



Educator's Guide to Hour of Code

Overview:

This lesson will work with middle school students on learning basic computer programming skills.

Grades and Subject Areas:

Grades 7-8

Objectives:

- Student can understand why they are participating in an hour of code.
- Student can complete at least two tutorials.
- Student can share their design or game with a friend.

I Can Statements:

- I can explain why I am participating in an hour of code
- I can explain how I am programming by placing blocks
- I can complete all programs assigned with the least amount of blocks

Curriculum Connections:

Alaska Content Standards:

Reading Standards for Literacy in Science and Technical Subjects: 6-8

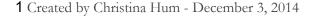
3. Follow precisely a multistep procedure when carrying out experiments, taking measurements, or performing technical tasks.

ISTE Student Standards:

4. Critical thinking problem solving and decision making: a. Identify and define authentic problems and significant questions for investigation

ISTE Teacher Standards:

- 1. Facilitate and Inspire student learning and creativity: b. Engage students in exploring real-world issues and solving authentic problems using digital tools and resources
- 2. Engage in Professional Growth and Leadership: a. Participate in local and global learning communities to explore creative applications of technology to improve student learning





Educator's Guide Technology Simplified



Technology Integration:

Hardware and Software Needs

• Laptops or desktops

Tips and tricks

Practice the coding lessons before giving to the kids.

Resources:

Handouts or Downloads

None

Links to teaching resources

• Hour of Code: http://code.org/learn#notes

Web resources

• Hour of Code: http://www.code.org

Lesson Directions

Prep Time:

• 5 minutes

Prior to Lesson:

Teacher Prep:

- Make sure the computers are reserved (Cart or Lab)
- Check to make sure the flash based program will work on the computers

Student Prep:

None

2 Created by Christina Hum - December 3, 2014







Time Needed for Lesson:

70 minutes

Directions:

- Step 1: Students watch this video: http://bit.ly/5minhourofcode
- Step 2: 45 minutes Students go to http://studio.code.org/s/2/puzzle/1
- Step 3: 15 minutes Students go to http://studio.code.org/s/artist/stage/1/puzzle/1
- Step 4: Print student Certificates: http://code.org/certificates

Extension / Challenge:

- Idea 1: Easier: Tynker Grades 5-8: http://www.tynker.com/hour-of-code/
- Idea 2: More Challenging Middle School: http://codecombat.com/?hour_of_code=true
- Idea 3: Advanced High School:
- http://www.makegameswith.us/build-an-iphone-game-in-your-browser/
- Idea 4:
- Idea 4: High School Additional Practice: karal https://codehs.com/hourofcode/
- Idea 5: High School Additional Practice: http://www.codecademy.com/courses/hour-of-code/0/1



Educator's Guide
Technology Simplified



Name:				

Day 1 Hour of Code

I can explain why I am participating in an hour of code
I can explain how I am programming by placing blocks
I can complete all programs assigned with the least amount of blocks

Challenge 1: http://bit.ly/hourcode1

Challenge 2: http://bit.ly/hourcode2

Challenge 3: http://bit.ly/hourcode3

Educator's Guide
Technology Simplified



Name:
Day 2 Hour of Code
I can explain why I am participating in an hour of code.
I can explain what code statements mean.
I can complete all programs assigned fully and completely.
Challenge 1: http://bit.ly/hourcode3
Challenge 2: http://bit.ly/hourcode4
List for coding statements that you learned today and explain what they do:
Statement 1:
Statement 2:
Statement 3:
Statement 4:

