

Agar.io by Linze Tanudjaja

<https://scratch.mit.edu/projects/107974842/>

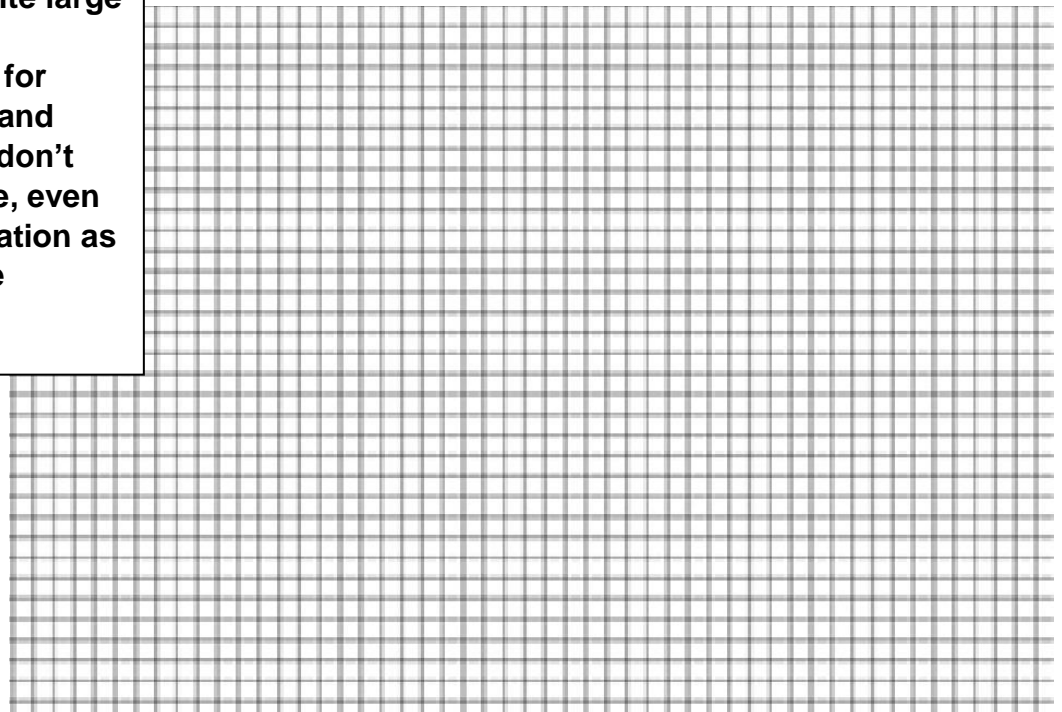
1 The background

This game doesn't use a backdrop it uses a costume sourced from graph paper and scaled to be quite large

You need to search for graph paper online and look for a PNG file, don't worry about the size, even if its small, the pixilation as it is rescaled can be interesting.

This is a scratch adaptation of a game released by Matheus Valadares. <http://agar.io/>


The player is a cell on a petri dish and the objective is to grow by eating other cells



2 How the background works

The background sprite needs to be bigger than the playing area so after you upload the costume from the graph paper file you have found online, it needs to be massively increased in scale.

Then motion blocks need to be added so that the background moves with the mouse.



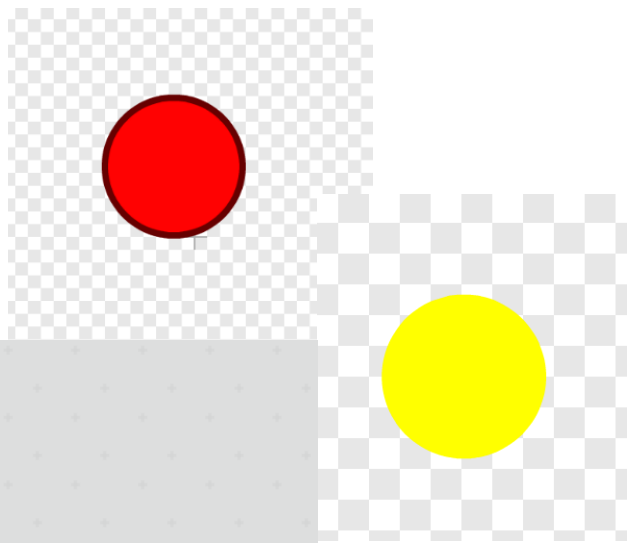
```
when clicked
  switch costume to costume1
  go to x: 0 y: 0
  set size to 2000 %
  switch costume to Graph

when clicked
  forever
    change x by mouse x * -0.03
    change y by mouse y * -0.03
```

2 The player

First create a sprite and costume in vector mode using a circle with a little outline. Use bold colours.

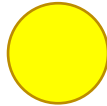
Create a new sprite and costume for the food



```
when clicked
  set Mass to 0
  go to front
  set size to 100 %
  set color effect to pick random 0 to 100
  go to x: 0 y: 0
  forever
    if touching Food ? then
      change size by 10
      change Mass by 10
```

Create a script for your character. The random colour is for fun. Mass is a data variable that will increase as you eat

3 The Food



The food needs to spawn, so you need to use clone control blocks and have those clones spawn in random positions. The food clones are then deleted when they are touched by your character.

```
when green flag clicked
  hide
  forever
    wait 2 secs
    create clone of myself

when I start as a clone
  show
  set color effect to pick random 0 to 100
  go to x: pick random -240 to 240 y: pick random -180 to 180
  forever
    go to front
    change x by mouse x * -0.03
    change y by mouse y * -0.03
    if touching Character ? then
      wait 0.01 secs
      delete this clone
```

Once you get used to the game start changing the values in the motion blocks. See how much faster the game can go. Maybe you can introduce parameters so that the food can chase you?