

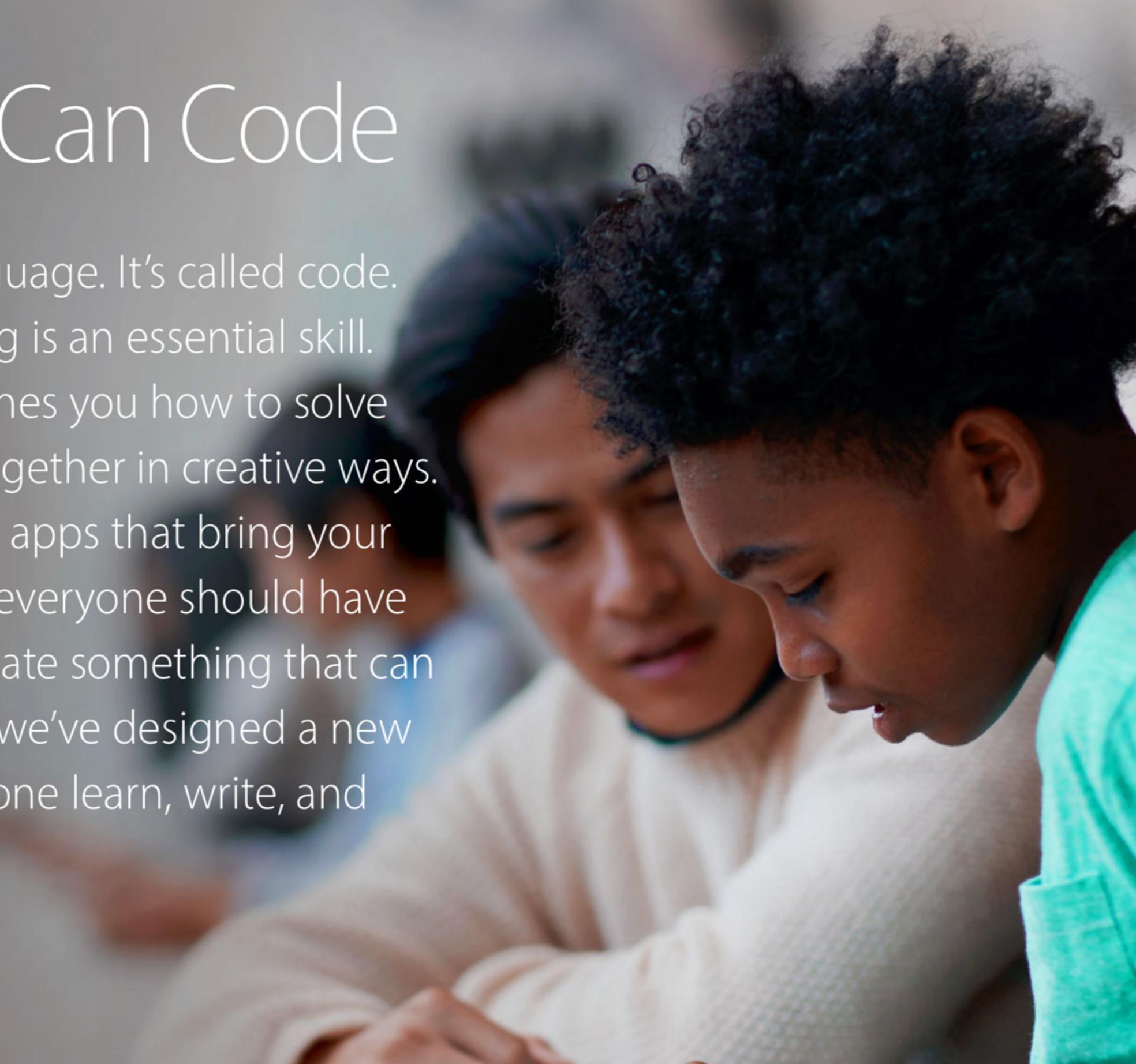


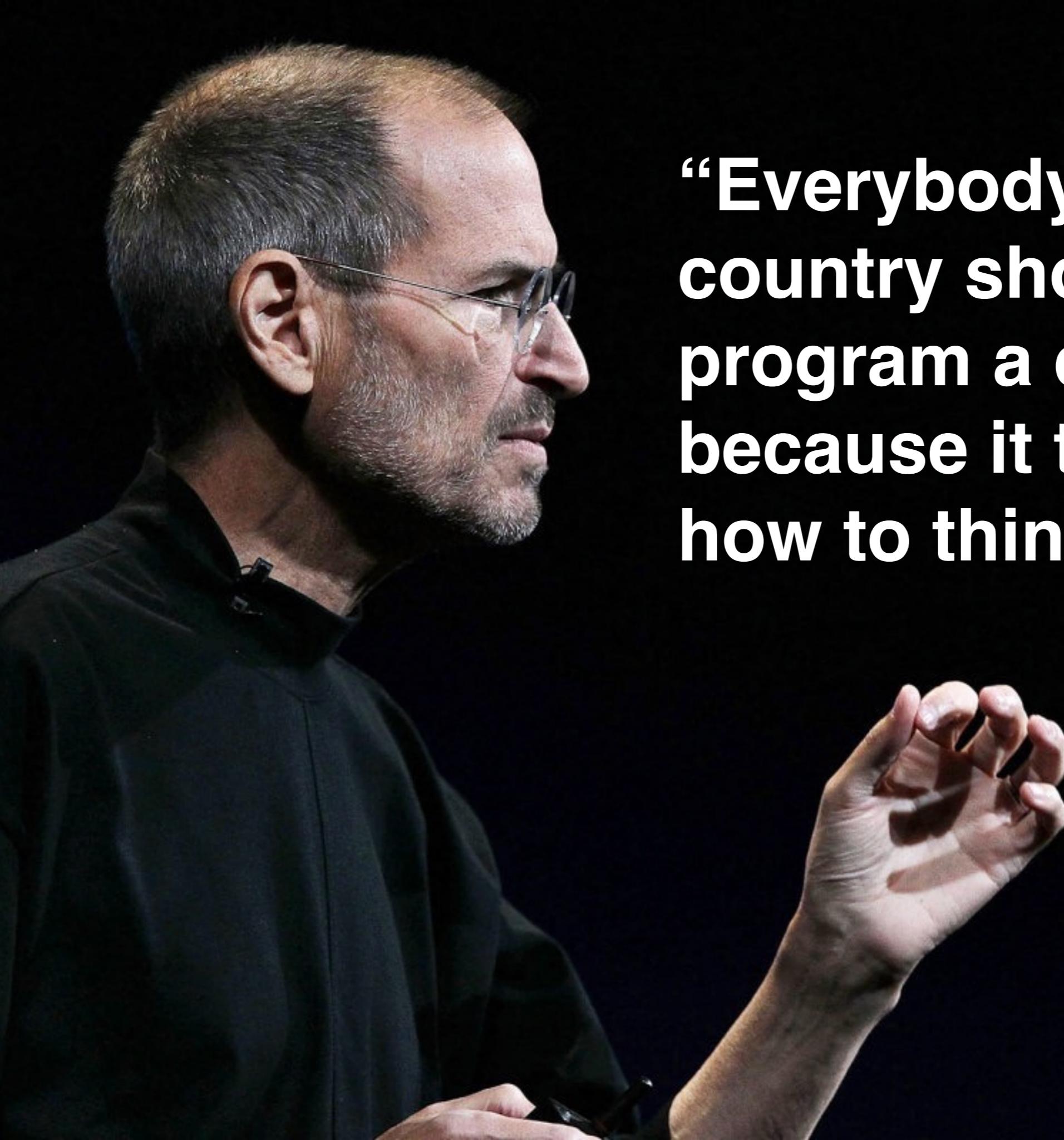


# Everyone Can Code

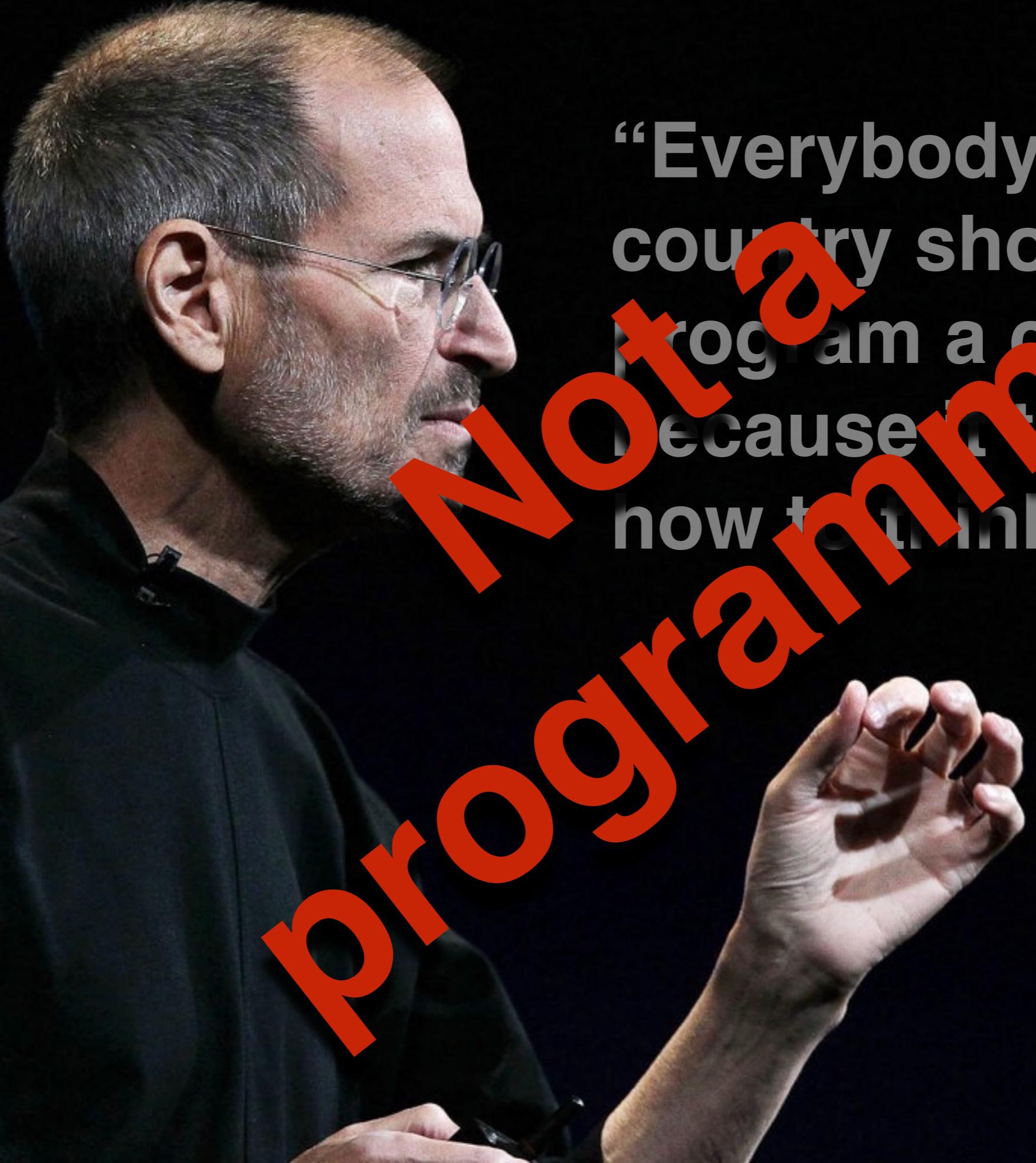
Technology has a language. It's called code. And we believe coding is an essential skill. Learning to code teaches you how to solve problems and work together in creative ways. And it helps you build apps that bring your ideas to life. We think everyone should have the opportunity to create something that can change the world. So we've designed a new program that lets anyone learn, write, and teach code.

Watch the film 



A black and white profile photograph of Steve Jobs, facing right. He has short brown hair, wears glasses, and has a beard. He is wearing a dark turtleneck sweater. His right hand is raised, with his fingers slightly curled, as if he is gesturing while speaking.

**“Everybody in this  
country should learn to  
program a computer,  
because it teaches you  
how to think”**



“Everybody in this country should learn to program a computer, because it teaches you how to think”

**Not a programmer!**

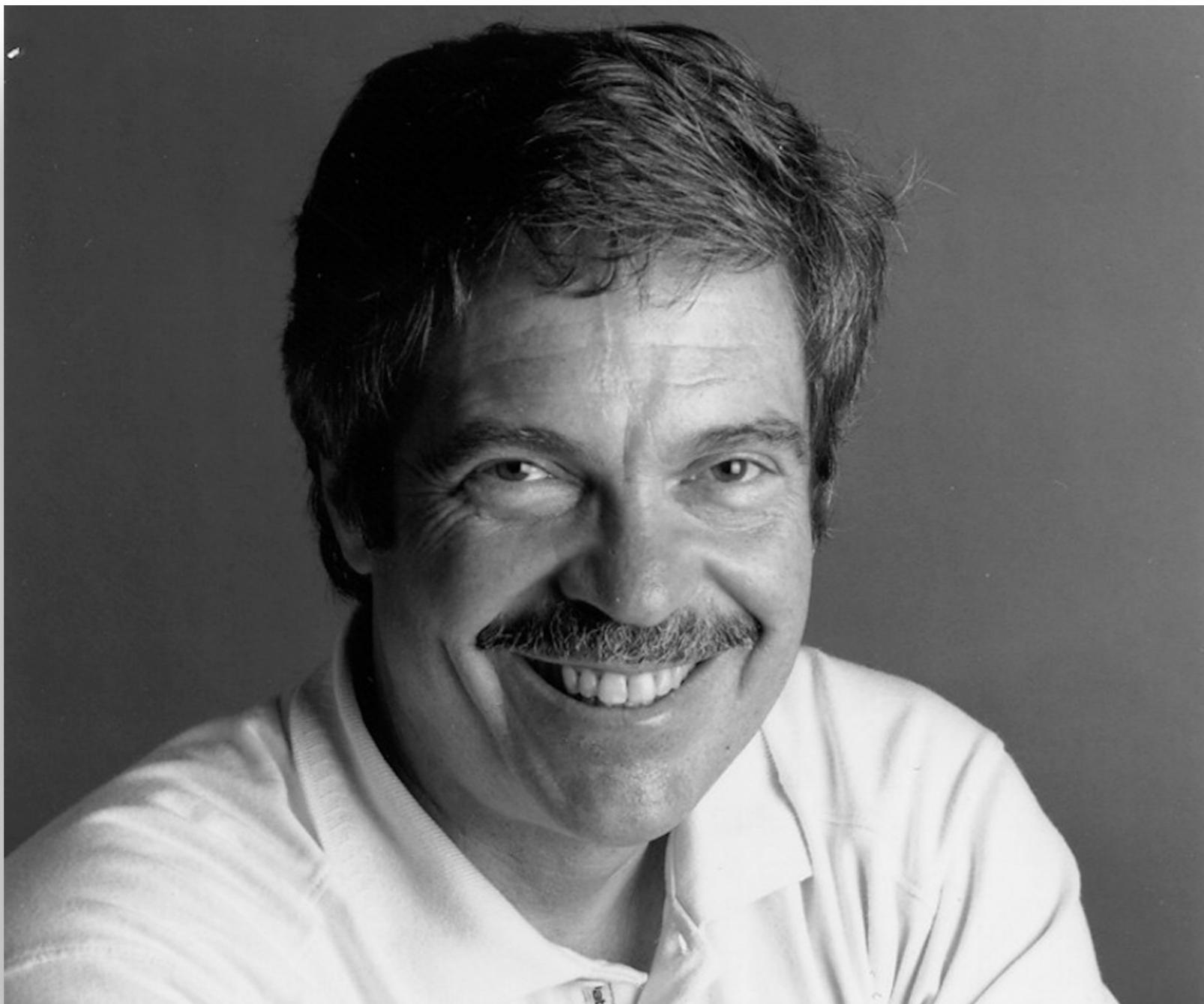
**1. What is the  
purpose of  
Education?**

**2. What should  
programmers  
do about it?**

# About Me



# Alan Kay



# Hopscotch

X



Play ▶



Dino

When the play button is tapped  
Jump



+ Add a new rule

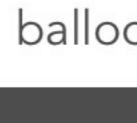


**START ►**

X 

show preview

**My Abilities** + ^

- Jump 
- Go For a Walk 
- Wiggle 
- Break Dance 
- Animate 
- Draw a Triangle 
- Act like a balloon 

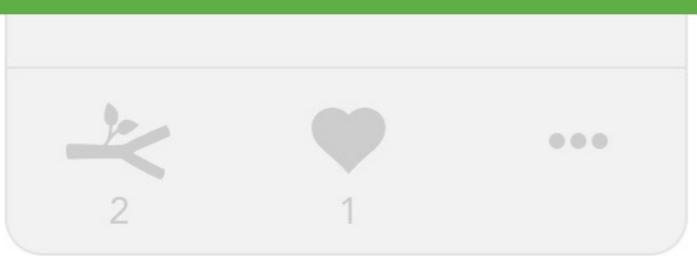
Movement ▼

Drawing ▼

When project is started ▼

```
when project starts
  set [number of sides v] to (3)
  set [degrees in a circle v] to (360)
  set speed to (4000)
  repeat (40)
    repeat (number of sides)
      move (40) steps
      rotate (degrees in a circle / (number of sides)) degrees
    end
    change [number of sides v] by (1)
  end
```

## Featured

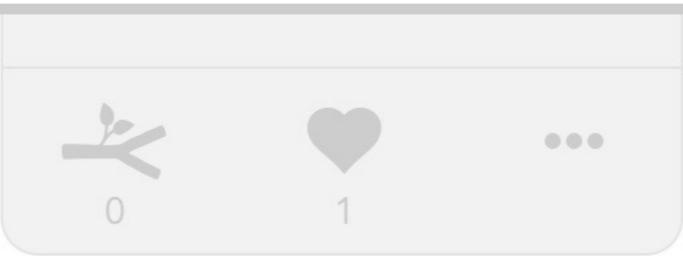


 DaintyPenguin

Banyan



## Popular

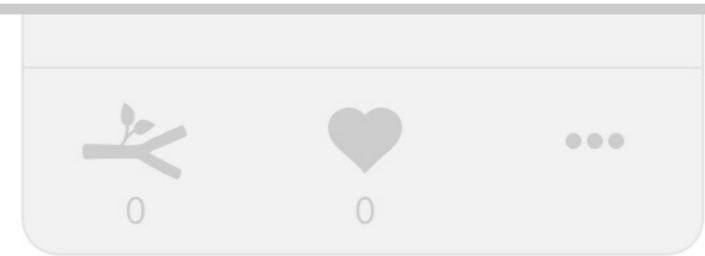


 DaintyPenguin

Mosquito



## Newest



 IcyFeather

New fellas



 DaintyPenguin

Alex 3b

Me



Create



Explore



Stream



Me

Reset purchases

Write us!

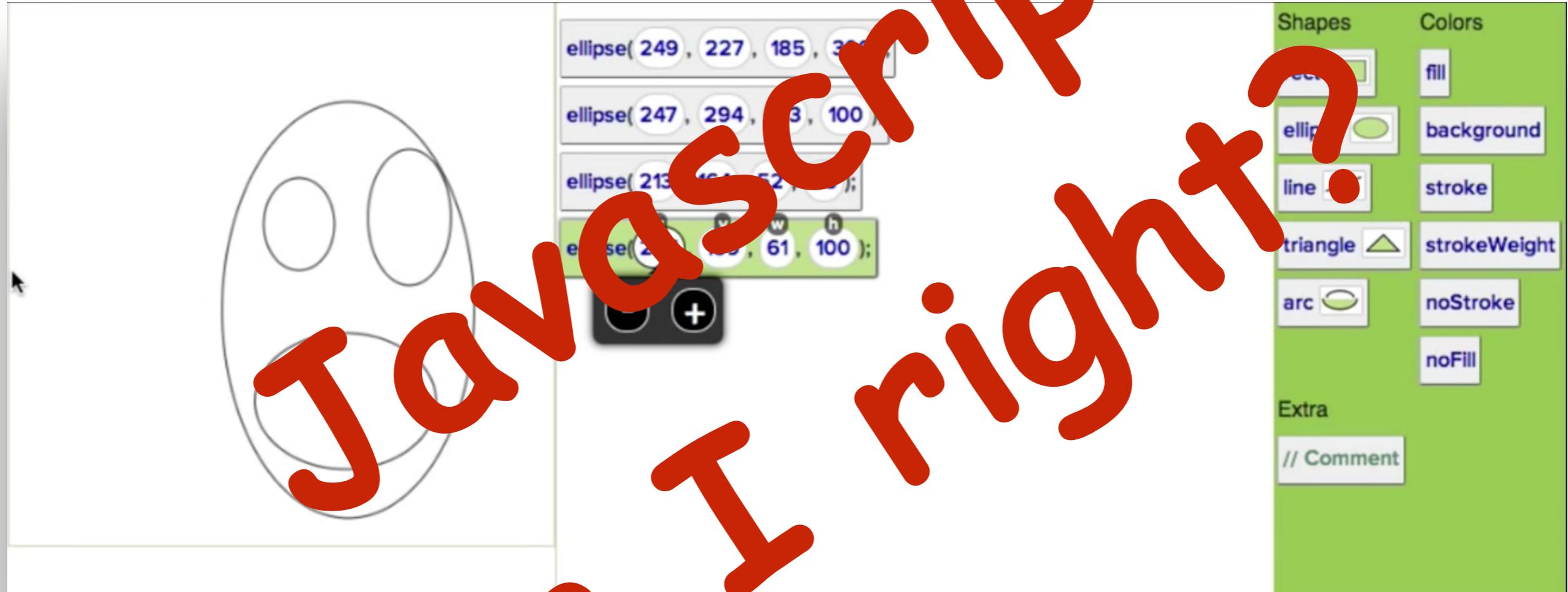
stop copying me!!! 😠

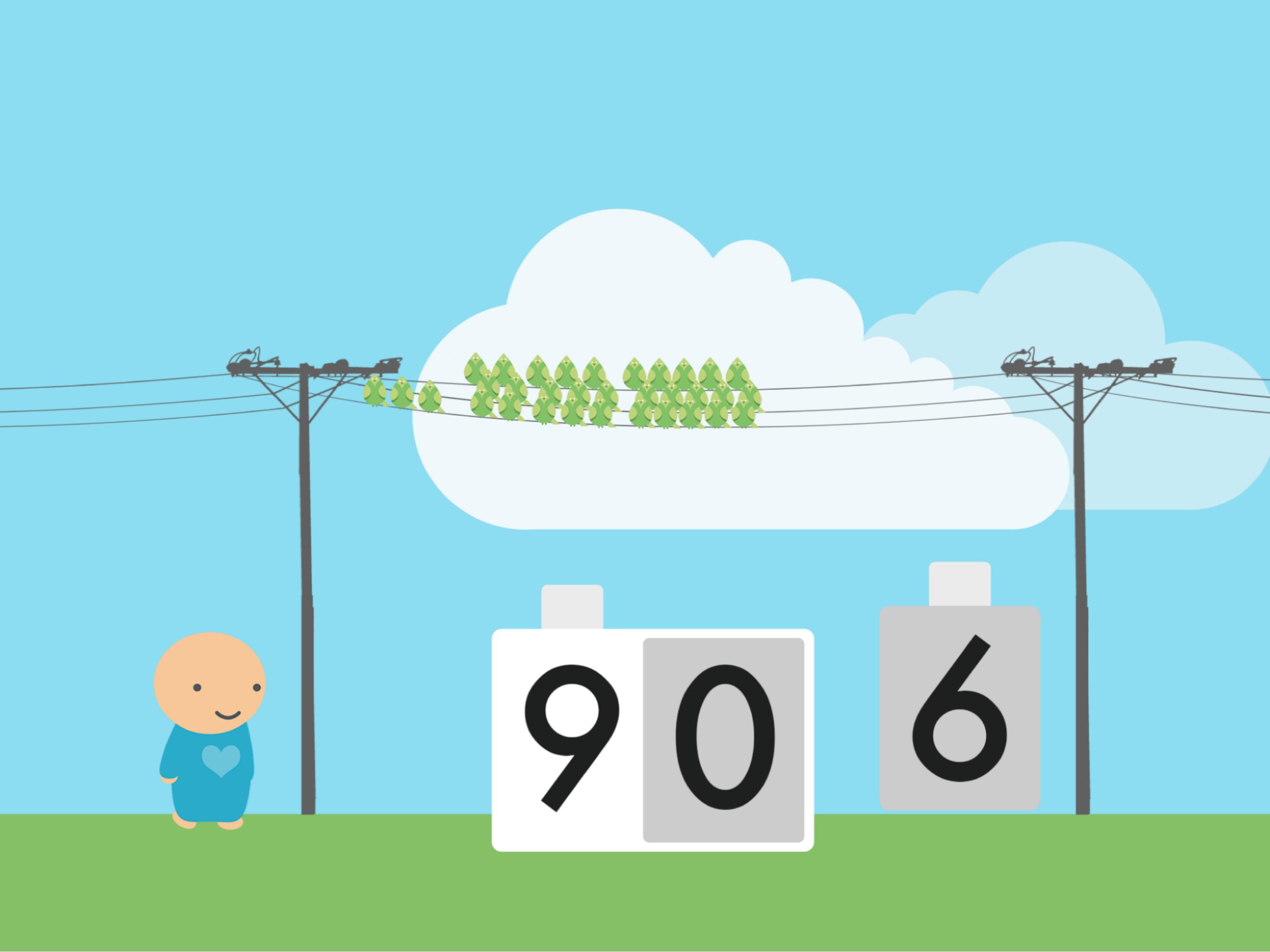
i worked hard on this project 😈

ur app suuuuuuuuuuu  
uuuuuuuucks 😠 😠 😠 😠



# Khan Academy

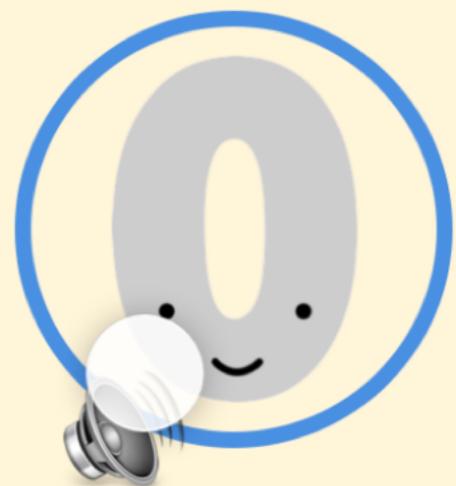


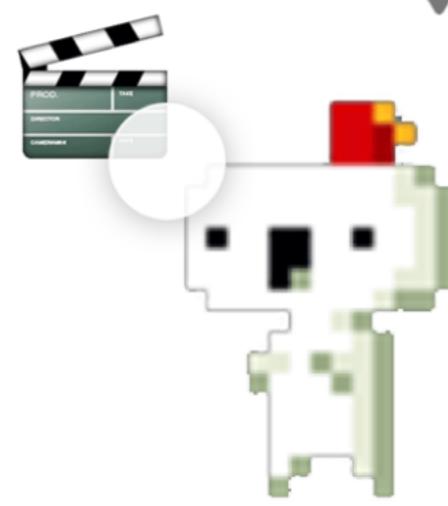
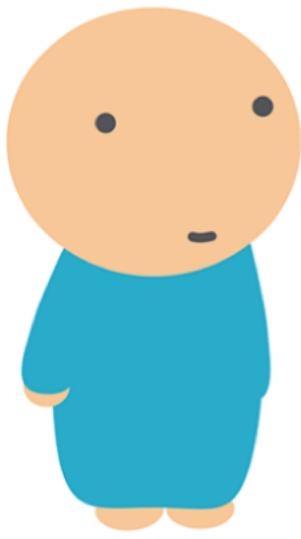


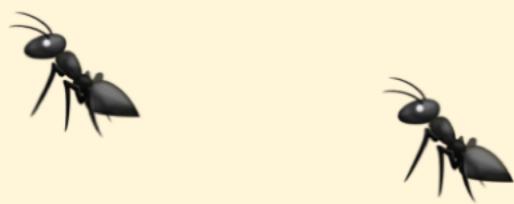
90

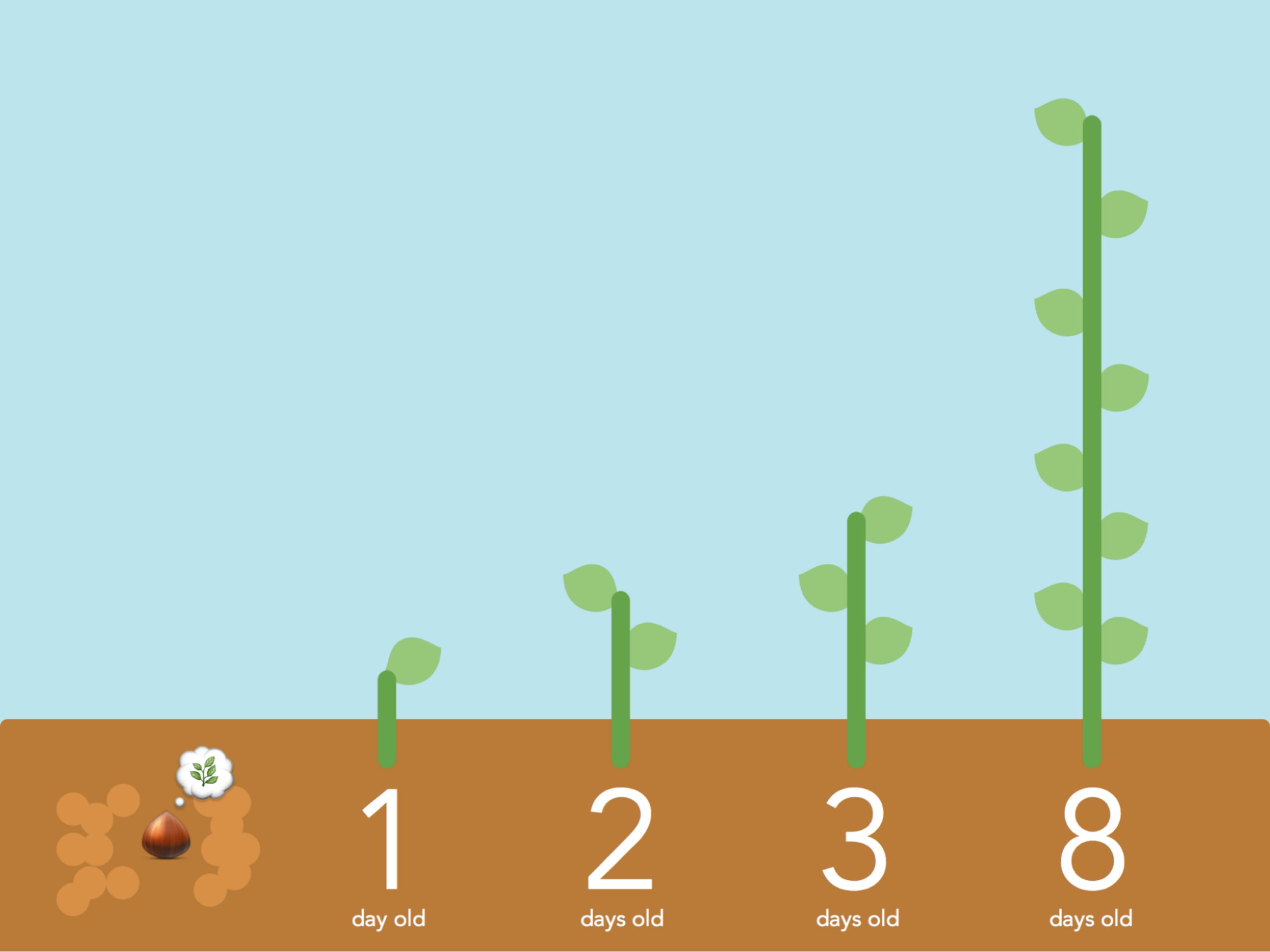
6

(zero)

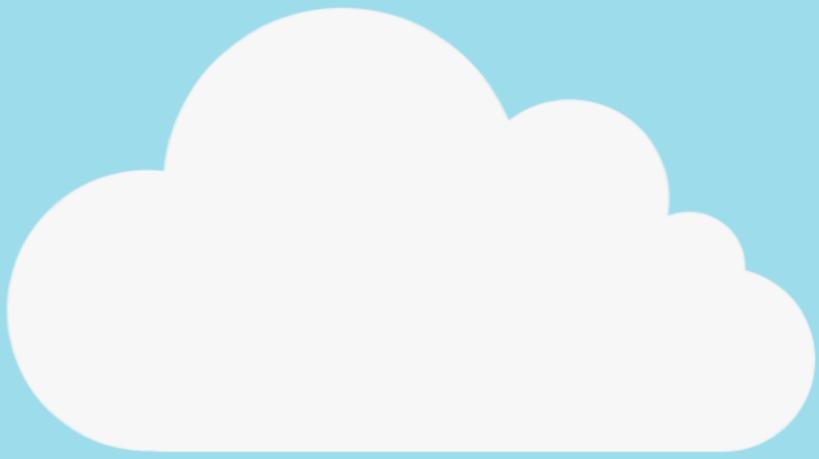
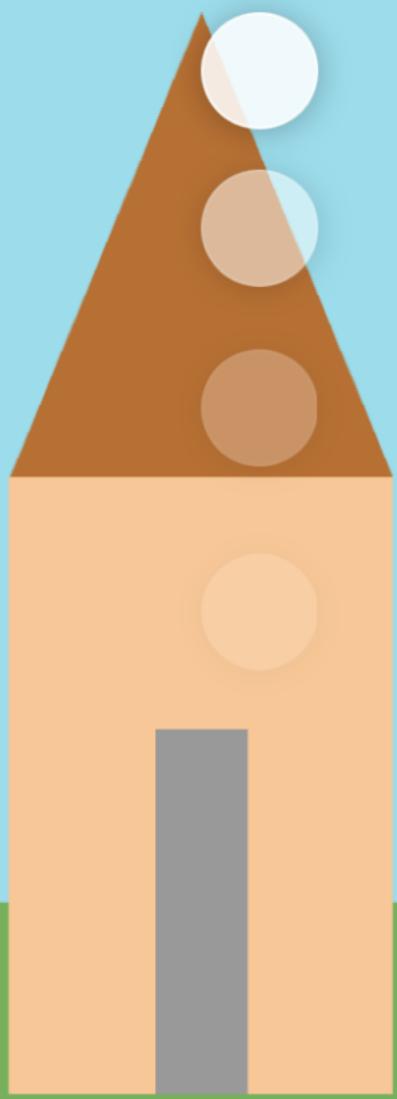






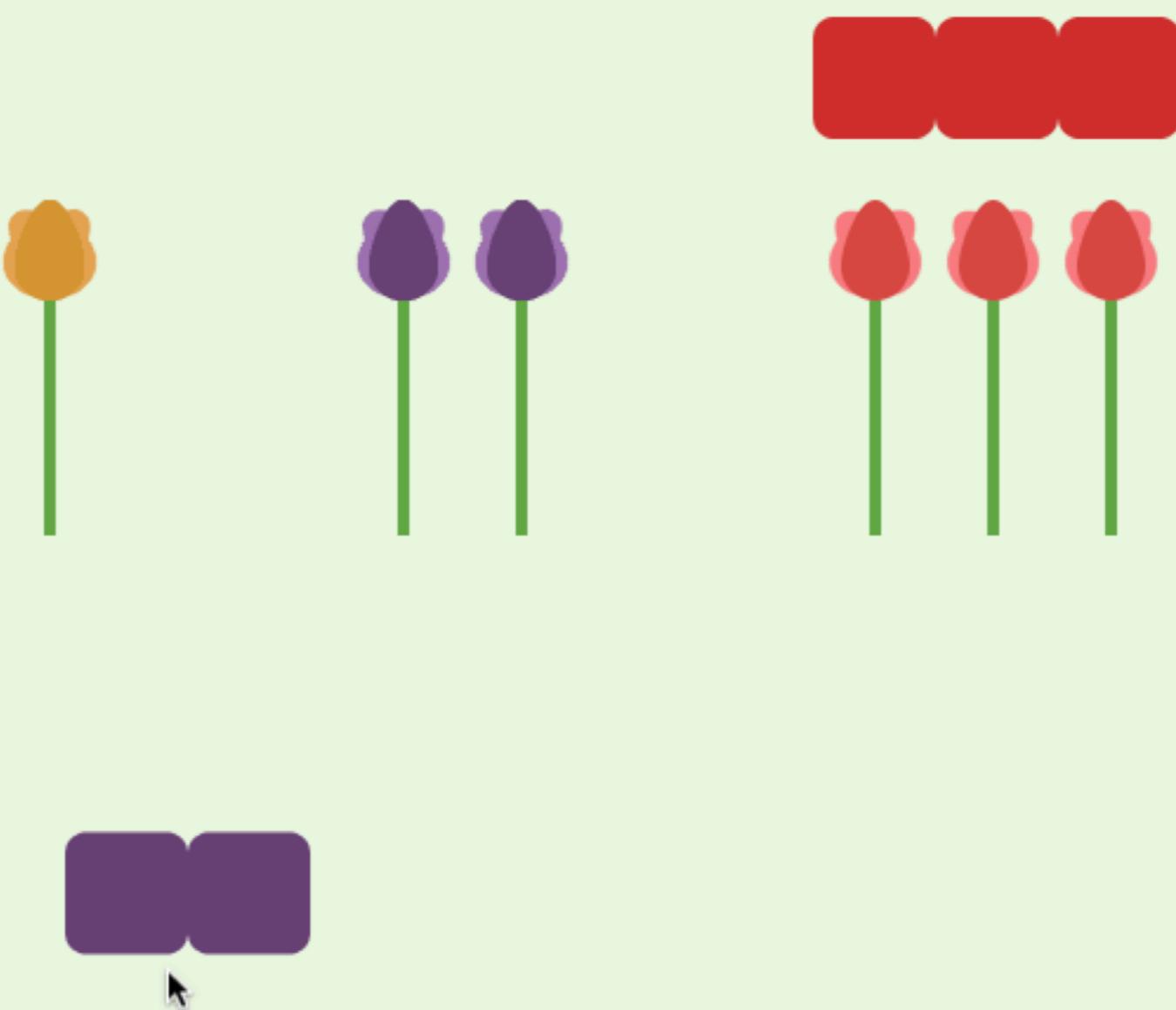


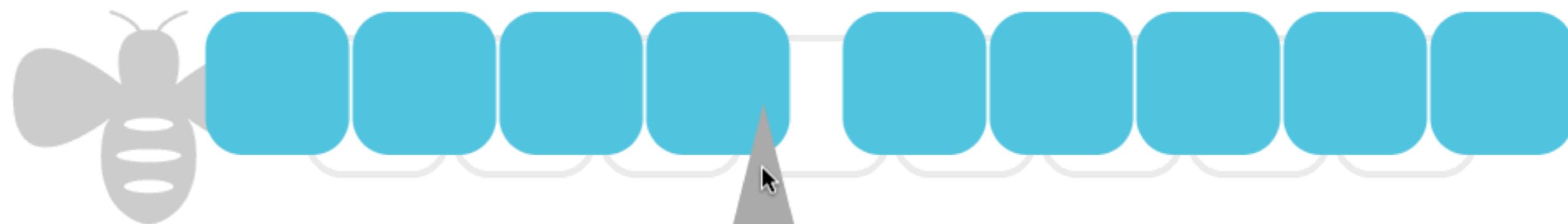




$$3 + 7 = 10$$









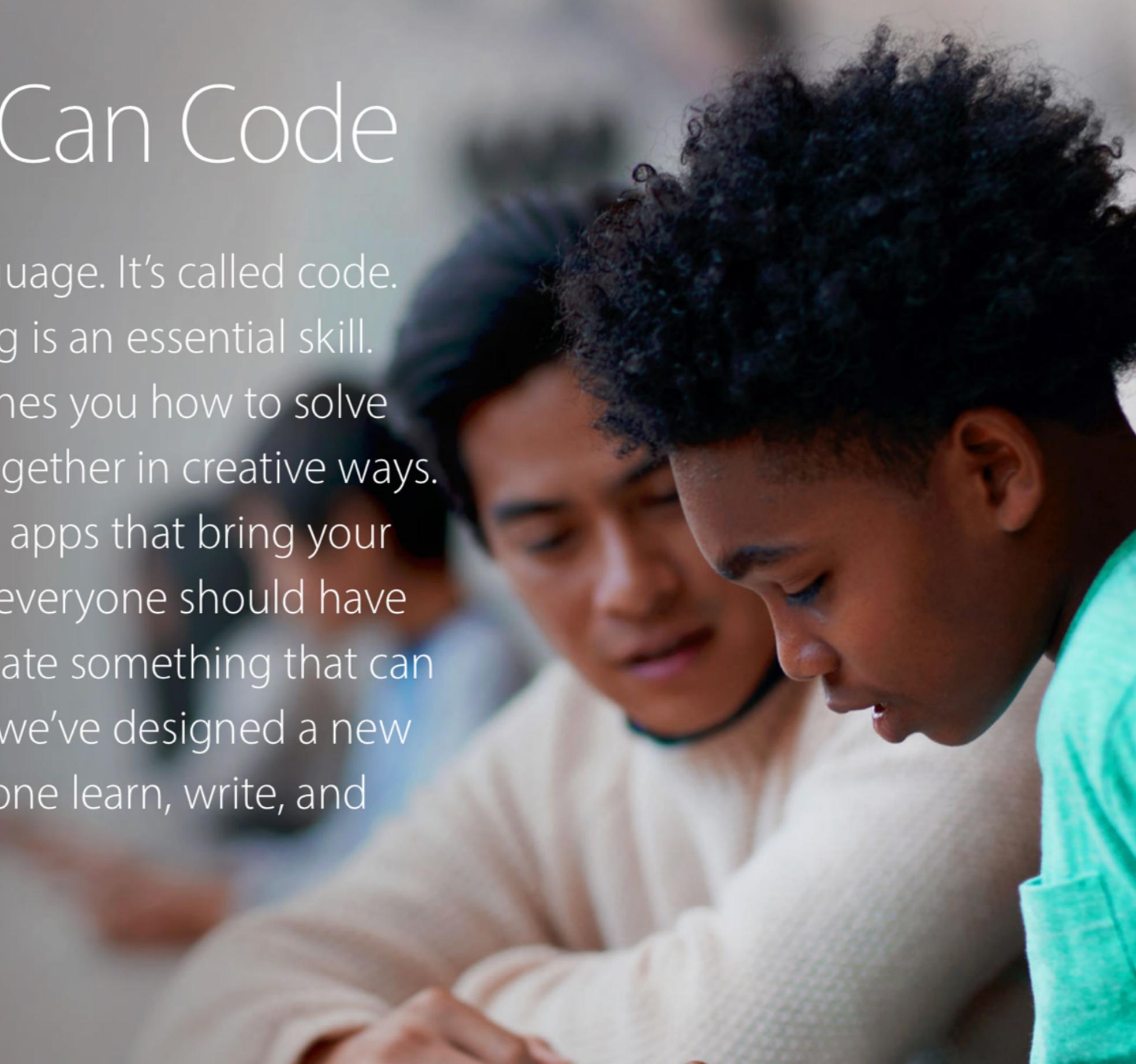
## Toolbox

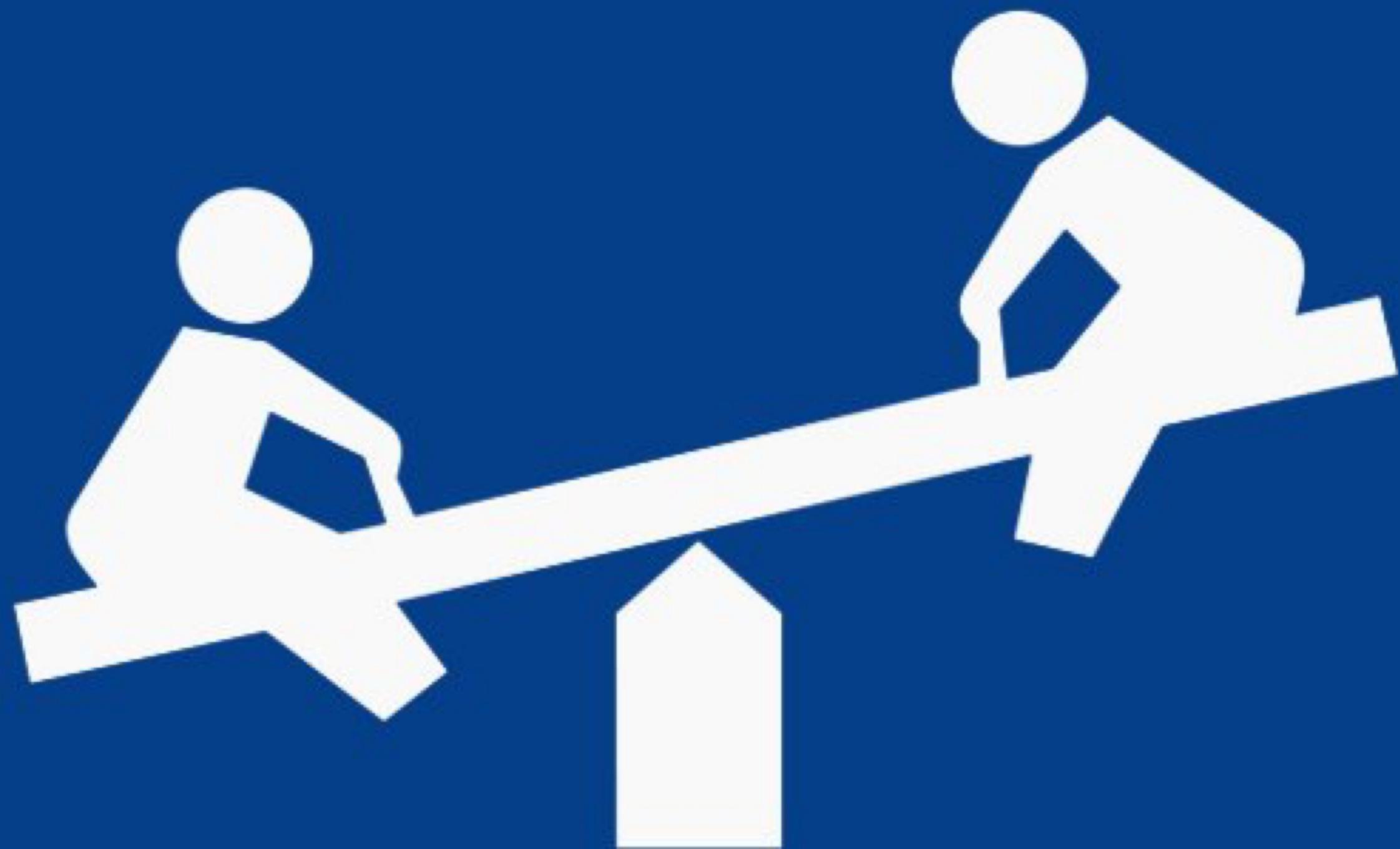
- ↑ move with steps
- rotate with degrees

# Everyone Can Code

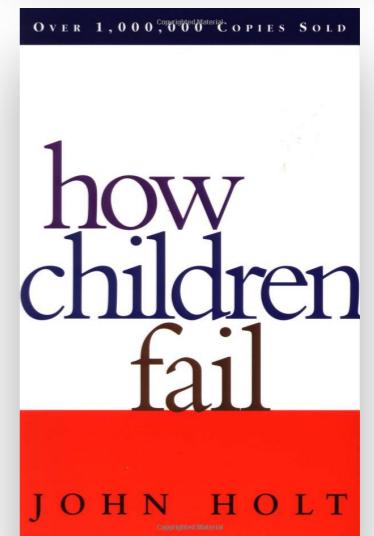
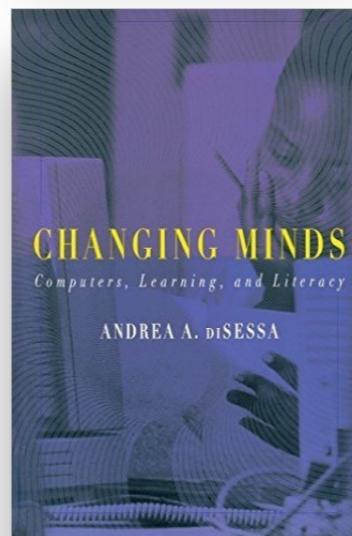
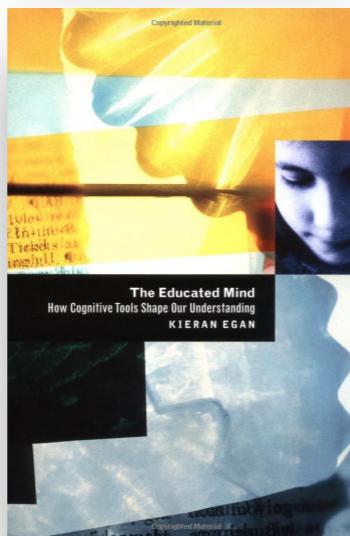
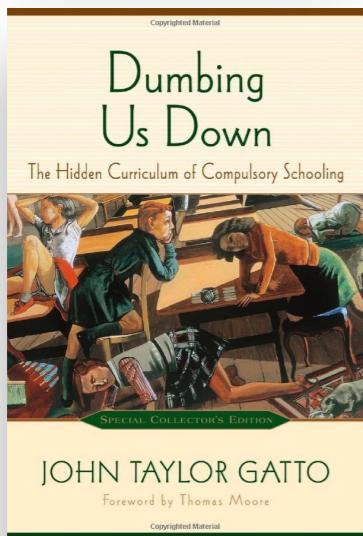
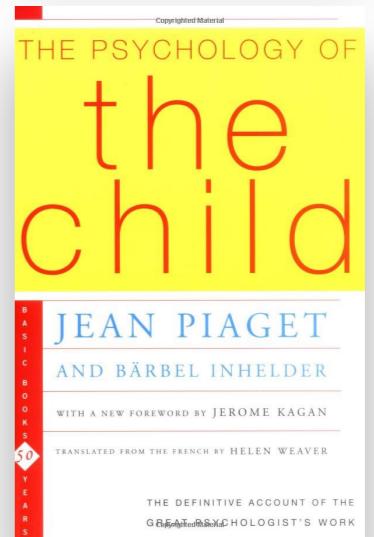
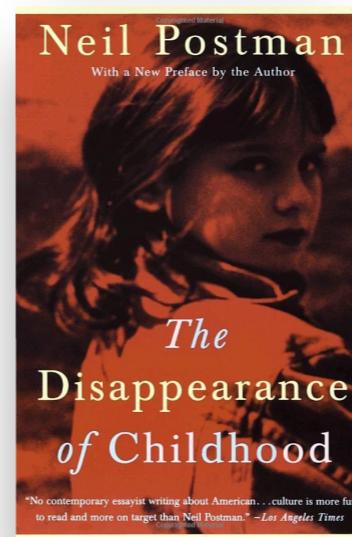
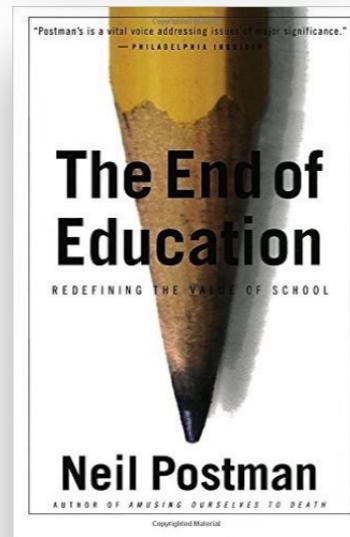
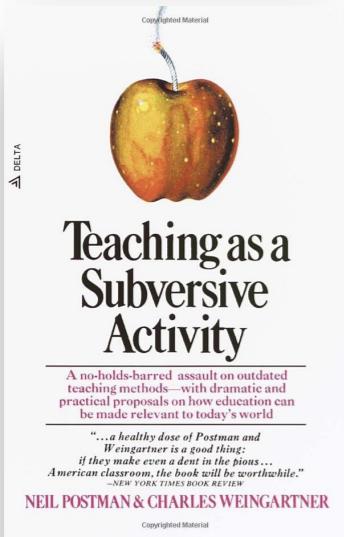
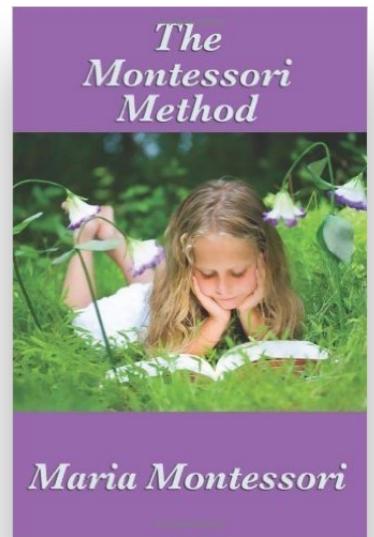
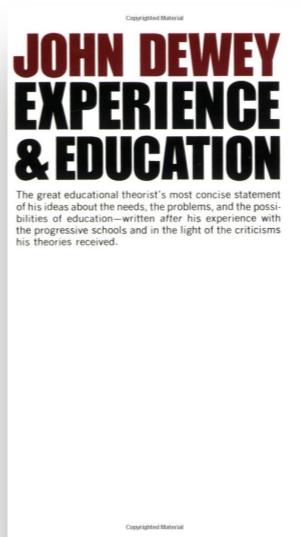
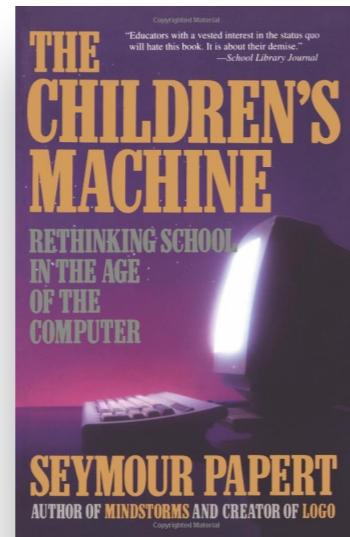
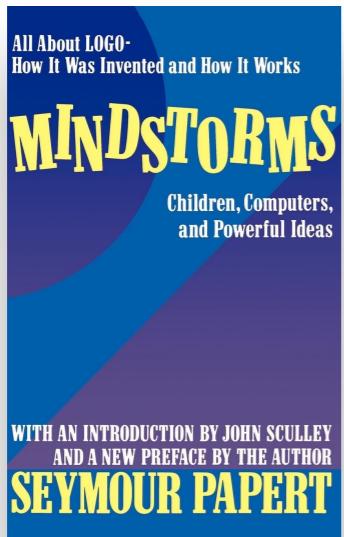
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**What is the  
purpose of  
Education?**

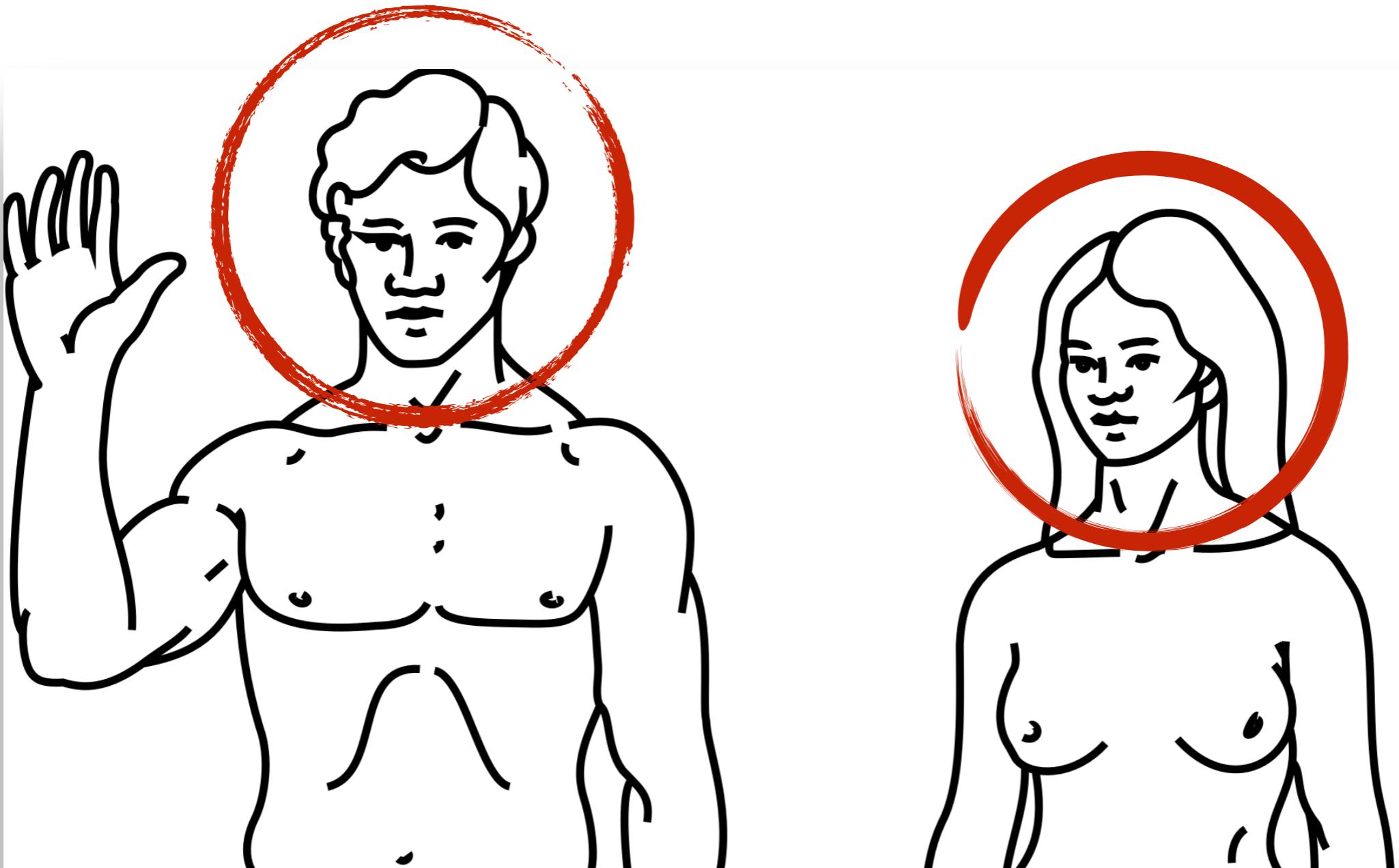




Mantenha  
Sua Cidade Limpa

TIRAS FOTOS

# Minds!



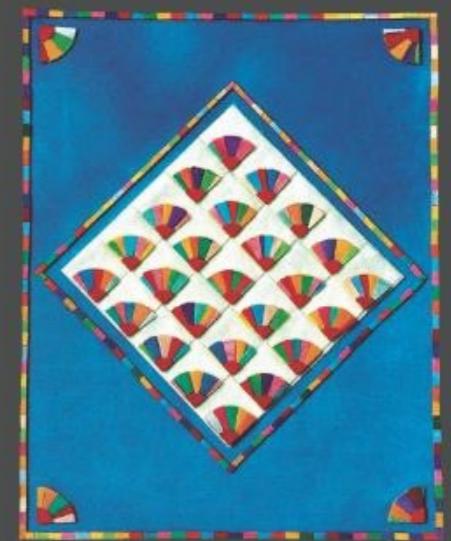
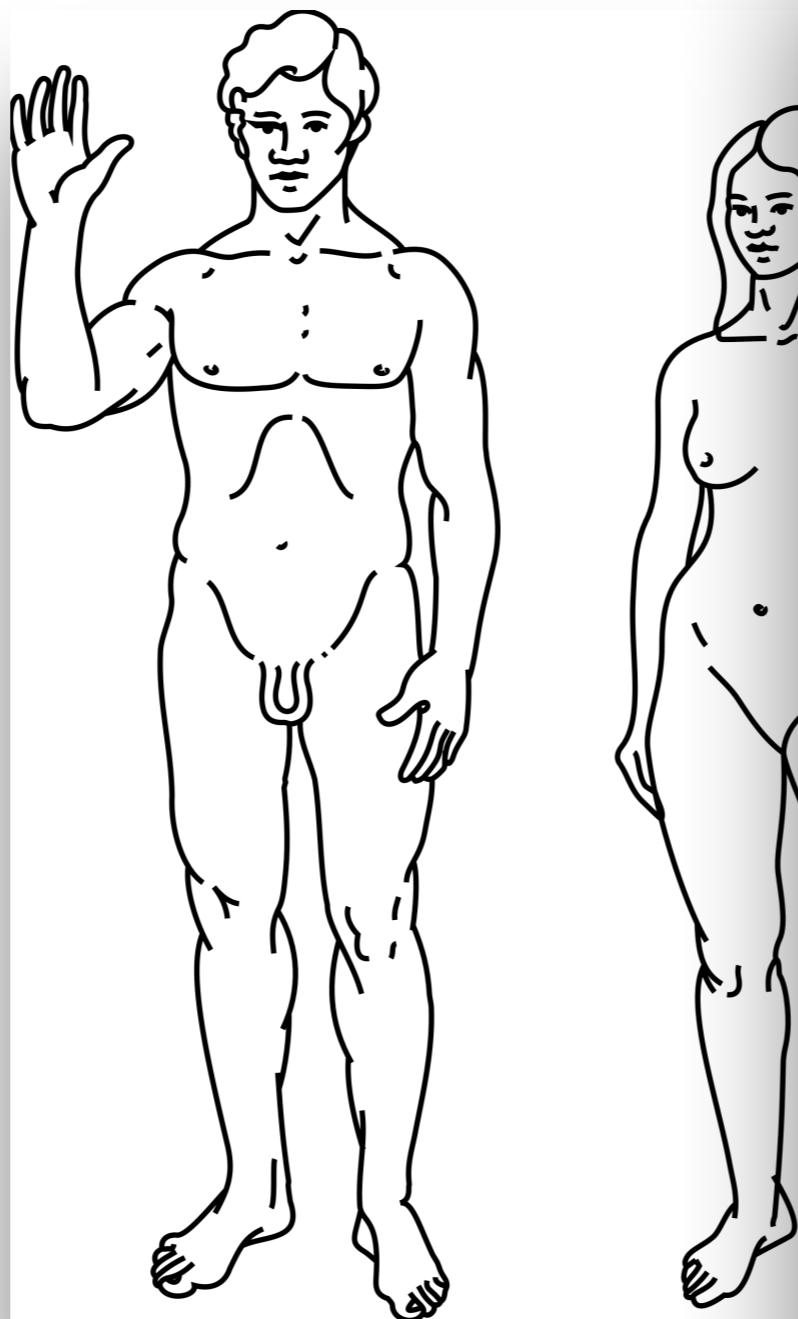
# Whole Humans!

Copyrighted Material

MARK JOHNSON

*The Meaning of the Body*

AESTHETICS OF HUMAN UNDERSTANDING



Copyrighted Material



THE NEW YORK TIMES BESTSELLER

THINKING,  
FAST AND SLOW



DANIEL  
KAHNEMAN

WINNER OF THE NOBEL PRIZE IN ECONOMICS

"[A] masterpiece . . . This is one of the greatest and most engaging collections of insights into the human mind I have read." —WILLIAM EASTERLY, *Financial Times*

Dreadfully  
Good  
Book

Anchoring bias.

People are overreliant on the first piece of information they hear. In a salary negotiation, whoever makes the first offer establishes a range of reasonable possibilities in each person's mind.

Availability heuristic.

People overestimate the probability of events that are easy to imagine. For example, a person might argue that smoking is not unhealthy because they know someone who lived to 100 and never smoked.

Bandwagon effect.

The probability of one person holding a belief increases when many other people who hold that belief. This is a powerful form of groupthink and is reason why meetings are often unproductive.

Blind-spot bias.

Failing to recognize your own cognitive biases is a bias in itself. People notice cognitive and motivational biases much more in others than in themselves.

# The tendency to search for, interpret, focus on and remember information in a way that confirms one's preconceptions.

Choice-supportive bias.

When you choose something, you tend to feel positive about it, even if that **choice has flaws**. Like how you think your dog is awesome — even if it bites people every once in a while.

Clustering illusion.

This is the tendency to see **patterns in random events**. It is key to various gambling fallacies, like the idea that red is more or less likely to turn up on a roulette table after a string of reds.

Confirmation bias.

We tend to listen only to information that confirms our **preconceptions** — one of the many reasons it's so hard to have an intelligent conversation about climate change.

Conservatism bias.

Where people favor prior evidence over new evidence or information that has emerged. People were **slow to accept** that the Earth was round because they maintained their earlier understanding that the planet was flat.



Anchoring bias.

People are reliant on the first piece of information they hear. In a salary negotiation, whoever makes the first offer establishes a range of reasonable possibilities in each person's mind.

Availability heuristic.

People overestimate the frequency of things they hear. For example, if someone might argue that smoking is not unhealthy because they know someone who lived to 80 even though they smoked deeply all their life.

Bandwagon effect.

The probability of one person holding a belief is often based on the number of people who hold that belief. This is a powerful form of groupthink and is reason why meetings of like-minded individuals can be so unproductive.

Blind-spot bias.

Failing to recognize your own cognitive biases is a bias in itself. People notice cognitive and motivational biases much more in others than in themselves.

**The phenomenon where people justify increased investment in a decision, based on the cumulative prior investment, despite new evidence suggesting that the decision was probably wrong.**

Choice-supportive bias.

When you choose something, you tend to like it more than it deserves. Like how you think your dog is awesome – even if it bites people every once in a while.

Clustering illusion.

This is the tendency to see patterns in random data. For example, it's a fallacy to believe that red is more or less likely to turn up on a roulette table after a string of reds.

Confirmation bias.

We tend to listen only to information that confirms our preexisting beliefs. It's hard to have an intelligent conversation about climate change.

Conservatism bias.

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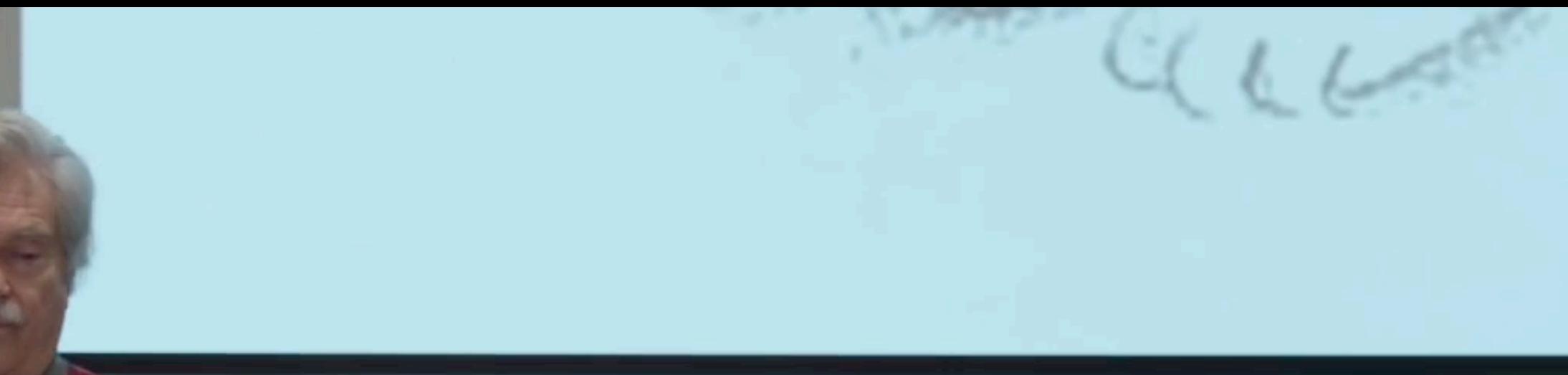
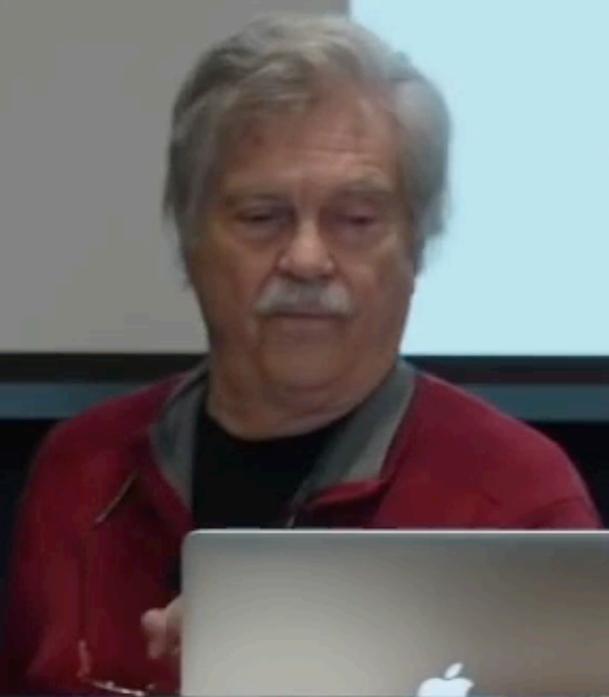


# Reality is a hallucination

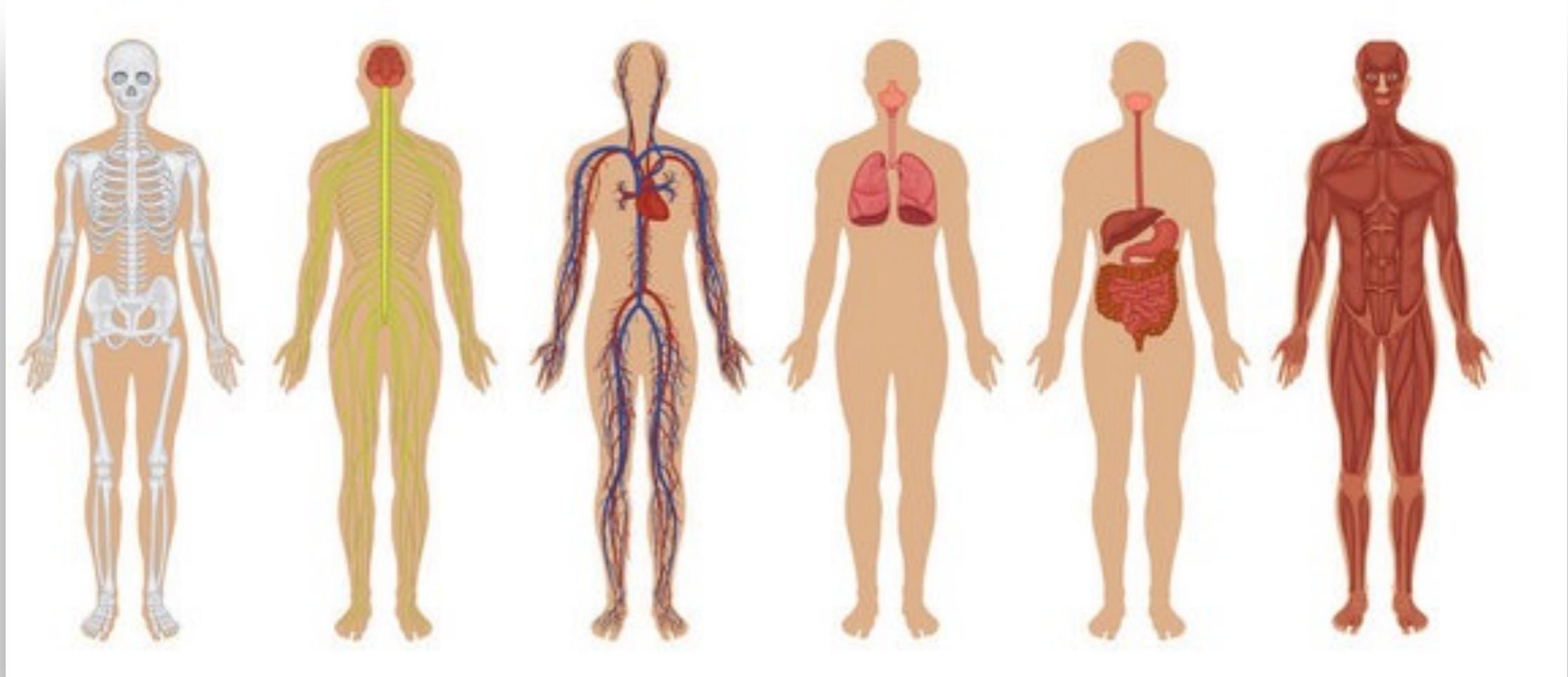




LUSKIN  
CONFERENCE



# Systems



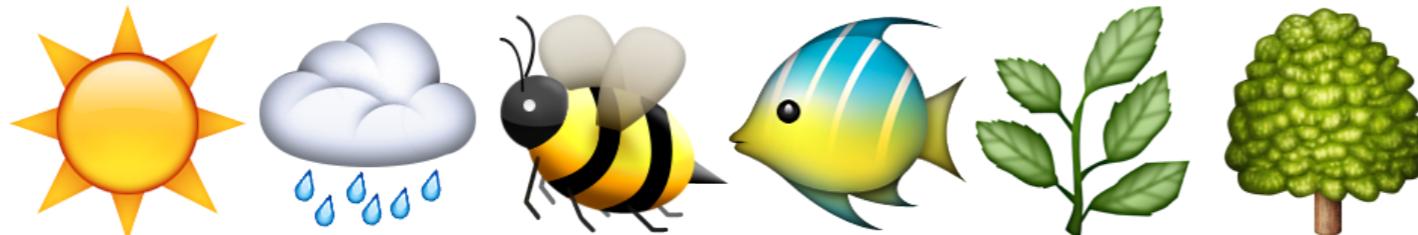
# Cultural



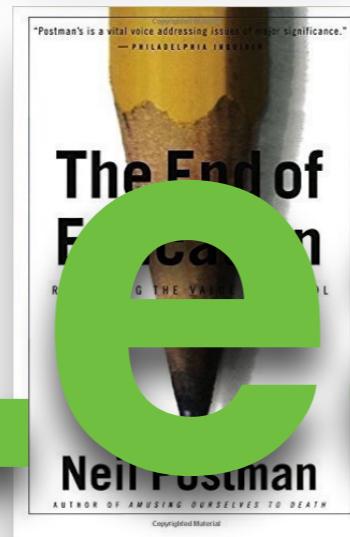
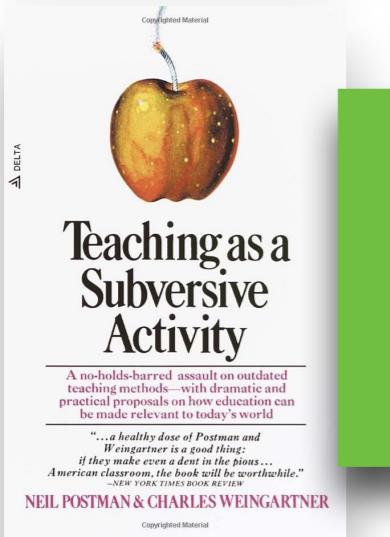
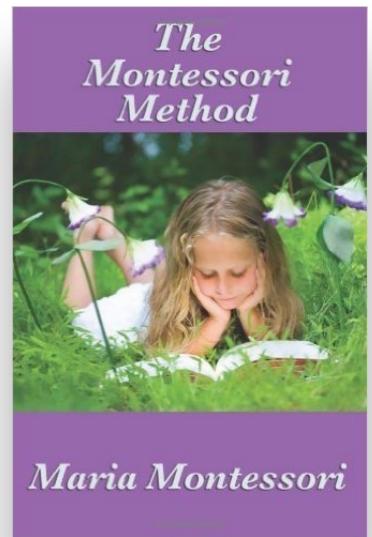
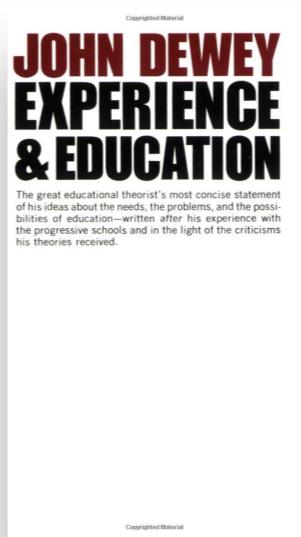
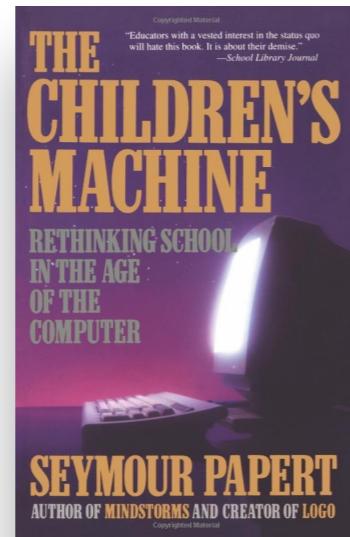
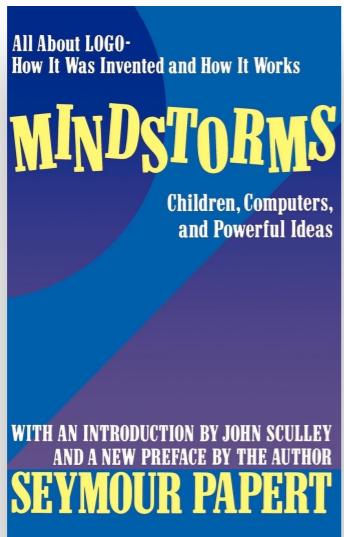
# Technological



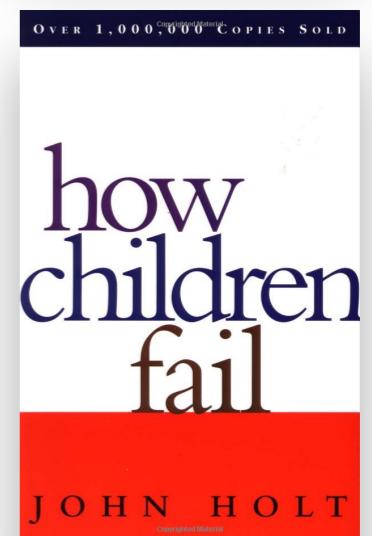
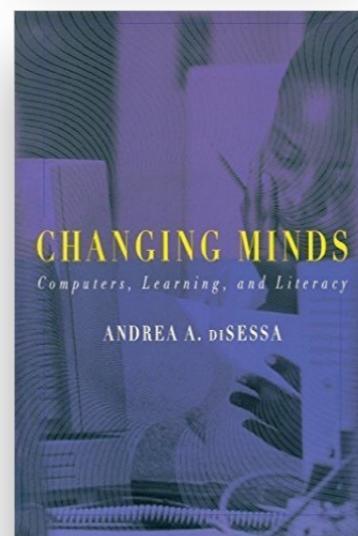
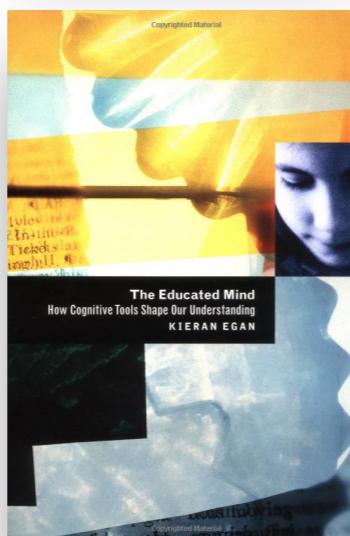
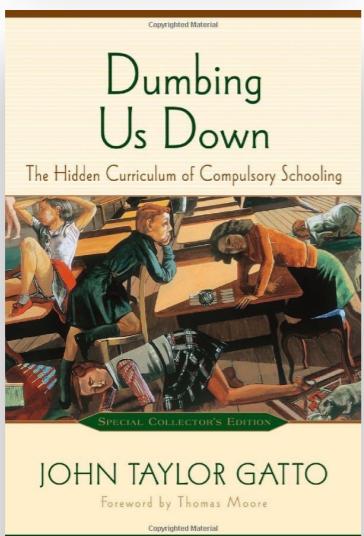
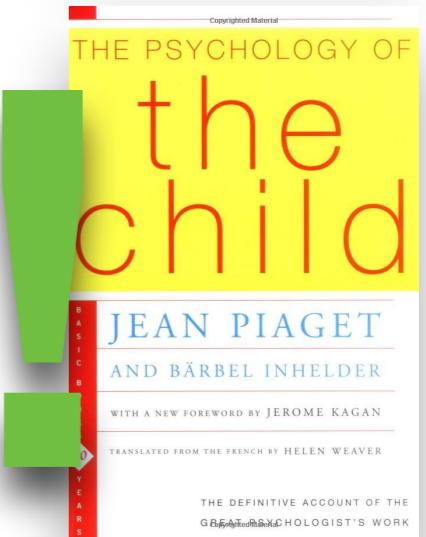
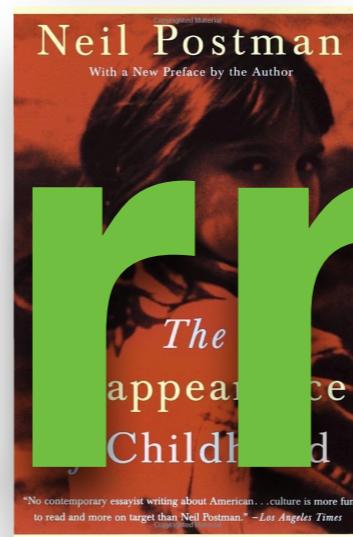
# Ecological



**What should  
programmers  
do about it?**

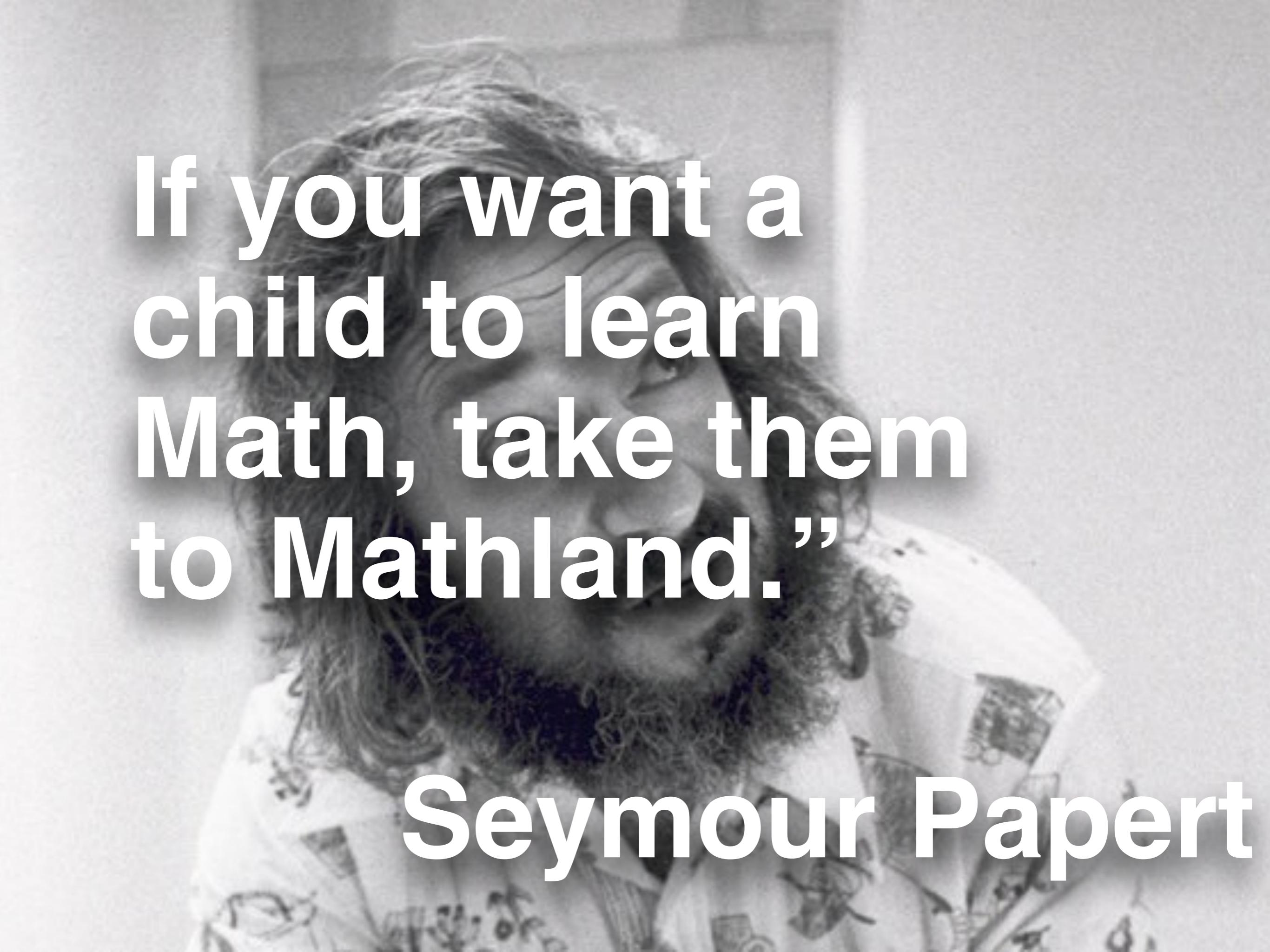


# learn!



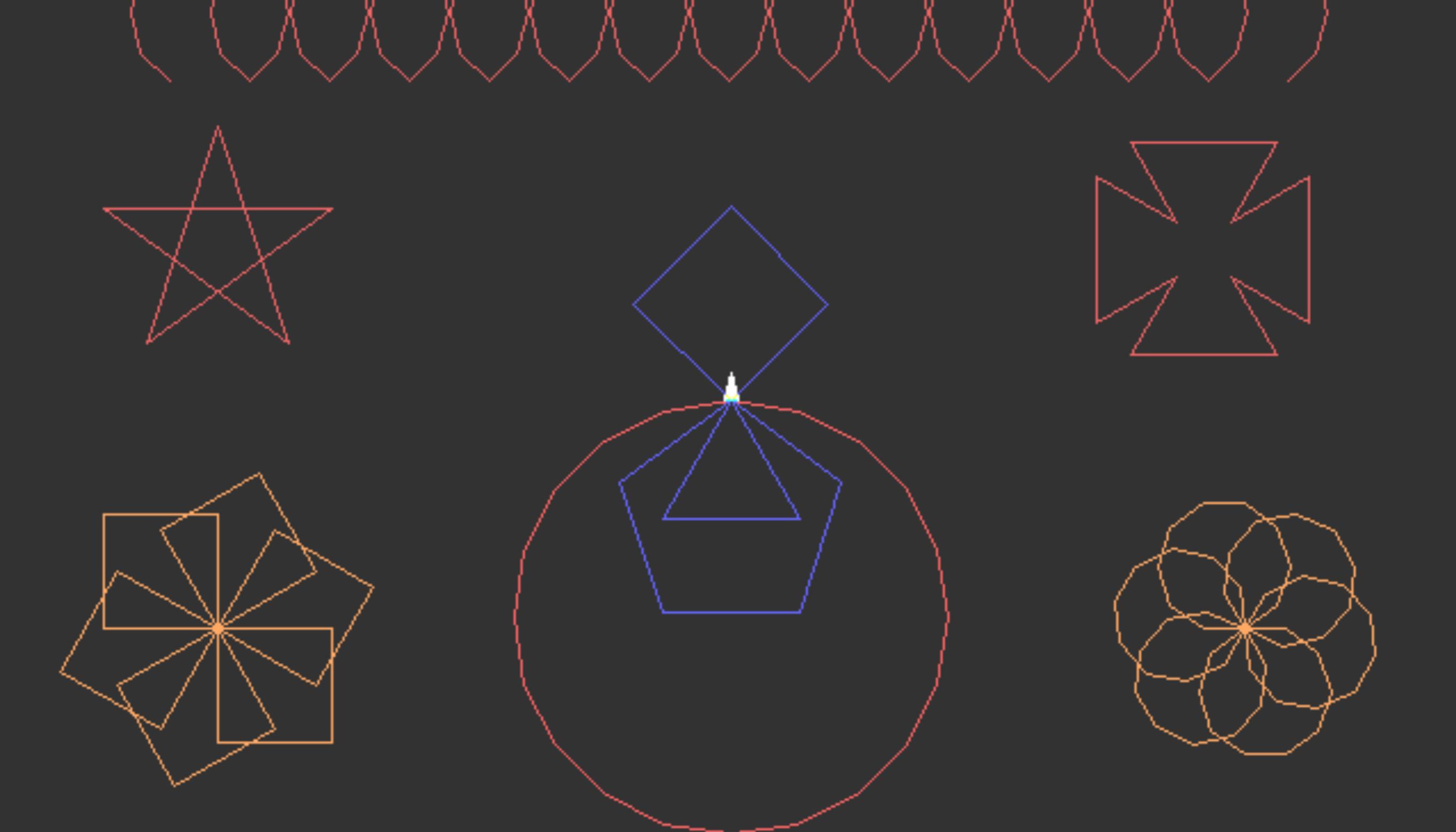
**“If you want a  
child to learn  
French, take  
them to France.**



A black and white photograph of a young child with curly hair, looking down at a book or paper they are holding. The child is wearing a patterned shirt.

If you want a  
child to learn  
Math, take them  
to Mathland.”

Seymour Papert



```
?run key.1  
?run key.2  
?run key.3  
?run key.4  
?run key.5  
?run key.6  
?run key.7  
?run key.8  
?run key.9
```

A close-up portrait of Ted Nelson, an elderly man with light brown hair and blue eyes. He is wearing a dark jacket over a light-colored shirt. The background is blurred, showing warm yellow and purple lights.

Ted  
Nelson

# Playground

Playfield

costume when I am over Oscar;  
name change costume to gray box;  
comment make sound named 'explosion sound'.|

Agent 1  
Agent 2  
cloned  
mousec

Text



moveForward()

toggleSwitch() < **Treasure Hunt** >

+

ooo

```
}
```

```
func turnAround() {
```

```
    turnLeft()
```

```
    turnLeft()
```

```
}
```

```
func bothSideSwitches() {
```

```
    twoStepSwitch()
```

```
    turnAround()
```

```
    moveForward()
```

```
    moveForward()
```

```
    twoStepSwitch()
```

```
    turnAround()
```

```
    moveForward()
```

```
    moveForward()
```

```
}
```

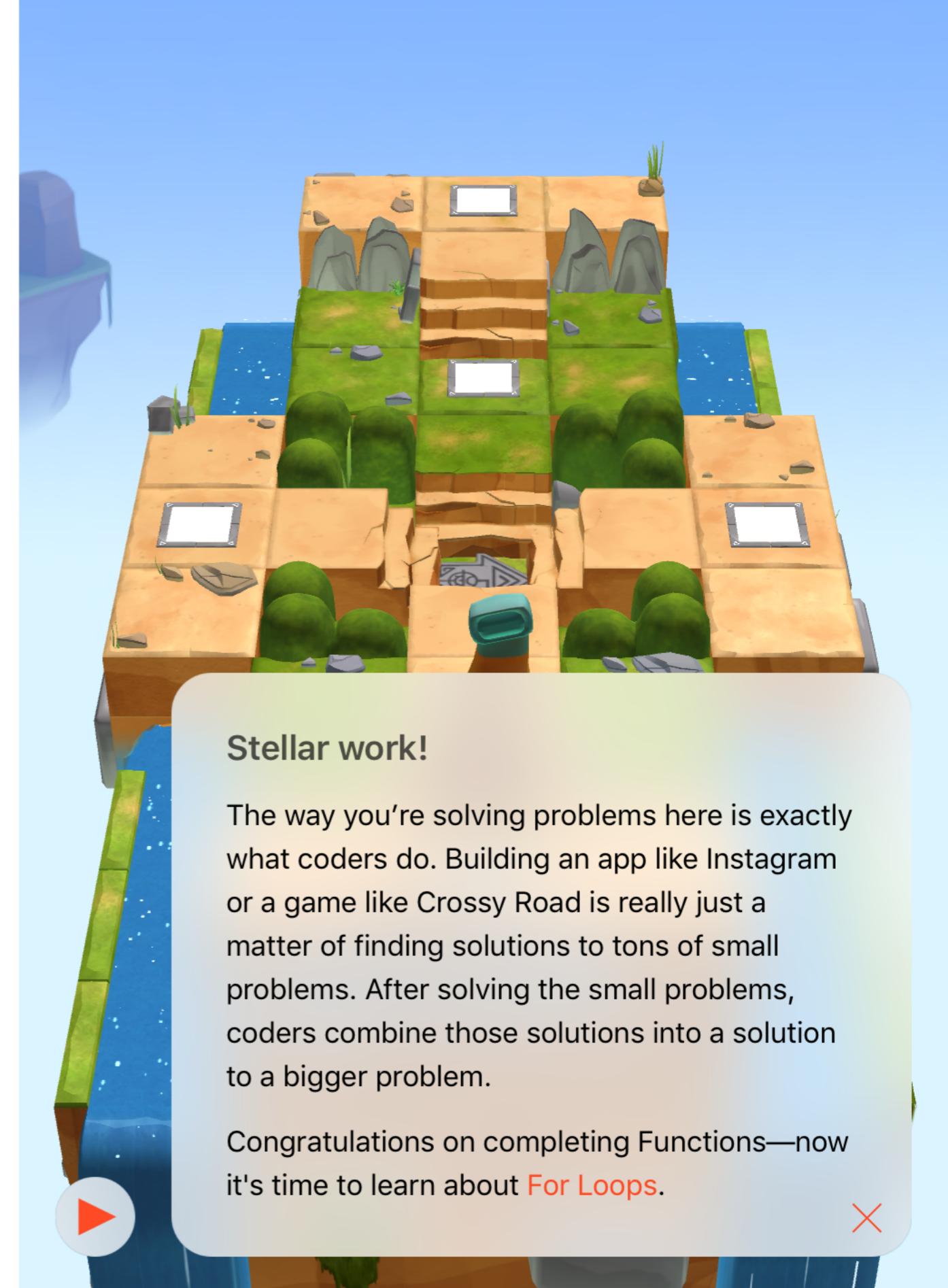
```
func moveFour() {
```

```
    moveForward()
```

```
    moveForward()
```

```
    moveForward()
```

```
    moveForward()
```



# Lesson 1

## Think Like a Computer: Commands and Sequences



### OBJECTIVE

- Describe what commands and sequences are
- Demonstrate the use of commands and sequences in an everyday situation
- Code using commands and sequences

### MATERIALS

- iPad
- A few small objects for hiding
- Seesaw
- Swift Playgrounds: Commands

### LENGTH

One class period

### KEY VOCABULARY

- Command
- Sequence

We desperately need  
new media for our  
complex culture to  
think with

# Thank you

## Special Thanks

Kate Brennan

Soroush Khanlou

Jasdev Singh

Alan Kay

## Contact

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[@jasonbrennan](https://twitter.com/jasonbrennan)

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