

ARK Educate Elementary Curriculum Overview

ARK Educate's Elementary modules inspire students to think like innovators by exploring disruptive technologies and creative problem solving. Each module is designed to build knowledge and skills progressively through mediated discussion, hands-on learning, and independent inquiry. Students explore real-world challenges, examine the relationship between technology and ethics, and approach problems with curiosity and creativity.

Modules are designed to be adopted based on students' interest and readiness. Teachers receive training and ongoing support in Innovation Mindset, Problem-First Thinking, Mediated Learning, and lesson implementation.

Innovation Solves Problems

Students are introduced to innovation and problem-first thinking by exploring how creative ideas can solve real-world challenges, such as access to clean water and new ways of building sustainable infrastructure. Through hands-on activities, students build foundational computational thinking skills and learn the basics of design thinking.

Introduction to Robotics

Students use Edison robots to explore how technology can solve real-world farming challenges. Students learn about sensors, data interpretation, pattern recognition, and begin block-based programming to develop computational thinking and collaborative problem-solving skills.

Introduction to Autonomous Systems

Students explore the science and ethics of autonomous flight. They study flight principles, drone applications in fields such as conservation and infrastructure, and practice piloting skills through safe, hands-on simulations that connect technology with real-world impact.

Introduction to Artificial Intelligence

Students discover what AI is, how it works, and how it influences daily life. Through experiments in machine learning and image recognition, they examine decision-making, ethics, and safety in AI, culminating in a mini-research presentation on AI in society.

3D Printing and Entrepreneurship

Students identify community problems and prototype practical solutions using 3D printing. They apply design-thinking principles, gather feedback, and refine their products while learning about entrepreneurship, business planning, and financial viability.