Designed for K-12 Computational Thinking Learners

Shaping the Next Generation of Thinkers

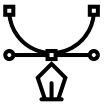
Coding Galaxy

Computational Thinking in Everyday Life

Using everyday examples to illustrate computational thinking and programming concepts, the course encourages students to apply their learning to solve daily problems.

Cross-curricular Integration

Course contents involve applications across different subjects, such as Chinese and mathematics to achieve a thorough understanding of the concepts.



A Variety of Learning Activities

A multitude of online and unplugged learning activities, such as interactive games and group discussions allow students to effectively learn from multiple contexts and experience practical applications of computational thinking.

Foundation | Elementary | Advanced

Course Information

Targeted at students aged 5 to 7 years old, with no prior coding experience needed, at 16 teaching hours in total.

Key Concepts

- Sequences
- Debugging
- Loops
- Decomposition
- Events
- Parallelism

Learning Objectives

- Identify basic programming and computational thinking concepts
- Apply concept of sequences to illustrate daily activities
- Analyze simple problems in a systematic way
- Predict the outcome from executable instructions
- Revise plan according to the outcome of a trial

Learning Analytics Report

Students' experiential data from learning activities is analyzed by an artificial intelligence (AI)-powered engine, which generates insightful graphical reports to aid teachers in keeping track of students' learning progress and performance to ensure they are at the correct place in the learning path.

- Recognize loops and their use

International Standard

Coding Galaxy's curriculum maps to many international standards of computer science education.

For example, Coding Galaxy is in alignment with the CSTA K-12 Computer Science Standard which is developed by Computer Science Teachers Association (CSTA), a professional association that supports and encourages education in the field of computer science and related areas. The standard introduces the fundamental concepts of computer science to all students, beginning at elementary school level.

Let's see how Coding Galaxy aligns with the standard:

Computational Thinking | Computing Practice and Programming

L1:3.CT.1	Use technology resources (e.g. puzzles, logical thinking programs) to solve age-appropriate problems
L1:6.CT.1	Understand and use the basic steps in algorithmic problem-solving (e.g., problem statement and exploration, examination of sample instances, design, implementation and testing).
L1:6.CT.2	Develop a simple understanding of an algorithm (e.g., search, sequence of events or sorting) using computer-free exercises.
L2.CT.1	Use the basic steps in algorithmic problem-solving to design solutions (e.g., problem statement and exploration, examination of sample instances, design, implementing a solution, testing and evaluation).
L2.CT.2	Describe the process of parallelization as it relates to problem solving.
L2.CT.3	Define an algorithm as a sequence of instructions that can be processed by a computer.
L2.CT.4	Evaluate ways that different algorithms may be used to solve the same problem.
L2.CT.6	Describe and analyze a sequence of instructions being followed (e.g., describe a character's behavior in a video game as driven by rules and algorithms).
L2.CT.12	Use abstraction to decompose a problem into sub problems.
L3A.CT.1	Use predefined functions and parameters, classes and methods to divide a complex problem into simpler parts.

Join Coding Galaxy's Global Community

Contact Coding Galaxy classroom for details

Find a classroom