

AP Computer Science A

Hello ! Young Coders

Get ready to fall in love with AI & coding

Accredited by





About Codingal

Our Mission: To inspire kids and teens to fall in love with AI & coding

Codingal is a leading online after-school where kids & teens learn AI & coding from expert instructors through live, interactive classes. Our mission is to build the world's largest & most loved programming school for kids & teens, powered by human & AI tutors.

All our instructors come from Computer Science background, and they are rigorously vetted and trained. Every student gets a personalized learning path and individual attention in 1:1 private classes or small group classes with expert instructors. Students learn by building apps, games, animations, and websites in a fun & engaging way.

Kids find Codingal very fun & engaging. They have rated teachers at 4.9 out of 5. Curriculum content is rated at 4.8 out of 5.

Codingal is on a mission to inspire kids to fall in love with AI & coding, and provide the right education to them who will be able to create anything they can imagine and build the future when they grow up to become entrepreneurs, engineers, and scientists.





Founder's Note



Block



Teaching coding and AI to kids is a profound responsibility. Our dedicated educators and meticulously crafted curriculum reflect our deep understanding and commitment to nurturing future innovators.

Vivek Prakash

Co-founder & CEO
B.Tech & M.Tech, IIT Roorkee



Learning to code is not just about reaching new heights like going to Mars or the moon. Coding, along with AI, equips kids with the skills to think critically and creatively, empowering them at multiple levels.

Satyam Baranwal

Co-founder & COO
B.Tech, IIT Dhanbad



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Codingal empowers kids to become innovators of the future



Bl

Why should kids learn coding?



Coding is the new literacy.

In recent years, technology has made inroads into all aspects of our lives. We've come to rely on websites, apps and gadgets to help us through the day, be it at work or at home.

Given the enormous role technology is going to play in the future, teaching kids to code is the best way to prepare them for success.



What are the benefits of learning coding?



- Helps develop problem solving skills
- Boosts analytical and structural thinking abilities
- Enhances creativity and imagination
- Helps find innovative solutions to real-life issues
- Helps develop resilience

Why this curriculum?



- Accredited by STEM.org
- Rated 4.6 out of 5 by students and parents
- Based on BIDE (Broad, Inspiring, Deep and Efficient) model
- Focus on STEAM (Science, Technology, Engineering, Arts, Math) subjects
- Enhances cognitive, logical, and computational skills
- Makes learning highly effective, interactive, and fun

HTML



CSS



JS



thankable



Foundation of our curriculum

Accredited by



BLOOM

Bloom's Taxonomy is a standard guideline for K-12 content development, which includes 6 stages of learning: Remember, understand, apply, analyze, evaluate and create.

BIDE

The BIDE (Broad, Inspiring, Deep and Efficient) model has been developed by Codingal in-house to ensure that our curriculum caters to the unique learning style of every child.

STEAM

STEAM is an approach to learning that uses Science, Technology, Engineering, the Arts and Mathematics as access points for guiding student inquiry, dialogue, and critical thinking.



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Covers K-12 Computer Science Framework compliant



Enhance your kid's Math and Science concept with Codingal

Blog

```
Operations on Sets

Show files

Set : {1, 2, 3, 4}
Updated Set: {1, 2, 3, 4, 5}

Set 1 {1, 2, 3, 4, 5}
Set 2 {2, 4, 6}
Difference
{1, 3, 5}
```

Set Operations

Our engineered coding courses cover essential math concepts like prime numbers, factorials, sets, statistics, probability, etc., helping students understand the concepts and implement them in the practical world. It also helps them in building strong logic for problem-solving.

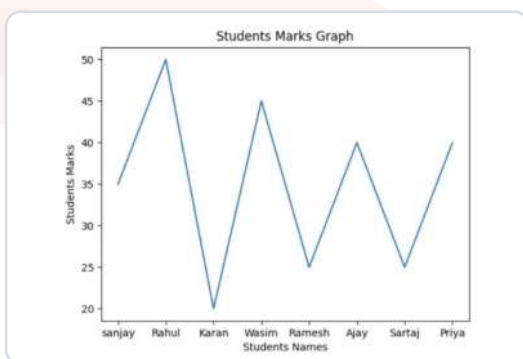
Coders must strengthen their algorithmic and computational thinking to write a line of code that works well and is bug-free. And what is a possible way of thinking at their core? Math.

```
Prime Number Check

Show files

Enter number to be checked :29
29 is a prime number
```

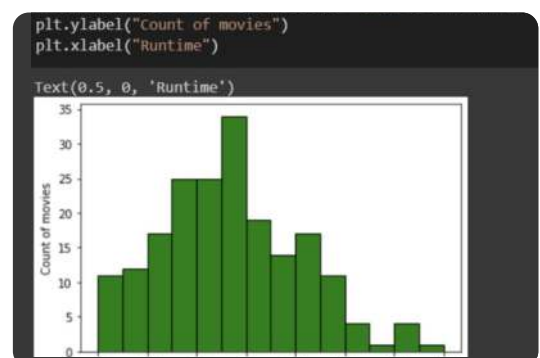
Prime Number Check



Students' Marks Graph

Our teachers provide individual attention to kids, customize projects based on their interests and make them fall in love with Coding, Math, and Science.

With all the data available, Math plays a vital role in identifying various patterns and answering questions to explain human behavior for implementing the same while automating a task. This is where coding and Math go hand in hand.



IMDB Ratings Data Analysis



AP Computer Science A - Overview (1)

A course to advance your coding skills in Java programming and cover all relevant topics related to AP Computer Science A Exam.

48 Classes
100+ Projects
48 Quizzes



Key learnings

- ✓ Foundation of Java
- ✓ Data Structures and Algorithms
- ✓ Learn to solve free response questions
- ✓ Object Oriented Programming
- ✓ Searching & Sorting Algorithms



Achievements

- ✓ Problem solving
- ✓ Critical thinking
- ✓ Confidence boost
- ✓ Hands on programming projects

Module 1

Introduction to Java

Learn the basics of the most popular language, i.e. Java, with the help of different activities. Learn about data types, conditionals, loops and functions. In addition, also learn to create patterns.

Language:

Java

Platform:

Repl.it

6 Lessons & 15+ Projects

Module 2

Object Oriented Programming Using Java

Continue your journey in java by working on OOPs concepts, i.e., Classes, Objects, Libraries, Polymorphism, Encapsulation, Inheritance, Abstraction and last but not least file handling.

Language:

Java

Platform:

Repl.it

6 Lessons & 15+ Projects



Java Programmer Certificate

Module 3

Practice questions on OOPS

Learn to solve the free response question asked previously in the AP Computer Science A Exam about the OOPs concept.

Language:

Java

Platform:

Repl.it

6 Lessons & 15+ Projects



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AP Computer Science A - Overview (2)

Module 4

Arrays, 2-D Arrays & Arraylist in Java

In this module, we will elaborate on the concepts of arrays, 2d Arrays & ArrayList. That will help you to know how arrays get space in the heap and memory mapping.

Language:

Java

Platform:

Repl.it

6 Lessons & 15+ Projects

Module 5

Introduction to recursion

In recursion, we will help you to make a firm grasp of the recursion process, recursive function and how recursion works.

Language:

Java

Platform:

Repl.it

6 Lessons & 15+ Projects



Basic DSA Programmer Certificate

Module 6

Introduction to Searching & Sorting

Learn about Searching and Sorting algorithms, concepts and implementation using Java.

Language:

Java

Platform:

Repl.it

6 Lessons & 15+ Projects

Module 7

Introduction to Strings

Learn about Palindrome, Anagram, and Basic Problem Solving in strings.

Language:

Java

Platform:

Repl.it

6 Lessons & 15+ Projects

Module 8

Practice Question on Arrays

Learn to solve the free response question asked previously in the AP Computer Science A Exam about the Arrays concept.

Language:

Java

Platform:

Repl.it

6 Lessons & 15+ Projects

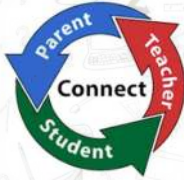


AP Computer Science A Champion Certificate





Top 10 benefits of learning at Codingal



1. Regular PTM

Great opportunity for parents and teachers to open two-way communication and to share insights and information for the holistic development of a child.



2. Regular doubt session

After every module solve all your queries in this personalized session. The toughest problems addressed – concepts revised and doubts cleared!



3. Engaging quizzes

Quizzes are fun and help us remember important facts. These well-targeted and tailor-made quizzes will boost self-esteem and confidence among kids.



4. Thrilling competitions

Regular competitions are conducted to encourage students to showcase their skills and develop their ideas.



5. Learning Certificates

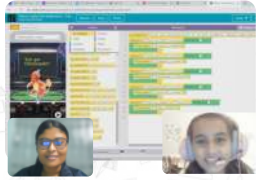
Show the world what you can do with a certificate for every amazing skill you master.



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Top 10 benefits of learning at Codingal



6. Live personalized classes

Understand concepts faster with personal attention from teachers. Learn coding from highly qualified teachers trained to make learning effective and impactful.



7. Lifetime access to class videos

Forgot what was taught in the last class? No worries. Watch the recorded class video anytime to refresh your memory.



8. Lifetime access to resources

Get lifetime access to our exclusive learning content including DIY sheets, videos, and other resources.



9. Gamified learning

Codingal makes learning fun with gamification. Students can take quizzes or complete projects to earn points, badges, and rewards.



10. After class projects

For each class, students have the opportunity to complete an after-class project, enabling them to apply what they've learned, test their skills, and receive valuable feedback from their teacher.



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Students and parents love Codingal



Leo Gate

Grade 11,
Codingal Student



The AP Computer Science A course at Codingal has helped me understand coding through exploring concepts of OOPs in Java, data structures and algorithms.



Zeni Fincher

Grade 12,
Codingal Student



I went through multiple practice questions. The AP Computer Science A course introduced me to Java programming concepts including arrays, recursion and strings.



Dan Petra

Real Estate

Codingal Parent



My son is preparing for college. This course has helped him test his programming knowledge. The Course challenge can really help your child understand what they need to review.



Jay

IT professional

Codingal Parent



My daughter got familiar with the concepts of Java programming. This course is best suited for my child as the school she attends does not provide a similar class.



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Coding- Gateway to success in the future

“

Now is a great time to be entering the coding world because technology will change more in the next 10 years than it has in the last 50.

- Bill Gates



“

Whether you want to uncover the secrets of the universe, or you just want to pursue a career in the 21st century, basic computer programming is an essential skill to learn.”

- Stephen Hawking





Begin your kid's AI & coding journey

Is your child ready for the future?

Start their AI & coding journey
with Codingal today.

Thank You

Built by alumni of



Combinator



Backed by

Accredited by



Got questions?
Contact us
anytime.

Send us a message



support@codingal.com

Call us



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