

TEALS



<http://www.tealsk12.org/>

TEALS supports two course levels of introductory high school computer science:

- Introduction to Computer Science
- AP Computer Science A

Introduction to Computer Science – is a one-semester class based on *The Beauty and Joy of Computing* at UC Berkeley. This is a broad-based intro class that uses the Snap! or Scratch visual programming language to introduce students to computational thinking.

This course will teach students how to program, using *Snap!* (based on *Scratch*), one of the friendliest programming languages ever invented. It's purely graphical, which means programming involves simply dragging blocks around, and building bigger blocks out of smaller blocks. The course also focuses on some of the "Big Ideas" of computing, such as abstraction, design, recursion, concurrency, simulations, and the limits of computation. It will review some beautiful applications of computing that have changed the world, talk about the history of computing, and where it will go in the future. Throughout the course, relevance will be emphasized: relevance to the student and to society. As an example, the final project will be completely of the students' choosing, on a topic most interesting to them. The overarching theme is to expose students to the beauty and joy of computing.

AP Computer Science A – is the standard Introduction to Java Programming. The curriculum is based on University of Washington's CSE 142 course, including basic programming-in-the-small abilities and concepts including procedural programming (methods, parameters, return values), basic control structures (sequence, if/else, for loop, while loop), file processing, arrays and an introduction to defining objects. Students are expected to take the AP exam in May.