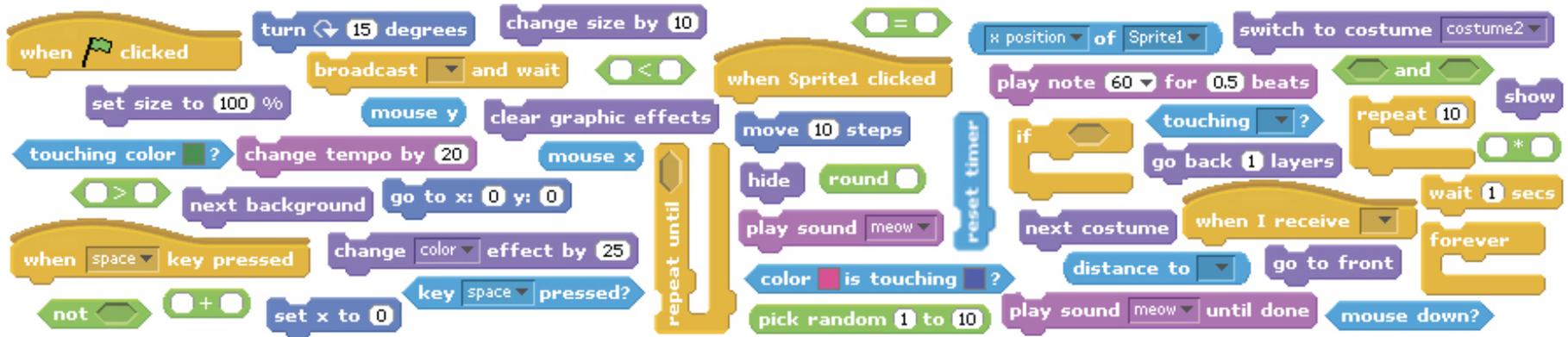


Creative Computing

A CS4HS ~~Workshop~~

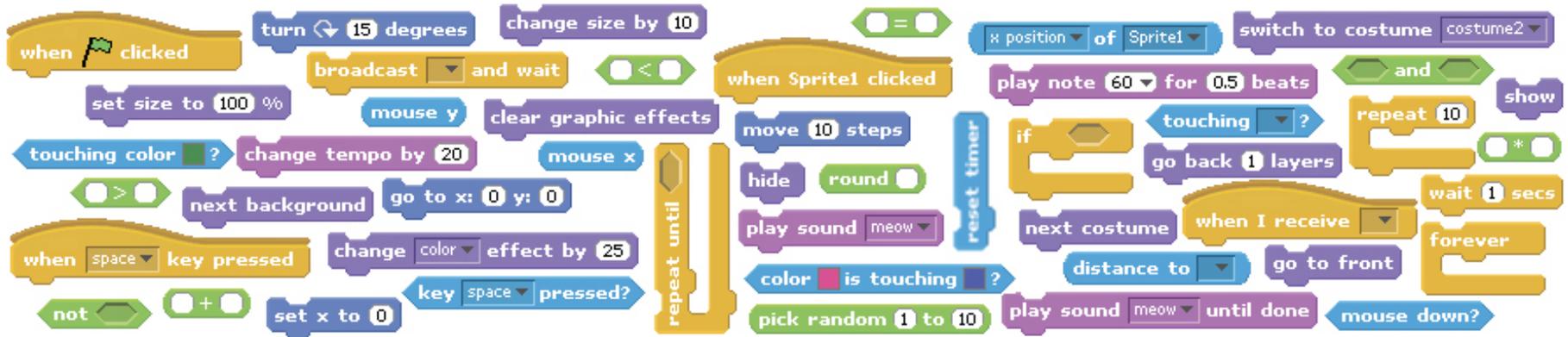
MIT Media Lab and Google



Creative Computing

A ~~OS4HS~~ Workshop

MIT Media Lab and Google



Creative Computing

A CS4HS Workshop

Cultivating Computational Thinking and
Computational Creativity in the Classroom

- Motion
- Looks
- Sound
- Pen
- Control
- Sensing
- Operators
- Variables

Sprite area for 'mitchel' with coordinates x: -103 y: -67 direction: 90 and tabs for Scripts, Costumes, and Sounds.

```

when green flag clicked
  go to x: -103 y: -67
  switch to costume mres4
  point in direction 90

when I receive fade out
  repeat 20
    change pixelate effect by 10
    change ghost effect by 5
  wait 5 secs
  repeat 20
    change pixelate effect by -10
    change ghost effect by -5

when I receive conversation
  say Hey Stu! for 2 secs
  say I'm glad you came East for Josh's graduation for 2 secs

when I receive dance
  forever
    switch to costume mres1
    wait 0.2 secs
    switch to costume mres2
  
```

```

switch to costume mres4
next costume
costume #

say Hello! for 2 secs
say Hello!
think Hmm... for 2 secs
think Hmm...

change color effect by 25
set color effect to 0
clear graphic effects

change size by 10
set size to 100 %
size

show
hide

go to front
go back 1 layers
  
```

josh graduation



New sprite: [Add] [Star] [Question] x: -277 y: -442

Sprite list containing 'stuart', 'mitchel', 'group p...', and 'Stage'.

Interim Set 1: Use binomial expansion to calculate expected distribution of 6 games

$$(a+b)^6 \quad \text{where } a=0.55 \quad \text{and } b=0.45$$

<u>Score</u>	<u>Binomial Term</u>	<u>Probability</u>
6-0	a^6	0.028 0.03
5-1	$6a^5b$	0.14
4-2	$15a^4b^2$	0.28
3-3	$20a^3b^3$	0.30
2-4	$15a^2b^4$	0.19
1-5	$6ab^5$	0.06
0-6	b^6	0.008
		<hr/> 1.008 cbk enough!



This project simulates a tennis match between Mitch and Ken, assuming that Ken wins $K\%$ of the games

To start: Click green flag, then press space bar

Registered: 2008-04-11
[Posts: 711](#)

... when your mum says go to bed and u think



Computational and Mathematical Concepts

sequence, iteration, conditionals, variables, event handling,
data structures, threads, synchronization, randomness, ...

Computational and Mathematical Concepts

sequence, iteration, conditionals, variables, event handling, data structures, threads, synchronization, randomness, ...

Problem-Solving Skills

identifying, formulating, decomposing, & debugging problems

Design Skills

imagining, creating, tinkering, evaluating, remixing

Social-Emotional Skills

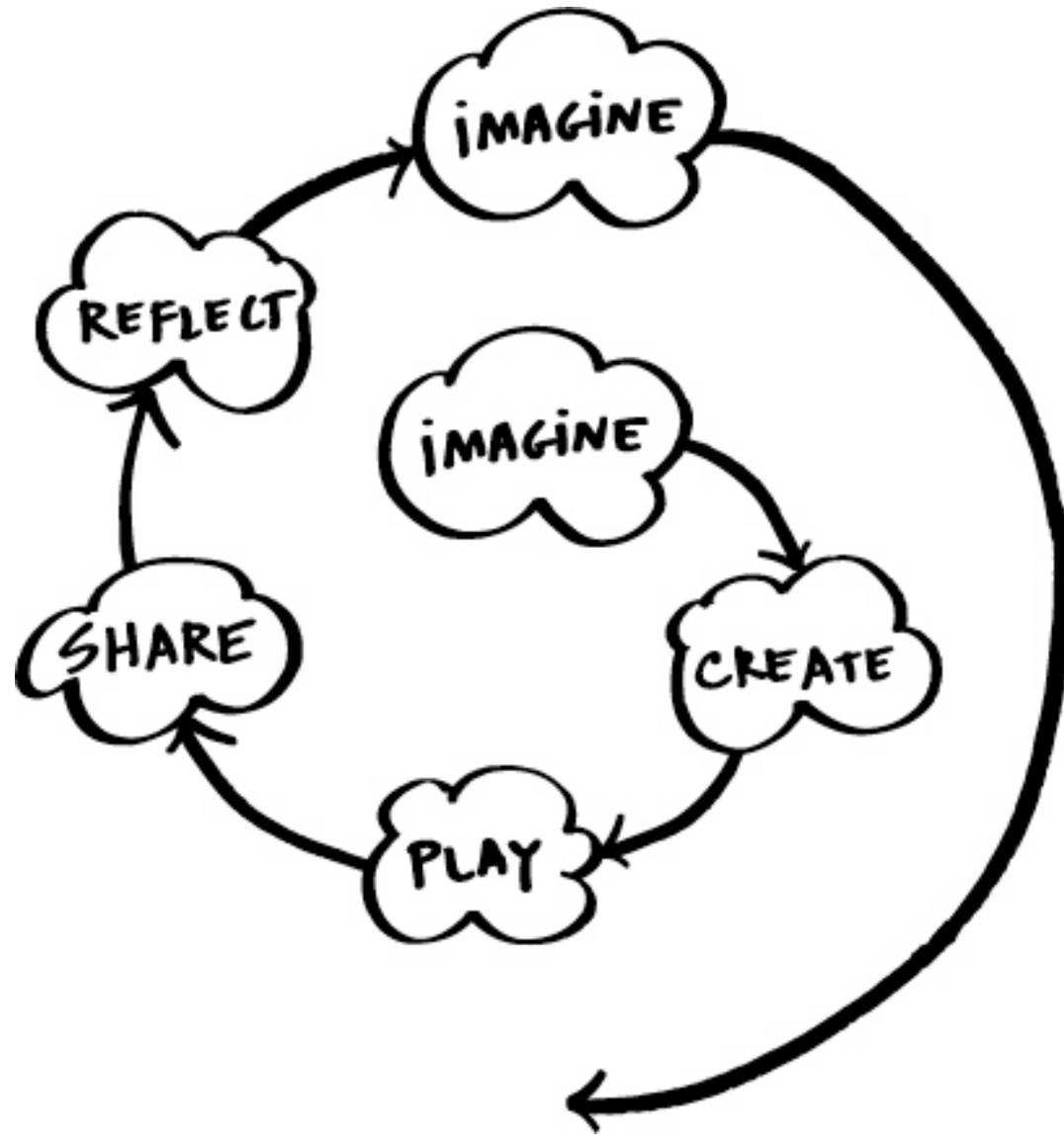
collaborating, sharing, persevering, reflecting

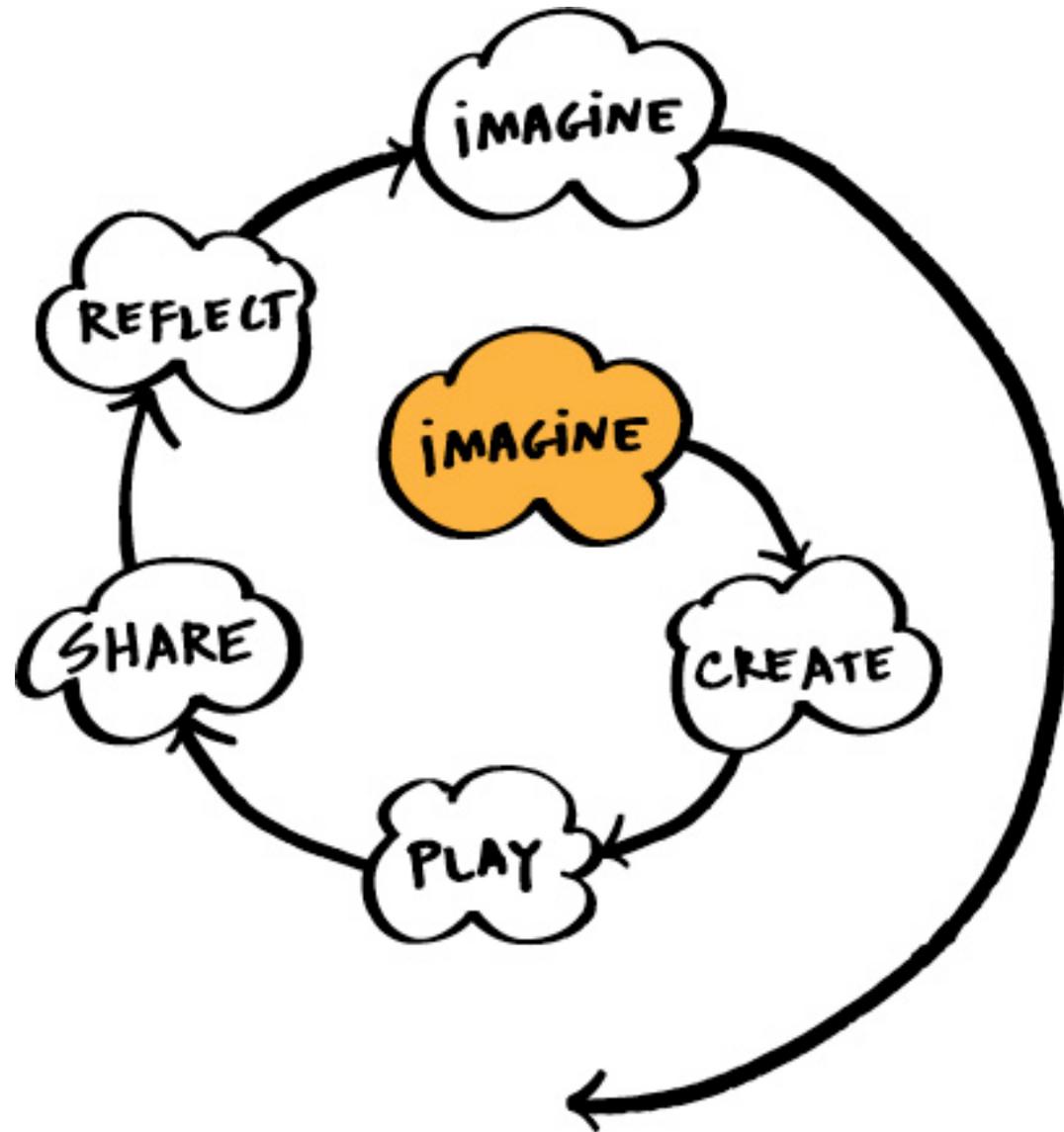
Pathways to Computational Thinking

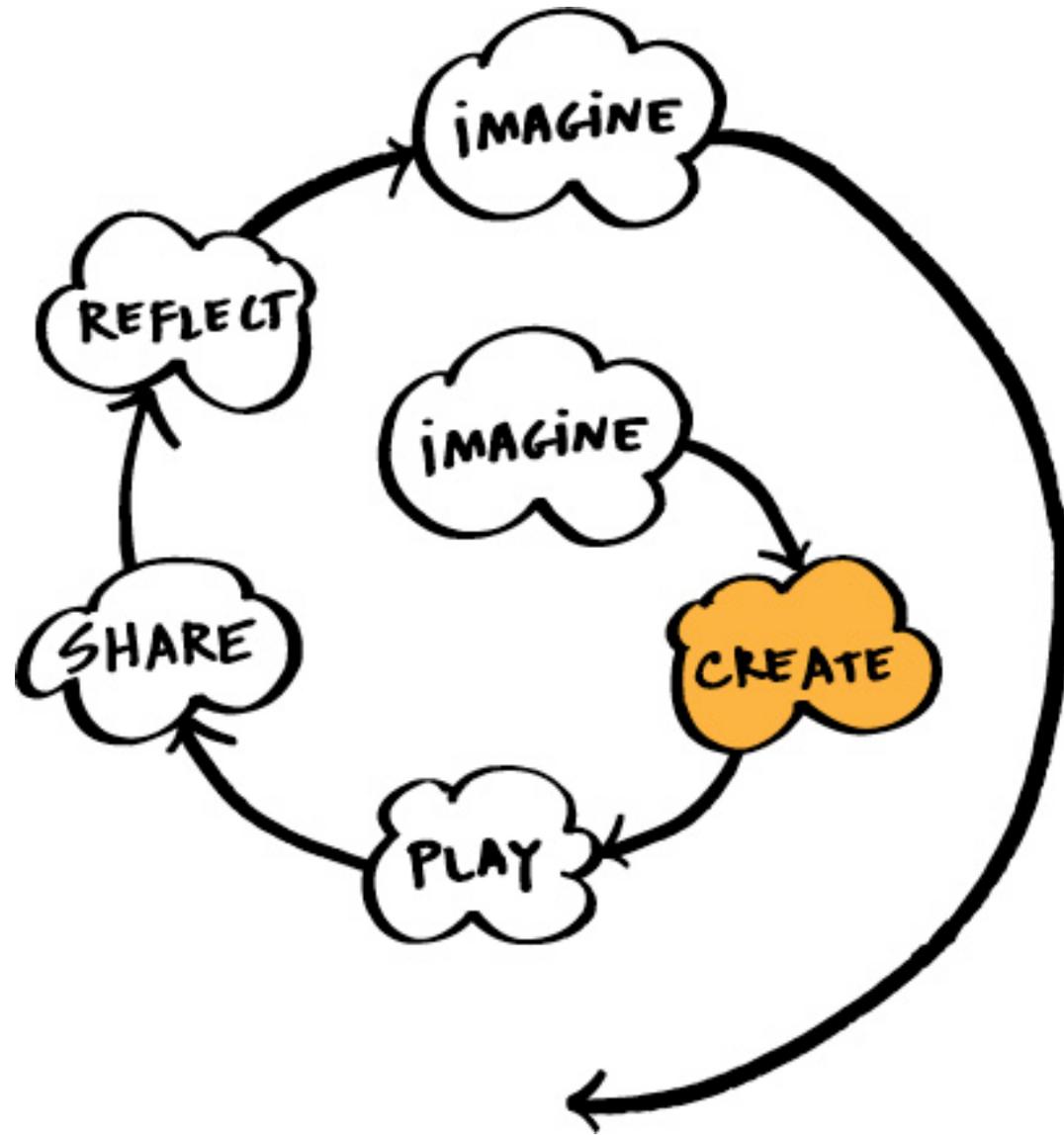
Learning through Designing

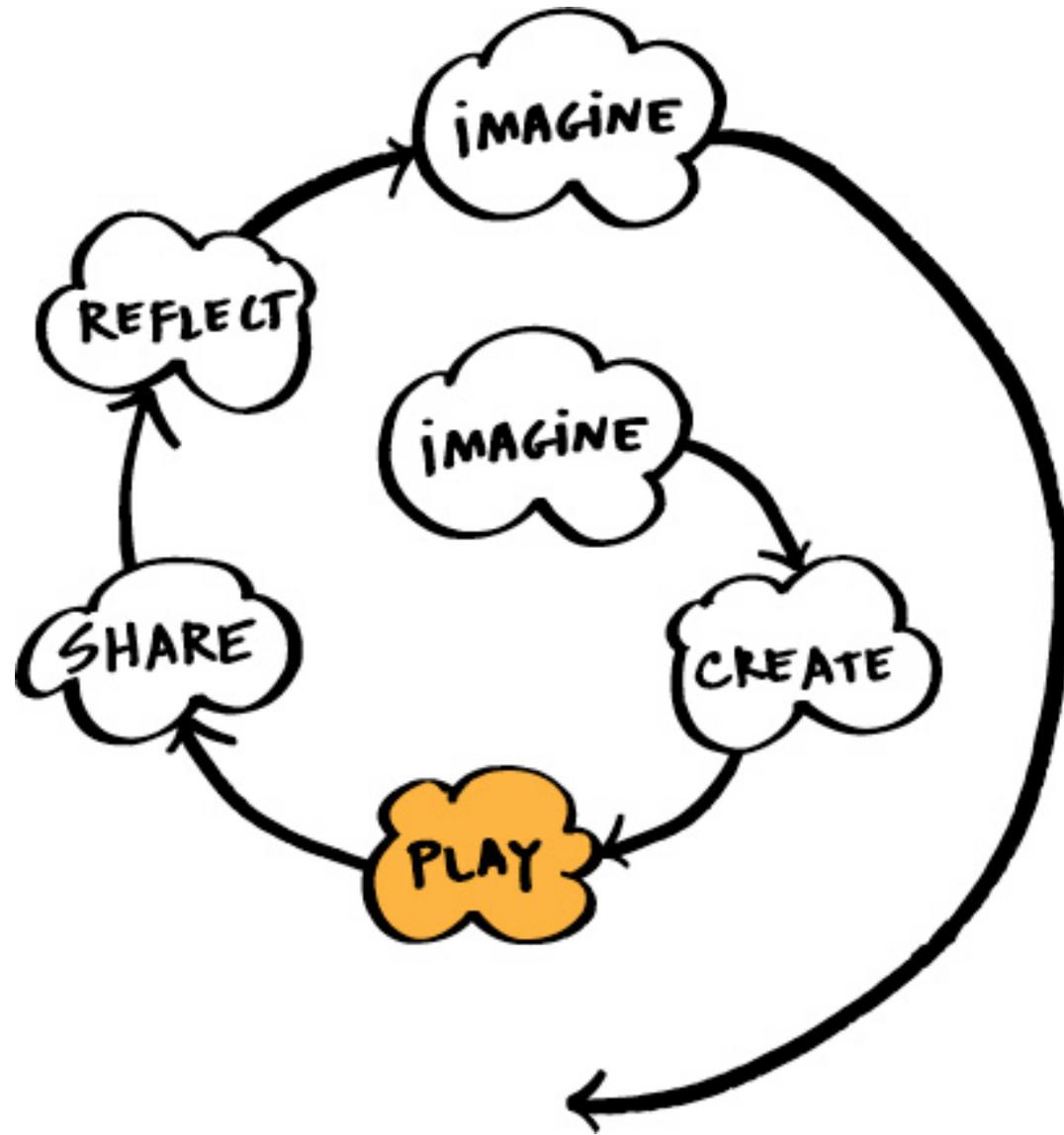
Building on Personal Interests

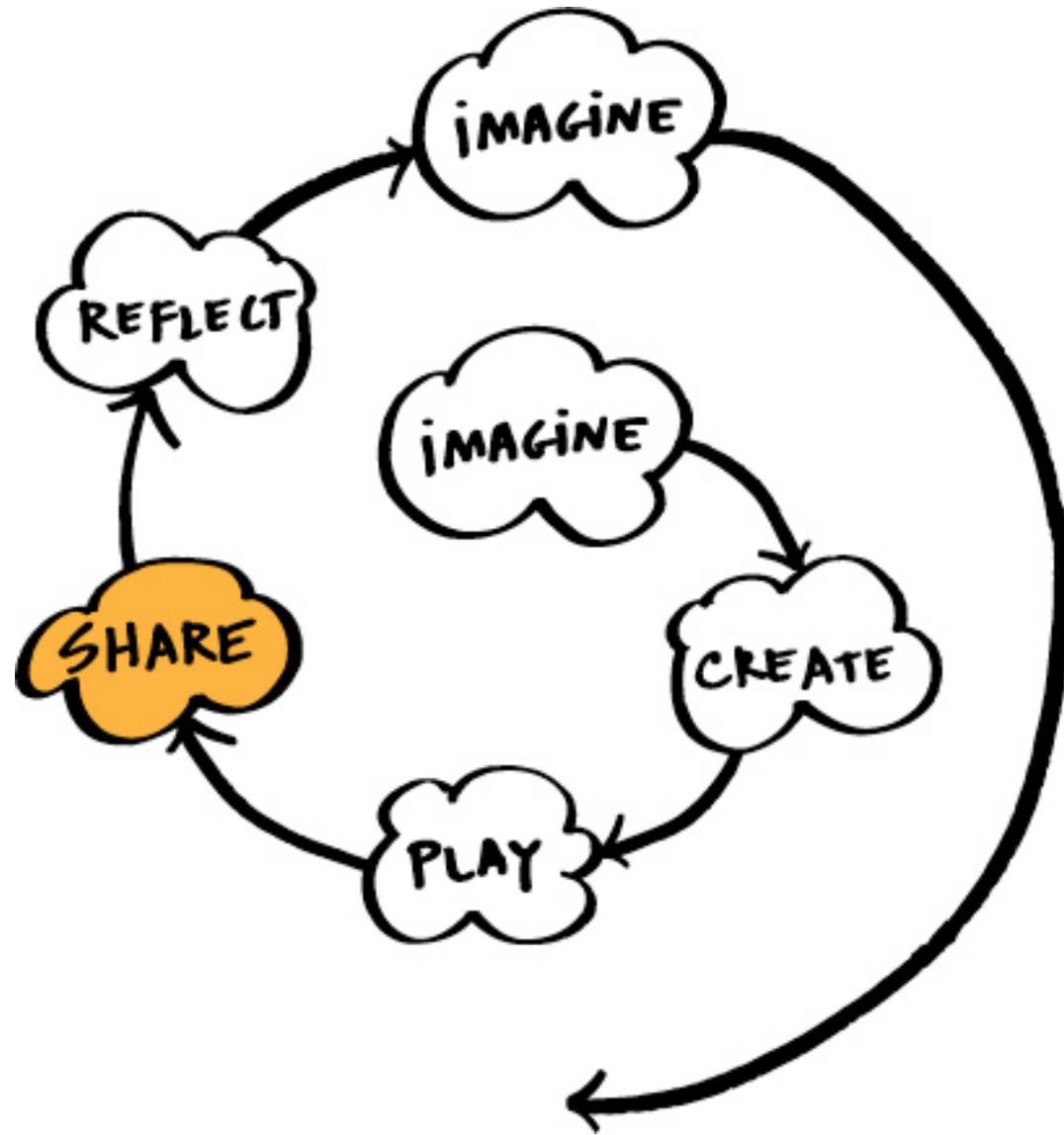
Collaborating Creatively

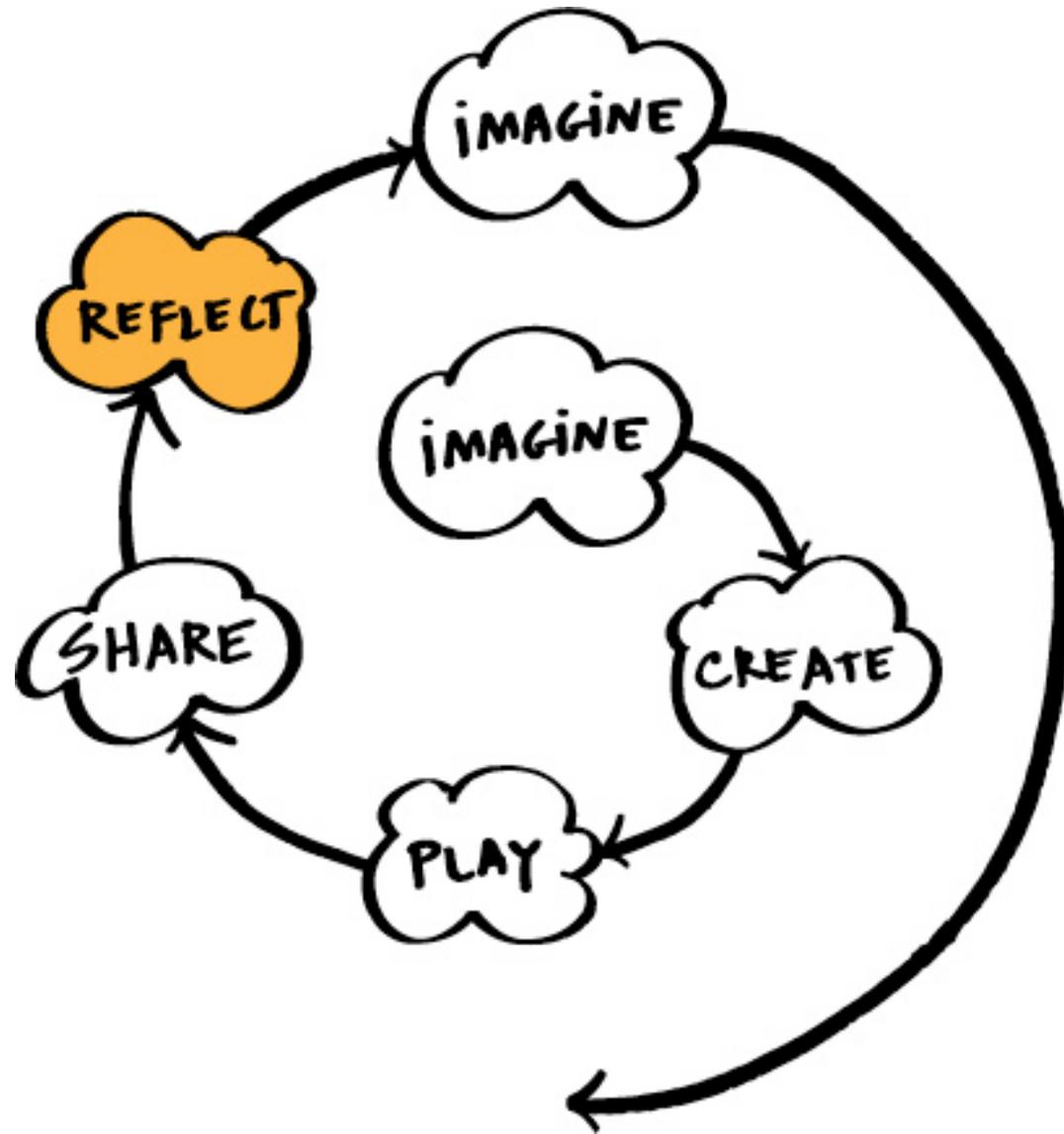


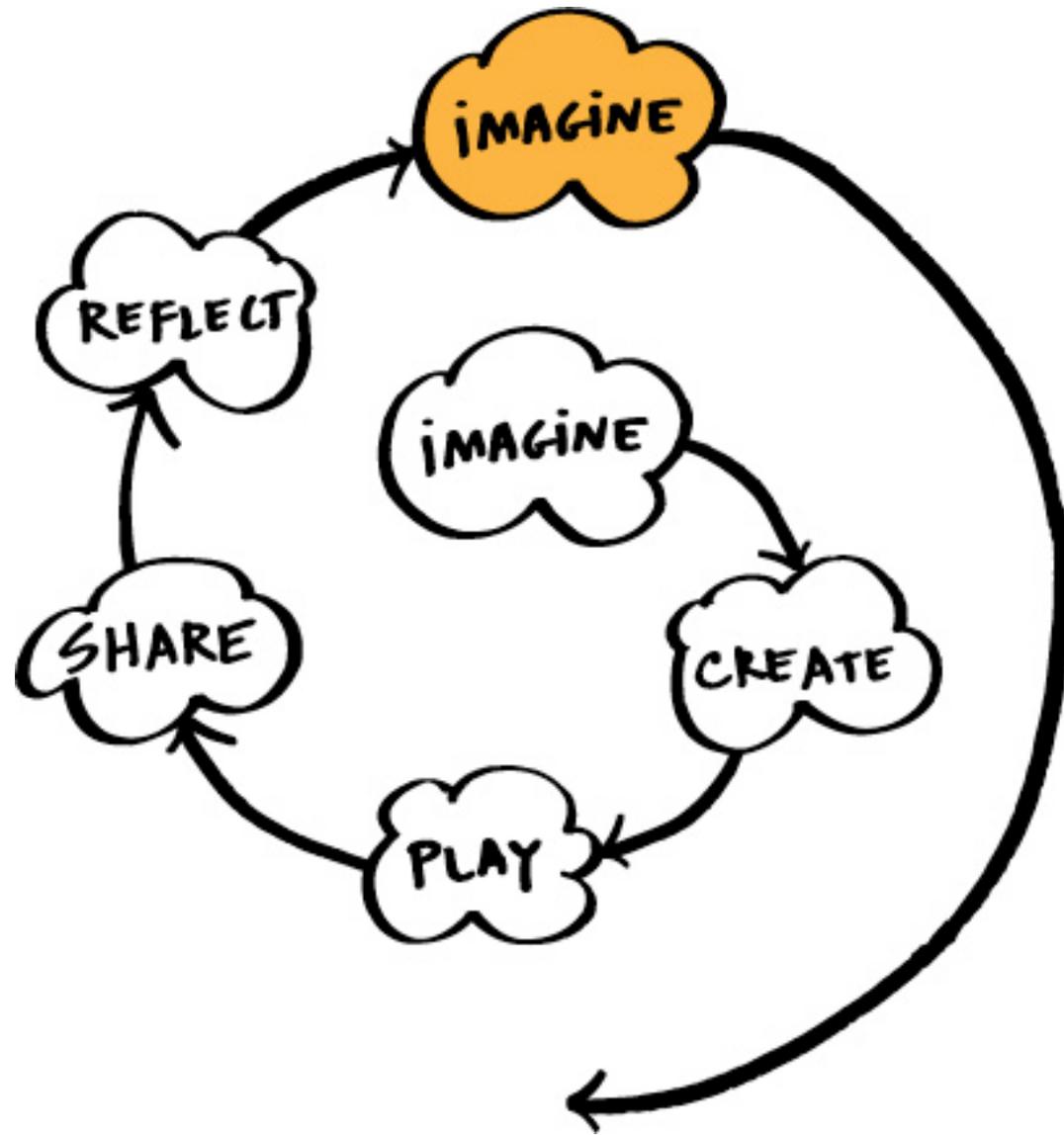












- Motion
- Looks
- Sound
- Pen
- Control
- Sensing
- Numbers
- Variables

Sprite12
 x: 5 y: -42 direction: 90

- Scripts
- Costumes
- Sounds

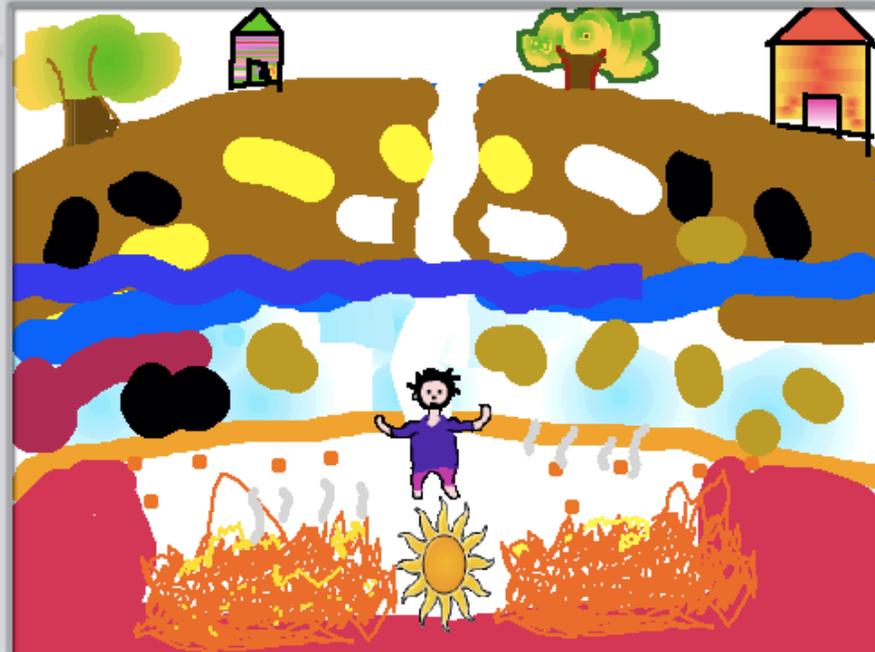
- move 10 steps
- turn 15 degrees
- turn 15 degrees
- point in direction 90
- point towards
- go to x: 5 y: -42
- go to
- glide 1 secs to x: 5 y: -42
- change x by 10
- set x to 0
- change y by 10
- set y to 0
- if on edge, bounce
- x position
- y position
- direction

```

when clicked
  wait 1 secs
  forever
    wait 0.2 secs
    next costume
  end
when clicked
  wait 0.4 secs
  play sound varada1
when clicked
  wait 14 secs
  play sound Valdhya1
  wait 21 secs
  play sound Suvarna Water1
  wait 17 secs
  play sound petrol Suvarna1
  wait 14 secs
  play sound Fire Suvarna1
when clicked
  go to x: 12 y: 180
  wait 10 secs
  
```

Navigation icons: Arrow, Pin, Scissors, Zoom In, Zoom Out

Stage icons: Green flag, Red stop



Tools: Eraser, Pencil, Paint bucket

mouse x: 243
 mouse y: -404

Sprite palette showing Stage and various sprites (Sprite2, Sprite11, Sprite8, Sprite10, Sprite4, Sprite5, Sprite3, Sprite6, Sprite7) with their respective script counts.

[Login](#) or [Signup](#) for an account

Snap together blocks



to create stories, games and animations



and share your creations on the web

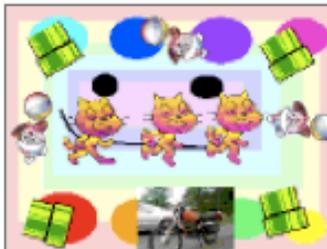
Download Scratch 1.3.1



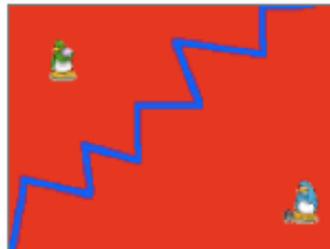
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by [Pingu1999](#)



[Pop-ups! \[1\]\[1\]](#)
by [nightgal339](#)

Scratch Design Studio

Rectangles



No circles, no curvy lines, no imported images. What projects can you make using

only the paint editor's Rectangle tool to create sprites and backgrounds?

[See more](#) ▶

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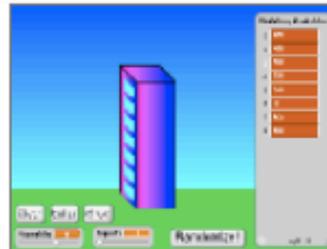
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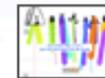


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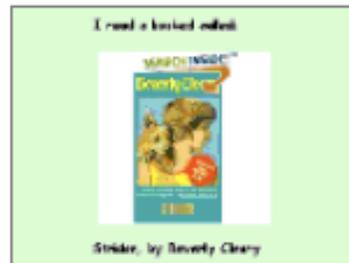
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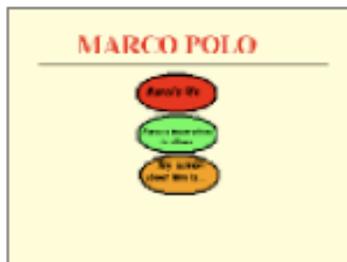
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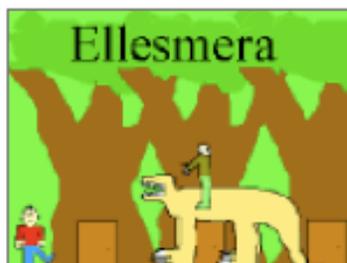
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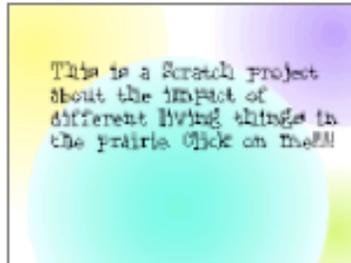
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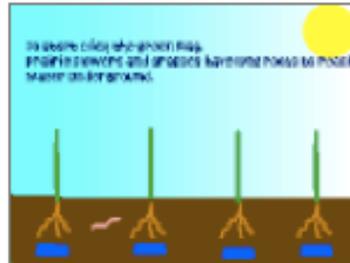
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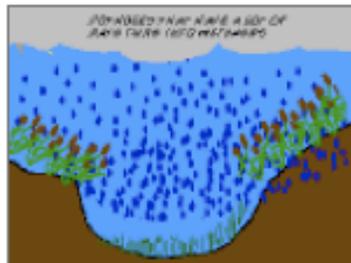
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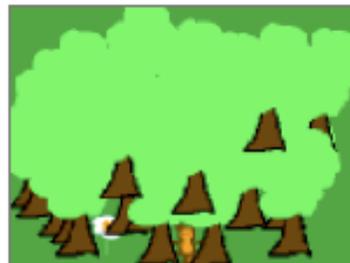
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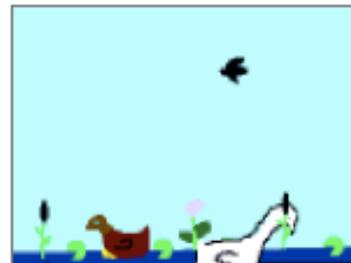
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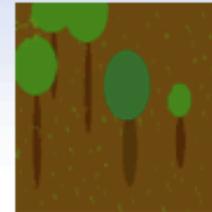
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Gallery description

Our class went camping and talked about ecosystems. The kids made a Scratch project to show a connection in a forest, prairie, or wetland ecosystem.

Computational Thinking

Computational Creativity

Learning through Designing

Building on Personal Interests

Collaborating Creatively