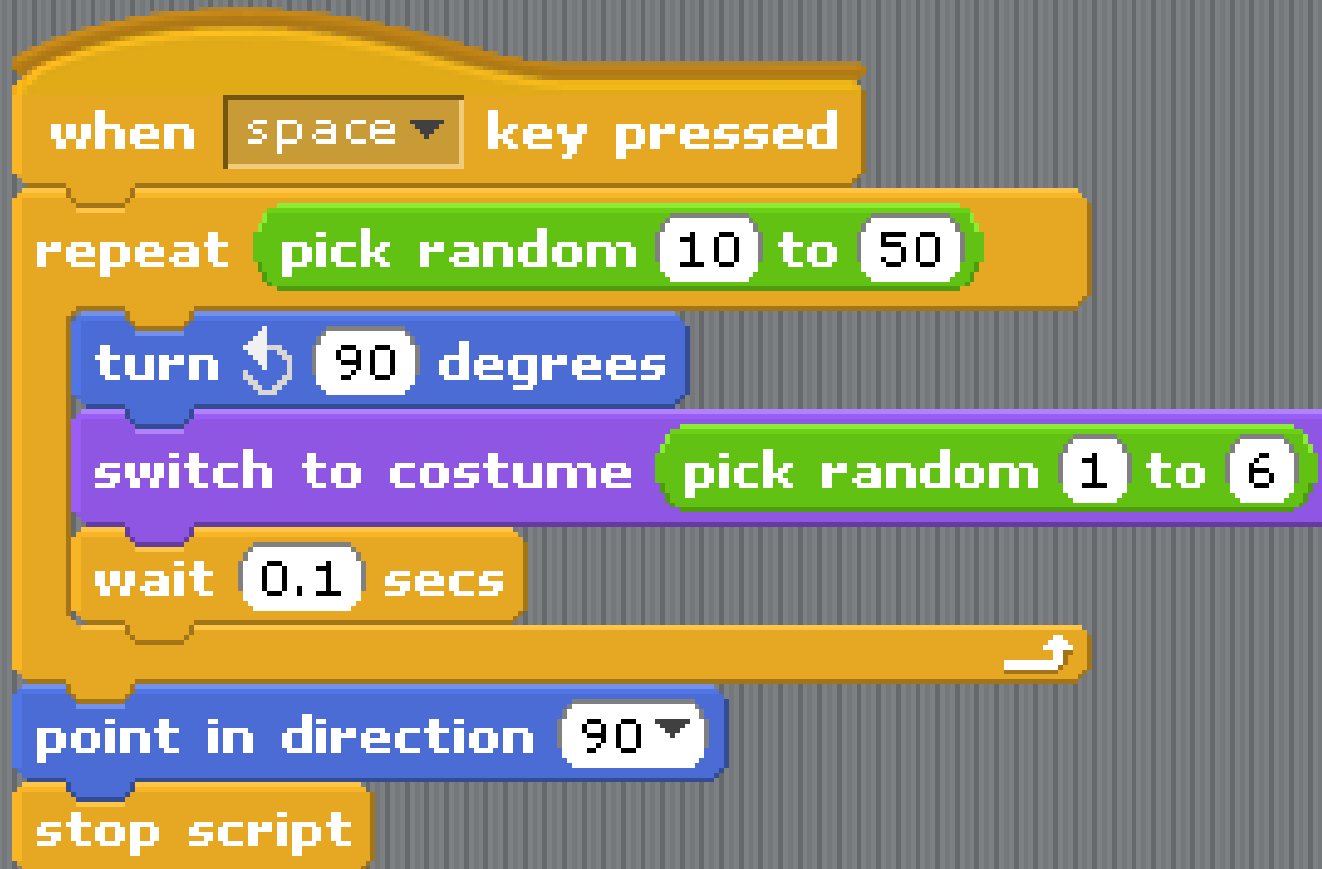
- Work with NSF-funded CS 10K projects and non-profits
 - Capacity building institutes
 - Community of practice
 - Partnerships
- Create and disseminate accessible tools and curricula.
 - Leverage work by development partners

Screen Reader

- Allows non-visual access to screens



Block Based Languages



Quorum Programming Language

- Text, not blocks
- Evidence based syntax and semantics
- Example

```
repeat 5 times  
  say "hello"  
end
```

- <http://quorumlanguage.com/>

Quorum Hour of Code

Tutorials in other programming languages

A promotional graphic for Quorum. It features a black background with the word 'Quorum' in large, blue, stylized letters at the bottom. Above the text are two circular portraits of a young woman with red hair. The left portrait shows her smiling, and the right portrait shows her wearing red 3D glasses. Between the portraits is a blue circular icon of a white rabbit wearing glasses. To the left of the portraits is a white left-pointing triangle, and to the right is a white right-pointing triangle. The background also has some faint, stylized white shapes.

Accessible programming (with screenreader support)

Quorum

This tutorial is accessible for the visually-impaired, and works with screenreaders. Join Mary on a tour as she joins a biology lab as a programmer and learns the Quorum programming language. This tutorial is student-guided with online example activities.

Middle school + | Modern web browsers.
Screen-readers supported

11,109 participants

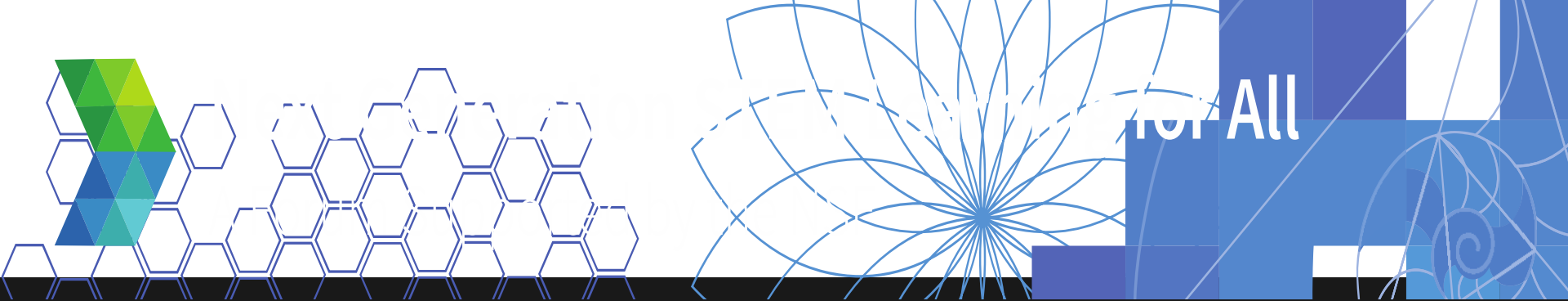
<http://hourofcode.com/qrm>

Go



My Message

Computing fields need more people with disabilities because their perspectives and expertise will spark innovation.



NSF STEM Forum | November 9, 2015 | Washington, DC

#NSFNextGenSTEM

Assistive Technologies for Learning: Broadening Participation in STEM

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