



25+ Hour of Code Activities for Kids

This year, <u>Computer Science Education Week</u> is taking place on Dec 7-13. Now is the time to celebrate! Break out the laptops, mechanical keyboards, iPads, or even pencils - whatever you're coding with.

Full article at https://codewizardshq.com/25-free-hour-of-code-activites/



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Free Hour of Code Activities for Kids

Here are some of the best Hour of Code games, tutorials, and activities for all ages.

#1 Tynker Hour of Code

(Grades K – 12)



For students and teachers, Tynker has over 500 challenges in 14 coding puzzles and 40+ tutorials. You can check out these coding activities by grade or topic that feature themes like Barbie and Hot Wheels. If you're looking for inspiration, the gallery is full of fun examples from other kids.

https://www.tynker.com/hour-of-code/



#2 Virtual Robotics Competition

(Grades 1 - 12)

Tech Point Youth is celebrating in Indiana with a robotics coding challenge. Students will code their way through one of the activities using VEXcode VR for a chance to win a \$100 Amazon gift card. Play with a team, even if you can't meet, and do this robotics activity you can complete from the comfort of your own home.

https://www.techpointyouth.org/hour-of-code



www.CodeWizardsHQ.com



#3 Unplugged Coding Activities

(Grades K – 5)

Go sans screen time with Kodable's coding unplugged collection of Hour of Code games and lessons. No computer? No problem! Learn basic programming skills and practice using core coding commands without the use of a device. Students will watch a video, then complete self-guided worksheets about coding basics. All worksheets will include instructions and examples so you can get started right away.

https://www.kodable.com/hour-of-code/unplugged-coding

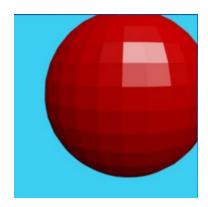


#4 Hour of Drawing with Code

(Grades 3+)

Learn how to draw and color with code. Draw a snowman, wild animal, and even a self portrait using JavaScript. You can also choose the hour of webpages or hour of databases track. You won't need to download anything because the coding editor is embedded in the website.

https://www.khanacademy.org/hourofcode



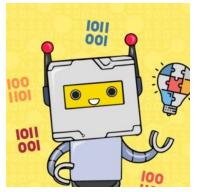
#5 Build Alongs with BlocksCAD

(Grades 4+)

BlocksCAD, is a cloud-based 3D modeling tool that encourages kids to learn math, computational thinking, and coding concepts through visualization and designing models.They're hosting a full schedule of one-hour live 3D design and coding workshops for students that can be completed at home. Build a bracelet, 3D robot, Mars Rover, and more!

https://www.blockscad3d.com/Csedweek2020





#6 AI Lessons Unplugged

(Grades K - 5)

Free unplugged lessons about Artificial Intelligence and machine learning from Edsquare. It's available in 2 versions: online (Google Slides) and printables. You get 5 activities for elementary school learning activities that make AI simple and fun for kids.

https://edsquare.co/learnai/



#7 Code with Ana and Elsa

(Grades 3+)

Use code to join Anna and Elsa as they explore the magic and beauty of ice. You will create snowflakes and patterns as you ice-skate and make a winter wonderland that you can then share with your friends. Watch the video for hints and a walkthrough of the code in Blockly.

https://studio.code.org/s/frozen



#8 Digital escape room (Grades K - 5)

Your class is ready to code when a firewall goes up and no one can get online! Your teacher needs you to use logic and reasoning to break through and save the day in this digital escape room. Clues are all around and might even be hidden in the Blockly maze game.

https://sites.google.com/site/hourofcodedigitalbreakout/





#9 Code an Impact Game (Grades K - 12)

Create and modify a Scratch game into an impact game, a game that's designed for the player's entertainment AND to make a change in the world with a mission beyond entertainment. You'll research an important issue and design a game where players can learn about your important issues in a unique and fun way.

https://projects.mouse.org/project/25476/step/1



#10 JavaScript in Grasshopper

(Grades 6+)

Learn to code through byte-sized puzzles. Grasshopper teaches beginning adult learners to write real JavaScript, but this project and platform are simple enough for kids to use and understand. This is a code by Google program.

https://learn.grasshopper.app/project/hour-of-code-hacky-grace



#11 Minecraft Hour of Code

(Grades 2+)

Minecraft has teamed up with Code.org for a new Minecraft Hour of Code activity: A Minecraft Tale of Two Villages. In this new Hour of Code activity, students will be in a world where there are two villages. For centuries, the Villagers and Illagers shared the same space but NEVER interacted with each other. Now you can use the power of code to bring the two villages together. This year's lesson is offered in both Blocks and Python. The demo lesson is available to all users, even those who don't currently have a Minecraft: Education Edition license.

https://education.microsoft.com/en-us/course/1e5ba746/overview





#12 Lego Plants and Pollinators (Grades 6+)

Using a LEGO representation, you will model the relationship between a pollinator and flower during the reproduction phase. This project includes lessons and materials for both teachers and students.

https://education.lego.com/en-us/lessons/wedo-2-science/plants-and-pollinators#2-explore-phase



#13 Google CS First

(Grades 4 - 8)

Explore computer science without a computer. CS First includes a printable booklet for coding unplugged that contains three computational thinking activities in which students learn about how computer science helps us communicate and stay connected with people around the world. You get a print-friendly booklet and other materials that don't require any technology.

https://education.lego.com/en-us/lessons/wedo-2-science/plants-and-pollinators#2-explore-phase



#14 Code Your Hero

(Grades 3 - 5)

Choose an everyday hero from their own life and build a story or game using code that gives their hero superpowers. You can read over the lesson plan and watch videos. Follow along to learn about computer science and Scratch, and turn an everyday hero into a superhero.

https://csfirst.withgoogle.com/c/cs-first/en/code-your-hero/overview.html





#15 Capture the Flag Cybersecurity Competition (Grades 6+)

Cyber.org is celebrating CSEd Week alongside Nola_Code. They're kicking off the week with a virtual Capture the Flag competition. A CTF is a format for a fun, interactive cybersecurity competition where competitors will test their knowledge in categories such as encryption, network security, reverse engineering, or programming. This event is ideally suited for high school students. The competition is free and open to all who are interested and will run through the entire week.

https://cyber.org/news/nola-csed-week-2020



#16 CodeHS

(Grades 9+)

High school students have a host of hour-long tutorials with CodeHS. Use react native to code a mobile app, do web design and digital art, or learn the basics of Java. They even have something for advanced topics like cryptocurrency and data visualization.

https://codehs.com/hourofcode

#17 CodeBytes Daily Live Mini-Lessons

(Grades K - 12)



High school students have a host of hour-long tutorials with CodeHS. Use react native to code a mobile app, do web design and digital art, or learn the basics of Java. They even have something for advanced topics like cryptocurrency and data visualization.

https://code.org/codebytes





#18 Building a Galaxy With Code (Grades 1+)

The force is strong with this activity! Code.org challenges you to build a galaxy with code. You can use drag-drop blocks in the Blocky platform or combine that with JavaScript to move your droid and collect the pieces needed to accomplish your mission.

https://code.org/starwars



#19 Monkeying Around

(Grades Pre-K – 2nd)

Non-readers can start learning coding fundamentals with CodeMonkey Jr. Using CodeMonkey Jr., younger students will program a monkey's journey in order to catch bananas and unlock a treasure chest. There are over 30+ levels using block programming where you learn sequencing, loops, logic, and more.

https://www.codemonkey.com/hour-of-code/codemonkey-jr/



#20 Tinkercad 3D

(Grades 3+)

Tinkercad is a free online collection of software tools that help students create in 3D. Interactive learning activities help beginners take their first steps in computational design and modeling. They also feature 28 interactive lessons on exploring physical computing and coding with Arduino, which is a great learning tool for kids interested in coding and hardware.

https://blog.tinkercad.com/tinkercad-activities-for-computer-science-education-week





#21 HS Quiz Bowl University of Nebraska Omaha (Grades 9+)

The University of Nebraska at Omaha Department of Computer Science will celebrate Computer Science Education Week with a virtual Quiz Bowl on Dec 10! Compete on a team of three students plus a sponsoring teacher for your school.

https://www.unomaha.edu/college-of-information-science-and-technology/computer-science/community-engagement/2 020-csedweek.php



#22 Moana Hour of Code

(Grades 3+)

Disney princess Moana takes you on a quest wayfinding with code. Join Auli'i Cravalho, the voice of Disney's Moana, and get involved with Hour of Code! Team up with a virtual village of coders to stop the Kakamora coconut pirates from wrecking the internet. Complete 19 lessons to defeat the Kakamora and earn your badge.

http://partners.disney.com/hour-of-code



#23 Coral Reef Cleanup (Grades 3+)

This aquatic challenge is a great place to learn, whether you're a beginning block coder or have experience. Vex Robotics gives you different levels based on experience. In the Coral Reef Cleanup activity, you are equipped with a VR Ocean Cleaning Robot to help clean the Mangrove Reef. Collect as much trash as you can before the solar-powered batteries on your robot run down.

https://hoc.vexrobotics.com/





#24 Kids Coding Tutorials (Grades 3+)

You don't have to go far for fun coding tutorials, you can find them right on our activities page. There are activities for beginners, starting with Scratch, and for those with experience who want to enhance their HTML and CSS education. Follow along in our step by step blog and video tutorials and share your Hour of Code creations in our Facebook group.

https://codewizardshq.com/category/activities/

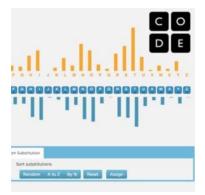


#25 Hour of Code Dance Party

(Grades K - 12)

One of my favorite things to do with my students, host a dance party! This was a popular new activity from last year and it includes popular songs from your favorite artists that you can't help but dance to. Complete the hour and try the extended project to keep dancing.

https://code.org/dance



#26 Crack a Caesar Cipher! (Grades 9+)

Learn about simple encryption in this lesson. You will be introduced to why we need encryption and simple techniques for breaking (or cracking) secret messages.

https://studio.code.org/s/hoc-encryption/





#27 Hour of Code with Your Besties!

(Grades 3+)

Vidcode teamed up with Girl Scouts of Greater New York for a series of coding activities centered on a shared commitment to give teen girls leadership and STEM opportunities. Vidcode teaches teens computer programming through one of their favorite hobbies: video-making. Try these collaborative, social, and creative coding activities.

https://www.vidcode.com/hourofcode/gs/#tutorials



