COMPUTER SCIENCE STANDARDS

Development process

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PHASE ONE

The Framing Committee

Purpose: To establish the vision and framework for computer science standards

Number of candidates: **19**

Number of candidates selected: **9**

SELECTION CRITERIA

- EXPERTISE IN THE AREA
- LEVEL OF EXPERIENCE
- EMPLOYMENT SECTOR
- GEOGRAPHIC LOCATION
- ETHNIC DIVERSITY
- GENDER

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Framing Committee Meeting

Date: October 13-14, 2015
Location: Turlington Building

Resources Consulted:

- Computer Science Teachers Association (CSTA) Standards

- International Society of Technology Education (ISTE) Standards

- Advanced Placement (AP) Computer Science materials

- Florida Math and Science Standards

- Applied Information Technology program Standards

Tasks:

- Define computer science

- Provide guidance for writers
  - Based on concepts and skills necessary, what is reasonable, practical and achievable at each level?
  - Resources to be used when developing standards.
  - Organizational structure of standards.

Framing Committee Outcomes

The Definition	The Big Ideas
"Computer science is the study of computing technology and algorithmic processes, including the principles of problem solving, the development of software, hardware and information systems, and their impact on society."	- Algorithms - Communication & Collaboration - Problem-solving & Design Processes - Computing Practices & Programming - Computing & Communication Systems - Community, Global & Ethical Impacts

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Framing Committee Outcomes

GUIDANCE FOR WRITING TEAM

- The taxonomy to be used by the writers will be big idea, standards and benchmarks.

- A total of 53 standards were drafted for which writers would develop benchmarks.

- Standards to be addressed in grade bands—
    - K-2
    - 3-5
    - 6-8
    - 9-12

- Primary resource to consult: CSTA Standards

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PHASE TWO

The Writing Team

Purpose: To develop grade-level appropriate benchmarks for computer science standards

Number of candidates: **20**

Number of candidates selected: **11**

SELECTION CRITERIA

- **EXPERTISE IN THE AREA**
- **LEVEL OF EXPERIENCE**
- **INSTRUCTIONAL, GRADE-LEVEL ASSIGNMENT**
- **GEOGRAPHIC LOCATION**
- **GENDER**
- **AVAILABILITY**

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Writing Team Meetings

MEETINGS HELD:
January 7 - March 2, 2016

LOCATION: Virtual,
Conference Calls & Webinars

- Three writing teams were assembled.

- Each team leader served on the framing committee.

- Weekly conference calls were held.

- Each call examined the writers' work.

- Modifications were made upon consensus.

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Writing Team Outcomes

The First Draft

Two Big Ideas were redistributed into the remaining four Big Ideas:
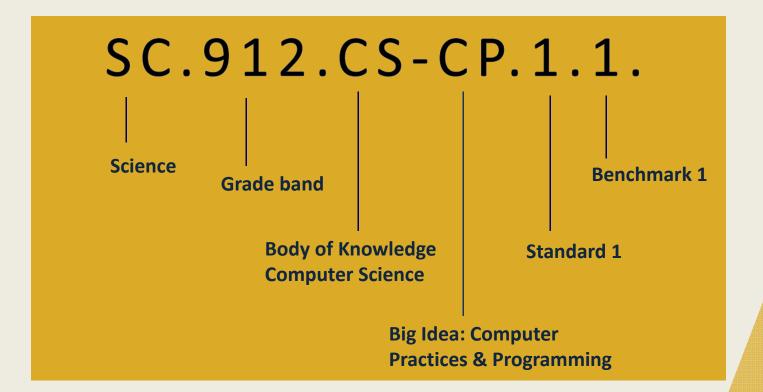
- Personal, Community, Global & Ethical Impacts

- Communication & Collaboration

- Communication Systems & Computing

- Computing Practices & Programming

More than 240 benchmarks were written

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Writing Team Outcomes

Big Idea, Standard & Benchmark Format

S C . 9 1 2 . C S - C P . 1 . 1 .

Science

Grade band

Benchmark 1

**Body of Knowledge
Computer Science**

Standard 1

**Big Idea: Computer
Practices & Programming**

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PHASE THREE

PUBLIC REVIEW & COMMENT

Purpose: To provide guidance and feedback related to meeting stakeholders' needs

Number of comments: **44**

Number of comments resulting in a change to standards: **24**

THEMES

- ACCURATE CONTENT
- WORDING IS CLEAR
- GRADE-LEVEL APPROPRIATE
- FEW CONCEPTS OMITTED
- APPROPRIATE EMPHASIS
- APPROPRIATE COVERAGE

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PUBLIC REVIEW OUTCOMES

PUBLIC REVIEW PERIOD: February 10-24, 2016

Overview of Changes Made

Fourteen benchmarks were added on topics of:
digital citizenship - net neutrality - modeling & simulation - plagiarism - digital resources – privacy - data types

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PHASE FOUR

STANDARDS IMPLEMENTATION

NEXT STEPS

- Adopt standards

- Districts submit course descriptions

- New courses in 2016-2017

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QUESTIONS?