Scratch Workshop 2018

Code to Learn, Learn to code!

Introduction

- Introduction the Scratch way! :) - https://scratch.mit.edu/projects/215984658/

So let's begin with..

- What’s programming
- Setting up Scratch
- Exploring scratch work area
- Create, run and save your own first project using basic blocks!

What's Programming?

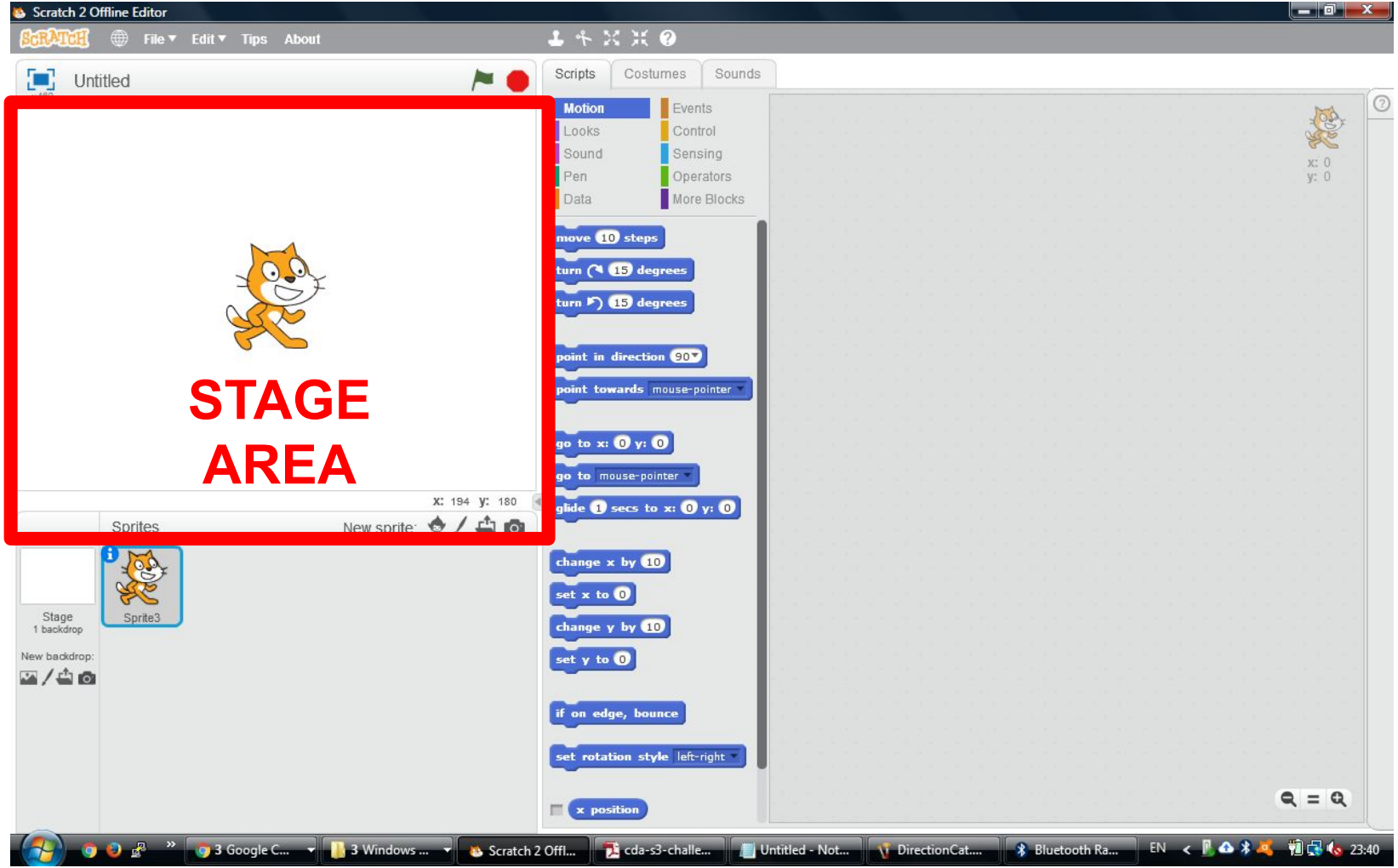
- What are computers and where do we see computers around ?
- Why computer science?
  - https://www.youtube.com/watch?time_continue=56&v=QvyTEx1wyOY
- What is coding - algorithms and programs ?
-
- What is Scratch?
- https://vimeo.com/65583694#at=2

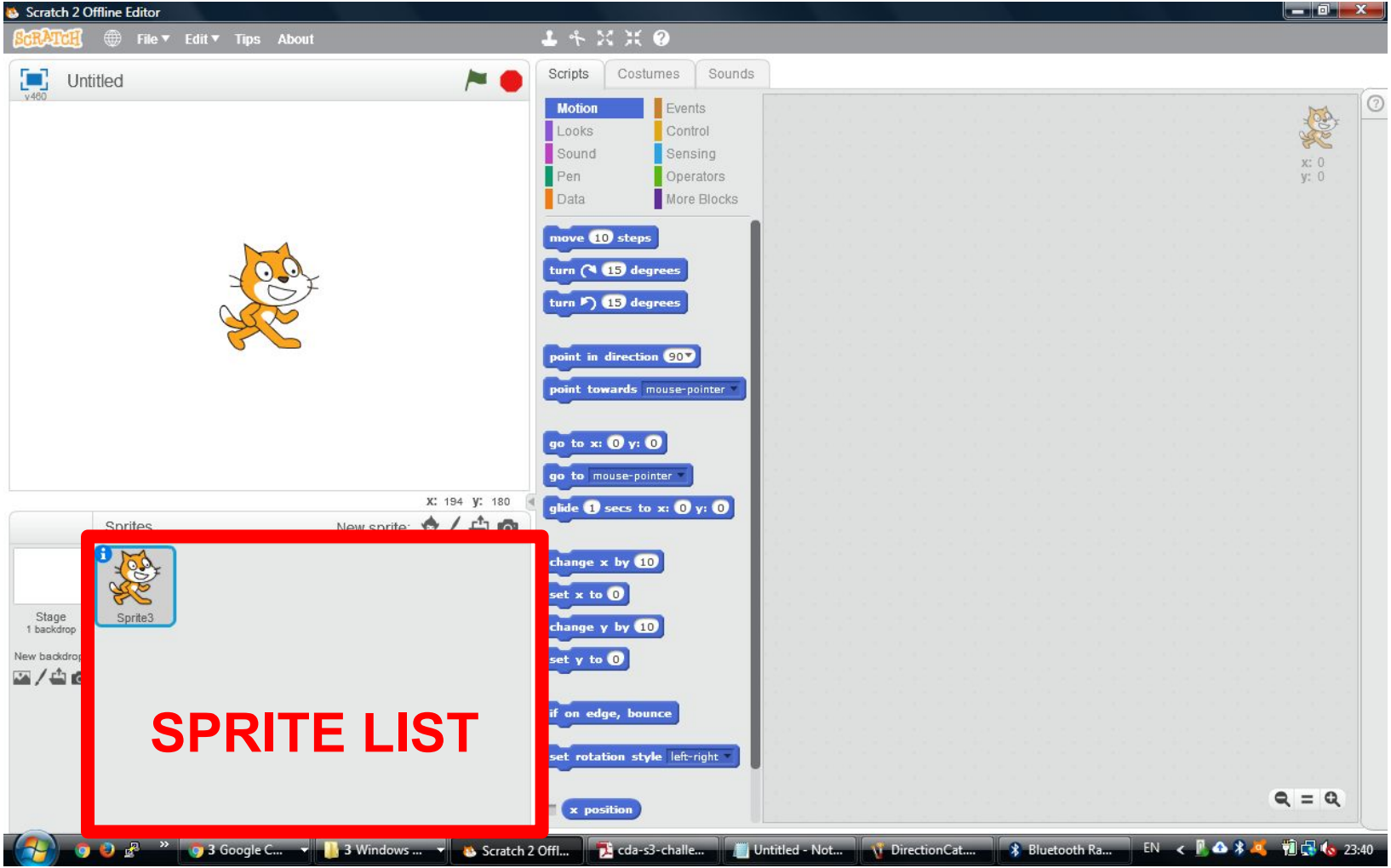
Some more details on scratch:

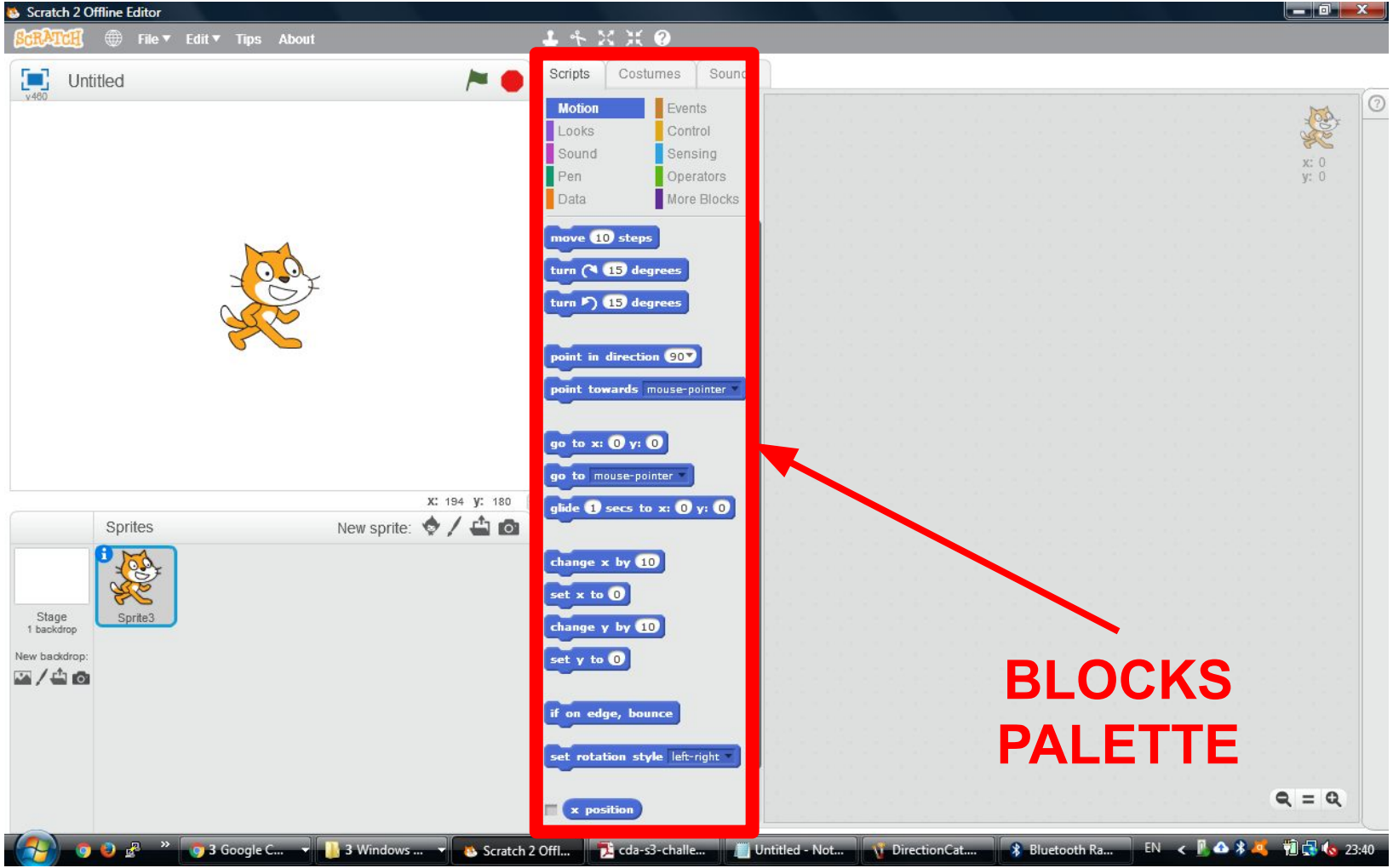
- https://www.youtube.com/watch?v=_q2RgQMc96k
-

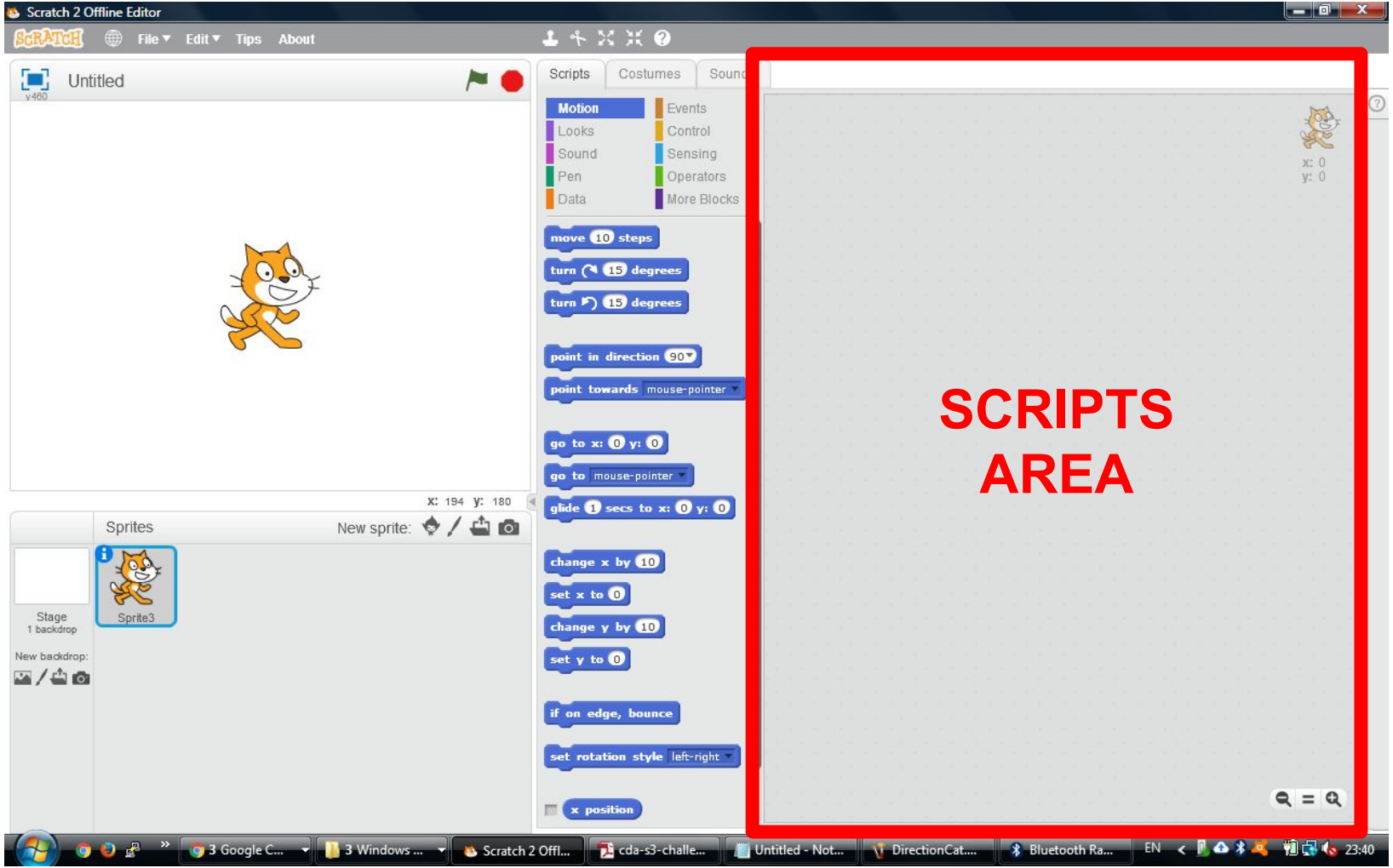
Setting up Scratch

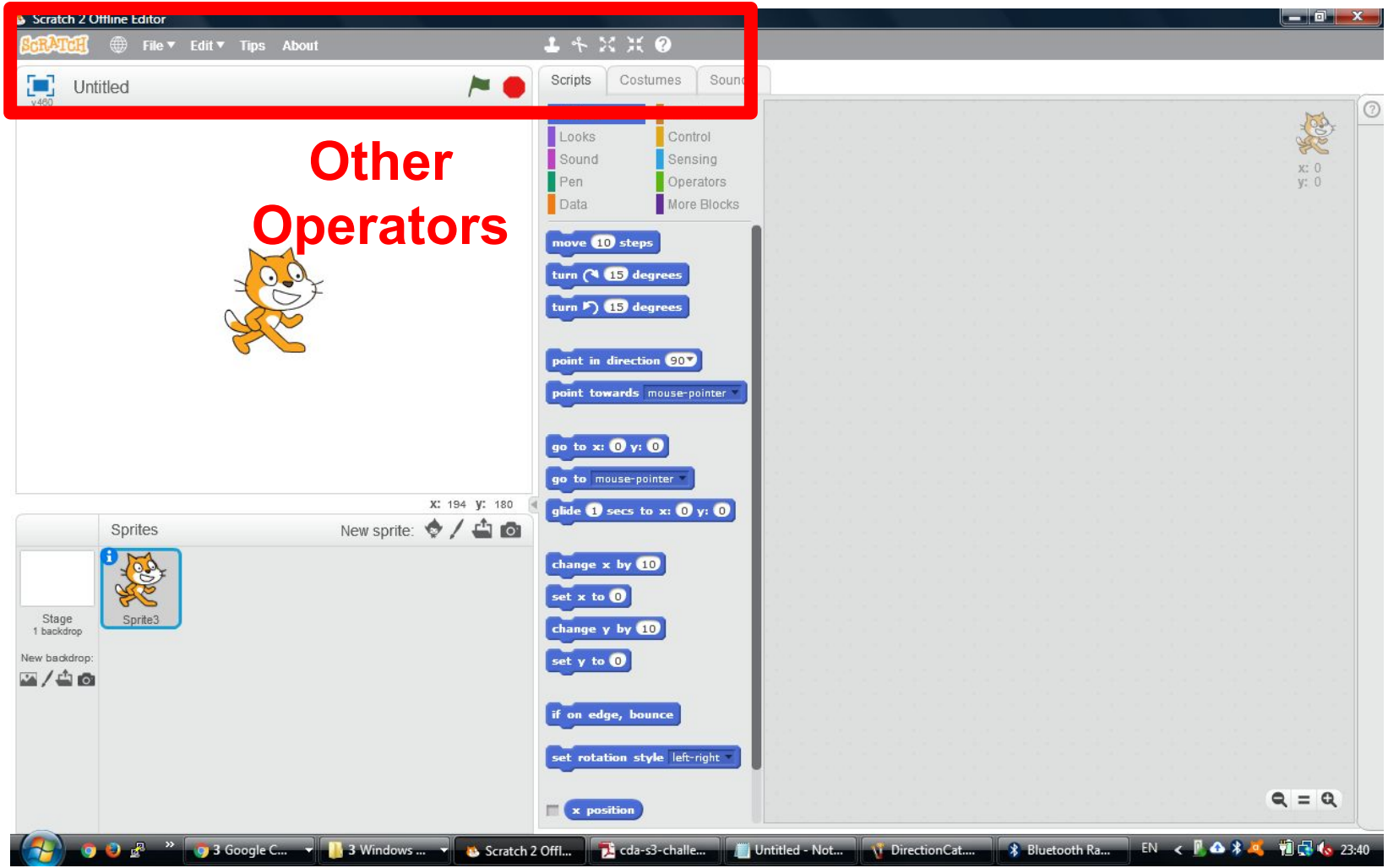
- Make a folder on your computer
- Connect to internet
- Create an student account on Scratch http://scratch.mit.edu/classes/104222/register/468deaba91424a07bba42961abdfccac
- Login with student account - https://scratch.mit.edu/
- Download Scratch offline editor
- Working offline
- Projects


Scratch 2 Offline Editor
File
Edit
Tips
About
Untitled
Scripts
Costumes
Sounds
Motion
Looks
Sound
Pen
Data
Events
Control
Sensing
Operators
More Blocks
move 10 steps
turn 15 degrees
turn 15 degrees
point in direction 90
point towards mouse-pointer
go to x: 0 y: 0
go to mouse-pointer
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
set rotation style left-right
x position
x: 0
y: 0
STAGE
AREA
x: 194 y: 180
Sprites
New sprite:
Stage
1 backdrop
Sprite3
New backdrop:
3 Google C...
3 Windows ...
Scratch 2 Offl...
cda-s3-challe...
Untitled - Not...
DirectionCat....
Bluetooth Ra...
EN
23:40


Scratch 2 Offline Editor
File
Edit
Tips
About
Untitled
Scripts
Costumes
Sounds
Motion
Looks
Sound
Pen
Data
Events
Control
Sensing
Operators
More Blocks
move 10 steps
turn 15 degrees
turn 15 degrees
point in direction 90
point towards mouse-pointer
go to x: 0 y: 0
go to mouse-pointer
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
set rotation style left-right
x position
x: 0
y: 0
x: 194 y: 180
Sprites
New sprite:
Stage
1 backdrop
New backdrop
Sprite3
SPRITE LIST


Scratch 2 Offline Editor
File
Edit
Tips
About
Untitled
Scripts
Costumes
Sound
Motion
Looks
Sound
Pen
Data
Events
Control
Sensing
Operators
More Blocks
move 10 steps
turn 15 degrees
turn 15 degrees
point in direction 90
point towards mouse-pointer
go to x: 0 y: 0
go to mouse-pointer
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
set rotation style left-right
x position
x: 194 y: 180
Sprites
New sprite:
Stage
1 backdrop
New backdrop:
Sprite3
x: 0
y: 0
BLOCKS
PALETTE


Scratch 2 Offline Editor
File
Edit
Tips
About
Untitled
Scripts
Costumes
Motion
Looks
Sound
Pen
Data
Events
Control
Sensing
Operators
More Blocks
move 10 steps
turn 15 degrees
turn 15 degrees
point in direction 90
point towards mouse-pointer
go to x: 0 y: 0
go to mouse-pointer
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
set rotation style left-right
x position
x: 194 y: 180
Sprites
New sprite:
Stage
1 backdrop
Sprite3
New backdrop:
x: 0
y: 0
SCRIPTS
AREA

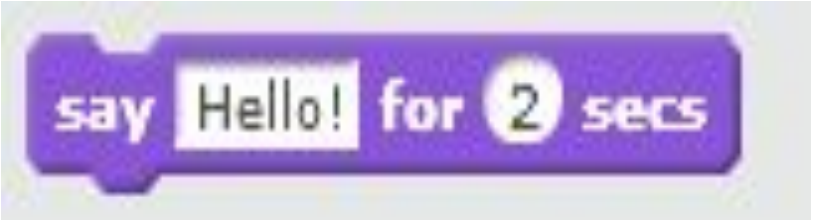

Scratch 2 Offline Editor
File
Edit
Tips
About
Untitled
Other
Operators
Scripts
Costumes
Looks
Control
Sound
Sensing
Pen
Operators
Data
More Blocks
move 10 steps
turn 15 degrees
turn 15 degrees
point in direction 90
point towards mouse-pointer
go to x: 0 y: 0
go to mouse-pointer
glide 1 secs to x: 0 y: 0
change x by 10
set x to 0
change y by 10
set y to 0
if on edge, bounce
set rotation style left-right
x position
x: 194 y: 180
Sprites
New sprite:
Stage
1 backdrop
Sprite3
New backdrop:
x: 0
y: 0
3 Google C...
3 Windows ...
Scratch 2 Offl...
cda-s3-challe...
Untitled - Not...
DirectionCat....
Bluetooth Ra...
EN
23:40

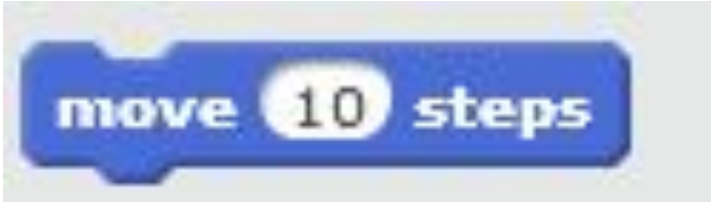
Basic Blocks explored

Create, run and save !

Learn more about

- Motion
- Looks
- Sound
- Pen





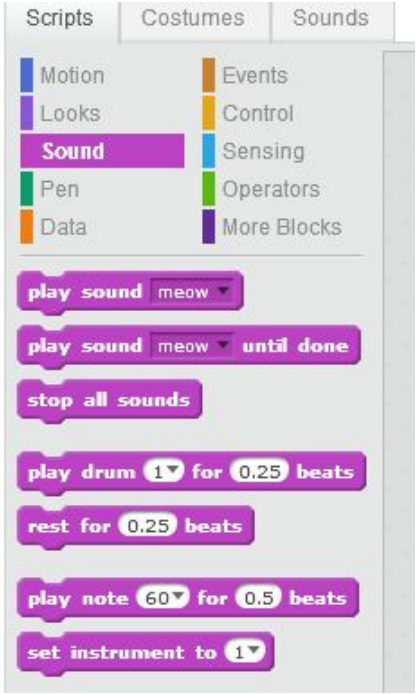
Motion basics!

- Related to movement of sprite
- They deal with
  - Position
  - Directions

Looks!

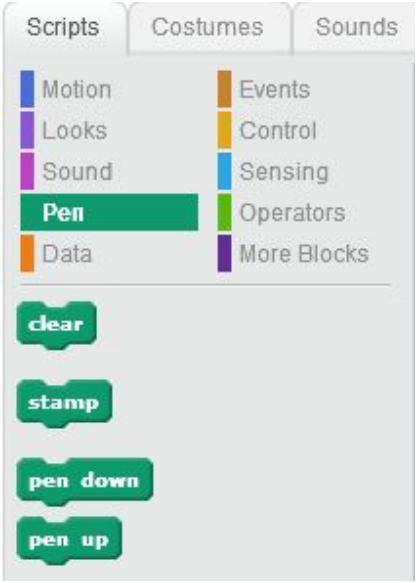
- Appearance of sprite and stage
- Can apply graphic effects too
- Try out Say and Think block!

Sound!



- Playing various sounds or notes
- Add new tune from library
- Change volume
- Record and have fun!

Pen!



- Draw line according to sprites movement
- Turning on and off
- Stamping sprite
- Adjusting its appearance

My first project !

- Make the cat move in such a way that it:
  - Moves 10, 50 and 100 steps and says (say and play sound) “Meow” after every set of steps steps
  - Makes a square
  - Makes a pentagon
  - Makes a hexagon
  - Makes a heptagon
  - Makes an octagon - change color of pen for each side
  - Makes a nonagon
  - Makes a Decagon - change thinkness for each side!
- Challenge :
  - Draw a Star to be one!!

Don't forget to save!

Questions feedback

- We learnt :
  - What’s programming
  - Setting up Scratch
  - Exploring scratch work area
  - Create, run and save your own first project using basic blocks!
- Did you enjoy ?
- What was best part ?
- Can you think of something you can make with these new blocks?