

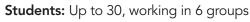


DRONEBLOCKS: CODING WITH DRONES



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ENRICHMENT



Contact Hours: 12+ hours

The camp includes 12 days of activities, each designed to last about one hour. Use one lesson a day, clump them together into larger blocks or break them apart to be worked in one at a time throughout the course of a school year.

Recommended Settings:

- Summer camps
- Classrooms looking for hands-on STEAM activities
- After-school programs

Pricing Options:

- Full kit: \$2995
- Print curriculum only: \$495*
- Digital curriculum download: \$429**

Technical Requirements:

- One smartphone or tablet required per drone as a radio controller (requires iOS 9.0 or later, or Android 4.4.0 or later; not compatible with FireOS, the operating system for Amazon tablets)
- Best if used when an Internet-connected device and video projector are available

Curriculum Topics:

- Aerial Robotics
- Autonomous Drone Operations
- Algorithms & Programming
- Refactoring & Optimizing Code
- Loops, Variables & Conditionals

Assessment:

Formative or summative assessments in the Check for Understanding section found at the end of each lesson.

Materials:

DroneBlocks Camp comes with an Instructor Guide, a digital curriculum download and all the supplies needed for 12 days of activities:

- Brick minifigs: 6
- DJI Tello programmable mini quadcopters: 6
- Indoor obstacle course: 6 free-standing keyhole gates
- Introduction to DroneBlocks online course student licenses: 50
- LiPo safe storage bag: 1
- Playing cards: 6 decks
- Safety glasses: 30
- Stopwatches: 6
- Storage tubs: 1
- Tape measures: 6
- Tello brick adapters: 6
- Tello hard shell carry cases: 6
- Tello LiPo batteries: 12
- Tello LiPo battery multi-charger: 4
- Tello prop guards (extra set of 4): 6
- Tello propellers (extra set of 4): 6
- USB charging cables: 6
- USB multi-port wall charger: 1

Logistics and Storage:

Each camp is shipped in a sturdy, reusable tub, safely storing materials during camp and throughout the year.

Training Available:

Professional development webinar training is available. Speak with a PCS STEAM Program Specialist for more information.

Shipping Availability:

Check with a PCS STEAM Program Specialist.

Not available in Connecticut, New Jersey and New York.

- * includes *Instructor Guide*, 50 student licenses to Introduction to DroneBlocks online course
- ** includes PDF of *Instructor Guide* and 50 student licenses to Introduction to *DroneBlocks* online course



Alignments & Standards

Habits of Mind:

16 "thinking habits" developed by Art Costa and Bena Kallick to empower students to succeed in a 21st century learning environment.

- Thinking and Communicating with Clarity and Precision
- Thinking Interdependently

21st Century Skills:

A set of widely-applicable abilities essential for success in the information age.

- Information, Media, and Technology Literacy
- Communication and Collaboration

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CCSS

Aligned to International Technology and Engineering Educators Association (ITEEA) standards for technological literacy.

- CCSS.MATH.CONTENT.4.MD.A.1. Know relative sizes of measurement units within one system of units including km, m, cm; kg, g; lb, oz.; l, ml; hr, min, sec.
- CCSS.MATH.CONTENT.4.MD.C.5. Recognize angles as geometric shapes that are formed wherever two rays share a common endpoint, and understand concepts of angle measurement.
- CCSS.MATH.CONTENT.6.EE.A.2. Write, read, and evaluate expressions in which letters stand for numbers.
- CCSS.MATH.CONTENT.6.EE.B.6. Use variables to represent numbers and write expressions when solving a real-world or mathematical problem; understand that a variable can represent an unknown number, or, depending on the purpose at hand, any number in a specified set.

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ISTE

Aligned to International Technology and Engineering Educators Association (ITEEA) standards for technological literacy.

• 17c. Students contribute constructively to project teams, assuming various roles and responsibilities to work effectively toward a common goal.

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ICSS

Idaho Computer Science Standards, built on the interim 2016 CSTA (Computer Science Teachers Association) standards

- 3-5.AP.07. Construct an algorithm to accomplish a task, both independently and collaboratively.
- 3-5.CS.01. Create code to model intelligent behavior in computing devices (e.g. CS unplugged activities, robot programming).
- 3-5.IC.02. Explore the connections between computer science and other fields.
- 6-8.AP.02. Compare different algorithms that may be used to solve the same problem by time and space efficiency.
- 6-8.AP.04. Apply an iterative design process (define the problem, generate ideas, build, test, and improve solutions) in problem-solving, both individually and collaboratively.
- 6-8.CS.01. Exemplify how computational devices impact the quality of life (both positively and negatively) and enhance the ability of people to perform work, communicate, and interact with others.





FOR MORE INFORMATION sales@edventures.com (800) 429-3110