



Coding in PreK



Presented by
Lynette Vanhorn & Becki Cagle



Coding in Prek ?

**It doesn't have to
be on a computer!**

Coding can be done with friends in large groups, small groups and even in centers with easy “Unplugged Activities”.






Code with *or without* a computer

Coding is *not* only about technology.
Coding is about


- ◇ LOGIC
- ◇ **PROBLEM SOLVING**
- ◇ *Creativity!*





Today we will introduce
3 ways to code with PreK





Code with LANGUAGE

**Pair familiar activities
with new “Coding” words.**

Code without a Computer:



Activity



WORD

Move It, Move It



Bee Movers



Alphabet Events



Find the Problem

21ST CENTURY

ALGORITHM

PROGRAM

EVENT

DE-BUG



C O
D E

move forward

turn left ↶

turn right ↷

21ST CENTURY WORD

ALGORITHM

- ◇ An algorithm is a list of steps that you can follow to finish a task.

YAY!

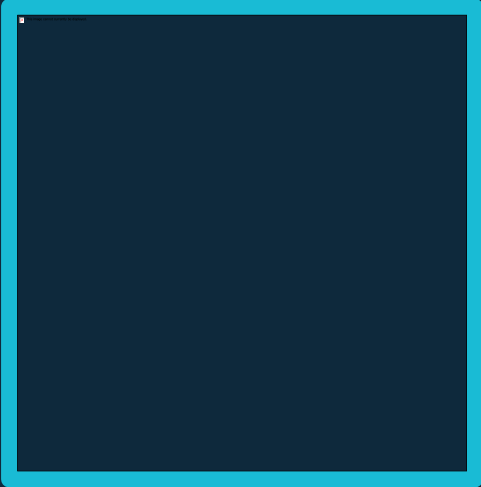


Start





| | |
|---|---|
| C | O |
| D | E |

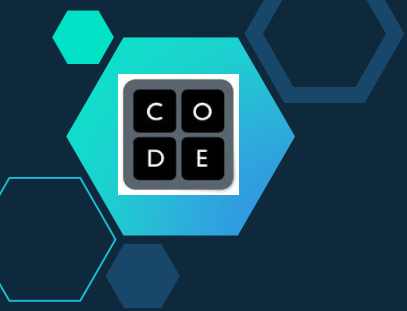


21ST CENTURY WORD

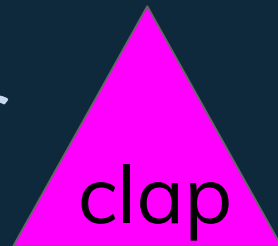
EVENT

- ◇ An action that causes something to happen.





EVENTS

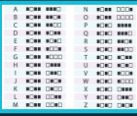


A B ▲ C D E F ■ G H ● I
J ▲ K L M ■ N O P Q R
S T ● U V W ■ X Y Z ▲ ▲ ▲

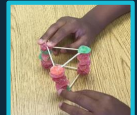
Code without a Computer:



Binary Bracelets



Sit Stand Binary Chairs



Building a Foundation



Getting Loopy Dance



BINARY

BINARY

PERSISTENCE

LOOP





21ST CENTURY WORD

BINARY

◇ A way of representing information using only two options.

| | | | |
|---|-----------|---|-----------|
| A | ■□■□ ■□■□ | N | ■□■□ □□■□ |
| B | ■□■□ ■□■□ | O | ■□■□ □□■□ |
| C | ■□■□ ■□■□ | P | ■□■□ ■□■□ |
| D | ■□■□ ■□■□ | Q | ■□■□ ■□■□ |
| E | ■□■□ ■□■□ | R | ■□■□ ■□■□ |
| F | ■□■□ ■□■□ | S | ■□■□ ■□■□ |
| G | ■□■□ ■□■□ | T | ■□■□ ■□■□ |
| H | ■□■□ ■□■□ | U | ■□■□ ■□■□ |
| I | ■□■□ ■□■□ | V | ■□■□ ■□■□ |
| J | ■□■□ ■□■□ | W | ■□■□ ■□■□ |
| K | ■□■□ ■□■□ | X | ■□■□ ■□■□ |
| L | ■□■□ ■□■□ | Y | ■□■□ ■□■□ |
| M | ■□■□ ■□■□ | Z | ■□■□ ■□■□ |

1 - 0

on - off

sit - stand

up - down
blue

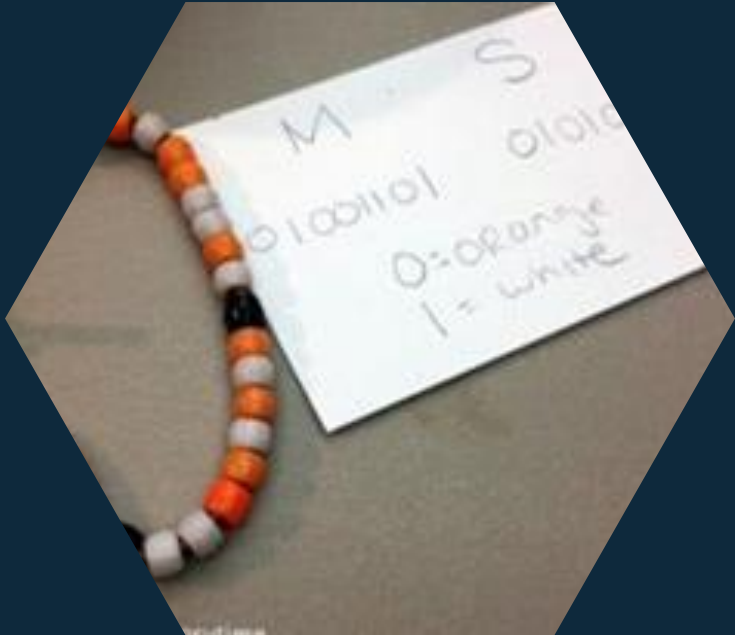
in - out

red -



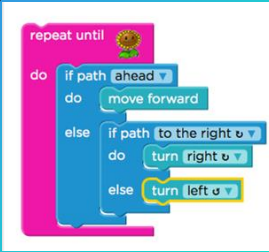


BINARY



| | | | | | |
|---|------|------|---|------|------|
| A | ■□□■ | ■□□□ | N | ■□□■ | □□□■ |
| B | ■□□■ | ■□□■ | O | ■□□■ | □□□□ |
| C | ■□□■ | ■□□□ | P | ■□□□ | ■□□■ |
| D | ■□□■ | ■□□■ | Q | ■□□□ | ■□□□ |
| E | ■□□■ | ■□□□ | R | ■□□□ | ■□□■ |
| F | ■□□■ | ■□□■ | S | ■□□□ | ■□□□ |
| G | ■□□■ | ■□□□ | T | ■□□□ | ■□□■ |
| H | ■□□■ | □□□■ | U | ■□□□ | ■□□□ |
| I | ■□□■ | □□□□ | V | ■□□□ | ■□□■ |
| J | ■□□■ | □□□■ | W | ■□□□ | ■□□□ |
| K | ■□□■ | □□□□ | X | ■□□□ | □□□■ |
| L | ■□□■ | □□□■ | Y | ■□□□ | □□□□ |
| M | ■□□■ | □□□□ | Z | ■□□□ | □□□■ |

C O
D E



"Teachers need to be modeling the same kind of bravery and willingness to fail that we expect from our students."

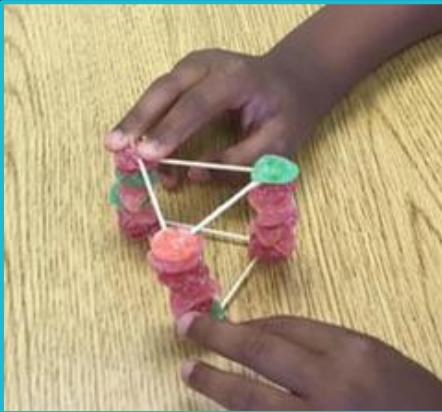
Kiki Prottzman

Code.org
guitbookprowschool.com/023

21ST CENTURY WORD

PERSISTENCE

- ◇ Trying again and again even when something is very hard.





Code with TOYS

**Encourage exploration of
new toys to describe
change and movements.**



Cubetto



BeeBot

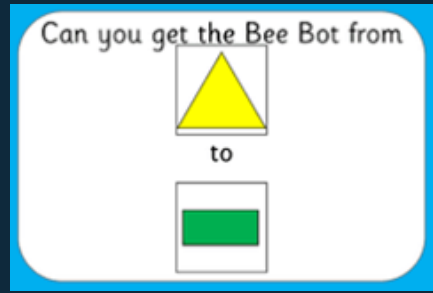
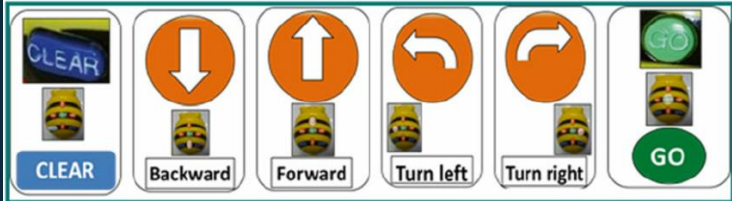
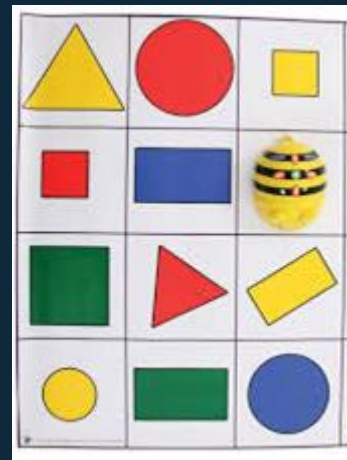
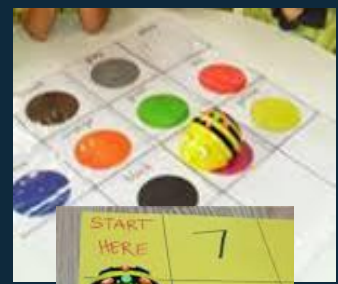
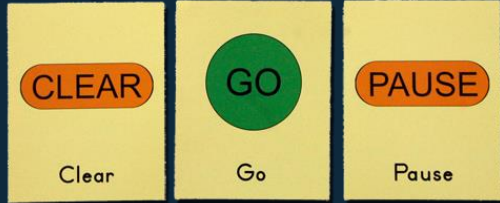
Code without a Computer:



BeeBot

Easy coding robot that teaches one step directions. Create your own path with charts, blocks, or carpet squares !





Code without a Computer:



Cubetto

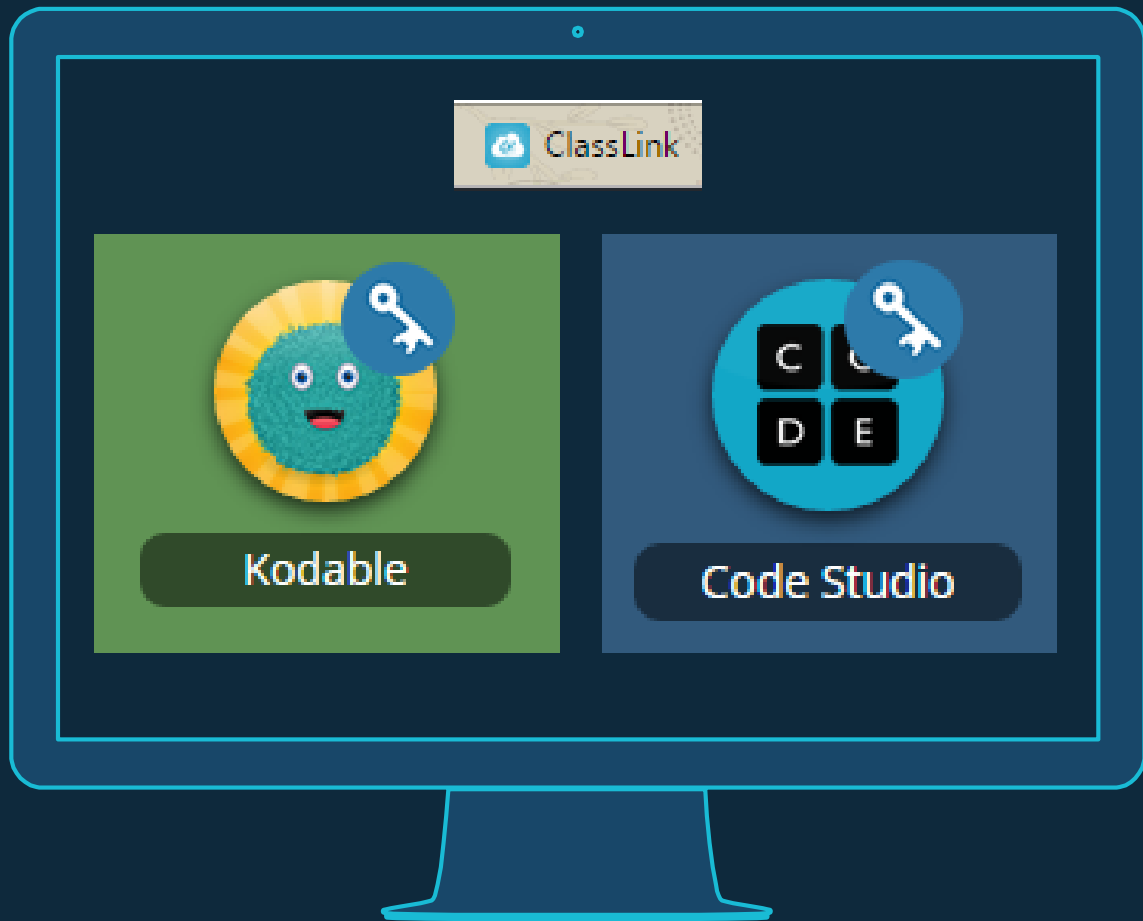
Durable coding robot that includes directional pieces to snap on a coding board. Then just press go!



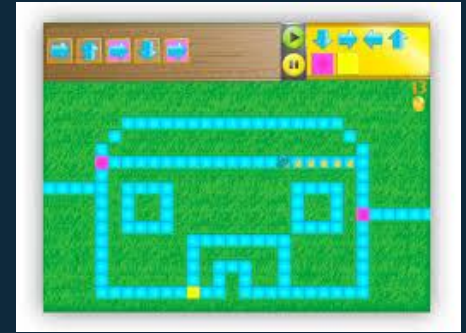
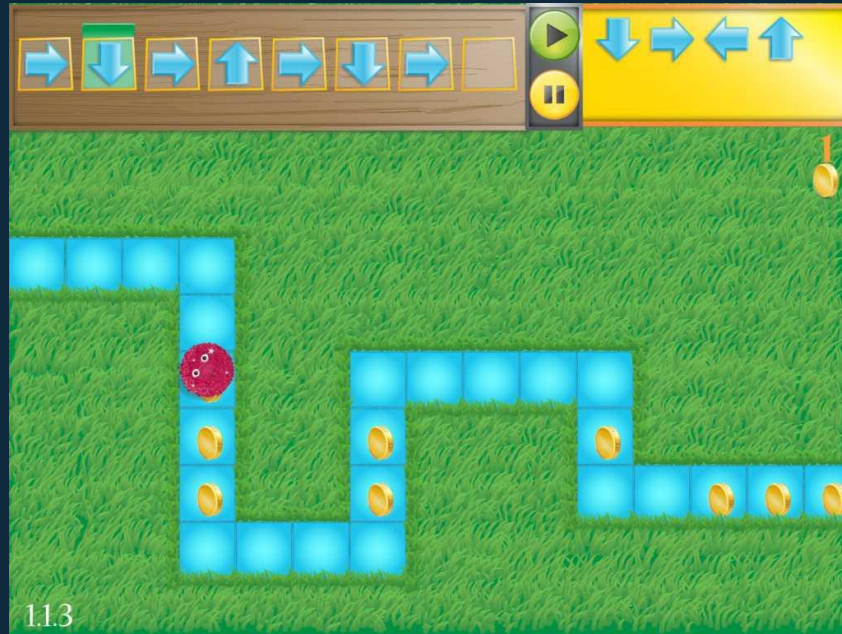


Code with SCREENS

**Encourage games that
follow, fix and predict.**



Kodable



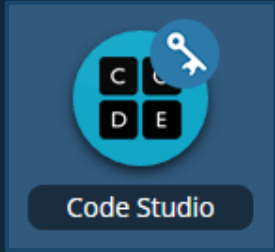
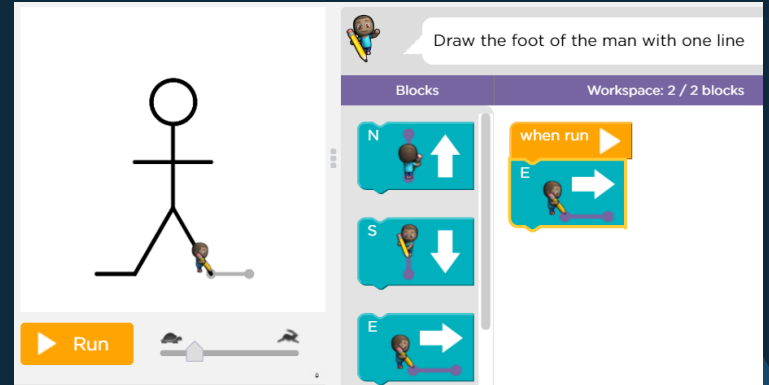
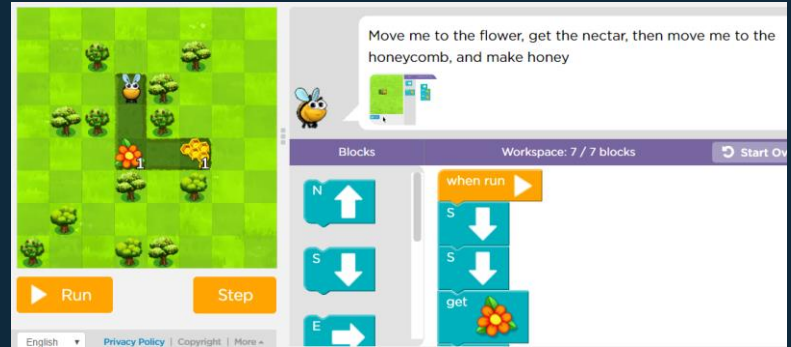
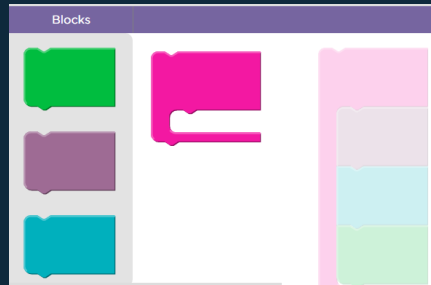
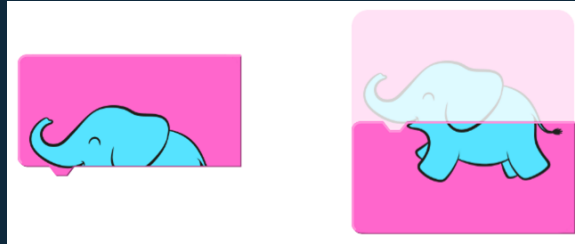
Find Kodable on any device and on ClassLink.

Website to sign up for your own class: <https://www.kodable.com/>

Website to try: <https://game.kodable.com/> Enter class code codeinpk



Code.org



Find Code.org on any device and on ClassLink.
Website to sign up for your own class: <https://code.org/>
Website to try: <http://studio.code.org/sections/FRTXKC>



Ideas to Share?
Questions to Ask?





Keep in Touch



@L_Vanhorn
@BeckiCagle

Don't just buy a new video game, make one. Don't just download the latest app, help design it. Don't just play on your phone, program it.

Barack Obama

PICTUREQUOTES.com