

Connecting Patrons with Coding

Carrie Kitchen & Chelsea Murray
Calgary Public Library

Why Coding?

- Foundational skill
- Teaches problem solving, logic and perseverance
- 218,000 jobs*
- CS lacks diversity
- Not taught in many schools



*<http://www.ictc-ctic.ca/>

Parameters

**“Start where
you are. Use
what you have.
Do what you
can.”**

- ARTHUR ASHE



Due.com

- Huge demand
- Limited budget & staffing
- Chromebooks
- No coding expertise

The “Making Connections” Model

- Our model:
 1. Self-directed learning
 2. Connect with quality resources
 3. Be a “Guide on the Side”



Coding at CPL



- Crack the Code (ages 2-99)
- Coding Buddies (ages 6-9) & Code Club (ages 10-12)
- codeTEEN (ages 13+)

The Iceberg Illusion

Success
is an
iceberg

SUCCESS!

WHAT PEOPLE
SEE

Persistence



Failure



Sacrifice



Disappointment



WHAT PEOPLE
DON'T SEE

Dedication



Hard work



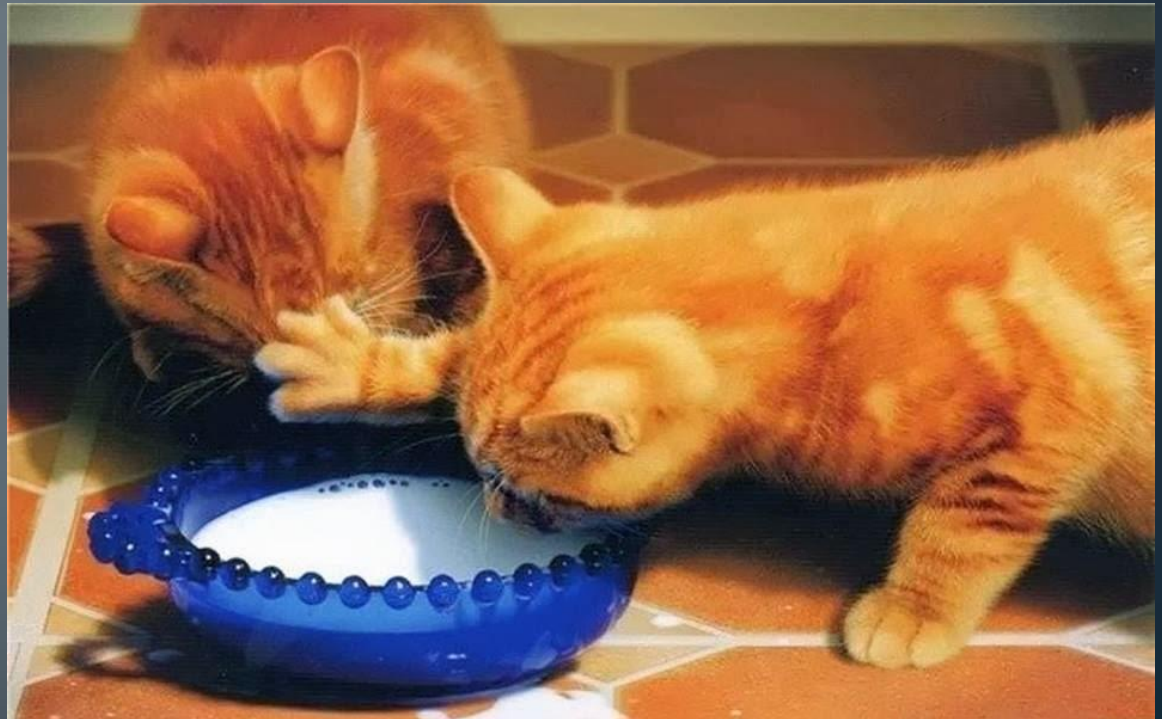
Good habits



@sylviaaduckworth

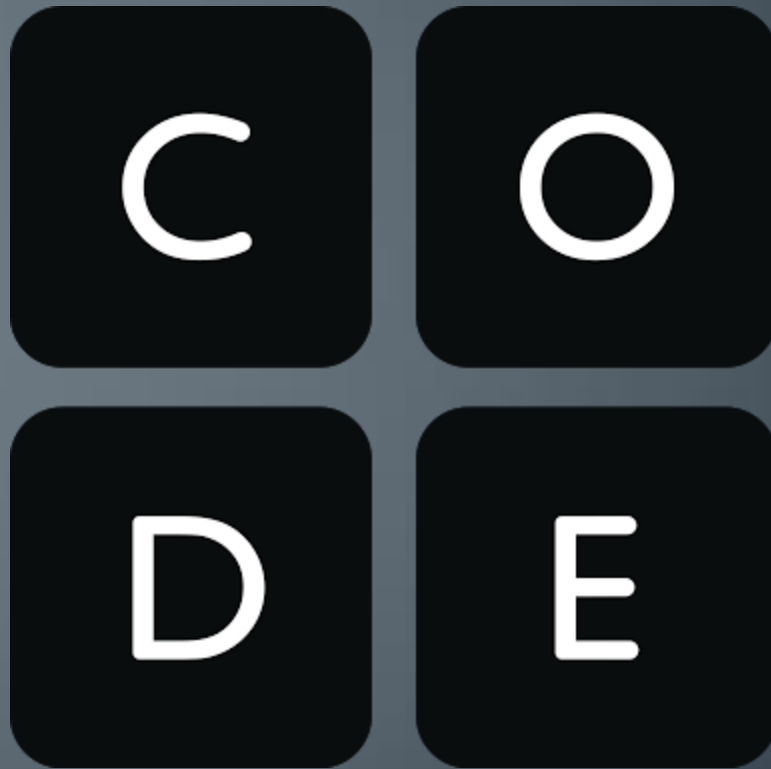
We're Happy to Share!

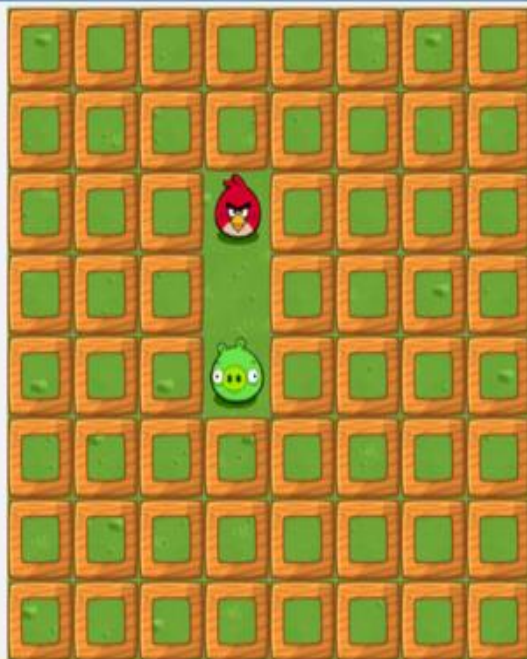
- Volunteer handbooks
- Program plans
- Resource flowchart
- Coding workbooks



Code.org rocks!

- <https://code.org/learn>





Run

program
window



Can you help me to catch the naughty pig? Stack a couple of "move forward" blocks together and press "Run" to help me get there.

Blocks

move forward

turn left 5°

turn right ↻ ▼

toolbox

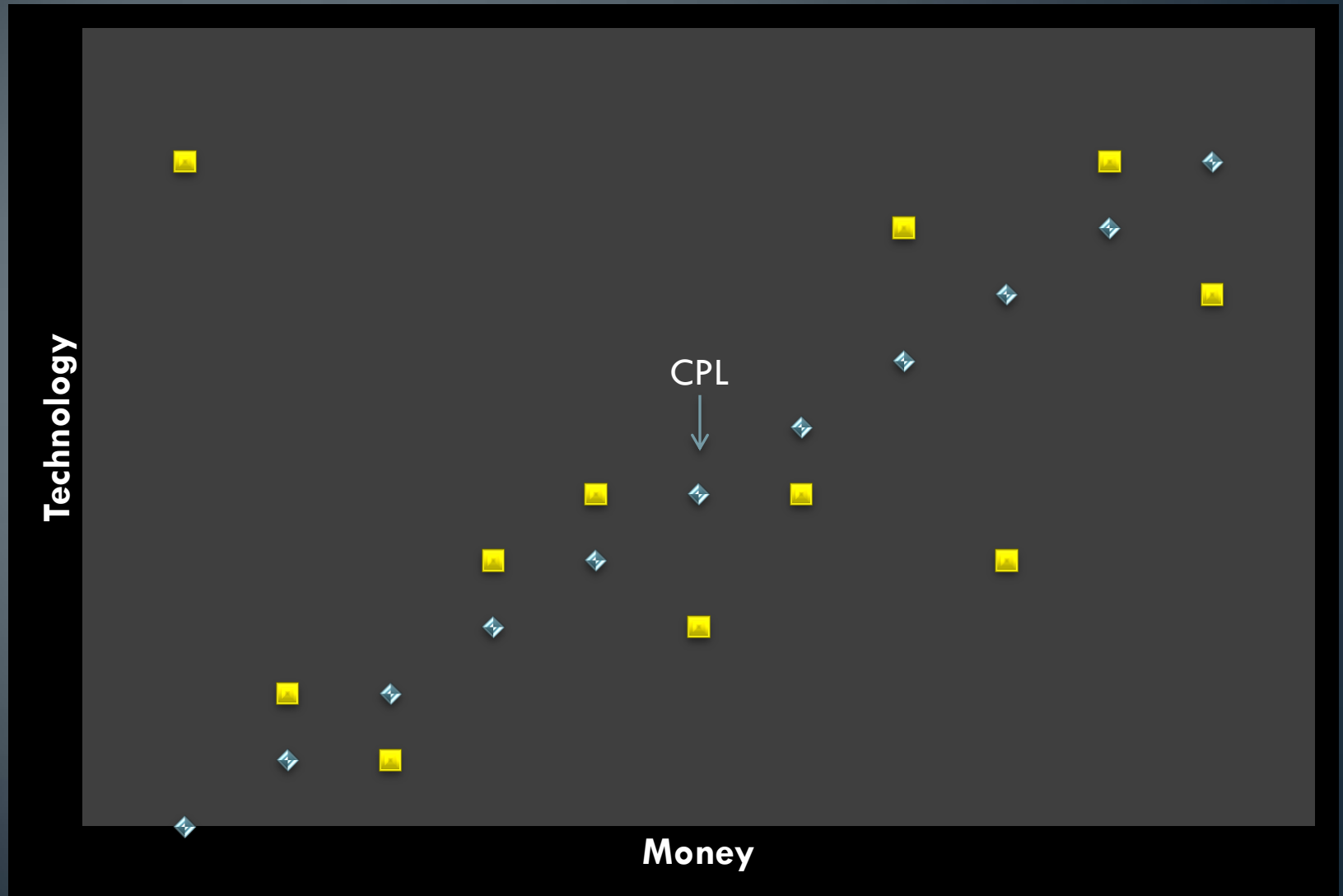
Workspace: 2 / 3 blocks

when run

move forward

workspace

Show Me the Money! (or don't...)



So Broke, I Can't Pay Attention

Offline

- Code.org (offline activities)
- CSunplugged.org



Online

- Code.org
- Code Combat
- Codecademy
- Free Code Camp
- Khan Academy
- Scratch
- W3C Schools (HTML)

More Free Resources

- [Coder's Guide \(YouTube\)](#)
- [Codewars](#)
- [Javscripts for Cats](#)
- [LearnPython.org](#)
- [Rails Tutorial](#)
- [Ruby Monk](#)
- [The Code Player](#)
- [Tuts+](#)



In The Middle

- \$25: Littlecodr card game
- \$40: Robot Turtles board game
- \$60: Code-a-pillar
- \$150: two Ozobots
- \$400: one Chromebook



Play Time!



Let's Play

HUT

Computers and keyboards and robots, Oh my!

Robots!

- Sphero SPRK (\$130)
- Dash and Dot (\$200)
- Lego Mindstorms (\$400)
- Cubetto (\$300)



DIY

- Piper Computer Kit (\$350)
- Bitsbox Coding Box (\$300)
- Cubetto (\$225)
- Raspberry Pi (\$100)

Hardware/Software

- Virtual Reality (>\$500)
- Lightbot, Kodu
- iPad (\$450) with Swift Playground (free)



What's on YOUR wish list?

Partners

- Partners
 - Protospace (Calgary makerspace)
 - Scoperta (Calgary robotics organization)
- Programmers
 - Mad Science
 - Robogals
 - STEM Learning Lab
- Volunteers



What should you take away from this?



- It's ok to fail!
- You don't need to have lots of money (but it's great to have a little. Any amount will get you started with something!) or lots of tech
- There are loads of great resources!
- Partners are also amazing to have
- You don't need to know how to code
- Volunteers are the golden ticket
- We love cats

Thank you!!!!!! Any Questions?



Contact:

Carrie Kitchen – carrie.kitchen@calgarylibrary.ca

Chelsea Murray – chelsea.murray@calgarylibrary.ca