

Scratch 2+ Script Items

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*Notes at end

Motion (blue blocks)	Observations
move ___ steps	
turn [clockwise] ___ degrees	
turn [ccw] ___ degrees	
point in direction ___	(examples in dropdown)
point towards (mouse pointer)	
go to x: ___ y:___	
go to (mouse pointer)	
glide ___ secs to x:___ y:___	
change x by ___	
set x to ___	
change y by ___	
set y to ___	
if on edge, bounce	
set rotation style ()	(left-right, don't rotate, all around)
√ x position	
√ y position	
√ direction	

Looks (purple blocks)	Observations
say ___ for ___ secs	
say ___	
think ___ for ___ secs	
think ___	
show	
hide	
switch costume to ()	
next costume	
switch backdrop to ___	New in v2
change () effect by ___	(color, fisheye, whirl, pixelate, mosaic, brightness, ghost)
set () effect to ___	
clear graphic effects	
change size by ___	
set size to ___%	
go to front	
go back ___ layers	
√ costume #	
√ backdrop name	New in v2
√ size	

Sound (dark pink blocks)	Observations
play sound ()	
play () until done	
stop all sounds	
play drum () for ___ beats	
rest for ___ beats	
play note () for ___ beats	
set instrument to ()	
change volume by ___	
set volume to ___%	
√ volume	
change tempo by ___	
set temp to ___bpm	
√ tempo	

Pen (green blocks)	Observations
clear	
stamp	"Stamps the sprite's image onto the Stage" (moved from end)
pen down	
pen up	
set pen color to ()	
change pen color by ___	
set pen color to ___	New in v2+
change pen shade by ___	
set pen shade to ___	
change pen size by ___	
set pen size to ___	

Data (orange group)	Observations: Variables in v1.4
.Make a variable. (orange blocks)	
√ variableName	Appears after variable created
set (variableName) to ___	Appears after variable created
change (variableName) by ___	Appears after variable created
show variable (variableName)	Appears after variable created
hide variable (variableName)	Appears after variable created
.Make a list. (brown blocks)	
√ listName	Appears after list created
add [thing] to (listNames)	Appears after list created
delete (1, last, all) of (listNames)	Appears after list created
insert [thing] at (1, last, random) of (listNames)	Appears after list created
replace item (1, last, random) of (listNames) with [thing]	Appears after list created
item (1, last, random) of (listNames)	Appears after list created
length of (listNames)	Appears after list created
(listNames) contains [thing] ?	Appears after list created
show list (listNames)	Appears after list created
hide list (listNames)	Appears after list created

Events (dark tan blocks)	Observations: New group in v2
when [green flag] checked	
when () key pressed	
when this sprite clicked	
when backdrop switches to ()	
when (loudness, timer, video motion) > __	
when I receive ()	
broadcast ()	
broadcast () and wait	

Control (gold blocks)	Observations: many are moved from v1.4
wait __ secs	
repeat __ [block]	
forever [block]	
if <> then [block]	<> means (condition) is true
if <> then [block] else [block]	
wait until <>	
repeat until <> [block]	
stop ()	
when I start as a clone	New in v2
create clone of ()	New in v2
delete this clone	New in v2

Sensing (aqua blocks)	Observations
touching (mouse pointer, edge)?	
touching color ()?	
color () is touching ()?	
distance to ()	(mouse pointer)
ask __ and wait	
√ answer	
key () pressed?	
mouse down?	
mouse x	
mouse y	
√ loudness	
video () on ()	(motion, direction) (Stage, this sprite)
turn video ()	(off, on, on-flipped)
set video transparency to __%	
√ timer	
reset timer	
() of ()	(x position, y position, direction, costume #, costume name, size, volume) (Sprite1, Stage)
√ current ()	(year, month, date, day of week, hour, minute, second)
days since 2000	
username	

Operators (lime green blocks)	Observations
__ + __	
__ - __	
__ * __	
__ / __	
pick random __ to __	
__ < __	
__ = __	
__ > __	
<> and <>	
<> or <>	
not <>	
join __ __	
letter __ of __	
length of __	
__ mod __	
round __	
() of __	(abs, floor, ceiling, sqrt, sin, cos, tan, asin, acos, atan, ln, log, e^, 10^)

More Blocks (dark purple)	Observations
.Make a Block.	Make reusable block of code. It can have options.
[yourBlock]	Appears after block created
define [yourBlock]	Appears in scripts after block created
.Add an Extension.	"Extensions allow you to connect to hardware devices or web services"

*NOTES (for all blocks)	Means
__	value goes here
()	choose from list
√	checkbox
[]	describe the image
<>	expression
..	enclose what the button does