CODING FOR KIDS

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CENTER FOR GLOBAL DIPLOMACY

Year-Round Program Ages 6-12

CODING FOR KIDS

Unit 1: Coordinates & Basic Commands

40 pages | wire-o spiral bound | full color

Unit 1: Coordinates & Basic

Commands is where all students should begin their journey into typed app coding with Bitsbox.

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CODING FOR KIDS

Unit 1: Coordinates & Basic Commands

Each book introduces a new fundamental computer science concept, with subsequent books spiraling back to previously-seen concepts and coding commands. Each set of books includes a unit-specific *Educator's Guide* with line-by-line code explanations, challenge solutions, and journaling suggestions for each app project.

Unit 1: Coordinates & Basic Commands is where all students should begin their journey into typed app coding with Bitsbox. The apps in Unit 1 illustrate the use of 2D coordinates in graphics programming, as well as Bitsbox's `fill`, `stamp`, and `text` commands.

This book includes **10 open-ended projects**, divided into 3 project types:

How Do I? Apps

These examples answer common student questions about coding their own apps.

- **Simple Safari** | **4** lines of code
  How do I place a stamp exactly where I want?
- **Pixel Pet Store** | **3** lines of code
  How do I make a stamp exactly the size I want?

Project Apps

These examples provide the code needed to build each app, along with challenges that enhance their understanding of the material.

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- **Getting Started Mini Apps** | **3** + **2** + **2** lines of code
  These three super-short examples lay out the basics of using the `fill`, `stamp`, and `text` commands.
- **Doggleheads** | **4** lines of code in **1** code section
  Combine different heads and bodies to create new dogglehead breeds!
- **Birthday Card** | **6** lines of code in **1** code section
  Make your own birthday card app and send it to your friends!
- **It's Raining Cats and Dogs** | **11** lines of code in **1** code section
  Feline adventurous? Don't step in a poodle.
- **Eat You Up!** | **15** lines of code in **3** code sections
  Code a hilarious short story involving two former friends.
- **Run Dodo Run** | **18** lines of code in **3** code sections
  Jump over evil windmills without going extinct!

Challenge Apps

No code provided! These examples challenge students to code an app based only on an image and a description of the final product.

- **Red Carpet** | **6** lines of code (as assigned)
  Use code to put these movie stars where they belong!
- **Card Hero** | **14** lines of code (as assigned)
  A giant virtual cake is almost as good as the real thing.

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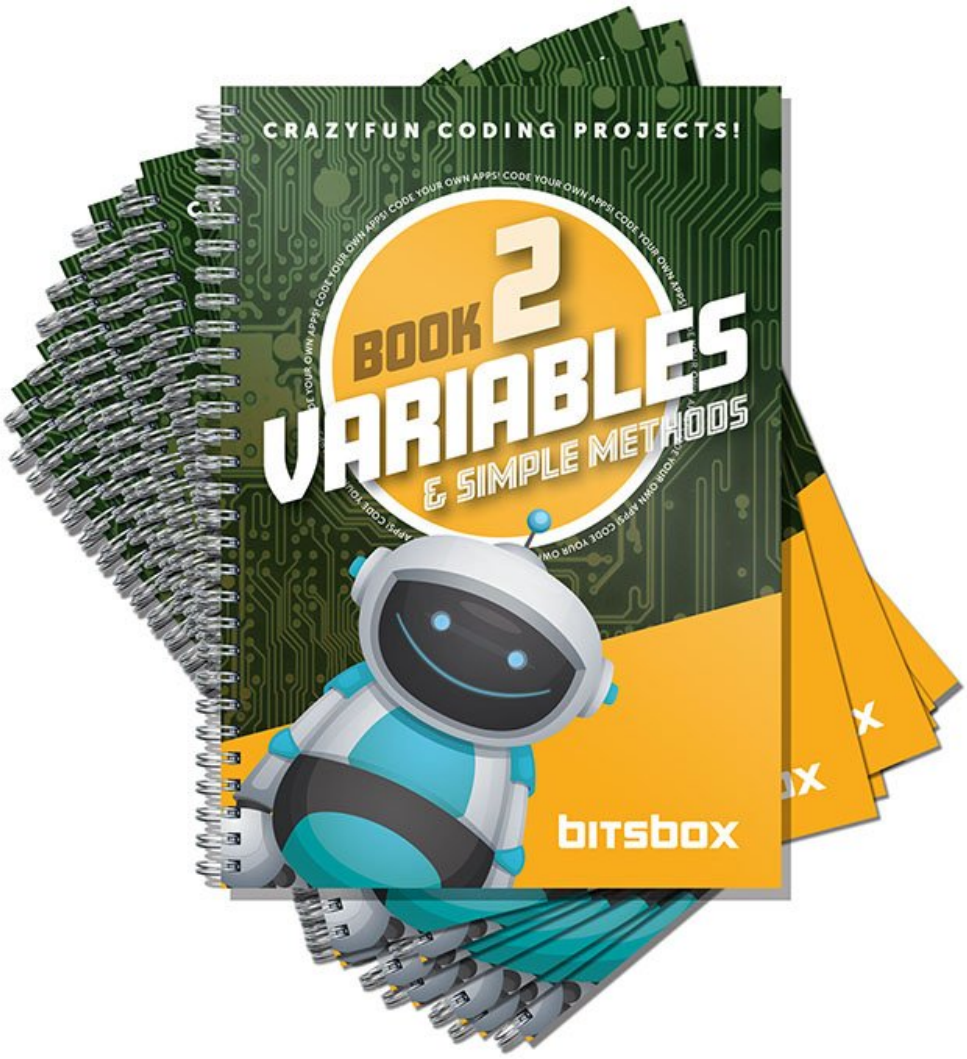

Unit 2: Variables & Simple Methods

40 pages | wire-o spiral bound | full color

Unit 2: Variables & Simple Methods introduces the use of placeholders for values and making code easier to change.

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Unit 2: Variables & Samples Methods

Each book introduces a new fundamental computer science concept, with subsequent books spiraling back to previously-seen concepts and coding commands. Each set of books includes a unit-specific *Educator's Guide* with line-by-line code explanations, challenge solutions, and journaling suggestions for each app project.

Unit 2: Variables & Simple Methods introduces the use of placeholders for values and making code easier to change. The apps in Unit 2 illustrate the use of variables to store numbers, strings, booleans, and Bitsbox stamp objects. These projects also introduce the Bitsbox `move`, `rotate`, and `size` commands.

This book includes **10 open-ended projects**, divided into 3 project types:

How Do I? Apps

These examples answer common student questions about coding their own apps.

- **Invaders From Space** | **4** lines of code
  How do I move stamps to different places?
- **Black Hole Blues** | **5** lines of code
  How do I make a stamp disappear into a black hole?
- **The Lonesome Yeti** | **6** lines of code
  How do I make a stamp appear on the bottom half of the screen at a random size?

Project Apps

These examples provide the code needed to build each app, along with challenges that enhance their understanding of the material

- **Getting Started Mini Apps** | **3** + **4** + **3** lines of code
  These three super-short examples lay out the basics of using the `text`, `.move`, `.rotate`, and `.size` commands.
- **Mars Needs Milk** | **14** lines of code in **2** code sections
  Tap tap tap to suck cows into your flying saucer!
- **Bedbug Bedlam** | **12** lines of code in **1** code section
  Pop the never-ending bedbugs before they take over!
- **Burnie the Artbot** | **12** lines of code in **1** code section
  Draw with Burnie's super hot laser!
- **Castle Defender** | **15** lines of code in **3** code sections
  Create a castle to defend from the evil robot.

Challenge Apps

No code provided! These examples challenge students to code an app based only on an image and a description of the final product.

- **Draw with Droids** | **6** lines of code (as assigned)
  Haven't you always wanted to paint a masterpiece with tiny bots?
- **Welcome to the Wormhole** | **11** lines of code (as assigned)
  Tap to send millions of giant-headed robots into the next dimension!

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Unit 3: Conditionals & Screen Interactions

40 pages | wire-o spiral bound | full color

Unit 3: Conditionals & Screen Interactions introduces how to run code only if certain conditions are met and shows how to use the `tap` and `drag` functions to create interactive apps.

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Unit 3: Conditional & Screening Interactions

Each book introduces a new fundamental computer science concept, with subsequent books spiraling back to previously-seen concepts and coding commands. Each set of books includes a unit-specific *Educator's Guide* with line-by-line code explanations, challenge solutions, and journaling suggestions for each app project.

Unit 3: Conditionals & Screen Interactions introduces how to run code only if certain conditions are met. The apps in Unit 3 illustrate the use of if/else logic and the `tap` and `drag` functions to create interactive apps.

This book includes **10 open-ended projects**, divided into 3 project types:

How Do I? Apps

These examples answer common student questions about coding their own apps.

- **Headache Machine** | **6** lines of code
  How do I do something every time the screen is tapped?
- **Night of the Rubber Chicken** | **6** lines of code
  How do I make a stamp follow the cursor as I drag it around?
- **Bob the Magic Squirrel** | **9** lines of code
  How do I make a stamp change as I drag it around?

Project Apps

These examples provide the code needed to build each app, along with challenges that enhance their understanding of the material.

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- **Bling this Thing** | **10** lines of code in **1** code section
  Tap to add priceless jewels to anything!
- **Frog Prince Donkey** | **15** lines of code in **2** code sections
  Turn a frog into a prince. But watch out sometimes tapping gets you a donkey!
- **What Does the Troll Say?** | **6** lines of code in **1** code section
  Make an app that asks the user to type what the characters say!
- **Flight of the Dragon** | **17** lines of code in **2** code sections
  Fly an awesome animated dragon. Touch the screen to make him turn!
- **Cookiesnitch!** | **45** lines of code in **4** code sections
  Catch as many Cookiesnitches as you can without catching a Vampire Bat!

Challenge Apps

No code provided! These examples challenge students to code an app based only on an image and a description of the final product.

- **333 Little Pigs** | **7** lines of code (as assigned)
  What's better than three little pigs? 333 little pigs!
- **Flushioso Wandini** | **18** lines of code (as assigned)
  Wave your wand to make the gold appear - but watch out!

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Student Journal

Coding Workbooks

40 pages | perfect bound | full color cover

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What's in the Workbooks?

Coding Workbooks are the perfect upgrade for classrooms, libraries, maker spaces, after-school programs, and other groups of students. Workbooks supplement any of the Coding Project Books with 40 worksheets designed for journaling, pseudo-coding, app design, and self-reflection. They're an excellent way for teachers to assess and encourage computer science learning.

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Bitsbox is a learning system that teaches real coding.

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Each level introduces a new computer science concept with a set of crazy fun app projects that come every month!

Hundreds of crazy fun apps to build and share

Here are just a few...

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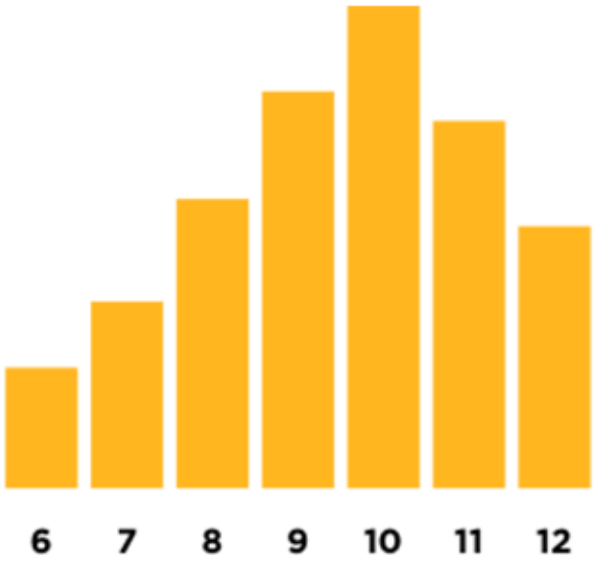
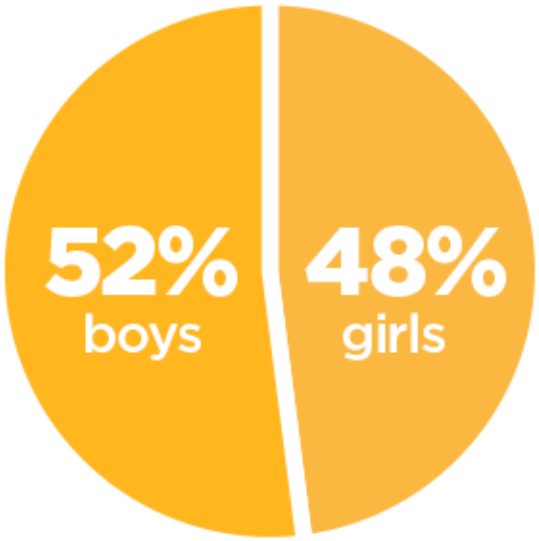
Is Bitsbox right for your kid?

Over a million kids have built apps on our website, and we have subscribers in over **70 countries**.



Bitsbox is designed for 6 to 12 year olds.



Bitsbox appeals to both boys and girls.

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No coding experience needed.

Attention grownups! You don't need to know anything about code to help your kid learn with Bitsbox.

"I have to say that I am absolutely amazed by what my 8 and 10 year olds have learned so far. By the second app they copied, they were able to easily modify the given lines of code and have been experimenting with adding many of their own lines of code, increasing in complexity as they go. They are so motivated by even the simplest app. I've had them explain to their dad what each line of code does, and they really get it! Thank you! I would love to see a referral/affiliate program. We ordered this from Amazon, but will definitely be getting a subscription." **Happy Amazon Customer**

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How it works

1

Kids look through the materials and pick an app.

Every box comes with a mix of coding projects, ranging from simple to more advanced.

2

Kids type the app into the Bitsbox website.

Kids start with the code from the materials, then change it to make it their own.

3

Kids use and share their apps on any mobile device.

Bitsbox apps run on any computer, tablet, or phone with a web browser. Class times to be announced!

4

Kids can register at c4gd.org.

The cost is $45 for each of the three (3) units. The workbook is FREE

GO REGISTER TODAY

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