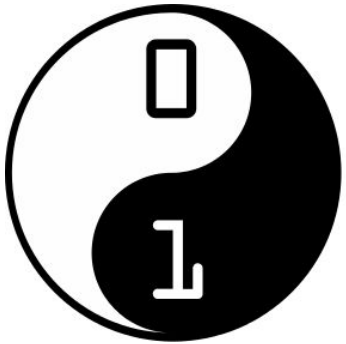
Building a community with



CoderDojo

Liz Coates, Kingston Frontenac Public Library
Gabrielle Doyle, Calgary Public Library
Jennifer Gal, Hamilton Public Library
Agnieszka Gorgon, Markham Public Library

Getting Started with Coder Dojo at the Calgary Public Library

Gabrielle Doyle

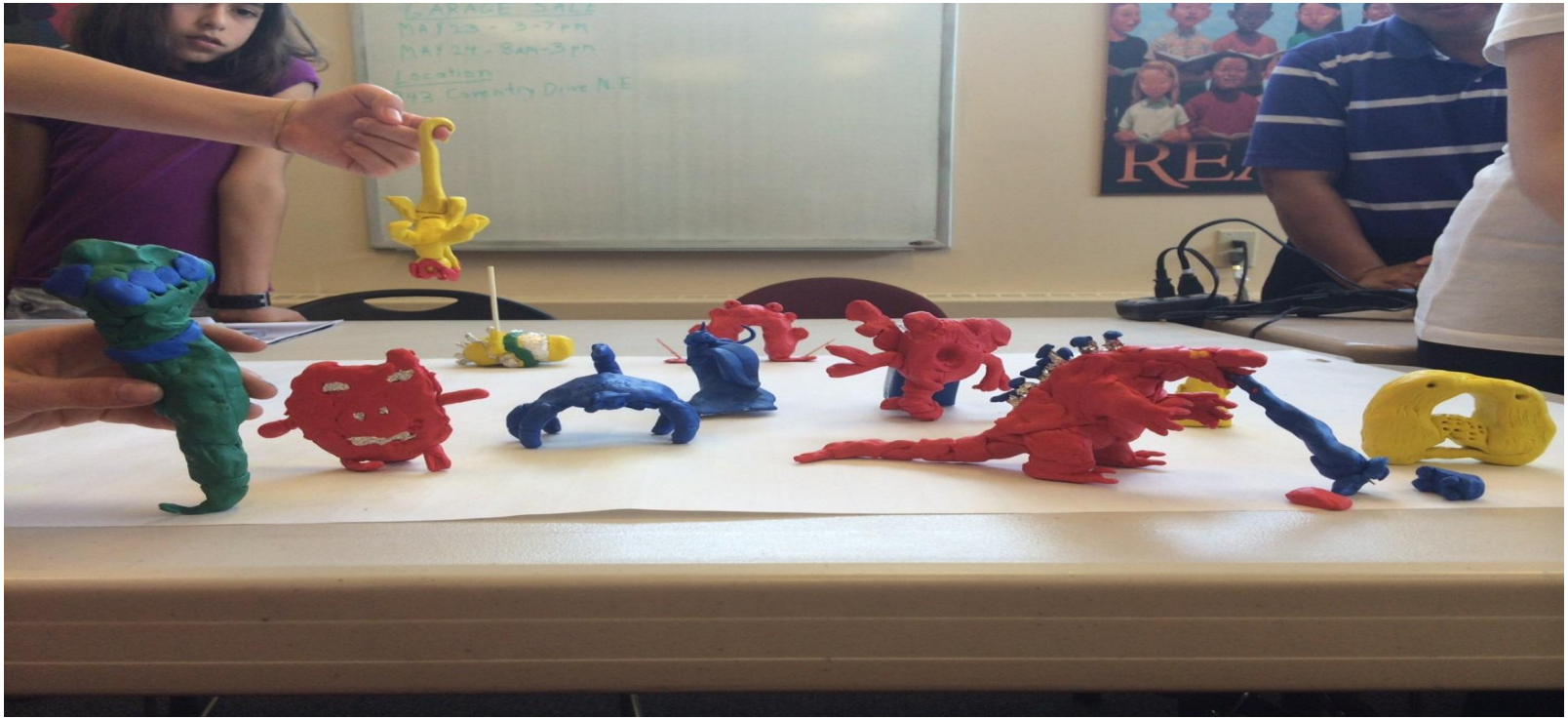
Gabrielle.doyle@calgarylibrary.ca

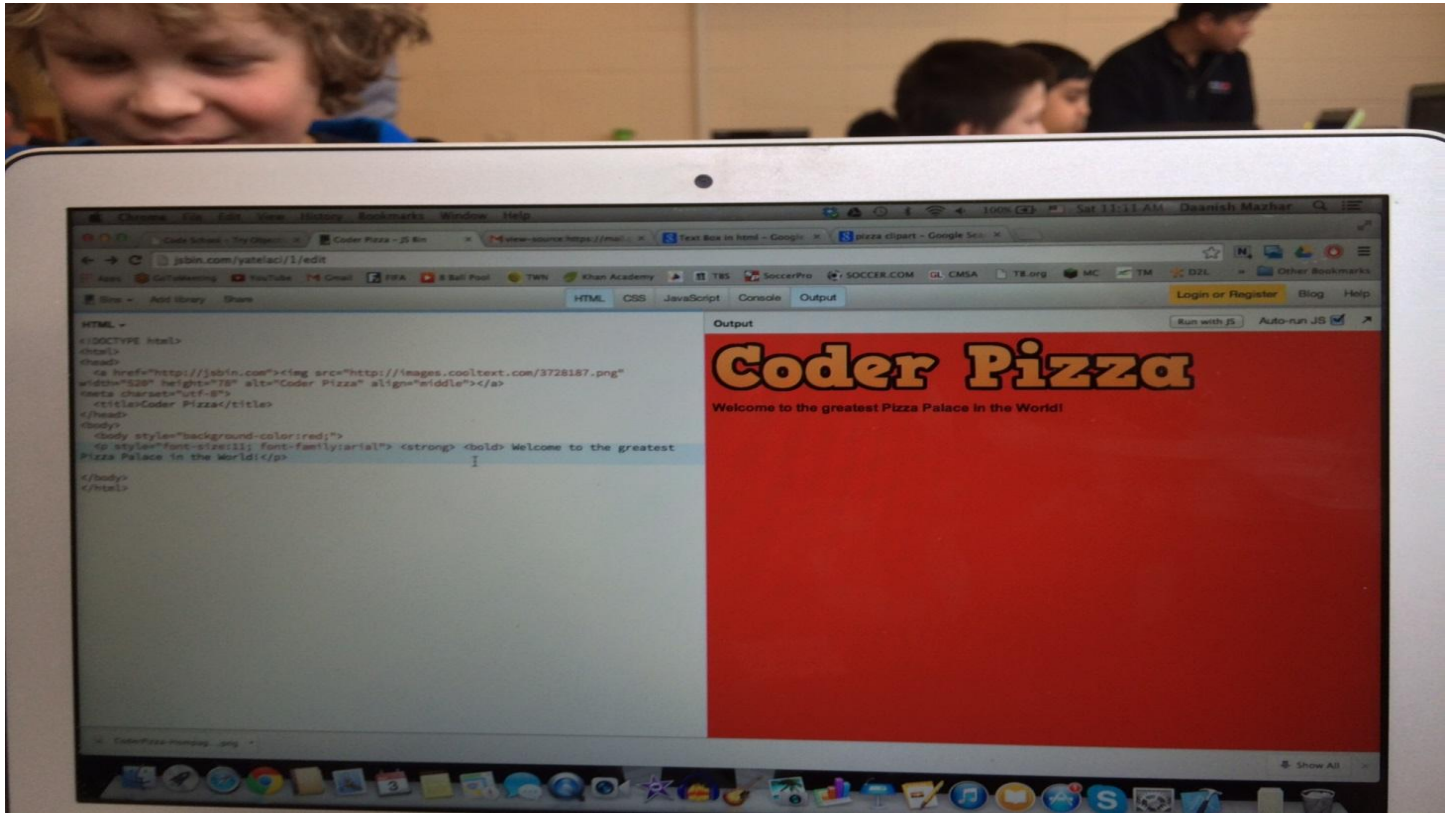
Who will write all of our code?

Why Code in the Library?

We have the expertise and connections

What Program Model?



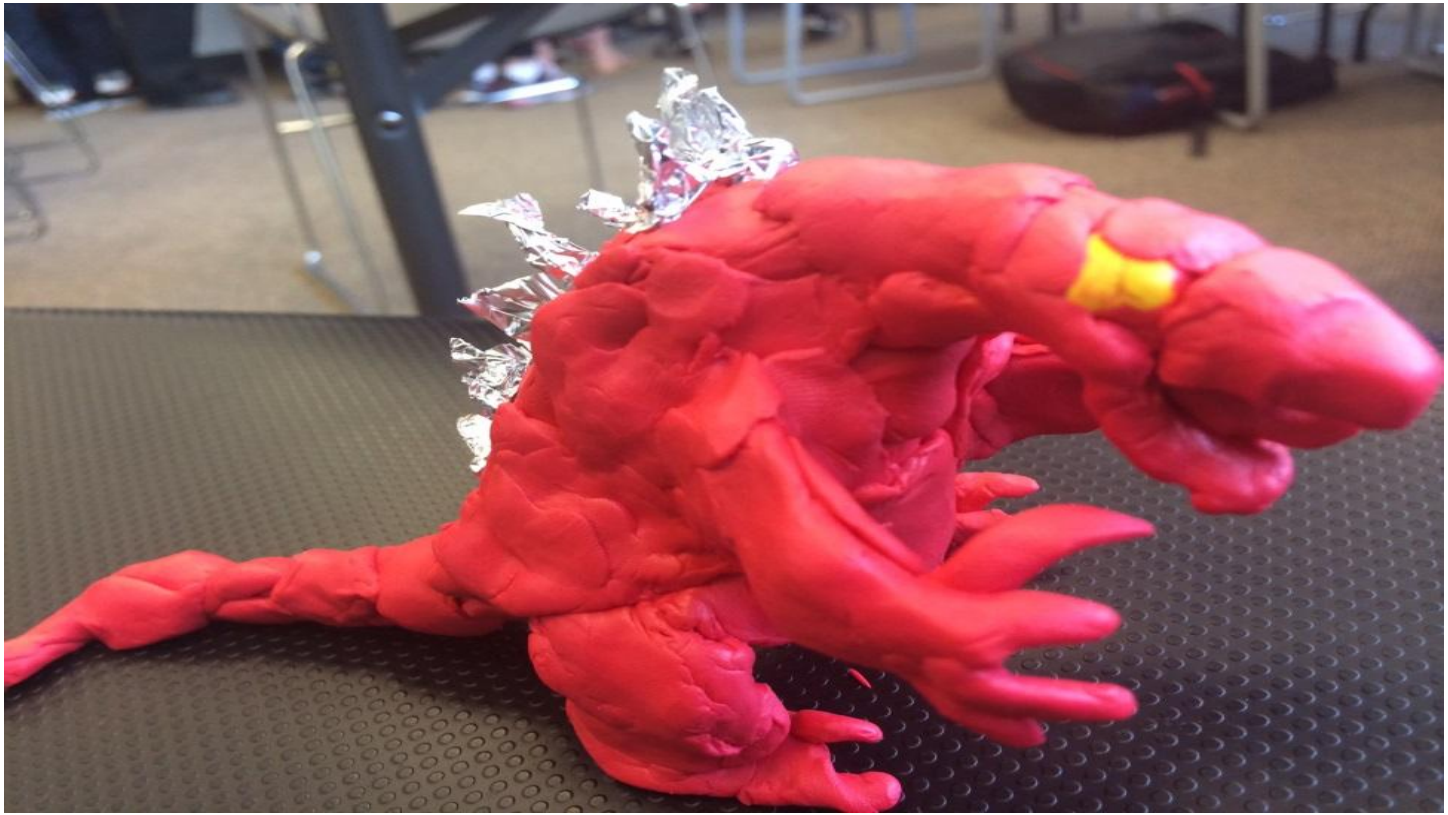


Our Purpose and Goals

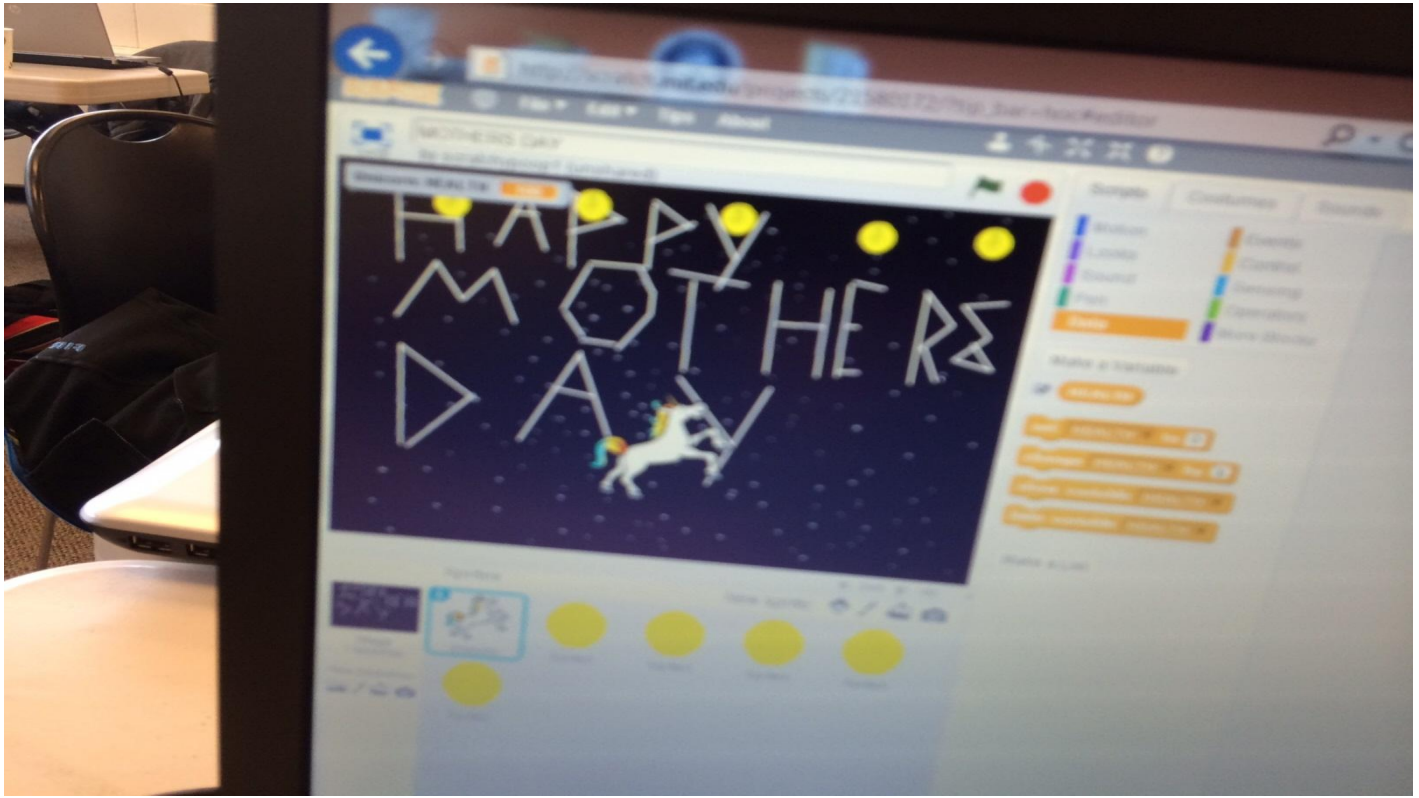
Stakeholders and Networks

Our Experience to Date

Always Working in Beta



Thank You



CoderDojo

I CODING

Information inspiring imagination

KINGSTON FRONTENAC PUBLIC LIBRARY

YOUR PUBLIC LIBRARY

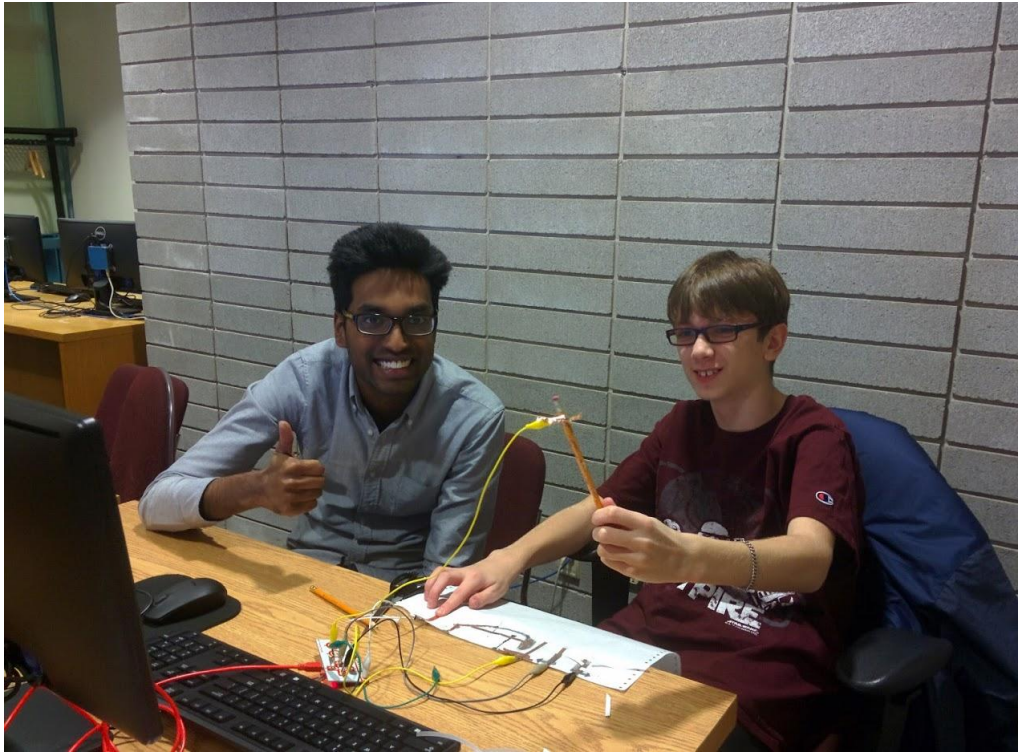
Kingston Frontenac Public Library

Why CoderDojo at KFPL?

- Mission & vision
- Digital literacy & the Maker Movement
- Unique need in the community
- New position of Teen & New Adult Librarian
- Access to mentors

Making it Happen

- Space
- Staff
- Tech
- Program design - co-learning model
- Volunteers
- Get the word out



Web Presence

Online Resources and Tutorials

Scratch (beginner)

Codecademy (intermediate)

Mozilla Webmaker (intermediate)

Lynda.com (intermediate to advanced)

Where to learn more

Safari Online Books

Stackoverflow

Web-based Tools

Mozilla Thimble (beginner)

Codepen (advanced)

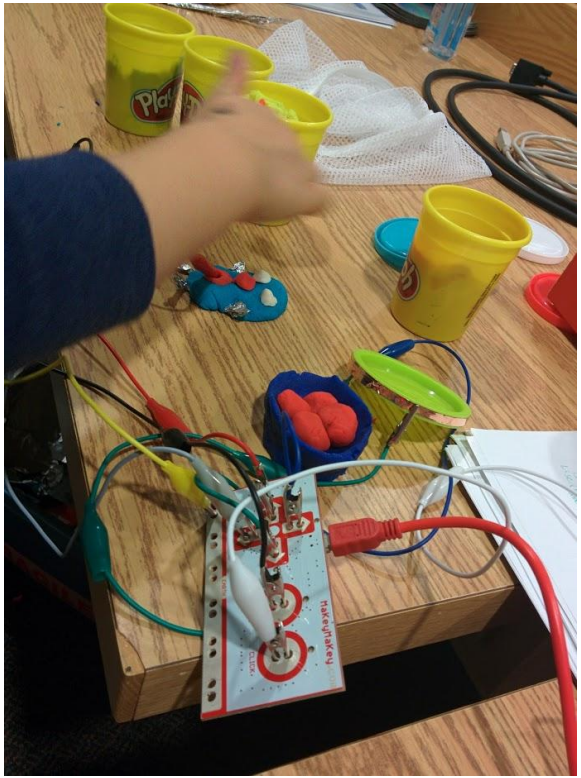
jsfiddle (advanced)

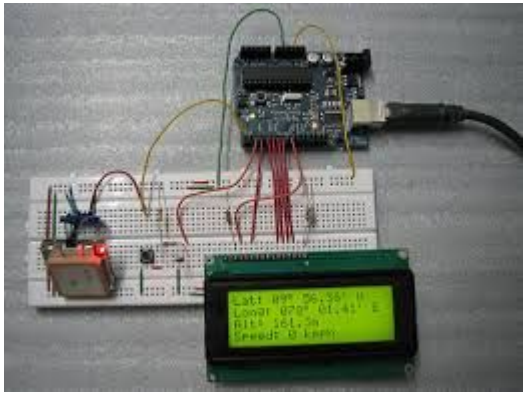
Open-Source (Free!) Code Editors

Sublime Text

Notepad++

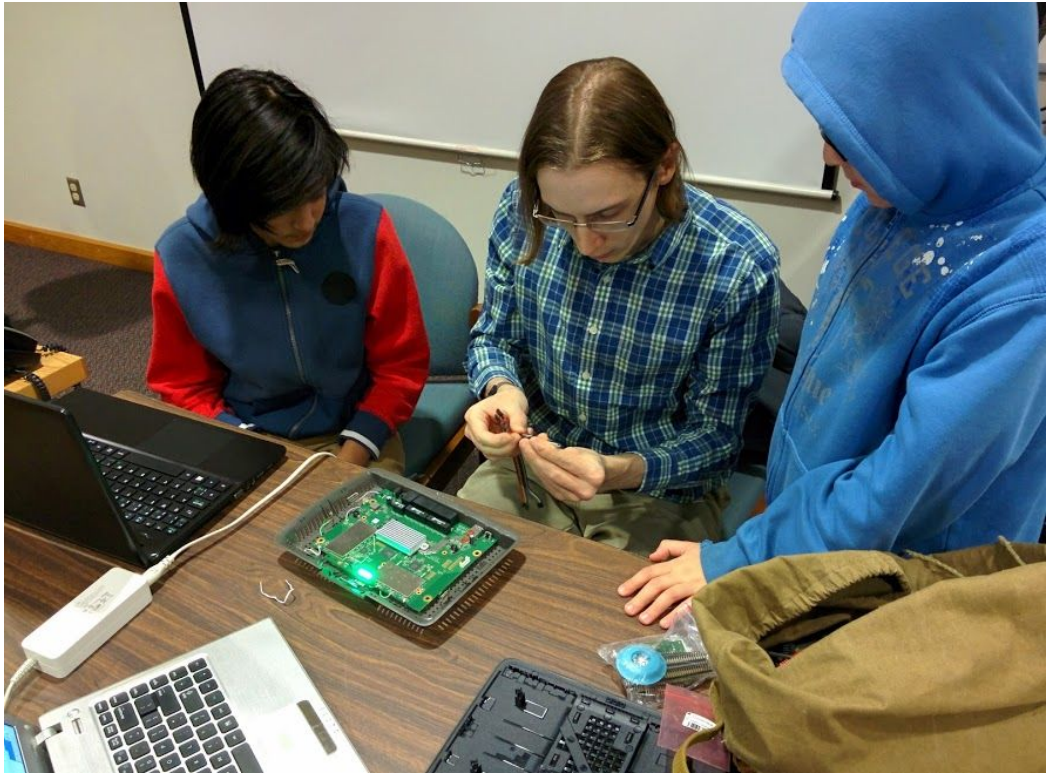
Add-Ons





The Participants

- provides an opportunity for interested children and youth to learn about programming in a safe and welcoming environment
- one on one time with a mentor
- digital literacy - skills they need to thrive in today’s tech-driven culture
- fills a need in the community - not many similar opportunities in Kingston



The Mentors

- Leadership opportunities - teaching & training
- Community of coders
- Connects new adults to the library
- Connects students to the Kingston community

Biggest Challenges

- Wi-Fi
- Access to computers & tech
- Staff training
- Capacity
- Volunteer and participant commitment

Let's Connect!

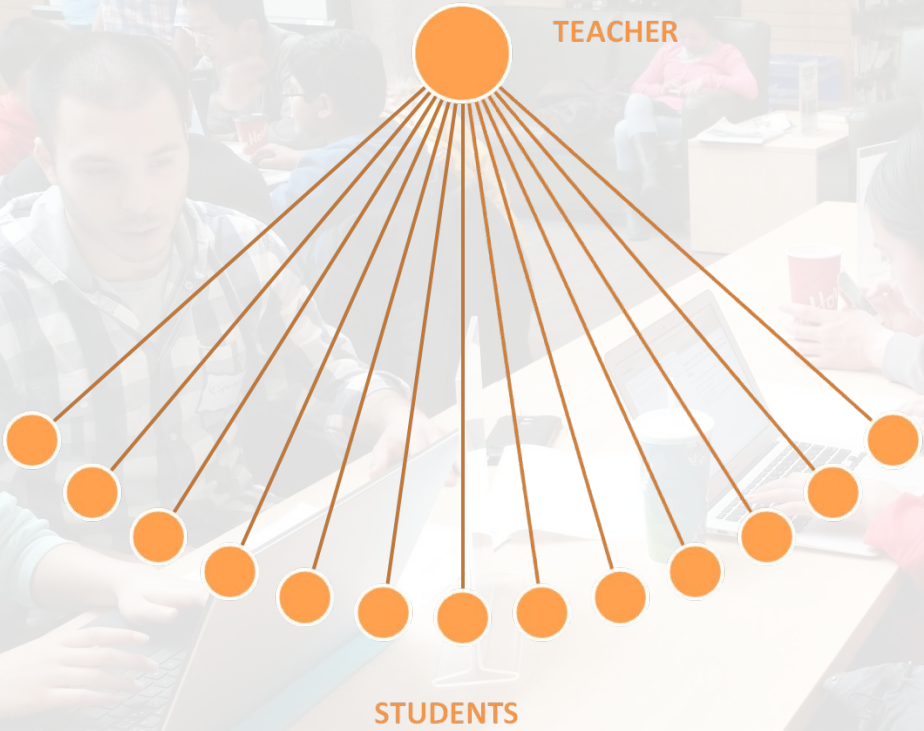
Liz Coates
Manager, Branch Operations
Kingston Frontenac Public Library
lcoates@kfpl.ca
613-549-8888 x1430

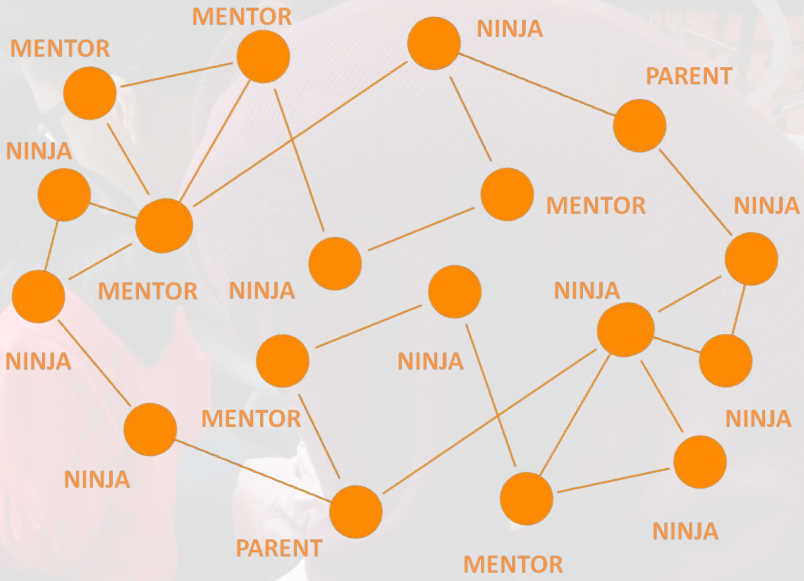
MARKHAM PUBLIC LIBRARY

CoderDojo MARKHAM

Within the CoderDojo movement, there is **focus on community**, peer learning, youth mentoring and self-led learning.

TRADITIONAL LEARNING VS CODERDOJO MEETUPS





675+

registered CoderDojos in the world

57

countries

12

registered CoderDojos in Canada

THE JOURNEY

NOV. 2014
It started with a tweet

DEC. 2014
Got in touch with CoderDojo Toronto

JAN. 2015
Connected with CoderDojo Calgary/Kingston

JAN. 2015
Mentor & Volunteer recruitment

FEB. 2015
Our first meetup!

Monthly Meetups

we met once a month, with a break in July/Aug. & Dec.

Registration

meetups were free, but registration was required

Meetup Duration

our meetups were 2 hours long

BYOD

participants brought their own devices (laptops)

Our Friends

Logics Academy, IBM, Microsoft, Mimetics Canada, SparkED, YLab

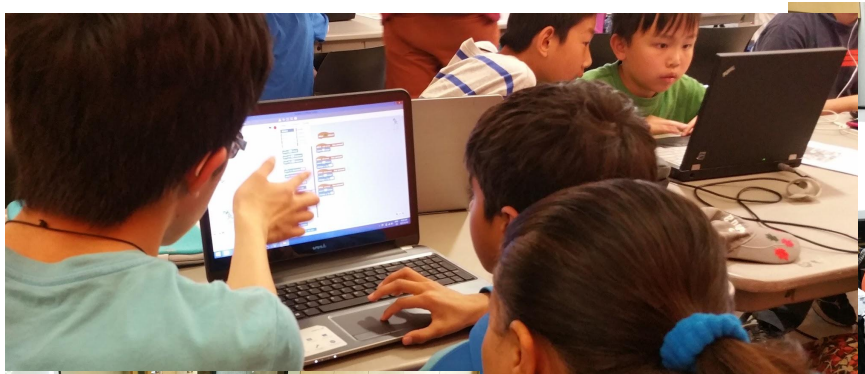
What We Learned

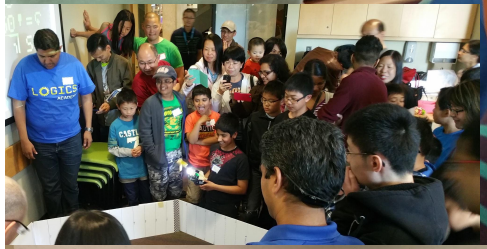
Scratch, Touch Develop, HTML, CSS, Python, PostScript, Raspberry Pi

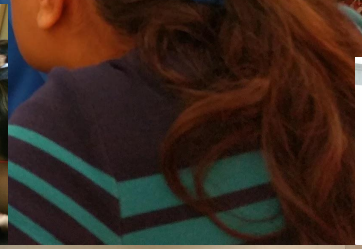
Places We Went

IBM Canada, TAVES Consumer Electronics Show

CODERDOJO MARKHAM
ENERGY







WHAT THE COMMUNITY THOUGHT ABOUT IT

Canadian Cheapo

My daughter and I had gone to the first Markham Coder Dojo event back in February, when we were introduced to Game Design in Scratch. These are events for children, but those under the age of 12 require an adult to supervise them so I seize the chance to learn as well. When else would I have the time to do it? Not to mention, combining technology, learning and spending quality time with my kids make this a win-win situation all the way around.

Sarah Naqvi
@naqsar
Follow

Intro to web dev! Lots of pumped kids on a Sat afternoon, thank you @mrgweedz @sparkedGTA @MarkhamCoders @Libraraga

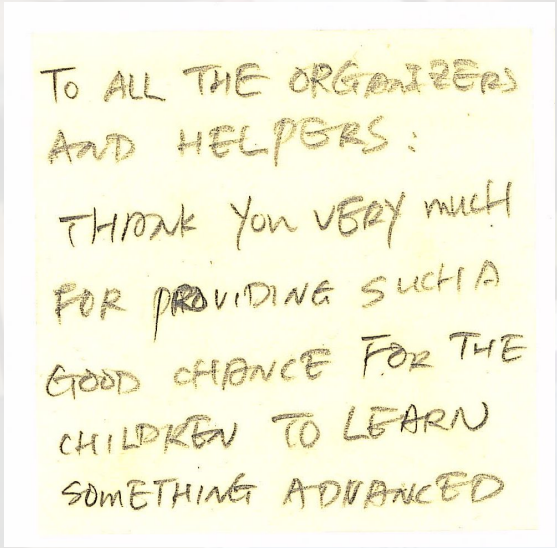
Lucas Chang
@Lucas_Chang
Follow

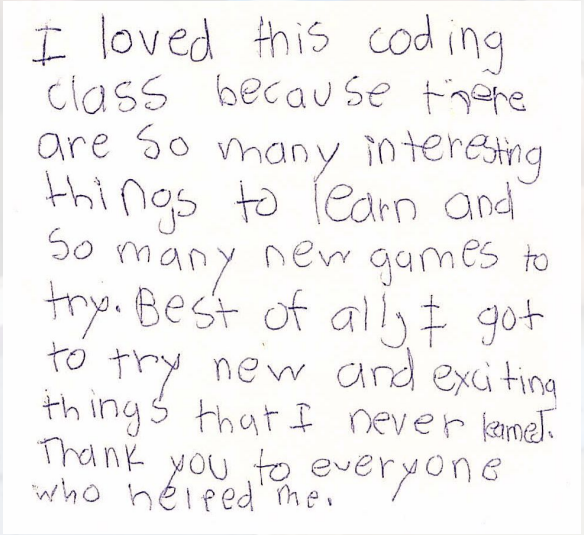
Building an #AngryBirds website at @MarkhamCoders, led by @sparkedGTA @markhamlibrary

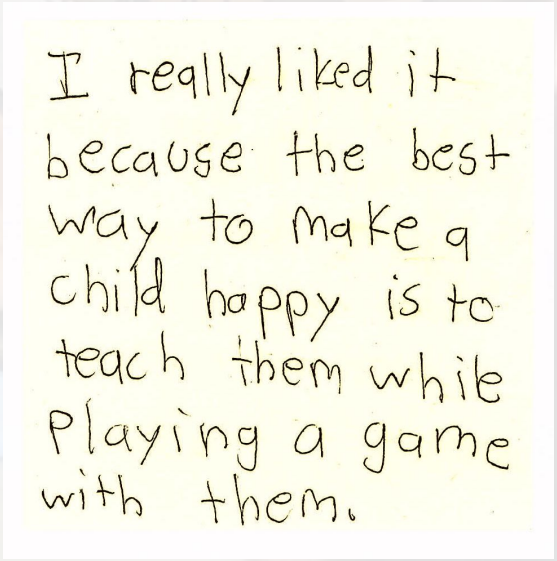
Startup York Region
@StartupYork
Follow

These volunteers made #CoderDojoMarkham awesome: @MarkhamLibrary @MarkhamCoders @thisduck @LOGICSAcademy @sparkedGTA

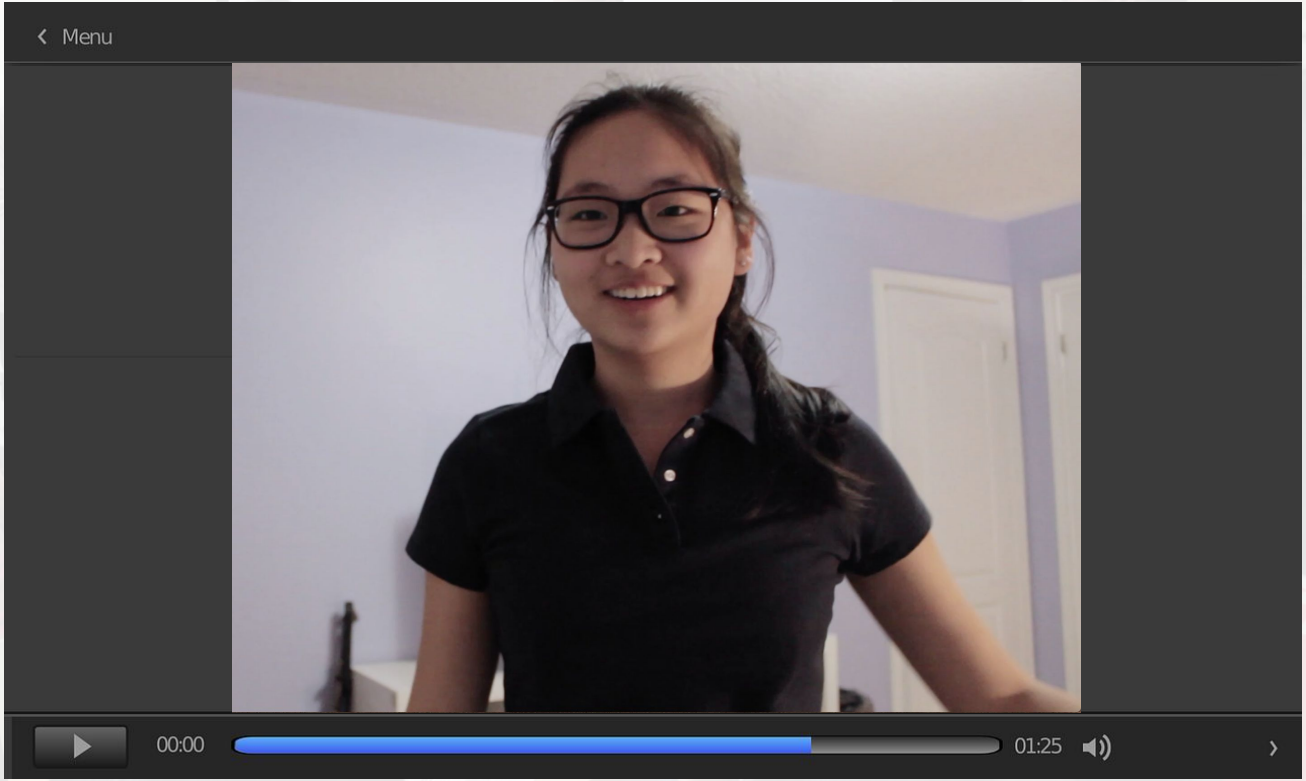
RETWEETS 2 LIKES 5


TO ALL THE ORGANIZERS
AND HELPERS:
THANK YOU VERY MUCH
FOR PROVIDING SUCH A
GOOD CHANCE FOR THE
CHILDREN TO LEARN
SOMETHING ADVANCED


I loved this coding
class because there
are so many interesting
things to learn and
so many new games to
try. Best of all I got
to try new and exciting
things that I never kenew.
Thank you to everyone
who helped me.


I really liked it
because the best
way to make a
child happy is to
teach them while
playing a game
with them.

WHAT OUR VOLUNTEERS THOUGHT ABOUT CODERDOJO MARKHAM



THE GOOD, THE BAD, & THE UGLY & LESSONS LEARNED

THE GREAT

Community's interest exceeded our expectations

THE GOOD

Developed a network of Mentors & Volunteers who consistently supported meetups

THE GOOD

Changing community and staff perceptions of library programming

THE BAD

Never enough space, and lack of continuity

THE BAD

Wifi

THE UGLY

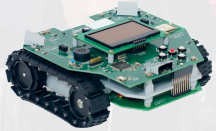
Have realistic expectations - miracles are highly unlikely

BEYOND CODERDOJO MARKHAM

SCRATCH DAY

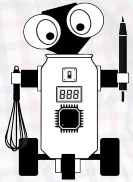
A global event celebrating coding. MIT initiative.

May 14, 2016



AFTERNOONS WITH ROBOTS

Collaboration with Mimetics Canada. Coding and robotics.



MY ROBOT ATE MY CANDY

Robot design and coding program, facilitated by the Get Your Bot On team. Raspberry Pi.

HOUR OF CODE

HOUR OF CODE

Annual coding event, taking place in December.

THANKS!

LET'S CONNECT!

Agnieszka Gorgon
Teaching & Learning Technologies Librarian
Seneca College
@libraraga
agnieszka.gorgon@senecacollege.ca


<coding>without a Dojo</>
Hamilton Public Library
<Jen Gal>Manager, Digital Technology Services</>

<why?>

- < Wanted a staff led approach that is not dependent on volunteers
- < Needed a scalable and informal model
- < Needed a program that could be offered by library staff of all skill levels

<how?>

<how?>

- < Staff led Intro to Coding classes based on Code.org tutorials
- < Ages 8-12
- < One 90 minute session
- < Limit of 8 participants
- < Desktops, laptops or iPads

<benefits>

- < Code.org tutorials provide easy entry for staff and don't require expertise to facilitate
- < Classes demystify coding for participants and staff
- < Tutorials are game based and engaging for young coders

<familiar faces>

Star Wars: Building a Galaxy with Code

Learn to program droids, and create your own Star Wars game in a galaxy far, far away. (Ages 6-106)

Teacher's Notes
https://hourofcode.com/star

Go

Minecraft Hour of Code

Use blocks of code to take Steve or Alex on an adventure through this Minecraft world. (Ages 6-106)

Teacher's Notes
https://hourofcode.com/mc

Go

Code with Anna and Elsa

Let's use code to join Anna and Elsa as they explore the magic and beauty of ice. (Ages 8-108)

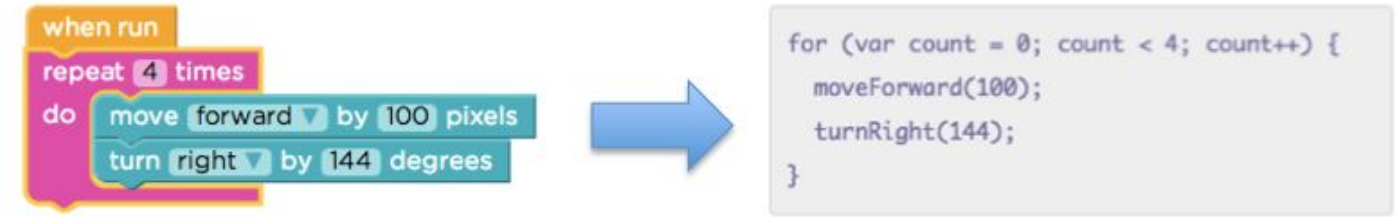
Teacher's Notes
https://hourofcode.com/frzn

Go

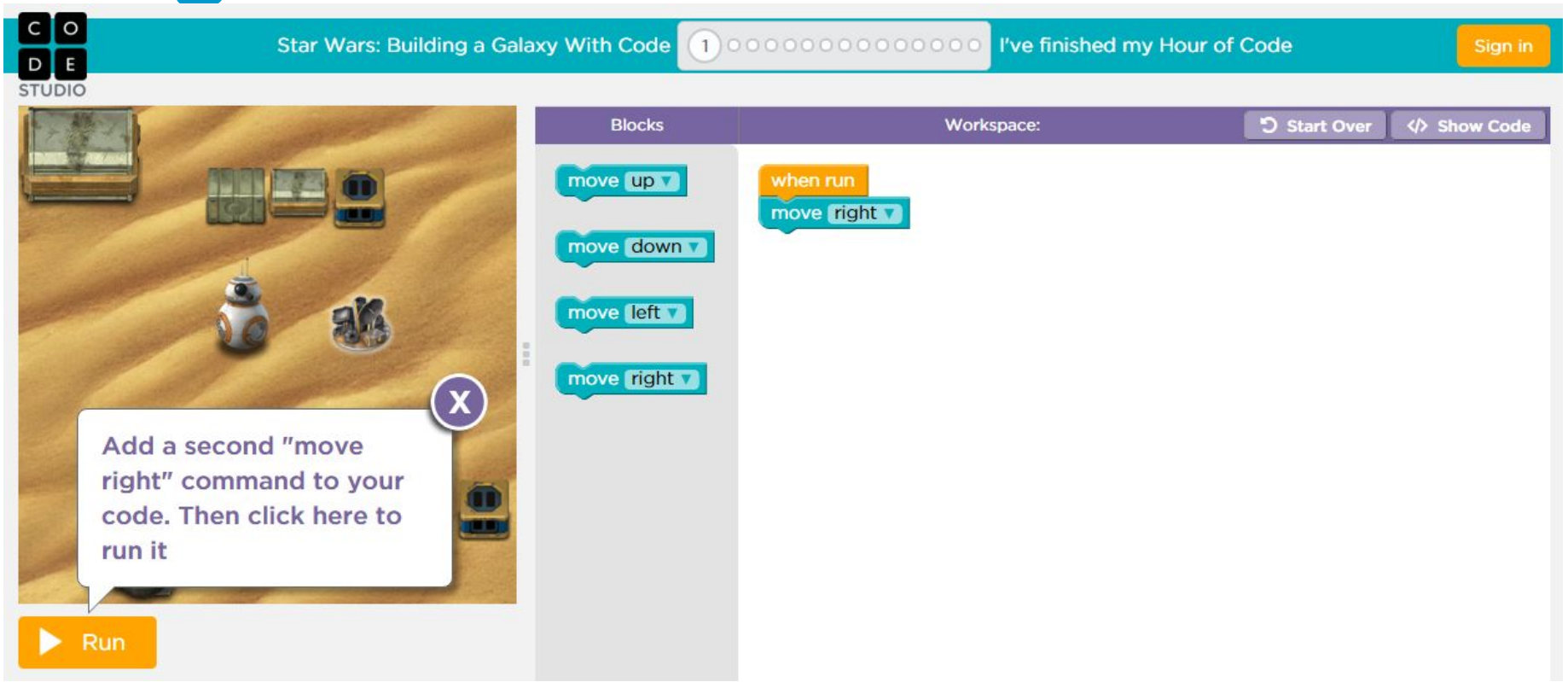

<blocks>

<blocks>

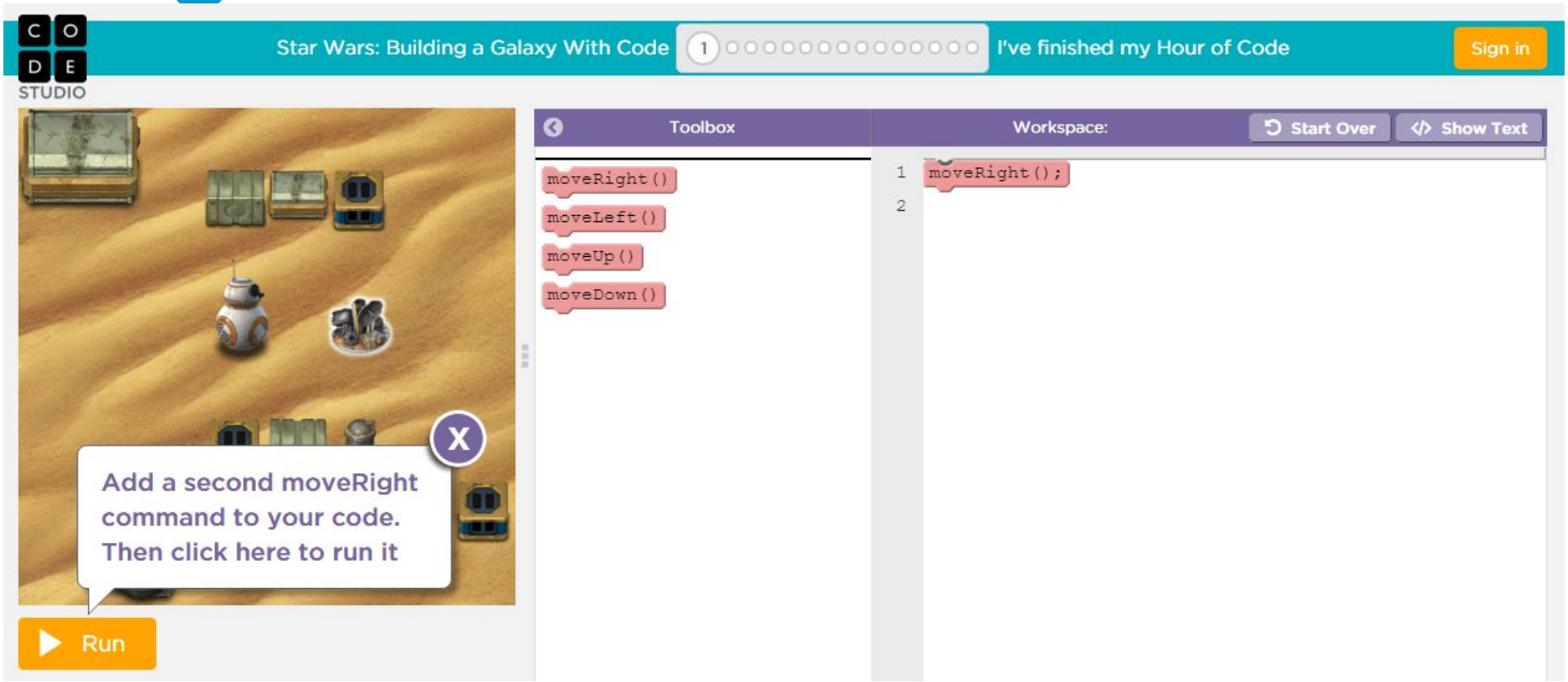
- < Users are introduced to the basics concepts of programming using drag and drop coding
- < Tutorials use blocks instead of text to generate code



<ages 6+>


CODE STUDIO
Star Wars: Building a Galaxy With Code
1
I've finished my Hour of Code
Sign in
Add a second "move right" command to your code. Then click here to run it
Run
Blocks
Workspace:
Start Over
Show Code
move up
move down
move left
move right
when run
move right

<ages 11+>


CODE STUDIO
Star Wars: Building a Galaxy With Code
1
I've finished my Hour of Code
Sign in
Add a second moveRight command to your code. Then click here to run it
Run
Toolbox
moveRight()
moveLeft()
moveUp()
moveDown()
Workspace:
Start Over
Show Text
1 moveRight();
2

<beyond the hour>

20 hour courses for
Computer Science Fundamentals (all ages)

Course 1

Start with Course 1 for early readers.

Ages 4-6

Try now

Course 2

Start with Course 2 for students who can read.

Ages 6-18

Try now

Course 3

Course 3 is a follow-up to Course 2.

Ages 8-18

Try now

Course 4 beta

Students taking Course 4 should have already taken Courses 2 and 3.

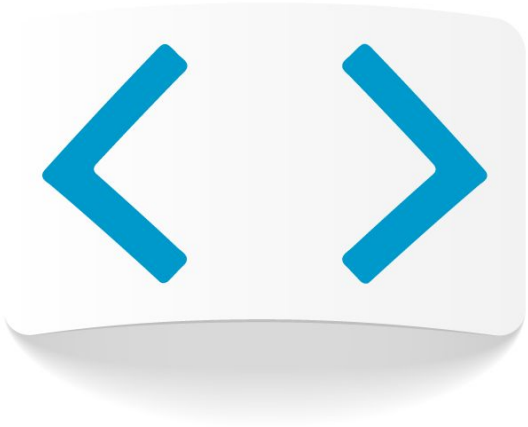
Ages 10-18

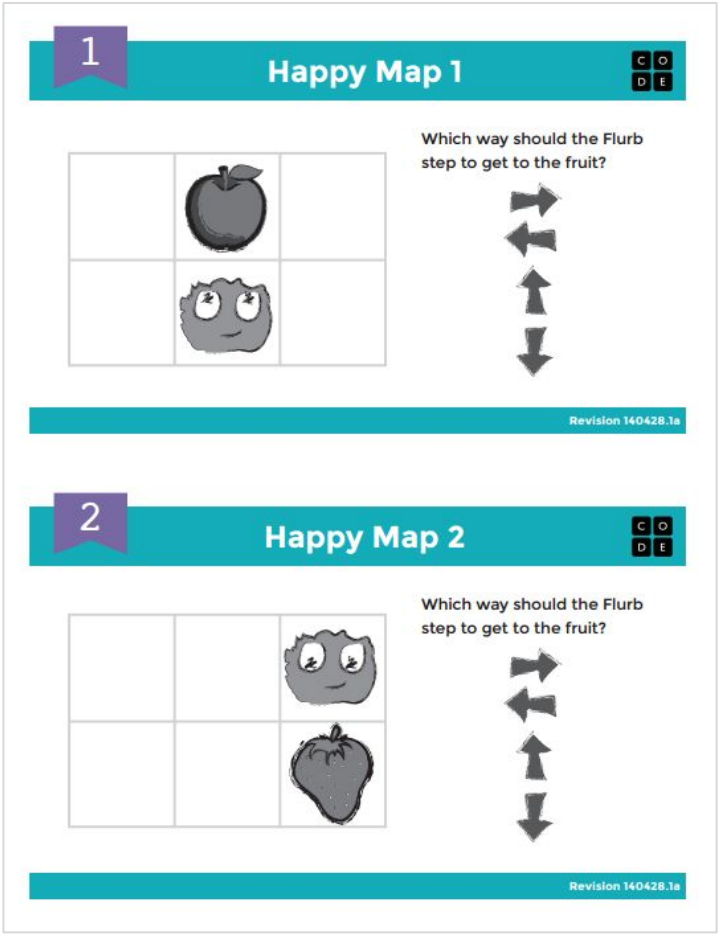
Try now


<unplugged>

<unplugged>

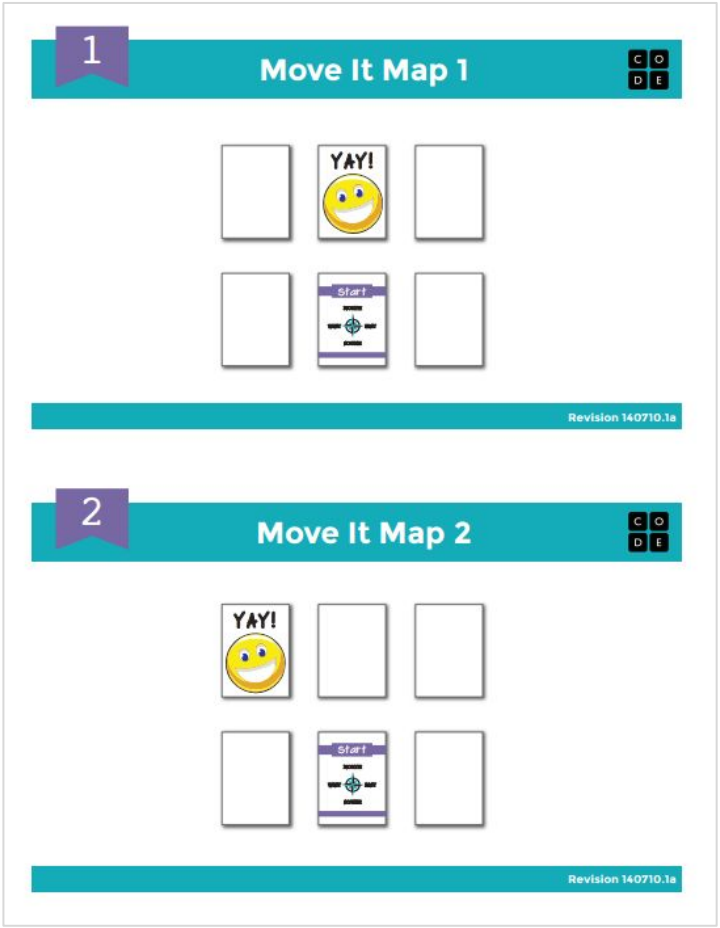
< Happy Maps - programming with paper





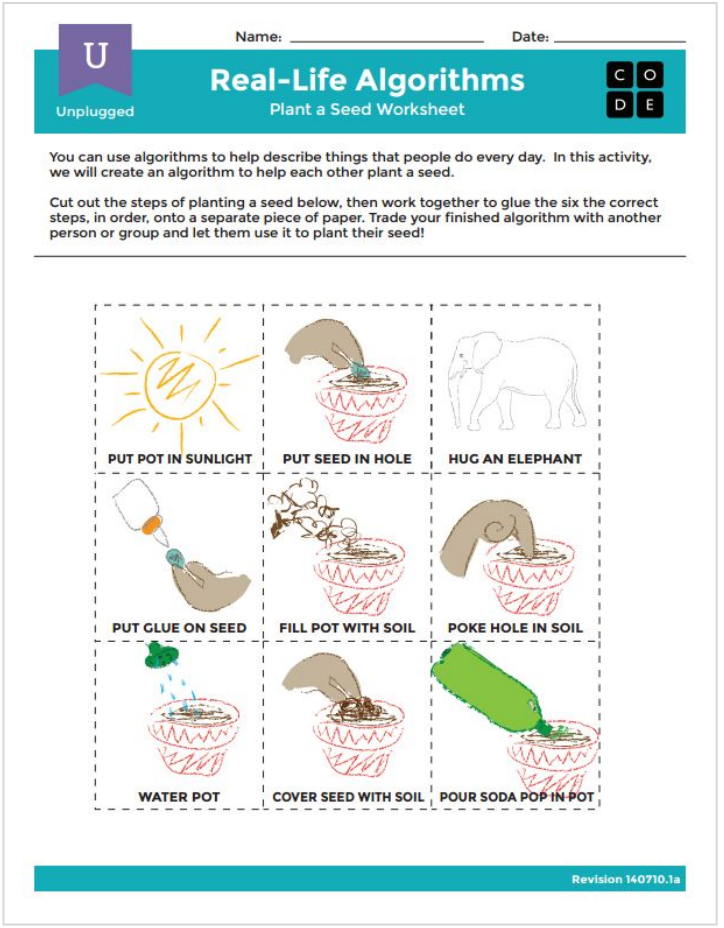
<unplugged>

< Move it, Move it - programming with people



<unplugged>

< Plant a Seed -
programming with pictures



Unplugged

Name: _____ Date: _____

Real-Life Algorithms

Plant a Seed Worksheet

You can use algorithms to help describe things that people do every day. In this activity, we will create an algorithm to help each other plant a seed.

Cut out the steps of planting a seed below, then work together to glue the six the correct steps, in order, onto a separate piece of paper. Trade your finished algorithm with another person or group and let them use it to plant their seed!

Revision 140710.1a


<questions?>