

## Extracurricular Activities

### Google's CS First Video Game Design Club

In Game Design, students learn basic video game coding concepts by making different types of games including racing, platform, launching, and more!

### Girls Who Code Club

Girls Who Code promotes equity in computing by inspiring female students in Grades 6-8 to learn coding and computer science concepts.

### Field Trips

Students participate in field trips that provide hands on activities related to coding, computing, engineering, and science. These empowering field trips aim to inspire our students to pursue careers in the STEM field.



## Resources and Information

### AZ K-12 CS Standards

<http://bit.ly/azcompstandards>

### Code.org State of CS (2018)

<http://bit.ly/stateofscience>

### Code.org Stats

<http://bit.ly/codestats>

### K-12 CS Framework

<http://bit.ly/sciframework>

## Contact Us

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# CREATIVE CODING AND COMPUTATIONAL THINKING





## What is Coding?

### CODING

#### /kŌDɪŋ/

Coding (also called programming or developing) is telling a computer, app, phone, or website what you want it to do.

## Why should my child learn to code?

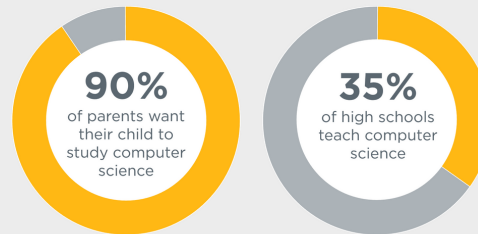
- Programming helps children learn to problem solve.
- Coding teaches children how to think.
- A child expands their creativity when they learn how to code.
- Computer programming is the future.
- Coding is learning while having fun!



## Preschool and Kindergarten

In preschool and kindergarten, Desert Meadows students learn and build on the fundamental skills of coding. Students explore algorithms (steps to a process) and programming through hands-on activities. Emerging coders begin to view computer science as exciting, collaborative and fun.

### The majority of schools don't teach computer science



## Grades 1-2

In Grades 1-2, Desert Meadows students are introduced to Code.org's Fundamentals program and are also encouraged to make coding connections within their core content areas. Students start to use computers to begin writing algorithms and programs that contain loops and sequences to solve a problem.

## Grades 3-5

Students in the upper elementary grades experience coding and computational thinking through a variety of computing devices, hardware, and software programs.

At these levels students are able to write programs following a specific sequence, using loops and variables to solve problems. Students also use similar drag and drop programming to build programs and projects that integrate core subject standards and topics.

### Computing jobs are the #1 source of new wages in the US

**500,000**  
current openings

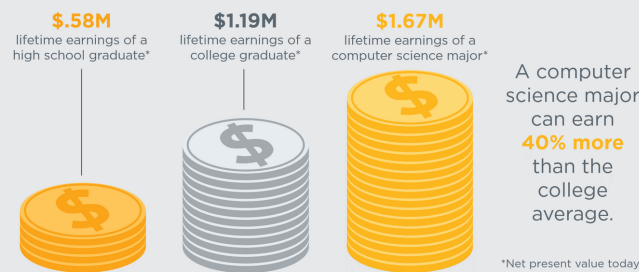
These jobs are in every industry and every state, and they're projected to grow at twice the rate of all other jobs.

**HELP  
WANTED**

## Grades 6-8

Students in Computer Science Discoveries follow a curriculum to engage with computer science concepts as a means for creativity, communication, problem-solving, and fun. Students at this level begin to utilize their knowledge of drag and drop programming to learn beginner HTML and CSS code to create multi-page websites. They also learn "drag and drop" JavaScript coding to create animations and games. Students explore real-world scenarios involving computer programming, data, and physical computing.

### The value of a computer science education



\*Net present value today