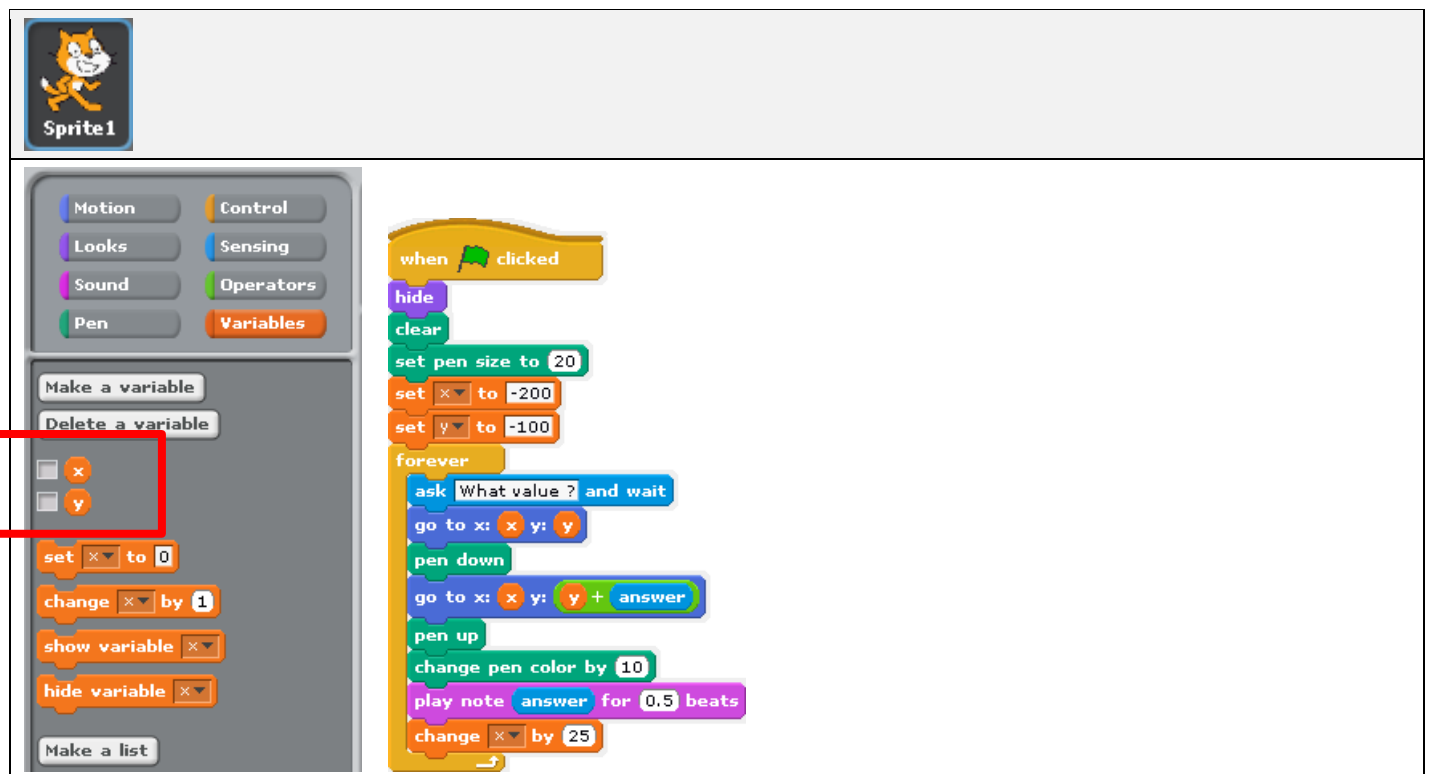
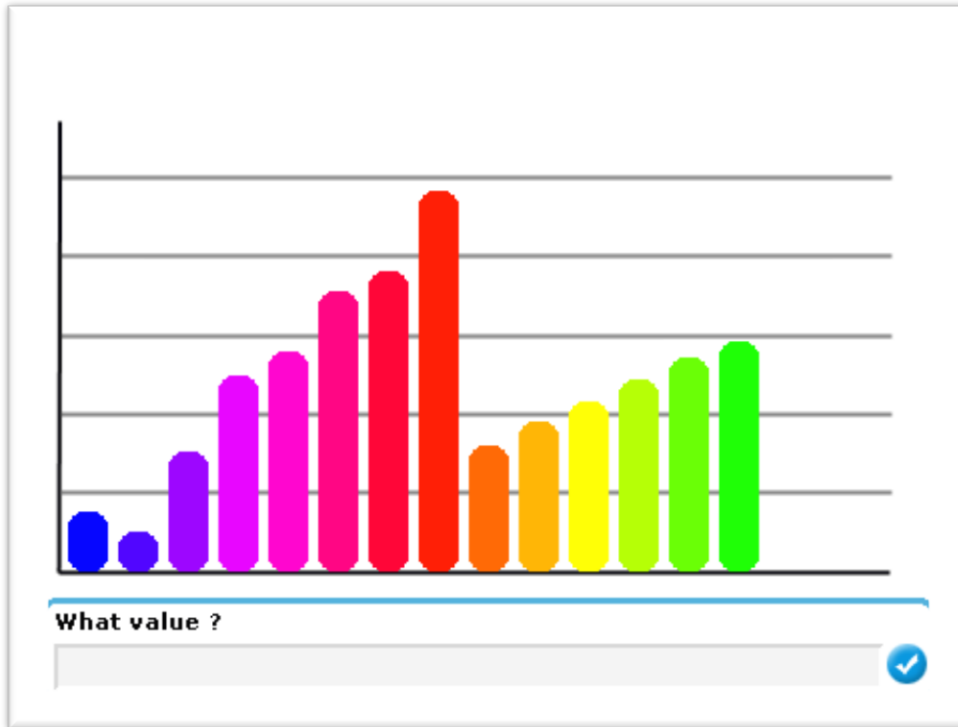


GAME EXAMPLE 1



Sprite 1

Motion Control
Looks Sensing
Sound Operators
Pen Variables

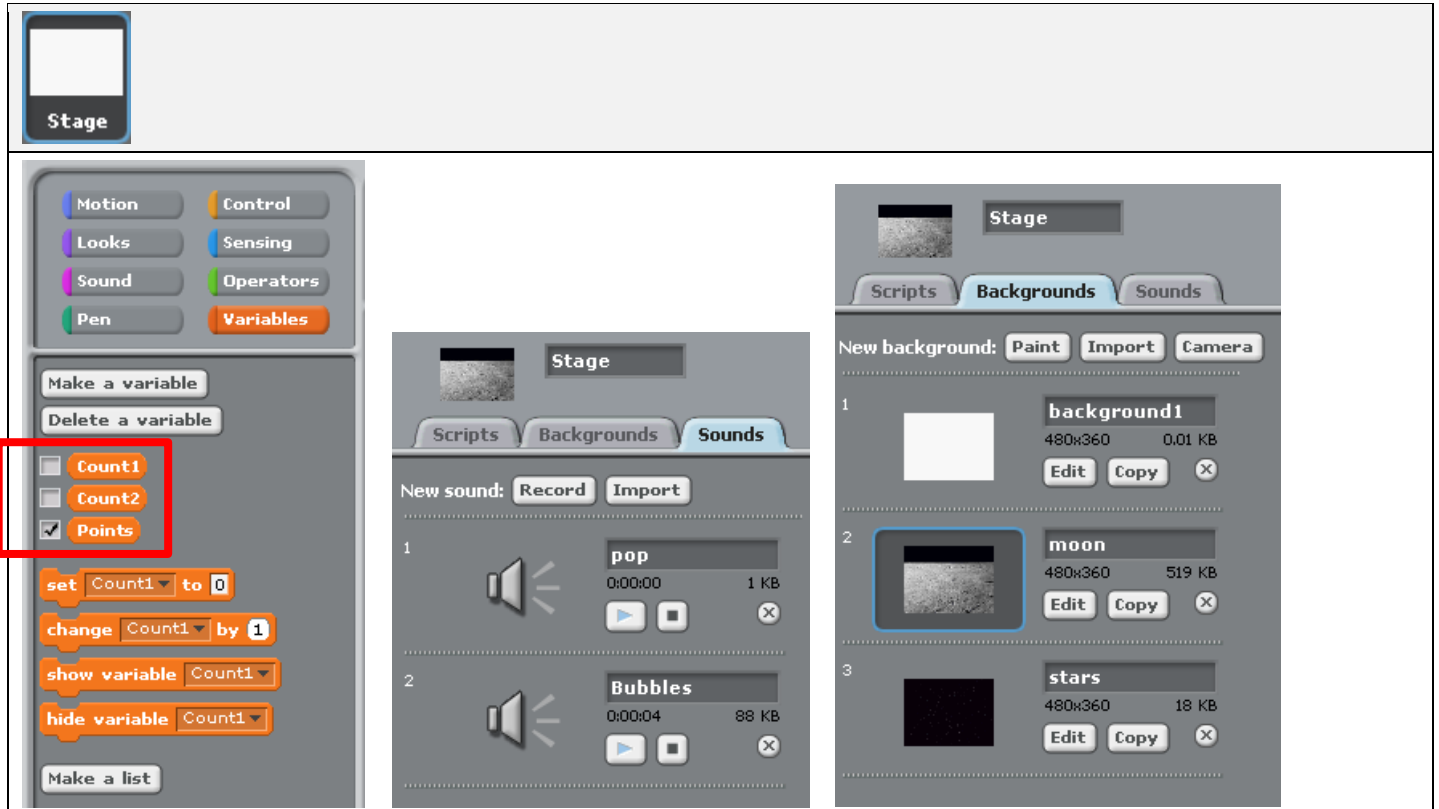
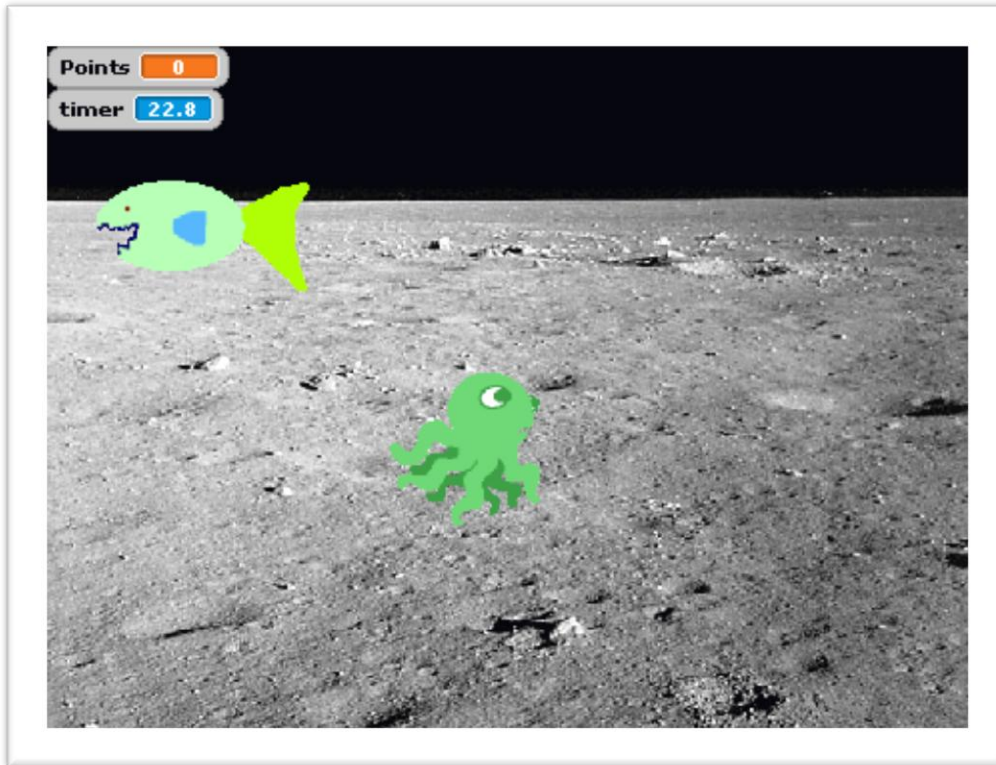
Make a variable
Delete a variable

x
 y

set x to 0
change x by 1
show variable x
hide variable x
Make a list

```
when clicked clicked  
hide  
clear  
set pen size to 20  
set x to -200  
set y to -100  
forever  
ask "What value ?" and wait  
go to x: x y: y  
pen down  
go to x: x y: y + answer  
pen up  
change pen color by 10  
play note answer for 0.5 beats  
change x by 25
```

GAME EXAMPLE 2



The screenshot displays the Scratch development environment with three panels open:

- Variables Panel:** Shows a list of variables: Count1, Count2, and Points. Below the list are blocks for 'set Count1 to 0', 'change Count1 by 1', 'show variable Count1', and 'hide variable Count1'.
- Backgrounds Panel:** Shows a list of backgrounds: 'background1' (480x360, 0.01 KB), 'moon' (480x360, 519 KB), and 'stars' (480x360, 18 KB). The 'moon' background is currently selected.
- Sounds Panel:** Shows a list of sounds: 'pop' (0:00:00, 1 KB) and 'Bubbles' (0:00:04, 88 KB).

Games Programming using Scratch

<http://scratch.mit.edu>



imagine • program • share

Stage

```
when green flag clicked
  set Points to 0
  reset timer
  forever loop
    play sound Bubbles until done
```

```
when space key pressed
  next background
```

Fish1

Fish1
x: -148 y: 75 direction: 90

Scripts Costumes Sounds

New costume: Paint Import Camera

1		fish1-a	160x83	4 KB	Edit Copy X
2		fish1-b	160x83	4 KB	Edit Copy X

```
when green flag clicked
  show
  forever loop
    if on edge, bounce
    move 20 steps
    if Count1 > 5
      next costume
      set Count1 to 0
    change Count1 by 1
    wait 0.2 secs
```

```
when Fish1 clicked
  play drum 48 for 0.2 beats
  hide
  change Points by 5
  wait 2 secs
  show
```

Fish2

Fish2
x: -50 y: -35 direction: 90

Scripts Costumes Sounds

New costume: Paint Import Camera

1		octopus1-a	140x144	3 KB	Edit Copy X
2		octopus1-b	140x144	3 KB	Edit Copy X

```
when green flag clicked
  show
  forever loop
    move 25 steps
    if on edge, bounce
    if Count2 > 5
      next costume
      set Count2 to 0
    change Count2 by 1
    wait 0.2 secs
```

```
when Fish2 clicked
  play drum 49 for 0.2 beats
  hide
  change Points by 1
  wait 2 secs
  show
```

Games Programming using Scratch

<http://scratch.mit.edu>



The screenshot shows the Scratch interface. On the left, a red crab sprite named 'Sprite1' is visible. Below it, the 'Scripts' tab is selected, showing a 'when clicked' event block followed by a 'hide' block, a 'forever' loop containing a 'set y to pick random -200 to 200' block, a 'wait pick random 1 to 10 secs' block, a 'show' block, a 'repeat 50' loop containing an 'if on edge, bounce' block, a 'move 20 steps' block, and a 'wait 0.2 secs' block, and finally a 'hide' block. To the right, another script is shown: 'when Sprite1 clicked' followed by 'play sound Pop', 'hide', and 'stop all'. A red box highlights the 'Scripts' tab in the top-left corner.

More Information

You can freely download scratch (for PC or Mac) from <http://scratch.mit.edu>. These games will also run on the new £22 Raspberry Pi computer. <http://www.raspberrypi.org/>

