

My First Scratch Project

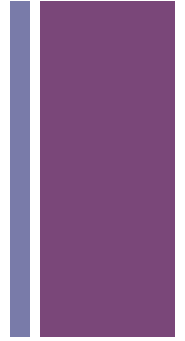
ScratchEd Webinar Series

Wednesday, January 25, 2012

7pm – 8pm EST

Karen Brennan

+ Three Questions

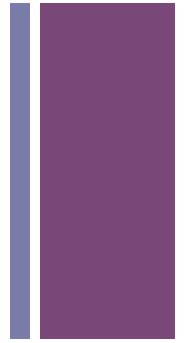


What is Scratch?

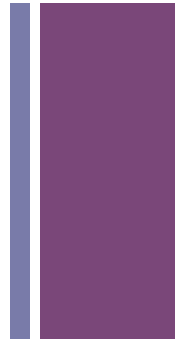
What is Scratch good for?

What is good Scratch?

+ Q1: What is Scratch?



+ Q1: What is Scratch?



a programming language

SCRATCH



File Edit Share Help



Motion

Control

Looks

Sensing

Sound

Operators

Pen

Variables



Sprite1



x: 0

y: 0

direction: 90

Scripts

Costumes

Sounds

move 10 steps

turn 15 degrees

turn 15 degrees

point in direction 90

point towards

go to x: 0 y: 0

go to

glide 1 secs to x: 0 y: 0

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



New sprite:



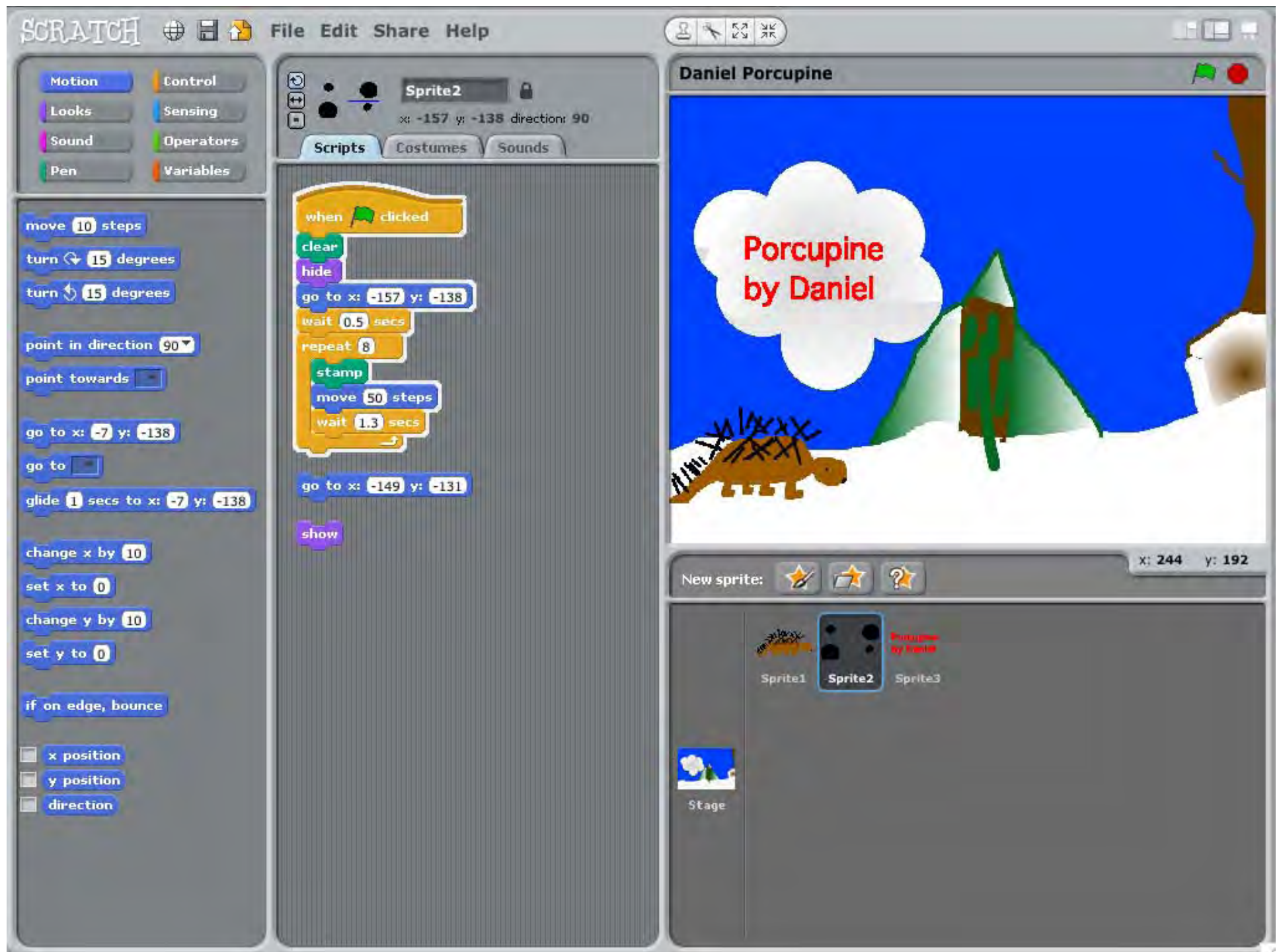
x: -193 y: 77



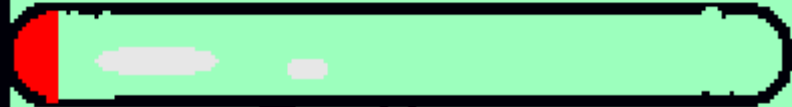
Sprite1



Stage



Happiness



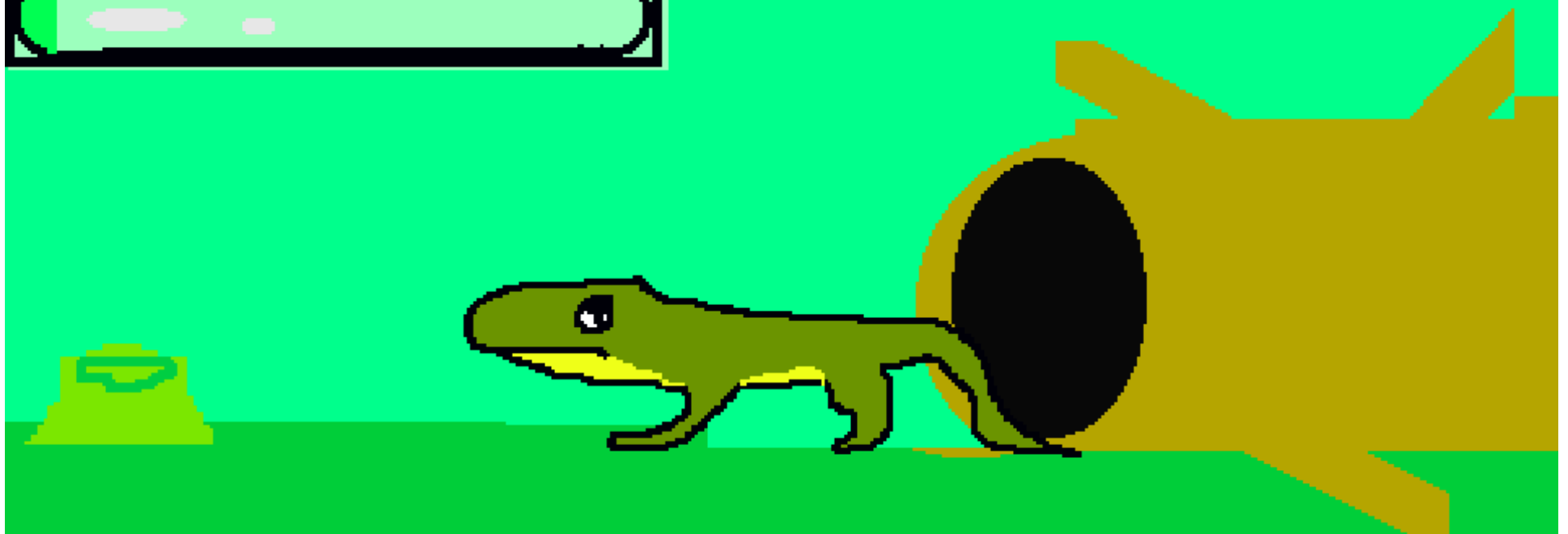
Belly



Water



Energy



The Lion and the Boar

An Aesop Fable



By Farzana and Jennifer
P.S. 131 Grade 5



SCRATCH

File

Edit

Share

Help

Motion

Looks

Sound

Pen

Control

Sensing

Operators

Variables

Sprite5

xi: -184 yi: 120 direction: 180

Scripts

Costumes

Sounds

when space key pressed

go to x: -184 y: 120

say Get me to the Gold! Dont touch the white lines t ou

when up arrow key pressed

point in direction 0

move 5 steps

if touching color ?

go to x: -190 y: 115

set Timer to 45

if touching Gold ?

broadcast Win

when down arrow key pressed

point in direction 180

move 5 steps

if touching color ?

go to x: -190 y: 115

set Timer to 45

if touching Gold ?

broadcast Win

when left arrow key pressed

point in direction -90

move 10 steps

turn 15 degrees

turn 15 degrees

point in direction 90

point towards

go to x: -190 y: 105

go to

glide 1 secs to x: -190 y: 105

change x by 10

set x to 0

change y by 10

set y to 0

if on edge, bounce

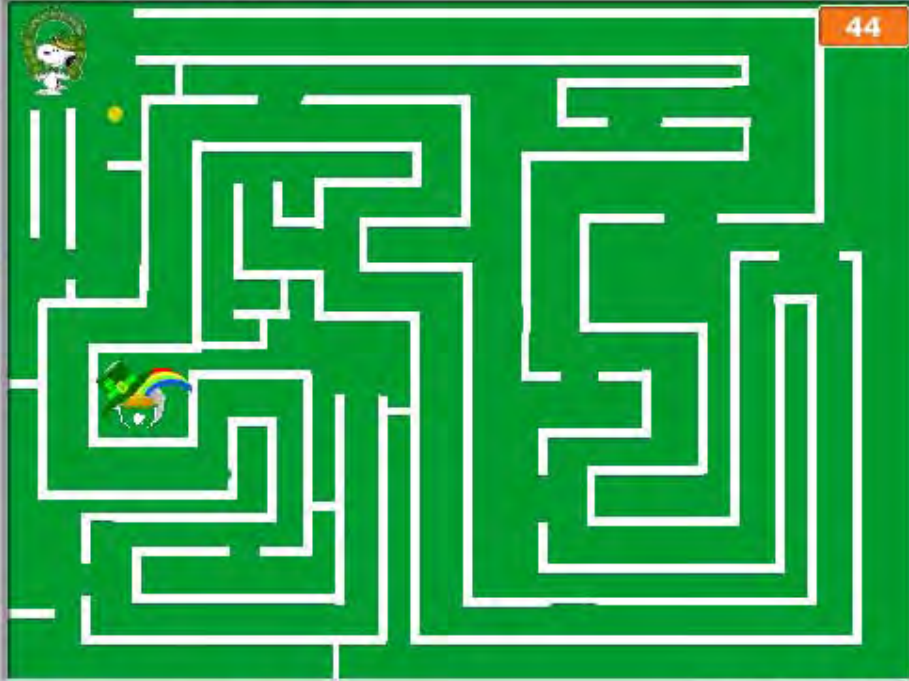
x position

y position

direction

St. Patricks Day Maze_0

44



New sprite:

Gold

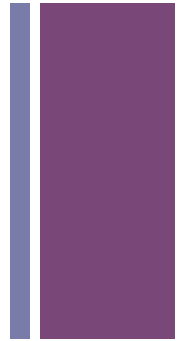
Snoop

Sprite5

Stage

x: 250 y: 199

+ Q1: What is Scratch?



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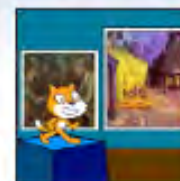


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Scratch Tours



New to Scratch?
Take a tour to see
what Scratchers are
creating and
sharing.

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Day Dream



[cremeglance](#) shared it 2 years, 10 months ago



[Some rights reserved](#)

4685 views, [18 taggers](#), 168 people love it, [456 remixes](#) by 411 people, 487 downloads, in [35 galleries](#)

Download this project!



Download the 10 sprites and 50 scripts of "[Day Dream](#)" and open it in [Scratch](#)



Project Notes

A short animation.

<http://jueseph.com/blog/2007/09/i-learned-in-computer-science-50/>

Click on the tree and mountains for some interesting effects.

For those of you who are curious, I actually drew in a sketchbook, took digital pictures, and then ran them through photoshop to get the right contrast to extract pure black/white figures. Really clumsy, but the project was due the next day and I didn't have a scanner on hand. The whole process took 6 hours, most of it spent drawing and processing pictures and extracting music clips, the rest spent adjusting wait times. The actually coding was simple because the whole thing is pretty linear and non-interactive.

SCRATCH



File Edit Share Help

Motion

Control

Looks

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Sound

Operators

Pen

Variables

move 10 steps

turn 15 degrees

turn 15 degrees

point in direction 90

point towards

go to x: -10 y: -60

go to

glide 1 secs to x: -10 y: -60

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



man

x: -10 y: -60 direction: 90

Scripts

Costumes

Sounds

```

when I receive scenery
wait 5 secs
repeat 5
  next costume
  wait 0.2 secs
wait 0.5 secs
switch to costume up
wait 0.5 secs
switch to costume man7
wait 0.2 secs
switch to costume right
broadcast cue tree
go to front
wait 1 secs
switch to costume man7
wait 0.2 secs
repeat 10
  switch to costume walk1
  move 10 steps
  wait 0.1 secs
  switch to costume walk2
  move 10 steps
  wait 0.1 secs
  switch to costume walk3
  move 10 steps
  wait 0.1 secs
  point in direction -90
  repeat 10
    switch to costume walk1

```

```

when green flag clicked
switch to costume
set ghost off
go to x: 1
point in direction

```

```

when I receive
repeat 10
  change ghost
  wait 0.05

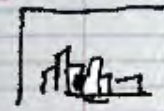
```

```

when I receive
point in direction
repeat 4
  switch to costume
  move 5 steps
  wait 0.1 secs
  switch to costume
  move 5 steps
  wait 0.1 secs
  switch to costume
  wait 0.2 secs
  broadcast cue
  repeat 3

```

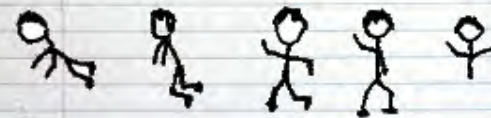
Day Dream



Music:

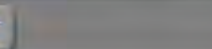
Shostakovich String Quartet No. 2
"Adagio"

"Downtown" by Simian Mobile Disco

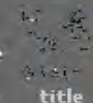


x: 247 y: -32

New sprite:



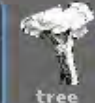
scenery



title



man



tree



city



bird



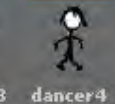
dancer1



dancer2



dancer3



dancer4

Stage



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Gallery owner: [kevin_karplus](#)



Created: 2 years, 10 months ago

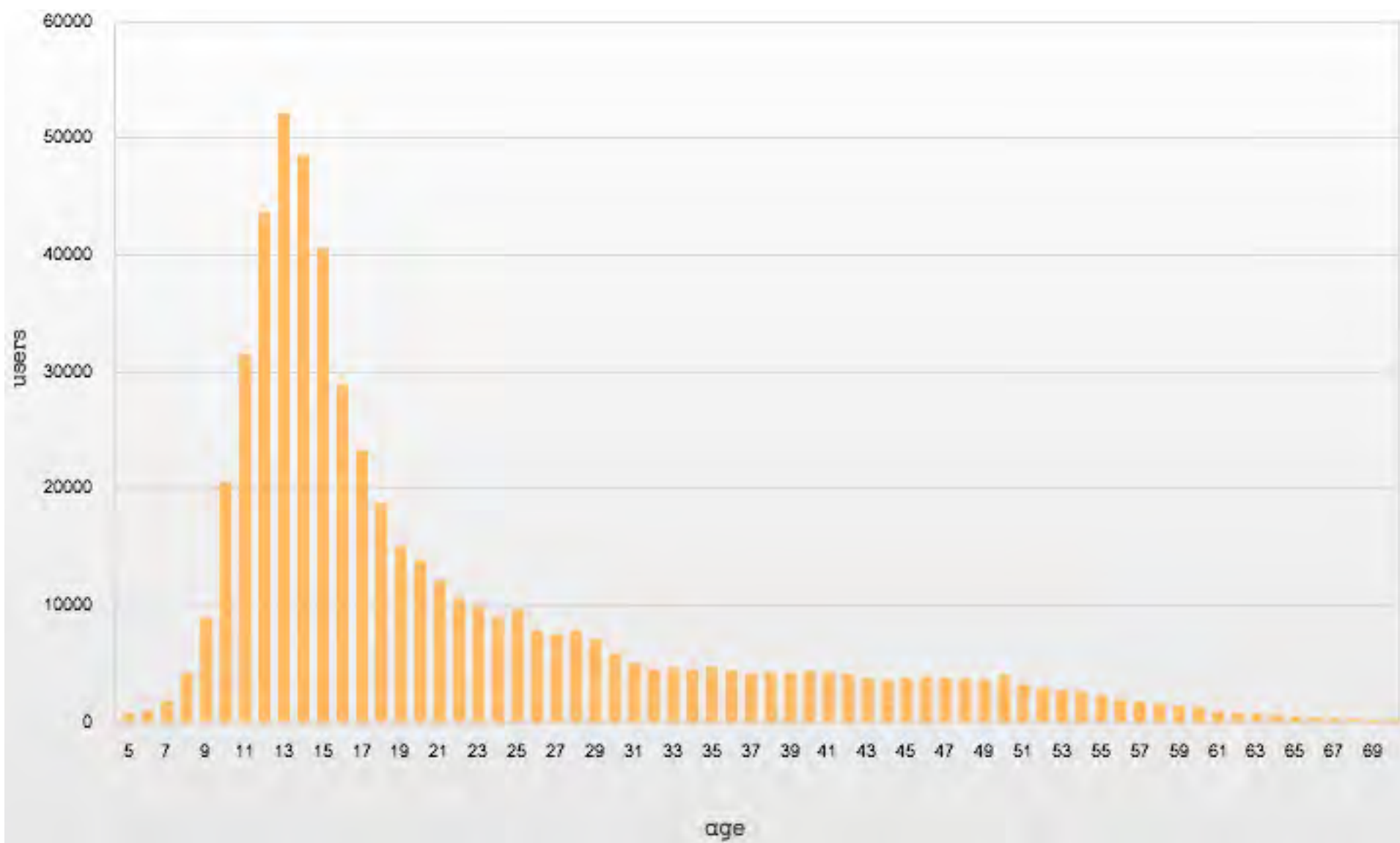
Gallery description

This gallery is for projects that teach some mathematics, show how to implement some tricky math in scratch, or use mathematics in some substantial way.

It is **not** intended for projects that just show xy coordinates or other things that apply to almost any scratch program.

Anyone can add to the gallery, but I will try to remove non-mathematical projects.

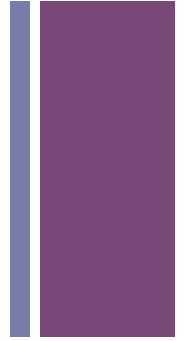
989,570 registered members
292,980 project creators





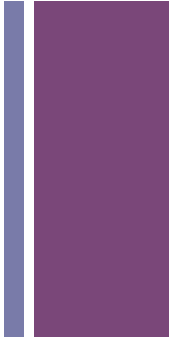
2,285,535 projects uploaded

+ Q2: What is Scratch good for?

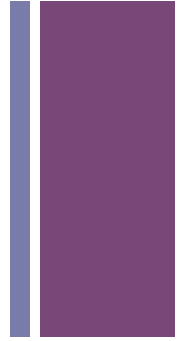


+ Q2: What is Scratch good for?

computational thinking



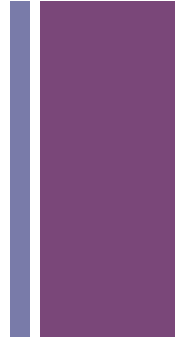
+ Q2: What is Scratch good for?



computational thinking

understanding computational concepts

+ Q2: What is Scratch good for?



computational thinking

understanding computational concepts

developing problem-solving practices

SCRATCH



File Edit Share Help



Motion

Control

Looks

Sensing

Sound

Operators

Pen

Variables



Sprite1



x: 0

y: 0

direction: 90

Scripts

Costumes

Sounds

move 10 steps

turn 15 degrees

turn 15 degrees

point in direction 90

point towards

go to x: 0 y: 0

go to

glide 1 secs to x: 0 y: 0

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



New sprite:



x: 492 y: -215



Sprite1



Stage

SCRATCH



File Edit Share Help



Motion

Control

Looks

Sensing

Sound

Operators

Pen

Variables



JetPack_Girl



x: -177 y: -115 direction: 180

Scripts

Costumes

Sounds

move 10 steps

turn 15 degrees

turn 15 degrees

point in direction 90

point towards

go to x: -177 y: -115

go to

glide 1 secs to x: -177 y: -115

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 I receive go

set size to 75 %

switch to costume Right

show

when I receive yay!bonus?

go to x: -164 y: -116

when I receive go

forever

if key right arrow pressed?

set x speed to x speed + 0.5

set direction to 0

when I receive bonus...

reset timer

forever

if timer > 30.0

broadcast lose :(

when I receive go

set size to 75 %

10 levels

10 Levels

Play

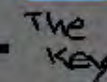
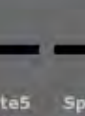
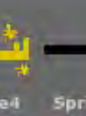
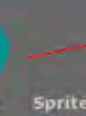
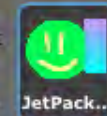
Instructions

timer 67.2

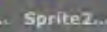
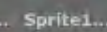
New sprite:



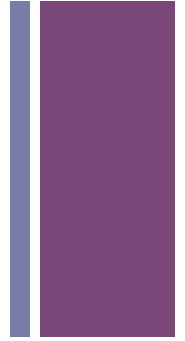
x: 115 y: 30



Stage



+ Q2: What is Scratch good for?



computational thinking

understanding computational concepts

developing problem-solving practices

seeing with computational perspectives

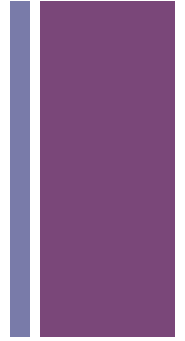
“I love Scratch. Wait, let me rephrase that –
Scratch is my life. I have made many projects.

Now I have what I call a ‘programmer’s mind’.

That is where I think about how anything is
programmed.

This has gone from toasters, car electrical systems,
and soooo much more.”

+ Q2: What is Scratch good for?



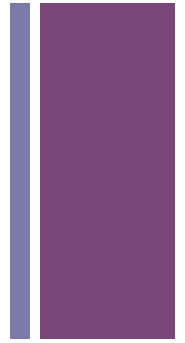
computational thinking

understanding computational concepts

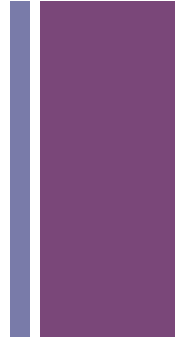
developing problem-solving practices

seeing with computational perspectives

+ Q3: What is good Scratch?



+ Q3: What is good Scratch?



Learning through...

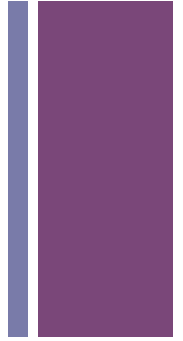
designing

personalizing

sharing

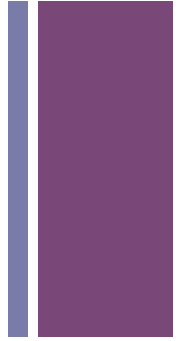
reflecting

+ Building Experiences



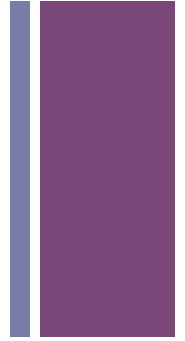
Something Surprising

+ Building Experiences



About Me

+ Additional Resources



- Online
 - ScratchEd online community
 - Scratch online community

Stories

Resources

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Featured Event

Intro Scratch Workshop

New to Scratch or need a refresher course? We'll help you get started with Scratch this Saturday, January 14 at MIT.
[Learn more »](#)



Featured Resource

Scratch Curriculum Guide Draft

A design-based introduction to computational thinking with Scratch, in twenty lessons. The guide includes lesson plans, sample projects, and handouts.
[View more featured resources »](#)



New Stories



Exploring New Features on the ScratchEd Website

Learn more about new features from the redesigned ScratchEd website in this video tutorial.
ScratchEd Team posted this 3 weeks ago

Understanding Scratchers' Understanding

How do you assess what young people learn with Scratch?
Karen Brennan posted this 4 weeks ago



CSEd Week Feature - Creative Approaches: An Interview with Cameron Cross from Ray School

The story for CSEd Week features Cameron Cross, who integrates Scratch with general curriculum concepts at the elementary school level.
ScratchEd Team posted this 4 weeks ago

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New Resources



Programmieren mit Scratch

Bernd Gärtner posted this 3 hours ago



ScratchCatalà - El lloc web en Català sobre Scratch

Eugeni Catalán posted this 18 hours ago

A-Maze-ing Scratch Challenges

Dave Miller posted this 1 day ago

- [Find a resource](#)
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New Discussions

Allow to specify a costume by its number

Karen Brennan commented on this 59 min ago

Dance Party!

B. Pickett commented on this 1 hour ago

Reflections on Scratch Educator Meetup @ MIT: Saturday, January 7, 2011

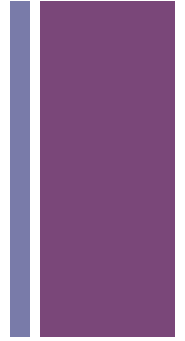
Ingrid Gustafson commented on this 22 hours ago

ScratchEd Weekly Roundup | 12/31/11 - 01/06/11

Vicki Gold commented on this 1 day ago

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+ Additional Resources

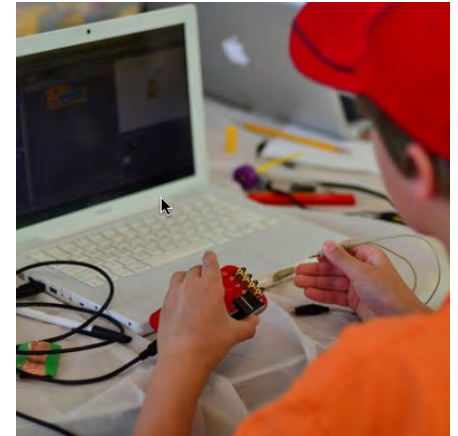
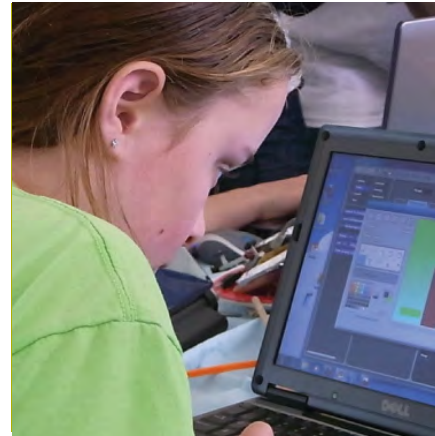
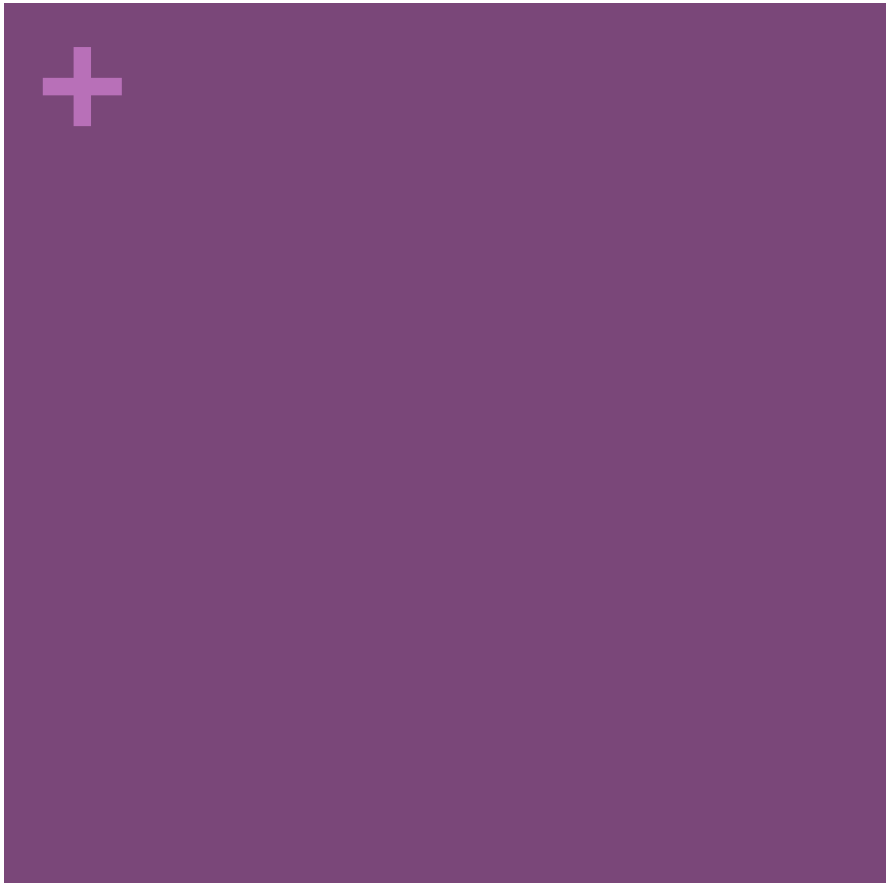


■ Online

- ScratchEd online community
- Scratch online community

■ Events

- Monthly meetups – *first Saturday*
- Monthly webinars – *last Wednesday*
- Scratch Day – *May 19*
- Scratch@MIT conference – *July 25-28*



Thank you!

<http://www.surveymonkey.com/s/2012-01-webinar>

Next webinar: Wednesday, February 29, 2012 at 7pm

<http://scratched.media.mit.edu>

<http://scratched.eventbrite.com>