

# CODING ADVENTURE

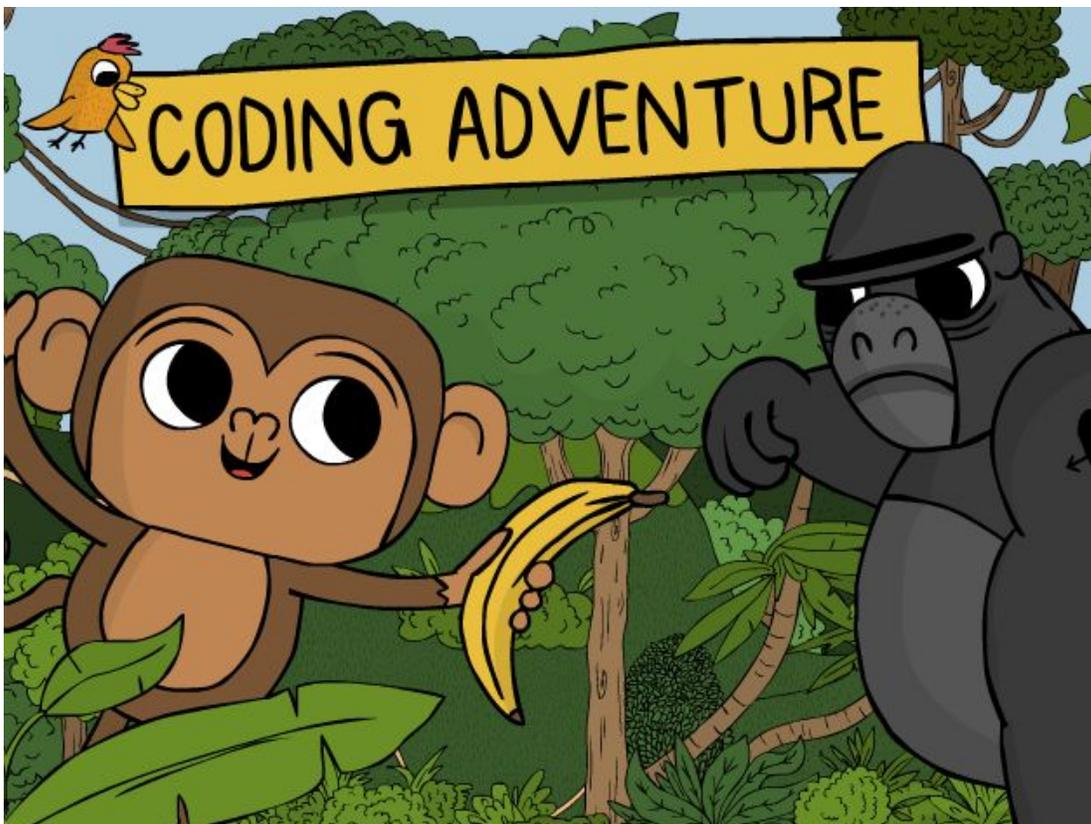
**Write code. Catch bananas. Save the world.**

CSED week 2018

## **Coding Adventure Overview:**

Write REAL Code!

Join an adorable monkey in an hour-long jungle adventure that will introduce your students to the basics of computer science. In the activity, students will advance through a self-paced progression of 30 challenges in which they will help a monkey catch bananas as they write real lines of code.



No matter how much or little coding experience you and your students have, CodeMonkey is engaging, entertaining & educational.

### **Specifications:**

- ★ Ages 8-16.
- ★ Web-based
- ★ Tablet/Ipad/Chromebook Compatible (2014 or later)
- ★ No installation required
- ★ Internet connection required
- ★ Headphones recommended
- ★ Relatively up-to-date versions of Firefox, Chrome, Explorer or Safari

### **A taste of CoffeeScript**

CodeMonkey uses the programming language of CoffeeScript. Coffeescript is similar to JavaScript in that it is primarily used for web applications, however it has a much friendlier syntax that resembles the way we write in English.

### **What to expect:**

The activity starts off with very simple tasks in order to gradually teach students different aspects of coding.

After every challenge, students will get a star score based on their solution.

- ★ One star means you earned all the bananas.
- ★ Two stars means you earned all the bananas and incorporated learned topics.
- ★ Three stars signifies that you caught all the bananas, incorporated learned topics, and did so in concisely.



### **Common Core and CSTA Standards Aligned**

Check out the educational standards Coding Adventure activity addresses [here](#) (Common Core, NGSS and CSTA Standards). CodeMonkey also teaches students problem solving skills, as well as multistep, critical and analytical thinking skills.

### **Prep for Hour of Code**

1. Go through as many challenges as you would like to get familiar with the program.
2. Print out [certificates](#) for your students to take home. Students who have their own email address can request a certificate at the [end of the hour of code](#).
3. Look over the **Coding Adventure Terms** below.

### Coding Adventure Terms:

<p><b>Button</b></p> <p>These buttons will appear on your screen throughout the game. Click on them to automatically write the word in your code.</p>	<p><b>Description</b></p> <p>The basic information you will need while playing.</p>
	<p>To make the monkey "step" a certain distance, write "step X" using the number of steps we want to take, i.e. "step 10".</p>
	<p>"Turn" should be accompanied by a direction (left/right) or degrees (45, 90, 180). i.e. "turn right" or "turn 90".</p>
	<p>"Left" and "right" are used after the statement "turn" to make the monkey turn in the desired direction.</p>
	<p>"turnTo" is another way of turning. Instead of using direction or degrees, we are asking the monkey to turn to a specific object, i.e., "turnTo banana".</p>
	<p>A simple loop is a sequence of instructions that repeats a specified number of times. The instructions we write in the loop should be written underneath it with an indentation (...).</p>
	<p>The ruler helps you measure the distance or angle between different objects in the game. To use the ruler, click it once, and then use your mouse to move the ruler to the point you want it to start measuring from.</p>
	<p>Help monkey collect bananas by writing lines of code. This monkey is very friendly, but doesn't like to get wet.</p>
	<p>Gordo will help you and provide you with instructions along the way. You can always click him to re-read the instructions.</p>
	<p>To move the turtle, we need to write the code in a special way. Prior to the action, write <b>turtle</b>. i.e., turtle.step or turtle.turn will move the turtle on screen.</p>

### Right before your class period

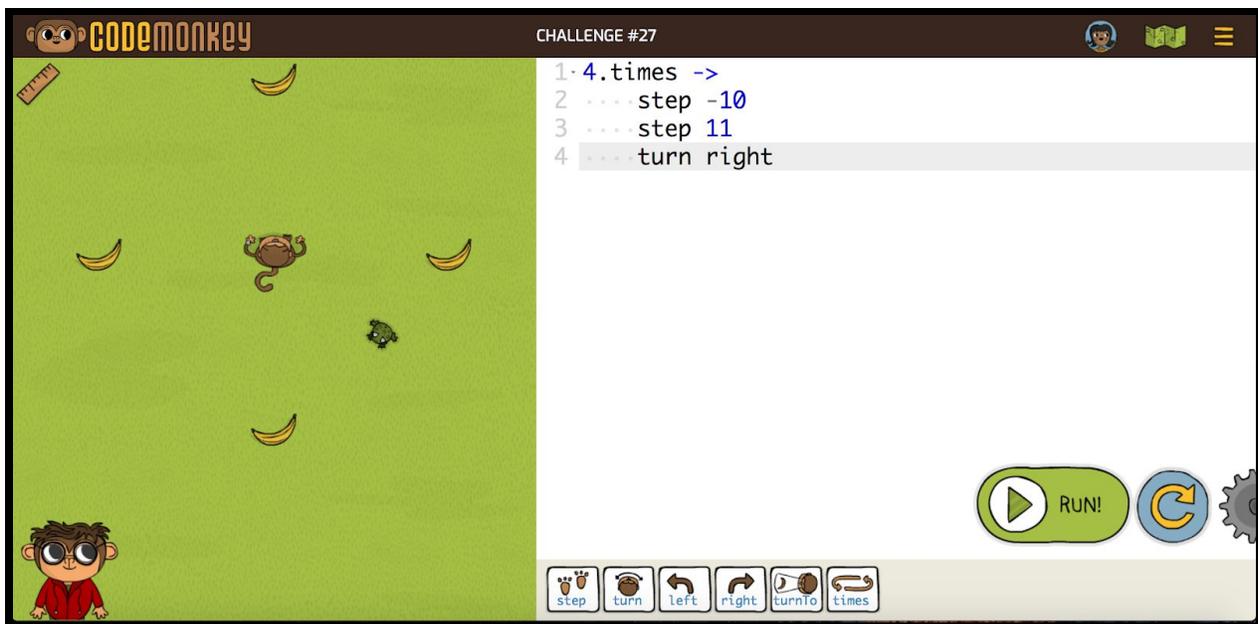
1. Write <https://www.playcodemonkey.com/hour-of-code/coding-adventure/> on the board
2. Load the [Coding Adventure Trailer](#)

### **During Hour of Code**

1. Play the trailer
2. Briefly explain the following:
  - a. Computer Science: the art of blending human ideas and digital tools to create anything from phone apps, animated movies, robots and more!
  - b. Program: a set of instructions for your computer to follow.
  - c. Commands: what you use to build a program
3. Instruct students to go to the link you wrote and click on 'Start Playing' to get started.
4. Once in awhile, discuss different way to solve challenges. We recommend doing so with challenges 16 and 25.

### **When your students come across difficulties**

- Encourage them to carefully read the instructions and double check their code if something is not working.
- Encourage your students to start each challenge by pressing "run" and watching what the initial code does. This will help them clarify where the code needs fixing.
- A challenging puzzle is [challenge 27](#). Refer to the screenshot for a 3-star solution.



### **What to do if a student finishes early?**

- Encourage them to go back and try to get 3 stars in all 30 challenges.
- Ask them to help classmates who are having trouble.

### **Beyond Hour of Code**

Sign up for a free teacher trial to get access to our teacher dashboard and lesson plans. Track student progress in the game, see the actual code students wrote and gain access to perfect solutions to all the challenges.



**Sign up for free!**

**Enjoy more of CodeMonkey**

Coding Adventure is made up of over 400 fun-filled challenges that cover coding topics anywhere from loops and variables to conditionals and boolean operators. Together with plugged and unplugged lesson plans, you will be able to easily roll-out and fully integrate coding in your classroom.

**Need help? Email us at [info@cm-studios.com](mailto:info@cm-studios.com)**