

## Computer Science Education Acronyms

### QUESTION

**What do these computer science acronyms mean?**

### TOOL DESCRIPTION

This tool is a reference sheet that describes some of the most common acronyms used in computer science education. See the **Computer Science Terminology** tool for more in-depth explanations of specific computer science terminology.

### WHY DO YOU NEED TO KNOW THIS?

There are many acronyms used in K-12 computer science—and deciphering them can be challenging.

### HOW DOES THIS TOOL HELP?

This quick reference sheet describes some of the most common acronyms used in computer science education, and provides links to more detailed lists in other places. See the **Computer Science Terminology** tool for more in-depth explanations of computer science terminology.

## EDUCATION-SPECIFIC TERMINOLOGY

### CS in K12 - the Basics

---

#### CS

#### Computer Science

CS stands for computer science, which is often described as the study of computers and algorithmic processes.

#### CT

#### Computational Thinking

CT refers to the thought processes involved in formulating a problem and expressing its solutions in ways that a computer can carry them out.

#### CTE

#### Career and Technical Education

CTE is a federal program that typically includes an information technology and/or computer science strand, offered in middle schools, high schools, area career and technical centers, community and technical colleges, and other postsecondary institutions to prepare learners for a range of careers. Secondary and postsecondary CTE programs are supported by the Carl D. Perkins Act. <https://www.actedonline.org/general.aspx?id=814#.U-FGw4BdUnY>

#### ICT

#### Information and Communication Technology

ICT refers to technologies that provide access to information through telecommunications.

**IT Information Technology**

IT refers to anything related to computing technology but emphasizes the technology tools and their use.

---

**Instructional Resources**

---

**ECS Exploring Computer Science**

ECS is a yearlong introductory computer science program that includes instructional resources comprised of 6 units, approximately 6 weeks each. ECS is designed to be accessible to any high school learner without computing experience and experience and includes intensive teacher professional development. <http://www.exploringcs.org/>

**AP CSP AP Computer Science Principles**

AP CSP is a new Advanced Placement (AP) computer science course under development to launch Fall 2016. This course is often referred to simply as “CSP.” AP CSP focuses on the creative aspects of computing and computational thinking practices to show how computing impacts everyday lives. It is aligned with seven big ideas and six computational thinking practices and includes performance tasks. AP CSP is an adjunct to the APCS A course. The first AP CSP exam is scheduled for May 2017. <https://advancesinap.collegeboard.org/stem/computer-science-principles>

**AP CSA Advanced Placement Computer Science A**

AP CSA is equivalent to a first-semester, college-level course in computer science focused on computing skills related to programming in Java. The “A” is a remnant from a period in which the College Board supported a second AP Computer Science course called the “AB” which was the equivalent of a 2nd semester college course in data structures. The AB course was discontinued in 2009. The College Board provides a topic outline for teachers to construct a course around preparing students for the AP exam. [http://apcentral.collegeboard.com/apc/public/courses/teachers\\_corner/4483.html](http://apcentral.collegeboard.com/apc/public/courses/teachers_corner/4483.html)

**BJC The Beauty and Joy of Computing**

BJC is a set of introductory computer science resources developed at the University of California, Berkeley, for non-CS undergraduate students and high school students. These materials can be combined with other resources. BJC was one of the initial pilot programs for for the AP CSP course. <http://bjc.berkeley.edu/index.html>

**PLTW**      **Project Lead the Way**  
PLTW is a provider of science, technology, engineering, and math programs, including computer science. PLTW provides curriculum, professional development, and assessment tools for computer science <https://www.pltw.org/pltw-computer-science-curriculum>

## Initiatives

---

**TEALS**      **Technology Education and Literacy in Schools**  
TEALS is a program originating at Microsoft that engages computer science professionals in team teaching/partnering with high school teachers. <http://www.microsoft.com/about/corporatecitizenship/en-us/youthspark/computerscience/teals/>

**CS4HS**      **Computer Science for High School**  
CS4HS is a Google annual grant program promoting computer science education worldwide by connecting educators to skills and resources to teach computer science and computational thinking. <http://www.cs4hs.com/>

**AccessComputing**      **The Alliance for Access to Computing Careers**  
AccessComputing's purpose is to increase participation of people with disabilities in computing fields by helping students with disabilities successfully pursue undergraduate and graduate degrees in computing fields, and working to increase the capacity of postsecondary institutions and other organizations to fully include students with disabilities in computing courses and programs. <http://doit-prod.s.uw.edu/accesscomputing>

**ECEP**      **Expanding Computing Education Pathways**  
ECEP is an alliance to improve and broaden participation in computing education by supporting state-level computing education reforms. <http://expandingcomputing.cs.umass.edu/>

**CAITE**      **Commonwealth Alliance for IT Education**  
CAITE is led by the University of Massachusetts Amherst with the intent of designing and carrying out comprehensive programs that address underrepresentation of people of color and women in information technology (IT) education and the workforce. <http://caite.cs.umass.edu/>

## Organizations, Coalitions, or Communities

---

**ACM**      **Association for Computing Machinery**

ACM is an international educational and scientific computing society that delivers resources (including a Digital Library) that advances computing as a science and a profession. <http://www.acm.org/>

**SIGCSE**      **Special Interest Group on Computer Science Education**

(part of ACM)

SIGCSE is one of many “SIGs” that fall under the ACM umbrella (<http://www.acm.org/sigs>). SIGCSE provides a forum for computer scientists and computer science educators to discuss issues related to the development, implementation, and/or evaluation of computing programs, curricula, courses, syllabi, laboratories, and other elements of teaching. <http://www.sigcse.org/>

**CSTA**      **Computer Science Teachers Association**

CSTA is a membership organization that supports and promotes the teaching of computer science and other computing disciplines. CSTA provides opportunities for teachers to better understand the computing disciplines and helps them prepare to teach and learn computing. <http://csta.acm.org/index.html>

**ISTE**      **International Society for Technology in Education**

ISTE is a nonprofit organization serving educators and education leaders committed to using educational technology to empower connected learners in a connected world. <https://www.iste.org/>

**CAS**      **Computing at School**

CAS provides leadership and strategic guidance to those involved in computing education in schools with a focus on the UK. The CAS Working Group aims to promote the teaching of computer science at school. <http://www.computingatschool.org.uk/>

**CinC**      **Computing in the Core**

CinC was a non-partisan advocacy coalition of associations, operations, scientific societies, and other non-profits that strive to elevate computer science education to a core academic subject in K-12 education. Computing in the Core has now merged with the Code.org Advocacy Coalition. <https://code.org/advocacy>

<b>NCWIT</b>	<b>National Center for Women &amp; Information Technology</b> (pronounced: “en-see-wit”) NCWIT is a non-profit organization of corporations, academic institutions, government agencies, and non-profits working to increase women’s participation in technology and computing. NCWIT helps recruit, retain, and advance women from K-12 and higher education by providing community, evidence, and action. <a href="http://www.ncwit.org/">http://www.ncwit.org/</a>
<b>ACCESS</b>	<b>Alliance for California Computing Education for Students and Schools</b> ACCESS is a statewide network of computer science education leaders. ACCESS advocates for high quality K-12 computer science education in California and on ensuring its accessibility to all students. <a href="http://access.ics.uci.edu/">http://access.ics.uci.edu/</a>
<b>CRA</b>	<b>Computing Research Association</b> (university level) CRA is an association of computer science institutions and organizations that works to enhance innovation to strengthen research and advance education in computing. <a href="http://cra.org/">http://cra.org/</a>
<b>CDC</b>	<b>Coalition to Diversify Computing</b> (university level) CDC is an organization working to diversify computing. <a href="http://www.cdc-computing.org/">http://www.cdc-computing.org/</a>
<b>CS 10K</b>	<b>CS 10K</b> CS 10K is a National Science Foundation (NSF) initiative to have rigorous CS courses in 10,000 high schools taught by 10,000 high quality teachers by 2016. <a href="http://cs10kcommunity.org/">http://cs10kcommunity.org/</a>
<b>CS 10K CoP</b>	<b>CS 10K Community of Practice</b> CS 10K CoP is a component of the National Science Foundation (NSF) CS 10K project (see above). It is an on-line space for sharing resources and communication about CS 10K and other computer science work. <a href="http://cs10kcommunity.org/">http://cs10kcommunity.org/</a>
<b>CE21</b>	<b>Computing Education for the 21st Century</b> CE21 is an NSF program focused on K-12 computer science education. CS 10K is part of CE21.
<b>MSPnet</b>	<b>Math and Science Partnership network</b> MSPnet is an electronic community that serves all educators interested in improving Science, Technology, Engineering, Mathematics, and Computer Science. It supports the National Science Foundation STEM+C Partnership program. <a href="http://hub.mspnet.org/">http://hub.mspnet.org/</a>

- STEM+C**      **Science, Technology, Engineering, and Mathematics, and Computing Partnerships**  
STEM+C is a component of the National Science Foundation (NSF) that consolidates and advances the efforts of the Math and Science Partnership (MSP) and the Computing Education for the 21st Century (CE21) NSF programs. [http://www.nsf.gov/funding/pgm\\_summ.jsp?pims\\_id=505006](http://www.nsf.gov/funding/pgm_summ.jsp?pims_id=505006)
- CISE**      **Directorate for Computer & Information Science & Engineering at the National Science Foundation.**  
CISE is a directorate of the National Science Foundation that supports investigator initiated research in all areas of computer and information science and engineering, fosters broad interdisciplinary collaboration, helps develop and maintain national computing and information infrastructure for research and education, and contributes to the development of a computer and information technology workforce. <http://www.nsf.gov/cise/about.jsp>
- STARS**      **Students and Technology in Academia, Research and Service**  
STARS is a non-profit dedicated to building and preparing a larger, more diverse national computing workforce for the 21st Century. <http://www.starscomputingcorps.org/>
- iAAMCS**      **Institute for African-American Mentoring in Computer Science**  
iAAMCS (pronounced 'I am cs') is a national resource for all university-level African-American computer science students and faculty working to increase the number of African-Americans receiving PhD degrees in computing sciences, promoting and engaging students in teaching and training opportunities, and adding more diverse researchers into the advanced technology workforce. <http://www.iaamcs.org/>
- CAHSI**      **Computing Alliance of Hispanic-Serving Institutions**  
CAHSI was formed to increase the number of Hispanic students who pursue and complete baccalaureate and advanced degrees in the Computer and Information Sciences and Engineering areas. <http://cahsi.cs.utep.edu/>

For a helpful glossary of computer science terms, see the [Computing at School teacher guide](#), p. 28-29.

To learn more about acronyms common to technology and computing fundamentals, see these helpful resources:

- The [Tech Terms Computer Dictionary](#)
- [WhatIs.com Computing Fundamentals Glossary](#)
- Wikipedia encyclopedia for [Computing and IT abbreviations](#)

Copyright © 2015 by University of Chicago

Suggested citation:

[LeadCS.org](#) (2015). **Computer Science Education Acronyms**. CEMSE, Outlier Research & Evaluation, University of Chicago. <http://www.leadCS.org>