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# Introduction

The Hour of Code™ is a global movement started by nonprofit Code.org and reaching tens of millions of young people in over 180 countries. The Hour of Code is designed to demystify code and encourage everybody to learn the basics. Minecraft is excited to team up with Code.org and Microsoft Philanthropies to provide young people an opportunity to learn the basics of coding with a brand they know and love.

# Minecraft Hour of Code tutorial

The Minecraft tutorials use characters and concepts from the Minecraft video game, but it is not the game itself. For Hour of Code, Minecraft developers worked with educators and Code.org to create a Minecraft game-inspired tutorial that introduces players to basic coding concepts.

Access three different Minecraft coding tutorials at [www.code.org/minecraft](http://www.code.org/minecraft)

* Minecraft Hour of Code Adventure
* Minecraft Hour of Code Designer
* ***New!*** Minecraft Hour of Code Hero’s Journey (November 14, 2017)

The new Minecraft tutorial introduces players to the Agent, and offers over 10 levels where players will learn how to use loops, debugging, and functions. By learning these basic coding concepts, players will design their own solutions to puzzles and watch the Agent execute their coded commands. The tutorial also includes free time to explore coding concepts they’ve learned through playing to deepen their understanding.

# Learning objectives

The learner will:

1. Understand that computers perform instructions in sequence,
2. Create a list of instructions that complete a task, and
3. Iterate on solutions to complete a task.

The tutorial explores three basic computer programming concepts. The learner will utilize:

1. Loops to perform efficient blocks of code,
2. Debugging to test for errors and determine why they are happening, and
3. Functions to combine extra instructions into a single piece of code.

**Challenge!** Players can play using the more challenging “Diamond Path”, where they can collect a diamond on each level by solving additional coding problems.

# Facilitating a Minecraft Hour of Code event

## Participants need:

* A **computer** with a modern browser. Students can also work together and share devices! Detail about qualifying operating systems and browsers can be found on [www.code.org/minecraft](http://www.code.org/minecraft)
* **Internet access**. At least a 15 MB/sec Internet connection is recommended.
* **Headphones** are recommended due to embedded videos.

## Presenters need:

* **Internet access.** At least a 15 MB/sec Internet connection is recommended.
* To project **PowerPoint slides** so event participants can clearly view the content.
* Instruct participants to access their certificates at any time after completing their Minecraft Hour of Code.

## Presentation materials:

The primary purpose of the event is for participants to engage with the tutorial. To help guide your event, use the *Minecraft Hour of Code Event* PowerPoint presentation that includes presenter notes on each slide, and suggestions for customizing the experience for participants.

* There are two versions of the Event Presenter’s presentation, customized for younger and older participants respectively. Choose the version that is best-suited to your audience.
* Most of the slides in the presentation are meant to be shown briefly to provide a visual prompt for a quick, conversational experience that will engage and excite the audience.

# Tips and Tricks

## Prepare for the unexpected

Create a “plan B” prior to your event. If nothing goes as expected, what will you do with your participants? For example, what might you do if the internet fails? You may want to have an unplugged activity ready to go. See <https://code.org/curriculum/unplugged>.

### If you have more than an hour...

* Direct students to continue to create on the last puzzle for additional hours of playability.
* Direct students to go back through each of the puzzles, and challenge them to solve the puzzles in a different way.
* Expand use of the group discussion questions included in the event presentation.
* Explore the other Minecraft tutorials, Adventure and Designer. Each Minecraft tutorial teaches different coding concepts and can be done in any order.

### If you have less than an hour...

* 30-minute option: Skip puzzles in the tutorial.
* Reduce use, and/or eliminate some, of the group discussion questions included in the presentation deck.

Consider the following suggestions…

* Use the word “You” instead of “Anybody” which reinforces the message that coding, and computer science, is for everyone.
* After 15 minutes of play, congratulate the group for the lines of code they have written – coding is challenging!
* If you are working with limited computers, or a young audience, try working in groups and alternate who is at the keyboard.
* Avoid using stereotypical male imagery. Studies have shown that something as subtle as a male featured in a science fiction poster can decrease female interest.
* Role models are important! Use examples of coders and computer scientists that are most like your audience.
* Don’t say coding is “easy” it’s challenging and fun! Focus on saying it’s possible and they can do it!

# Frequently asked questions

1. **Can I keep playing the Minecraft tutorials after Hour of Code?** Yes**,** anyone can play and replay the Minecraft Hour of Code tutorials on their own and on any device at any time.
2. **What can learners do with the code they create?** Invite them to share their code with family and friends via social media or email. If they have access to Minecraft: Education Edition or Minecraft on Windows 10 they can import the code to see their creations come to life in the real game!
3. **Where can I find more resources to teach computer science coding?** To explore more ways to bring computer science to your community, visit <https://www.microsoft.com/digitalskills>.
4. **Is Minecraft available for use by schools?** Yes! Minecraft: Education Edition is built for schools, and comes with classroom management tools, lesson plans, and more. To learn more about how educators are using Minecraft: Education Edition to encourage 21st century skills in the classroom, go to [www.education.minecraft.net](https://education.minecraft.net).