



Featuring the Hour of Code™

Presenter's Script & Prep Guide

Overview

The *Family Code Night* Event Kit consists of: 1) the Organizer's Guide, 2) this **Presenter's Script & Prep Guide** and 3) the accompanying Resources Folder.

Presenters should use the following pages to prepare and present the Family Code Night program. All Resources referred to below (handouts, PowerPoint/Keynote slides, flyers, etc.) are included in the companion Resources Folder.

The Presenter should meet with the Organizer and review the Organizers Guide as well to have a good sense of overall event planning and management.

Note also that as Presenter, you will want to customize many of these materials. In particular, you must customize several slides in the PowerPoint/Keynote Slidedeck, in some cases coordinating with your Organizer and school principal. The Organizer will customize several other items as well, including invitations, posters, etc.

In brief overview, your Presentation is fairly simple, and entirely scripted below. You'll adapt this material to your own style and preferences, but you'll want to preserve the overall structure: the Welcome and intro videos (about 5-6 minutes), the Code.org Puzzles (about 50 minutes, with the Presenter stepping in with several 1-minute "Tip Times" for all attendees), and the Wrap-Up (send families off ready to continue their CS learning at home and at school!).

More info is available at www.FamilyCodeNight.org, where we also eagerly welcome your input and comments on these materials.

I. Presenter's Preparation Checklist

Presenter's preparation will take about 2 hours. Complete the steps below and you'll lead a great event! Handouts and Flyers are found in the "Family Code Night Event Kit Resources Folder" and appear below in *blue italics*.

1 week before	Prepare for Presentation	Read This Presenter's Guide, Preview & Learn Puzzles <i>Go to the first puzzle, linked to at www.FamilyCodeNight.org/Start. Complete all 20 self-paced puzzles in Code.org's "The Maze," watch each pop-up video along the way.</i>
2-5 days	Rehearse Tip Times	Learn the "Tips" in the Script <i>Go through puzzles a second time, this time carefully following the "Presenter's Script," below. Practice the entire Script, especially each "Tip Time" segment, your important instructional moments that complement the self-paced puzzles of the program; they take 1-2 minutes each, will address most questions for everyone at once, and underscore the key coding concepts in the program).</i>
3-5 days	Test Projector, Screen, & Audio	Visit the Room, Test the Display <i>Visit the space where your Family Code Night will be held, and <u>test the display and audio systems to be used and the specific cables, adaptors, and audio connections from the Presenter's computer.</u> NOTE: this testing is essential. Display and Audio are vital to the program, and experience shows actual advance testing is the only certain way to avoid last-minute problems.</i>
2-3 days	Laser Pointer	Bring a laser pointer. <i>They're not expensive, and it's a big help to be able to clearly point out features on the display during your presentation (plus kids think lasers are cool).</i>
2-3 days	Pencils, Handouts, and Take-Home Flyers	<i>With the Organizer, make sure to have pencils available for Pairs to use filling in their Progress Cards.</i> <i>Finalize Handouts and Take-Home Flyers you're using, and make sure Organizer has printed enough copies to distribute to all participating families during and at the end of the program. All are in the Resources Folder. [As noted in Presenter's Script and Slidedeck, Program Handouts are the 10. Program Card and 11. Certificate; and Take-Home Flyers are 12. Code On at Home!, 13. Affordable Internet, 14. Code On at School!, and 15. Code On Off-Line!. Customize your closing Slides and Presentation accordingly.</i>

II. Presenter's Script

The Presenter leads the *Family Code Night* program.

Program Script

Below is a detailed script for the event. We suggest you, as the Presenter, avoid reading it at the event of course, but create your own final presentation from these pages based on your own style and knowledge of your audience. We suggest a printed copy and a highlighter.

Note:

Below, your Graphics/Visuals are shown in **bold red underscore**, including the Keynote/Powerpoint slides provided, and web links to puzzles and videos. Flyers and handouts (from the Resources Folder) appear in *blue italics*.

The Script:

Slide 1: Welcome to <Your School>'s Family Code Night

✓ Welcome to Family HOC Night.

<Introduce self, thank Principal, Organizer, other key contributors>

Slide 2: Tonight's Program

The Family Code Night program we're about to do is being held at elementary schools all across the country, all year long. It's part of "Computer Science for All," a national movement supported by the White House to help kids and all of us learn about coding and computer science. And we'll be doing puzzles tonight created by Code.org.

What's special about *Family Code Night* is that coding is something parents and kids can learn together, and that's what we're going to do tonight. Let's get going with a short video.

<Play "the Hour of Code is Here"; set audio fairly high to capture room's attention.>

Intro Video (2 minutes): [The Hour of Code is Here!](https://www.youtube.com/watch?v=FC5FbmsH4fw)

*<Note: To show video, click Click Red Star on **Slide 2** OR go to the following URL:*

<https://www.youtube.com/watch?v=FC5FbmsH4fw>>

<Note: If your school blocks YouTube or you have a slower connection, download the video from

YouTube and store it on the Presenter's computer. Test in advance!>

<Video ends>

- ✓ The video we just saw is from Code.org, which created the puzzles we'll use tonight to help everyone learn to code and to expand coding education in schools.
- ✓ As you can see, the program has some pretty famous supporters. It's been a huge success: millions of people all over the world have participated.
- ✓ Tonight we're going to do an Hour of Code together. And if you've already done an Hour of Code, that's great: you can show your family what you've been learning – and maybe help them out a little.

Here's How *Family Code Night* Works:

- ✓ We're going to play games and do puzzles and start to learn about coding, which is also called computer programming.
- ✓ Let's define what "Coding" is. Anyone want to give an answer?
<Briefly get answers from kids, discuss.>
- ✓ One easy definition of "coding" is this:

"Coding is when you create a list of instructions to tell a computer what to do.
So you are creating and controlling what happens on the screen!"

- ✓ Coding is important: more and more, computers are how we work and play. Computers are in everything from self-driving cars to video games to appliances in our kitchen, to just about everything we do. And if you can program computers, you'll help create all those things, now and in the future.
- ✓ Everyone can learn about coding, and it's fun.

Now let's go over the Rules for tonight's program:

We're about to play games and do puzzles starring some fun characters like Angry Birds!

As you do your puzzles:

- ✓ Everyone should be in a pair, a 2-person team. There should be at least one reader in each team (to read the on-screen directions for each puzzle). If you need a partner, a Coach will help you find one.
- ✓ Every team shares one computer: one person starts as the "Driver," and runs the keyboard; the other person is the "Navigator," who reads directions aloud for both of you. Talk together about how to solve the puzzle, then the Driver does the coding.
- ✓ **Very Important:** Everyone trades jobs after every puzzle! So when you finish a puzzle, give the keyboard to your partner.

- ✓ The program is self-guided, and self-paced. Go as fast or as slow as you like. It's not a race!
- ✓ Turn up your speakers to hear the audio!
- ✓ Set your Browser to "full screen" so you can see the whole puzzle.
- ✓ If you need help: First, ask your partner, then ask a Code Coach.

<Point out pencils on desks or ask Pairs to use their own.>

Slide3: Your Program Card

<Show Slide 3>

Finally, this is Your Program Card, which we'll pass out to you in a minute. It tells you how to start tonight's program:

<Point out the following on the Program Card on Slide3>

- ✓ 1. First, here's how to sign into the school wifi network, and
- ✓ 2. Second, here is the link to start tonight's puzzles.
- ✓ 3. Finally, mark your progress as you go on your Program Card. Just fill in each square to keep track.
- ✓ Also, if you like, you can post any photos from tonight to #FamilyCodeNight.
- ✓ Let's click the Start link right now together **and see what happens**.

<Change from the Slide Deck (PowerPoint/Keynote) to your Browser. On the projector/display, go to www.FamilyCodeNight.org/Start, and click the "Start Program" link on that page.>

<Note: In case of problems, Puzzle #1 is also at www.code.org/api/hour/begin/codeorg>

Play Puzzle #1 Intro Video.

<The Intro video pops up automatically when you go to Puzzle #1; it starts with a little fluff, but play it in any case: **essential instruction starts at the 30-second mark.**>

[NOTE: if the video does not run, you'll find a thumbnail image at the bottom left of Puzzle #1 that links to it; click to run the Intro video]

[NOTE: if you have slow wifi, download the video to the Presenter's computer in advance.]

<After the video runs:>

- ✓ OK, so that's how tonight's Puzzles work. So, let's go get those Pigs!
- ✓ We'll now pass out your Program Cards. Use the instructions to sign into wifi, go to the Family Code Night "Start" page like we just did, and click the "Start Program" link. Go to the first puzzle, and dive right in! You can just click the "close" box to cancel the Intro video, since we just watched that together. As you go from puzzle to puzzle, sometimes little videos pop up to help explain coding ideas you're learning.

- ✓ **One Last Important Note:** As we do the puzzles, we're all going to stop every 5 minutes for just a minute or so and I'll give you a special tip to help you, especially as the puzzles get a little trickier. So when I say so, everyone stop your puzzle and look up here.

<Consider demonstrating a gong or other device or routine that you'll use to get room's attention for each Tip Time – or just use a big voice. Be insistent for attention during each brief Tip Time!>

- ✓ OK, that's it! Go to it!

<Have Coaches distribute a Program Card to each Pair.>

<Pairs sign into wifi, go to the Start page, click on the "Start Program" link, and begin the puzzles at their own pace.>

*<**Coaches:** actively circulate, help pairs sign in, get to start page, set browser to "full screen", and begin puzzles. Remind everyone to trade jobs after each puzzle. Actively check in with lots of Pairs – a friendly "how's it going" as you look in over their shoulder is always welcome.>*

NOTE to Presenter:

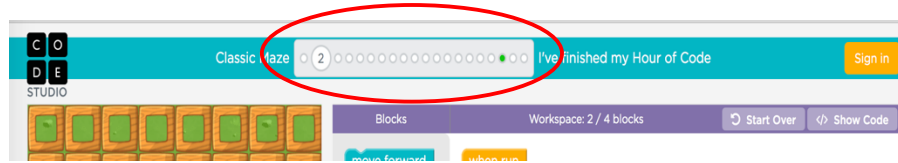
Tip Times: An Essential Part of Family Code Night!

< Family Code Night puzzles start simple, but get more challenging. Also, kids can be so focused on finishing puzzles that they don't really notice the programming concepts they're seeing. Tip Times anticipate known challenging moments in the Family Code Night program, and underscore the key programming concepts in the puzzles. By addressing likely questions for everyone at once, you greatly reduce support needed by Pairs.>

<As Pairs do their puzzles, you'll break in to present each Tip Time below. Time your presentation of each Tip to when about half of your Pairs have started or completed the indicated Puzzle. It's okay if it's a bit of a review for many, it's always useful! Ask for everyone's attention for just one minute. Insist that everyone's eyes be on you; if need be, tell kids to raise both hands and clap three times or use another trick to disengage them from the keyboards and look up for the Tip. Be brief, but insistent, for each Tip!>

<Depending on time allotted for your Event, you may not get to the Tips for the later Puzzles. No problem! Everyone can continue at home at their own pace.>

*<**Presenter's Note:** as you present each Tip, skip directly to any puzzle you want by clicking on the corresponding white dot at the top center of the screen (see screen grab and red circled area, below). The tiny white dot turns into a circled number to show you which of the 20 puzzles you're on.>*



Tip Time @Puzzle #2: (about 30 seconds)

<Show Puzzle #2>

- ✓ OK everyone, our First Tip Time! Everyone's eyes up here for one minute!
- ✓ Remember: drag and connect blocks by snapping them together as I'm showing you here on Puzzle #2.
- < Demonstrate: drag out and connect the three "move forward" blocks needed to solve this puzzle.>
- ✓ If you ever want to move more than one block, grab the top block of those you want, and drag that one and all those below it at once.
- < Demonstrate >
- ✓ If you want to throw away blocks, just click on them and drag them out of the Workspace.
- < Demonstrate >
- ✓ Remember: Trade the Keyboard back and forth after each puzzle! Navigators, read the directions, give advice, and let your Driver use the keyboard to code the solution.
- ✓ OK, back to your Puzzles!

Tip Time @Puzzle 6: The Repeat Block

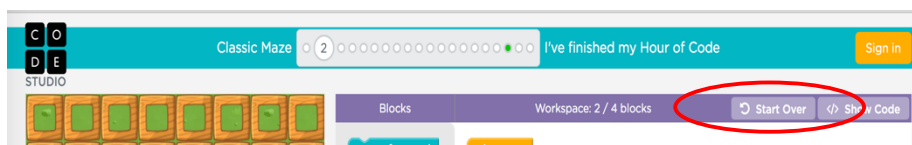
<Show Puzzle 6. (a Mark Zuckerberg help video explains this, but most Pairs skip it).>

<Explain:>

- ✓ Puzzle #6 introduces the "Repeat block" (also called a Repeat "loop"). This is a key function in nearly all computer programming, and here you are learning it in your very first hour. Repeat blocks are powerful: why use six blocks when you can use 2?
- ✓ <Demonstrate:>
- ✓ Let me show you: Let's count how many spaces the Bird has to go. <5 spaces forward>
- ✓ I could drag out one block for each space. But see how much easier it is to say "repeat 5 times" than to drag out 5 blocks? Imagine if you wanted to repeat a hundred blocks!
- ✓ Note that you can put more than one block inside a repeat loop, and it repeats the series of blocks inside as many times as you say. Change the number to set how many times to repeat the block(s) inside the loop.
- ✓ And remember: Your goal is to always write your program in as few blocks as you can.

Now, a Bonus Tip! <“Reset” & “Start Over” buttons>

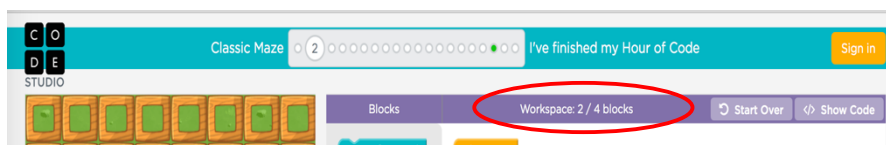
Any time you want, you can click the “Reset” button under the “Run” button (bottom left) any time to take the Bird back to the beginning again and start the puzzle over. You can also click “Start Over” button *<see red circle below>* to restart this puzzle if something seems to go wrong (for example, if you get an “unconnected blocks” message).

**Tip Time @Puzzle 9: The Gray Block**

- ✓ **This puzzle can be very confusing:** you can't delete the gray block! You can only add blocks to it.
- <Read the directions aloud:>*
- ✓ Let's start by reviewing the directions: "Use a 'move, move, turn' block, and repeat that 3-block sequence 3 times."
- ✓ Notice that the Gray block includes a Repeat block. So you can add all three needed blocks inside the Repeat block.
- ✓ OK, now let's click "Reset" to start at the beginning.
- ✓ It can help if you pretend you're actually the Angry Bird: act out the first three movements needed.
- ✓ So: What is the first block we need? The second? The third? So let's put those in the Repeat loop. If we repeat those three blocks three times, does it solve the puzzle?

Bonus Tip: Code Efficiency Numbers!

- ✓ Now, let me give you one important extra tip here: Remember we said 'use as few blocks as you can'? Let me show you how to tell how you're doing: Notice the two numbers up here at the top of each puzzle?
- <Point out and demonstrate the code efficiency numbers at the top center of the screen.>*
- ✓ The 1st number shows how many blocks you've used so far in your program. The 2nd number shows the best possible solution, the fewest blocks possible to solve this puzzle. Remember: fewer is good! Try to not let the first number be larger than the second. That's called efficient code, and it makes coding easier when you can use less lines to accomplish the same goal.



Bonus Tip: Test Your Code Any Time!

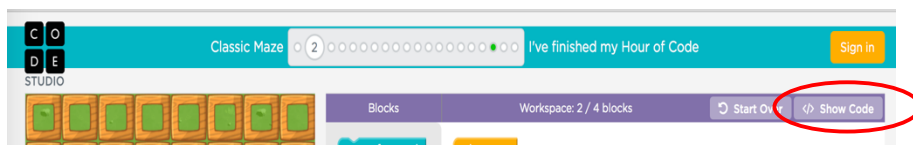
- ✓ One important idea: there are no mistakes in coding. If your code doesn't work yet, you just need to find out why and fix it. It's called "bug fixing," and programmers do it all the time. So you can run your program any time to test out your code so far: just click that Run button, and see how your solution is looking so far. Remember to click "Reset" to then take your Bird back to the start.

Tip Time @Puzzle 10: "Repeat Until" Block

- ✓ This tip is to explain the smartest block we've used so far. It's called the "Repeat Until" block. It doesn't have a number, just a goal. It will Repeat forever until it reaches that goal! That is a very smart block! So in Puzzle #10, we just tell the Bird to Move Forward forever until it reaches the Pig. The Pig could be a million spaces away, and you'd still only need three blocks to get there.

Bonus Tip: You ARE Writing Code!

- ✓ Remember we said coding is giving the computer a list of instructions? Your list of blocks is exactly that, a real "program." Want proof? Click the "Show Code" button any time to see the underlying javascript code you are creating. Javascript is one of the most popular and powerful programming languages in the world. Each block you're using is actually a line of javascript code. Blocks make it easier, but your blocks still create real javascript code.

**Tip Time @Puzzle 14: The "If" Block (a "Conditional")**

- ✓ OK, this tip is big! Here we have another Gray block: to solve this puzzle, you just add one block!
 - ✓ Look what's in the Repeat block already: Move forward, then: "if" there's "a path left..." what should you do? Anyone have any suggestions? "If" there's a path to the left, what should our Zombie do to get to the flower?
- < Get an answer from a child. Put that block into the solution. Click Run. >
- ✓ Now you're making your code really smart: now your code can make decisions! It's called a "conditional," or an "if-statement."

- ✓ Now, “conditional” may sound like a big tricky word, but we all use “conditionals” all the time: **IF** it’s cold, I wear a coat. **IF** it’s too dark, I turn on the light. Well, now your code can do this too, and we’re building smarter and smarter programs!

Tip Time @Puzzle 18. “If-Else” Statement

- ✓ OK, one last Tip Time everyone. We just looked at an “If” statement to make our code smarter. Now let’s take that a step farther: An If-Else statement makes your commands smart enough to make even harder decisions: “if” one thing, do this; otherwise or “else,” do this other thing. So in Puzzle #18, we make our code so smart it can navigate all the way to the end of this puzzle in just 5 blocks.

< Correct puzzle answer: >



Give Group a 5 Minute Warning

< When you’re down to about ten minutes left, announce a 5-minute warning to allow time for Conclusion. >

< Note: if they complete Puzzle #20, Pairs will get option to save a Code.org completion certificate customized with their name. This option is best for those using their own computer (they can save the image). For all participating Pairs, if you’re distributing printed certificates, give one to all kids/Pairs and have them fill in their name at the top as you wrap up the program, below. >

Conclusion

All right, everyone, it’s time to stop! So turn off your devices.

I know it’s hard to stop, but don’t worry, we’re going to wrap up by showing you how to pick up just where you left off at home, plus a bunch of new fun things you can do next!

< Make sure machines get closed down, eyes to front of room. >

OK! So tonight we’ve started to learn to code together. I hope you see how fun and easy it can be. YOU CAN CODE. And there’s no limit to what you can learn, to where you can go from here. Tonight is just the beginning! There are lots more puzzles and games to play. More powerful languages to learn. As you learn more you can build all kinds of fun stuff: there are second graders who program their own games in Scratch. And they’re just regular kids who got into coding. You could get a job as a programmer, and code all kinds of programs and devices. You could create some new software, or even an app that millions of people use. You never know.

And here's the secret: just keep playing and learning! And your parents can help and learn right along with you!

For your next steps, we're going to send everyone home tonight with a few guides to show you how to continue coding at home and at school.

< Hold up the Flyers you've chosen to distribute; edit your Slidedeck accordingly. >

Here are the Flyers we're about to give you, and let me give you a little preview of how to use each one.

Slide 4: Code On at Home!

This is your "Code On at Home" flyer

<hold up a copy>

It has links and ideas to let you continue your coding games and learning together.

1. First, you can continue tonight's puzzles. Take your Program Card home with you. You can pick up right from where you've left off. Use the same Start Page URL you used tonight, that's printed on your Program Card. You can finish The Maze, the 20 puzzles we did tonight, then you can tackle The Artist, which is a next series of fun puzzles focused on graphic arts!

By the way, when you continue at home, if you want to pick up right where you left off tonight, let me show you how to navigate to any puzzle in the program.

< Demonstrate how to navigate to any puzzle using the white dots at the top of the screen. >

Slide 5: Code On at Home: Next "Hours of Code"

2. Second, besides continuing tonight's puzzles, you can do other fun "Hour of Code" programs from Code.org. The second item on your "Code On at Home" flyer is a link to other "Hours of Code" you can do any time you like. You can play and code with Moana, Minecraft, Star Wars, Frozen and many others. They're fun, and you'll learn new things all the time! There's even an Hour of Code based on the new Disney movie Moana.

Slide 6. Code On at Home: Google's Build a Yeti, MIT's Scratch

3. Third, you can tackle a fun coding project and a programming language created especially for kids. You can "Build a Yeti", a big furry dancing monster; this project is great for all ages, and it's at Google's Made With Code. For older kids ready for more, MIT's Scratch is a first real programming language, built for kids!

Links to all these are here, in your "CodeOn at Home" flyer.

At the bottom of that flyer, by the way, there's also a list of the top ten things families can do to encourage girls' interest in computer science, so check that out as well, it has a ton of great ideas (and they're good for boys too!).

< NOTE: Slide 7 is optional, based on relevance to your school community. >

Slide 7: Find Affordable Home Internet <optional>

Now, our next Flyer may help you get set up for coding at home.

< Hold up printed flyer >

To play coding games at home, you need "broadband" or high speed internet service. There are now special subsidies for internet service for families that qualify. Three options you can consider are: EveryoneOn.org; the federal "Lifeline" program; and special offers from service providers to qualifying families, such as Comcast's Internet Essentials. Information and links to all three of these programs are in the "Affordable Internet" flyer we'll give out on your way out.

<Optional: demo how easy it is to find broadband offers at EveryoneOn.org. Go to the site, enter your zip code, display offers for qualifying families. It takes less than 30 seconds.>

Slide 8. Code On at School <optional>

< Ask Principal for any coding classes or plans at school, insert them on this slide. >

We can also "code on" here at school.

< Describe school coding programs>

Slide 9. Code On at School

We can also help get coding clubs or classes going here at school. Code.org offers free teacher training, a network of willing volunteers that can come help teach coding, and free K-5 coding curriculum. You can find details and links on all these services on the "CodeOn at School" flyer.

<Note: on Slide 9, each word "here" hyperlinks to the following pages.

1. Free teacher/faculty training here:

<https://code.org/professional-development-workshops>

2. Find a volunteer:

<https://code.org/volunteer/local>

3. Free Curriculum:

<https://code.org/educate/curriculum/elementary-school> >

Slide 10. Code On Off-line

You can even "code on" without a computer. This flyer shows fun off-line projects and games you can do at home or at school that are all about coding ideas and concepts. You can play with coding and learn more even without a computer.

< Important NOTE: if desired, now is an ideal time to ask parents to sign up for a Coding Committee at school. Techie volunteers could help with coding classes or clubs, using all these fun materials and resources, and parents and older students can volunteer or help coach. A mobilized school community can be a big help to get future programs off the ground. >

Slide 11. Thanks for Coming!

So that's it, everyone. Did everyone have fun? <ask big, get applause!>

Don't forget to return your borrowed laptops/devices!

Pick up your "Code On at Home" and other Flyers <direct them to take-home Handouts>.

Good Night & thanks for coming!

<Optional:> And finally, it takes time for schools to get entire new courses and programs in place, but with the help of people in this room, we may be able to get some programs going sooner. Parents interested in joining a Coding Committee to help, please come up and give us your contact information. We'll get together and explore programs we might be able to get going with your help.

< Distribute any or all of the following Flyers to all Participants >

- Family Code Night Certificates
- "Code On at Home!" flyer
- "Code On at School" flyer
- "Affordable Internet" flyer
- "Code On Off-Line" flyer>

<You're done!! High-five your team, kick back, and let FamilyCodeNight.org know how it went! Post photos to #FamilyCodeNight! Thanks, and Code On!>