Bradford EdTech Conference 2017

smoothwall

The Web You Want

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Game Maker's Toolkit

Independent Personalised Programming

Tim Bleazard

tim.bleazard@theinnovationcentres.com

@idletim

Curriculum Innovation Consultant

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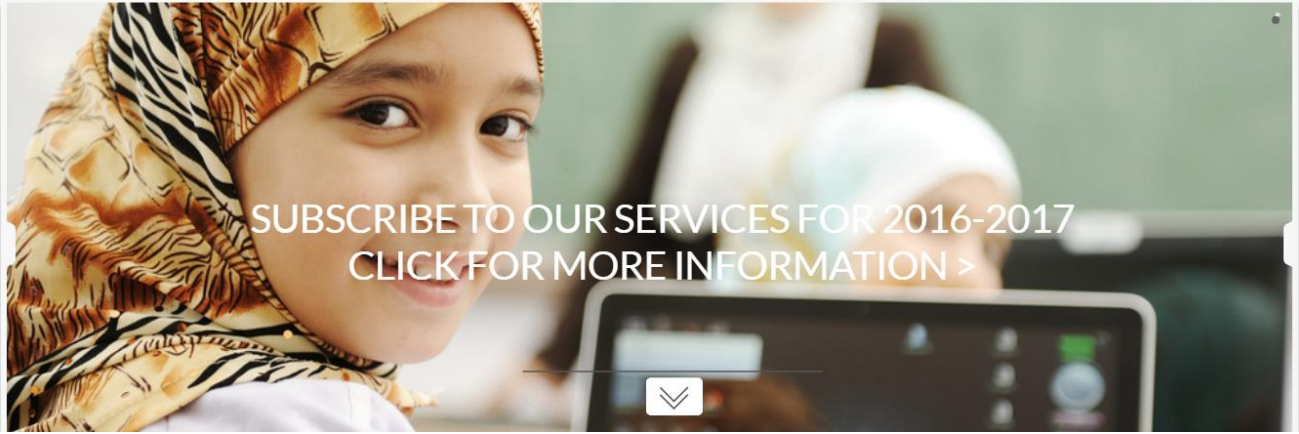

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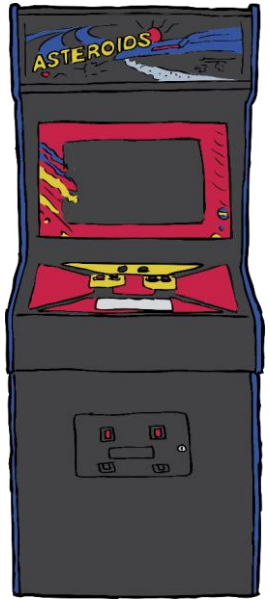
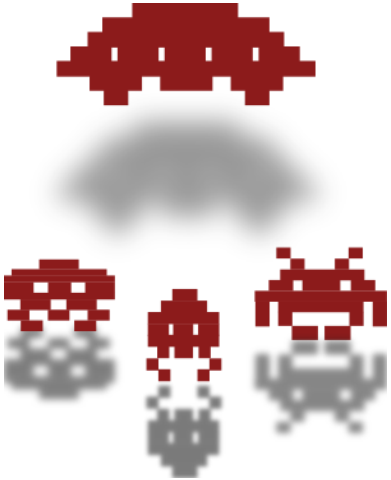
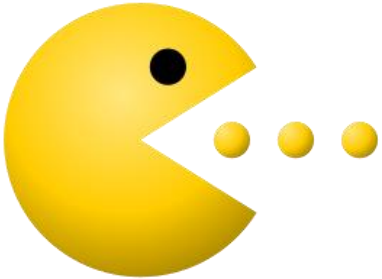
Why (arcade) games?







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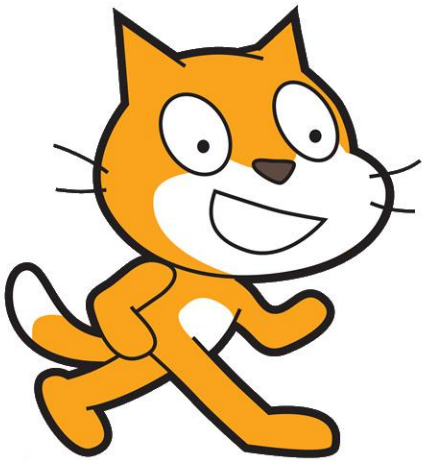
Why Scratch?



Cat lover's warehouse

- Free
- PC, Mac, Chromebook
- Online option – no installation.
- School and home.
- Online forum.
- Teacher accounts.
- Use your own images and sounds.
- Play games made by others.

Other free, open ended software is available

Construct 2

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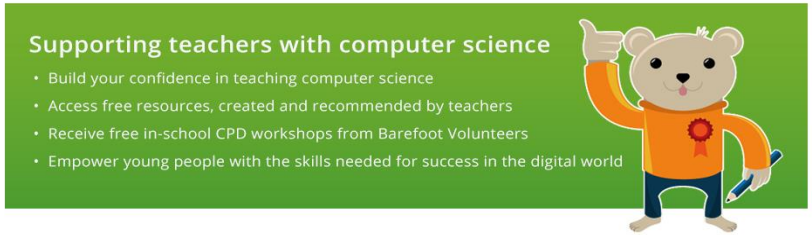
Before the GMT……

Great resources to use.

Code-it.co.uk

CAS Barefoot
Supported by BT



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Before the GMT……

Understand and use key concepts - repetition

Code-it.co.uk from Phil Bagge @baggiepr

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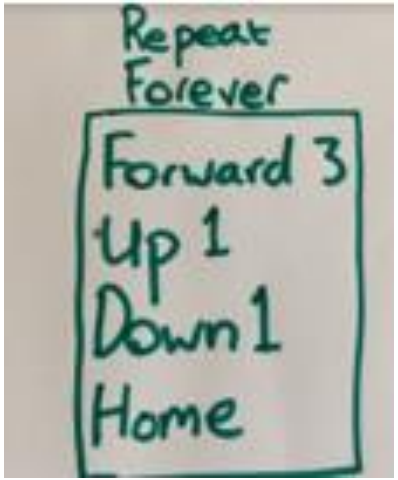
Before the GMT……

Understand and use key concepts - repetition



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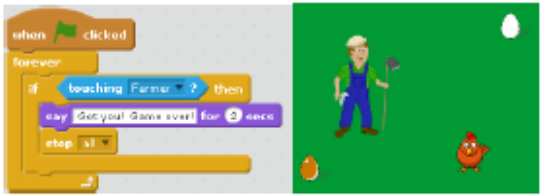
Before the GMT……

Understand and use key concepts - selection

Selection in Scratch



Selection in Kodu

Selection in Hopscotch

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An Extra Resource. An Extra Step

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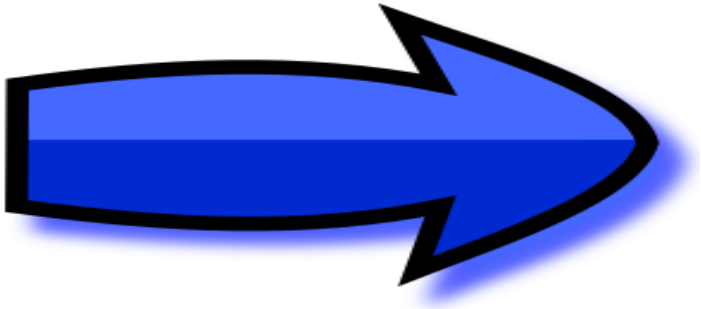
Linear Activities



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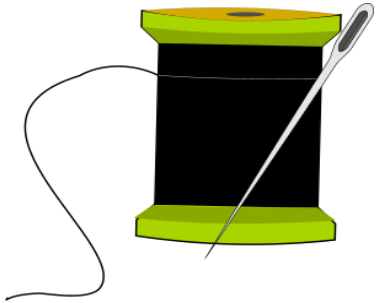

Can it be personalised?

Does it encourage independence?

Is it accessible from home?

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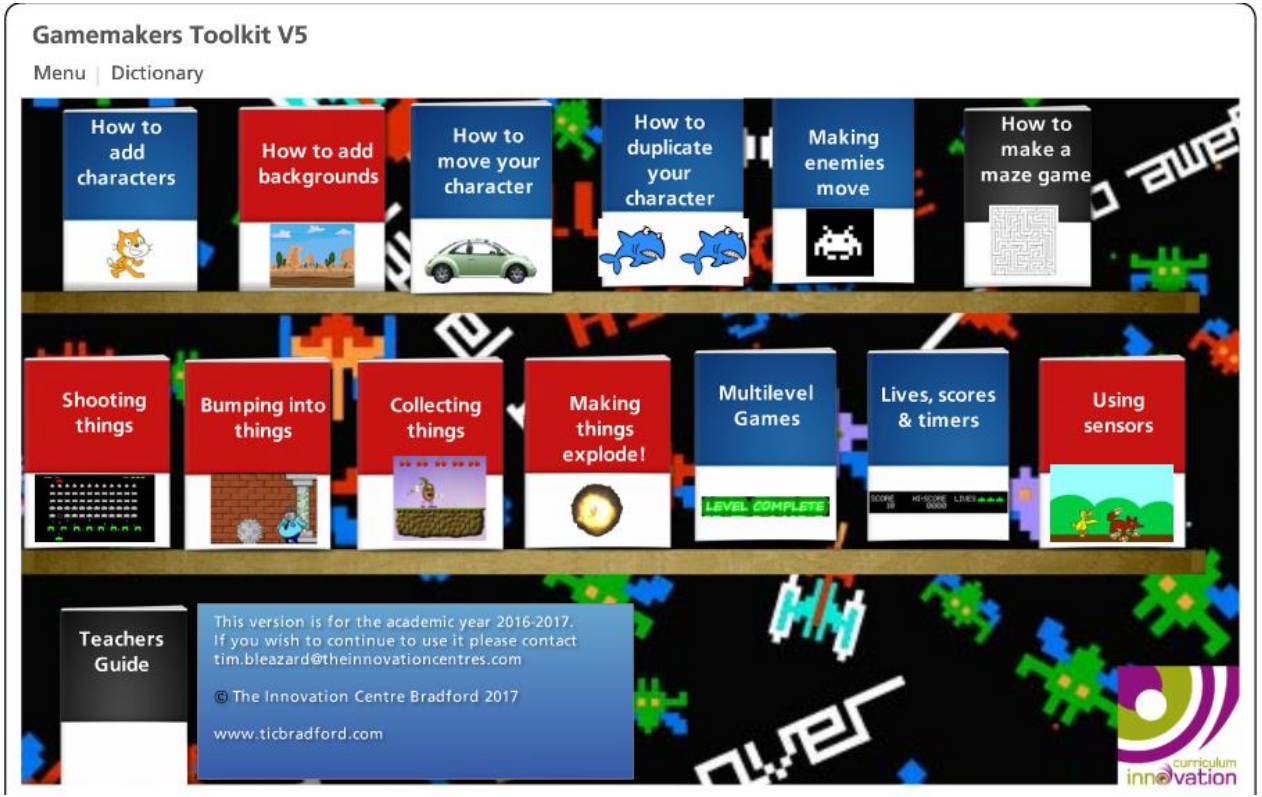

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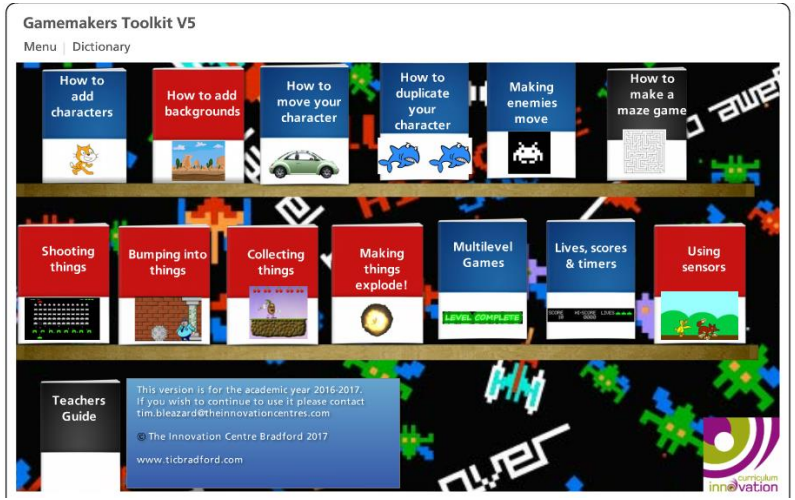
Game Maker’s Toolkit

From ticbradford.com

Log in – Curriculum - Resources



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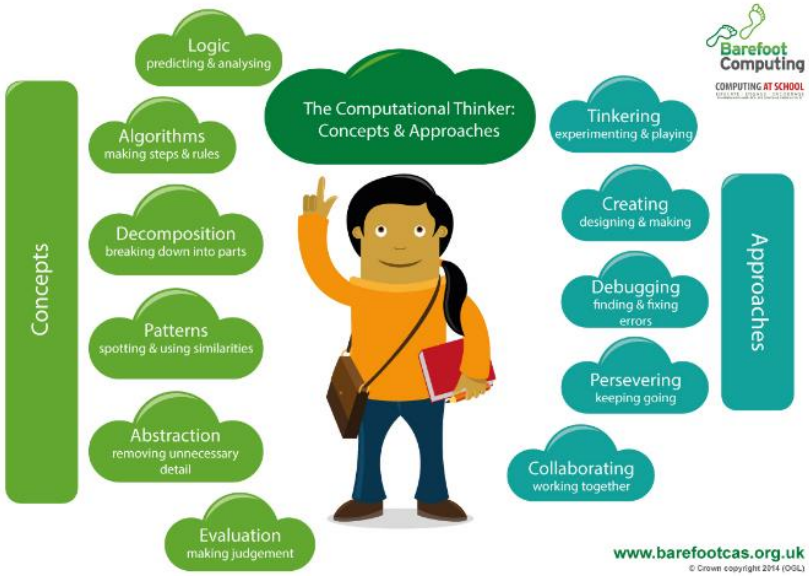
Concepts and Approaches Barefoot Computing



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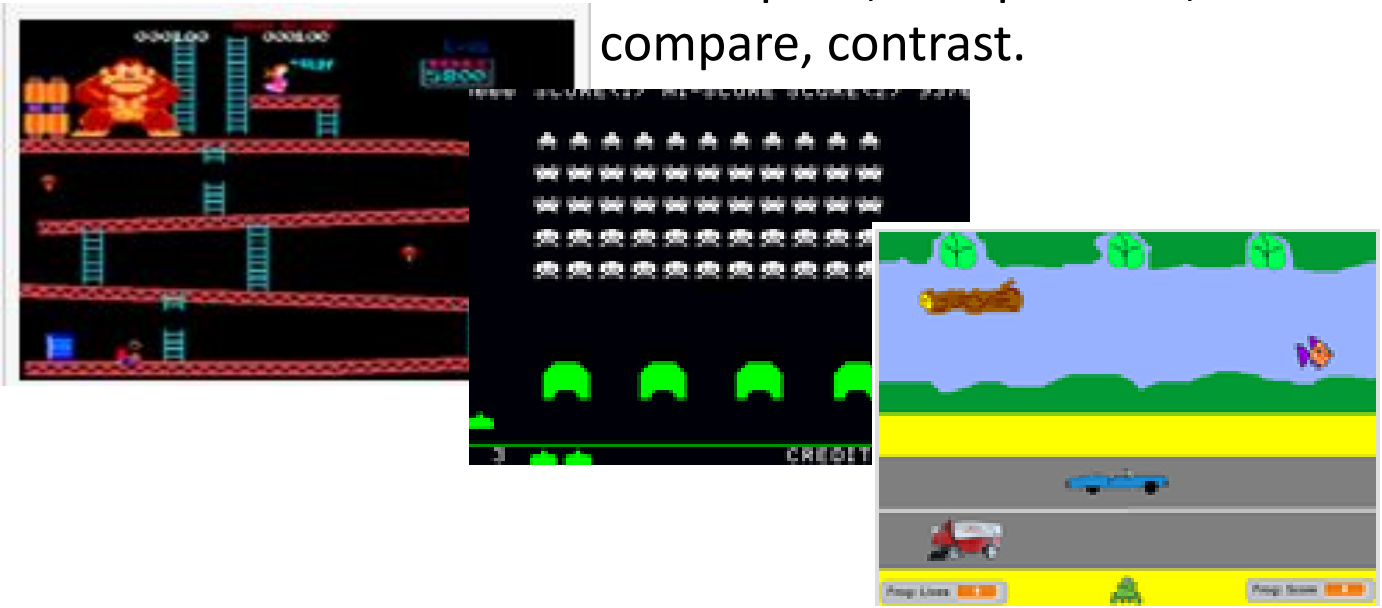
How it works. One way.

- Play games.
- Compare and contrast games.
- Decompose games.
- Plan games using sketches and notes for algorithms.
- Write, test, debug, improve and share!

Play games in Scratch

Decompose, find patterns, compare, contrast.



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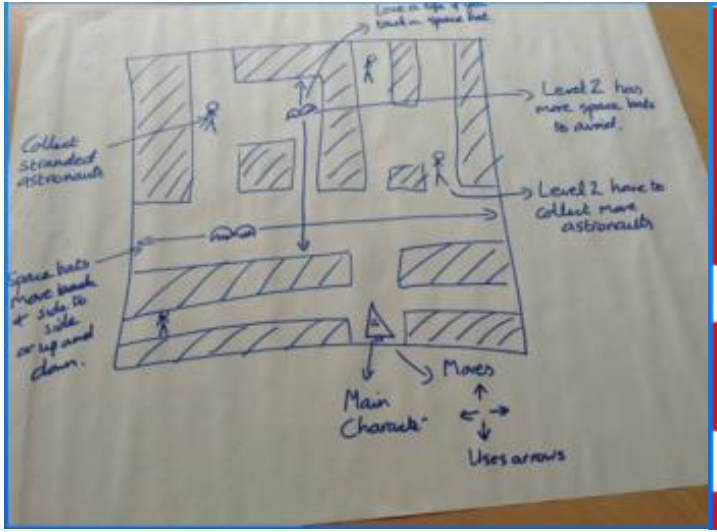
Space Invaders
Donkey Kong
Simple Graphics
enemies drop bombs
Player Moves only left and right
Bonus when shooting Saucer (UFO)
Shoot to destroy enemies
Bases to hide behind
Scores
Hi Score
No TIMER
3 Lives
Game has no ending
Move up down right and left
Extra power by picking up hammer
Different levels
Win by rescuing Princess.

Planning Games - Abstraction



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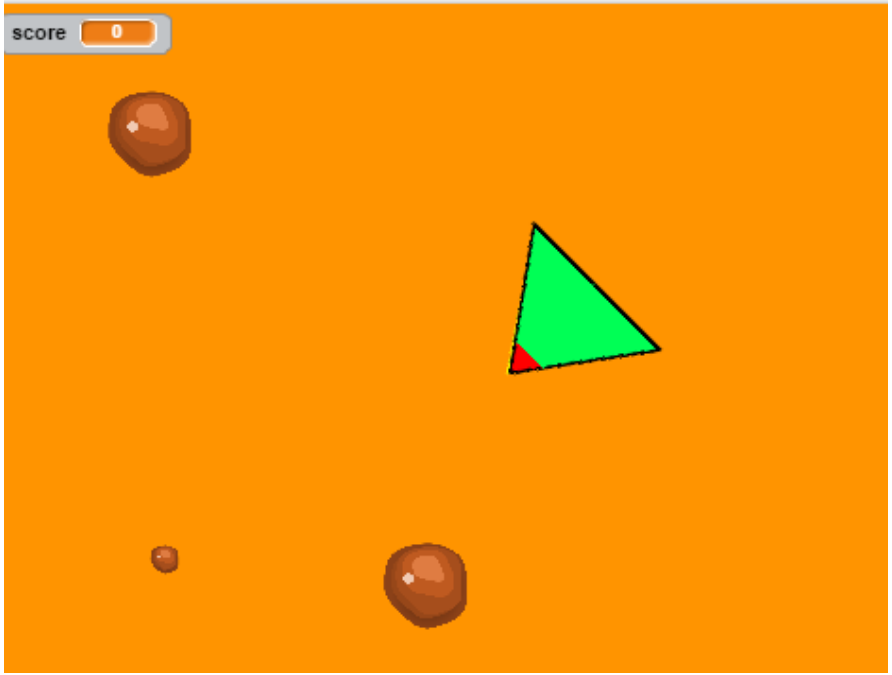
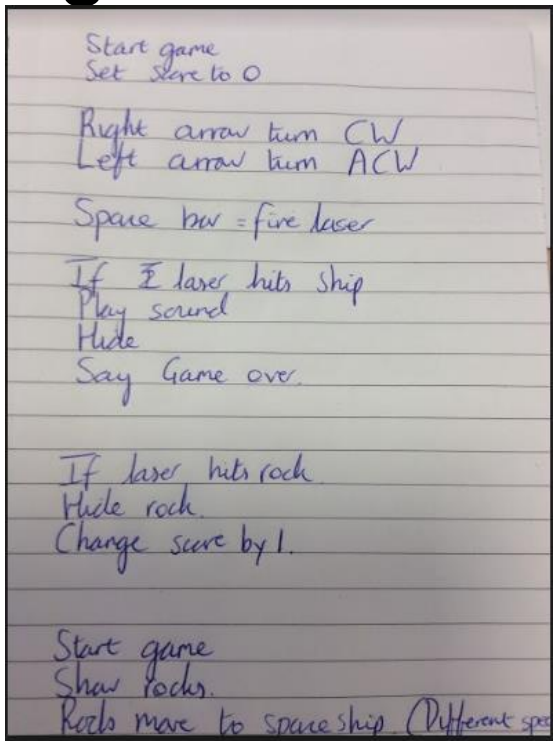
Planning Games – Algorithms





Start game
Set score to 0

Right arrow turn CW
Left arrow turn ACW

Space bar = fire laser

If laser hits ship
Play sound
Hide
Say Game over.

If laser hits rock
Hide rock
Change score by 1.

Start game
Show rocks.
Rocks move to space ship (Different spe

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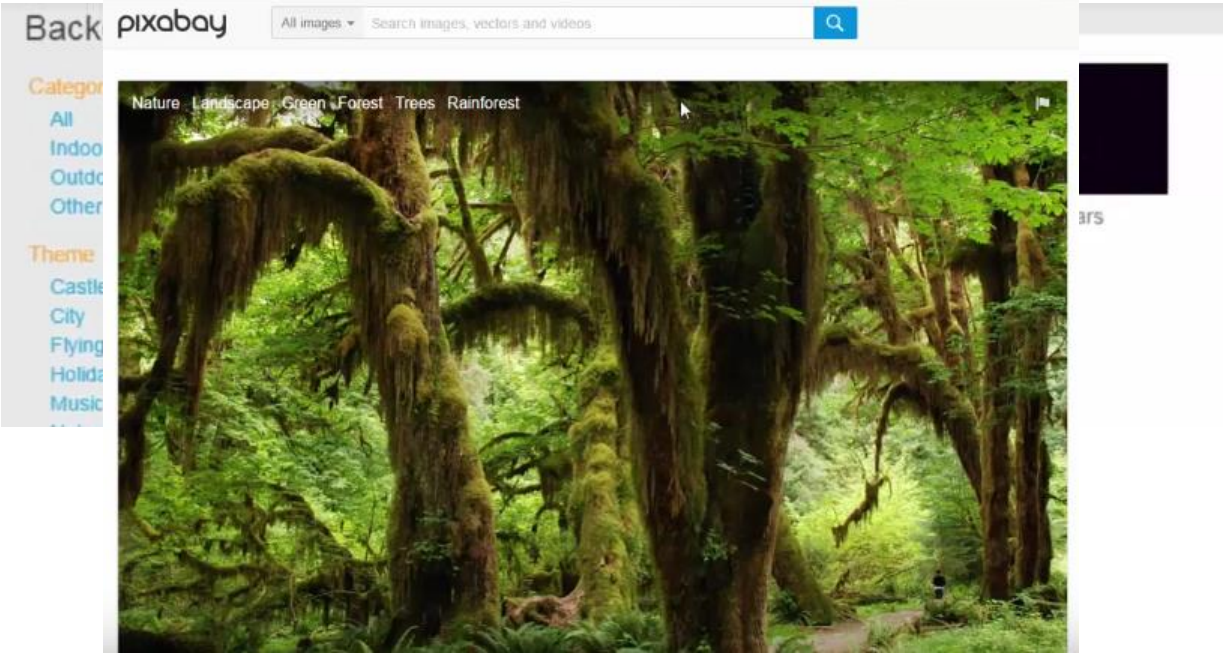
Possible Steps for Game Making in the GMT.

- Sum up the idea.
- Choose background.
- Choose the main character.
- Make the main character move.
- Add other objects and characters, program movement.
- Program events using selection, repetition and variables.

Adding Backgrounds, Adding Characters.



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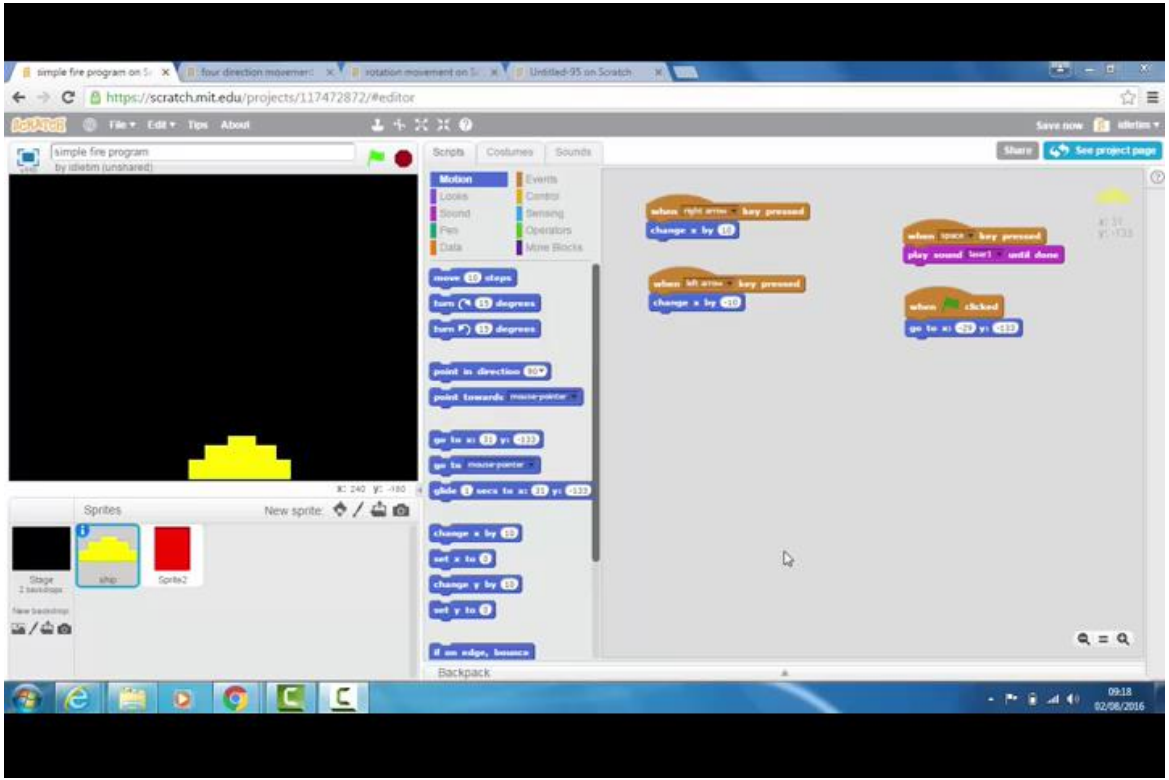

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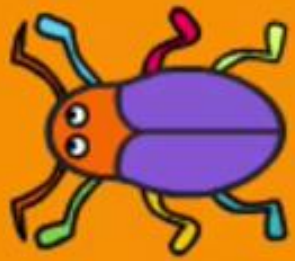
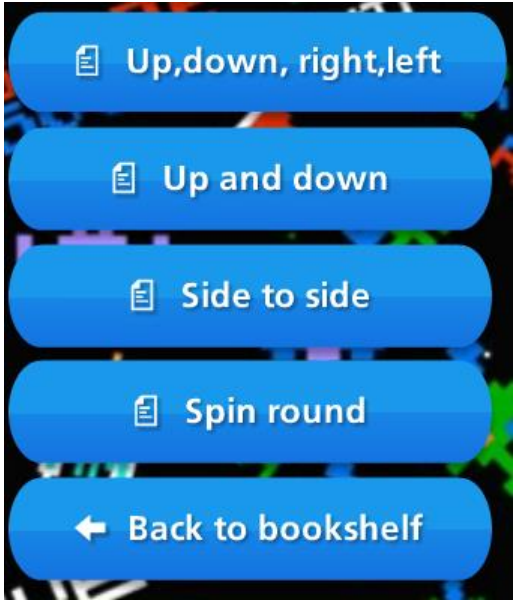


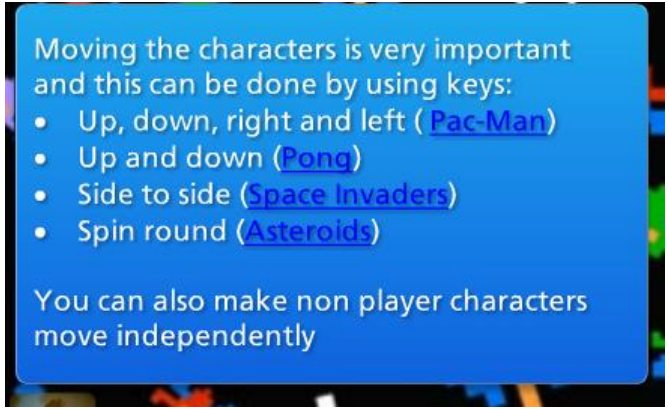
www.ti

inno
www.tic

Need to recap?

Look at the code, no need to watch the video again.





See examples of character movement from games made in Scratch.

Non playable characters

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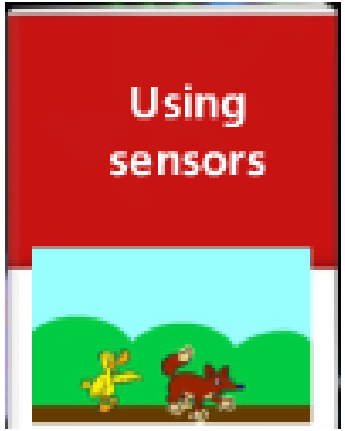
Using Sensors



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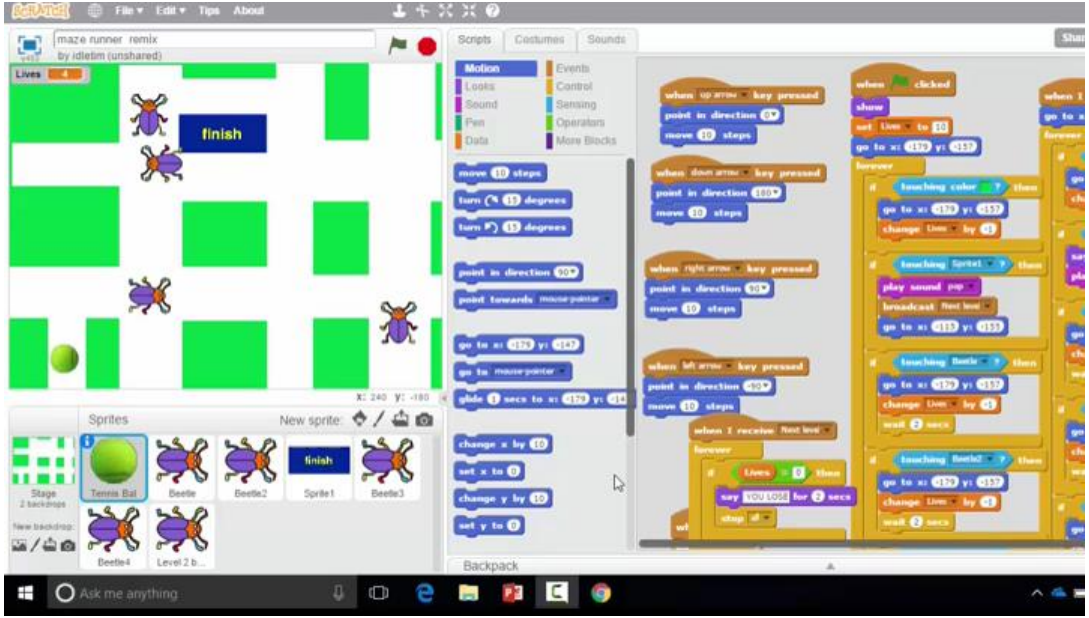
Eldwick Game Makers



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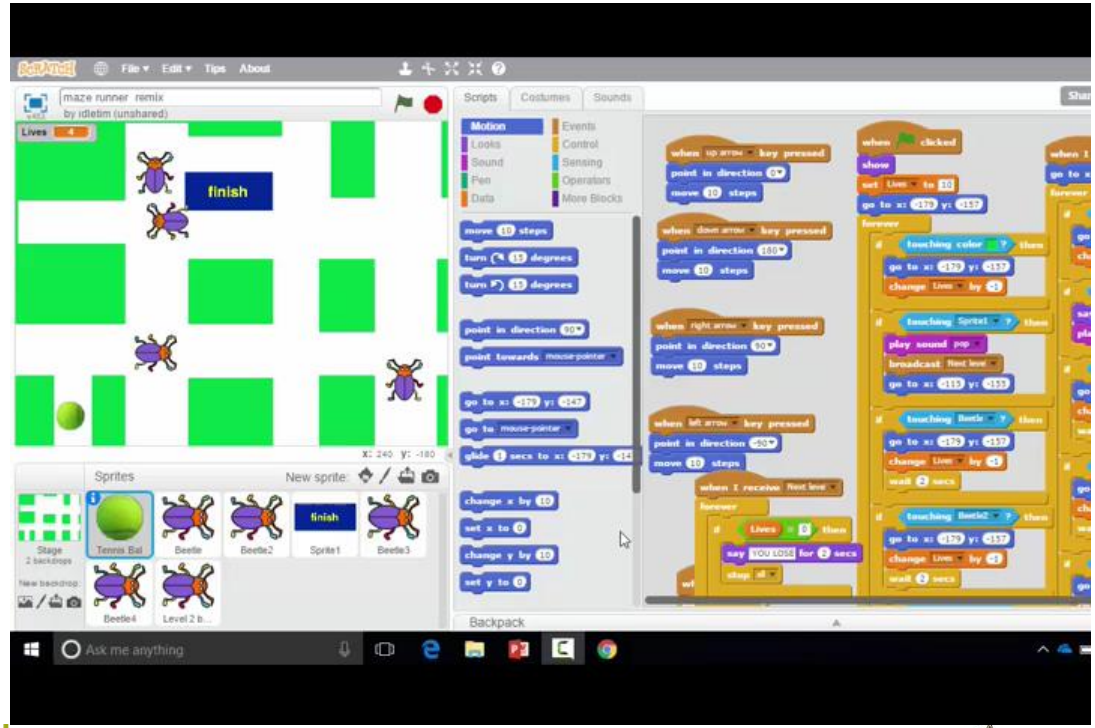
Eldwick Game Makers



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File ▾ Edit ▾ Tips About

Prime Number Invaders

by idletim (shared)

score 0 lives 5

11 17 25 32

Scripts Costumes Sounds

Motion Events
Looks Control
Sound Sensing
Pen Operators
Data More Blocks

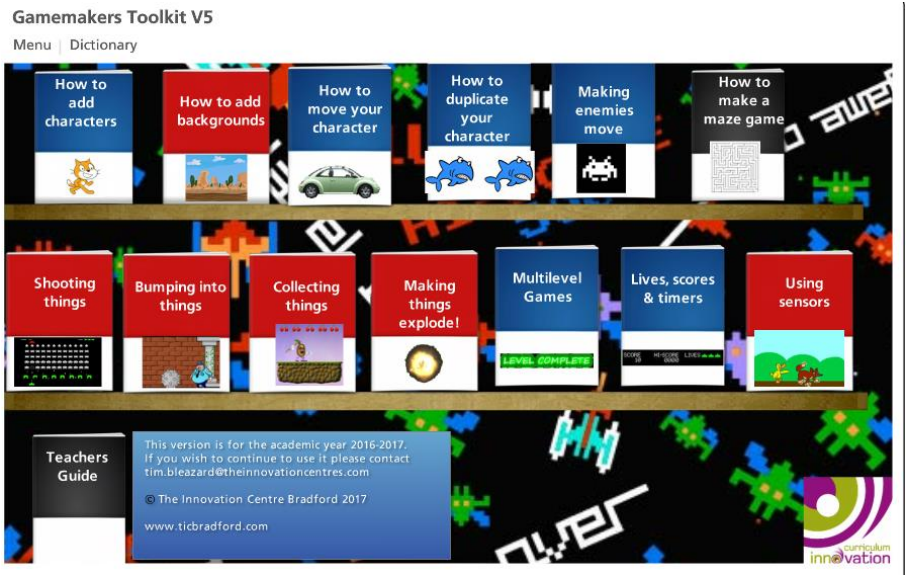
move 10 steps
turn 15 degrees
turn 15 degrees
point in direction 90
point towards mouse-pointer
go to x: -3 y: -155
go to mouse-pointer

when I
hide
when
set

inno
www.tic

Game Maker’s Toolkit

From ticbradford.com



http://www.ticbradford.com/gt

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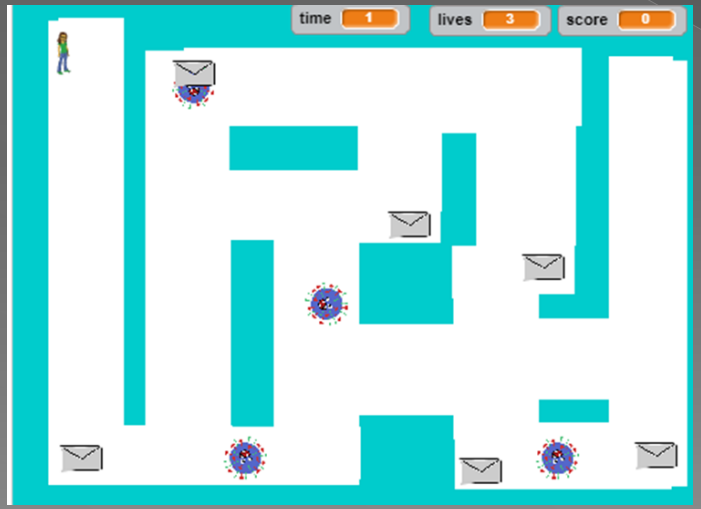
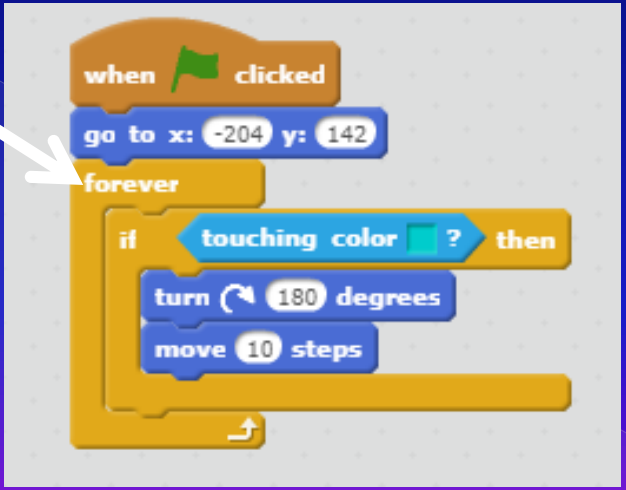
Bethany Calvert

My games



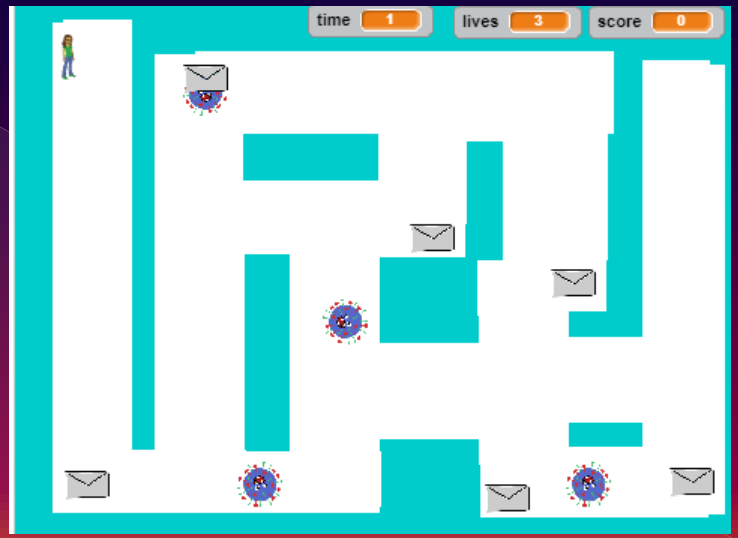
Repetition

Does it forever, or a set number of times

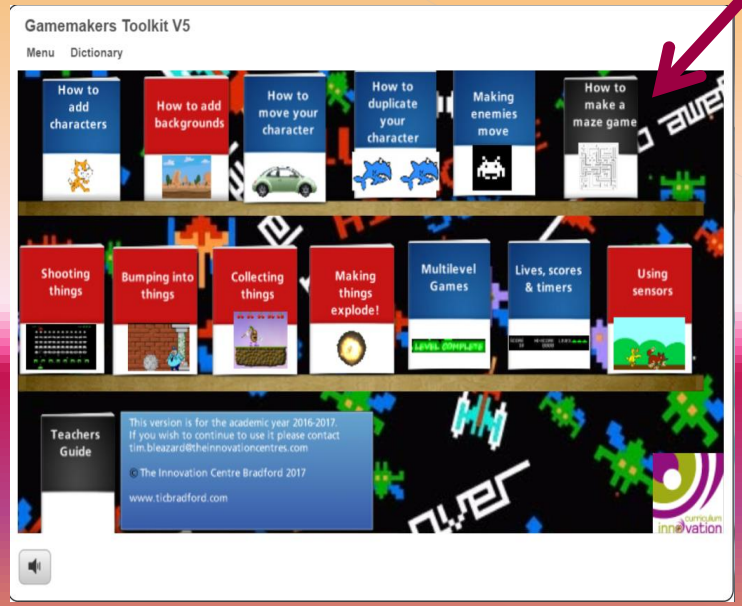


My Game

Defeat the viruses



How I created my game



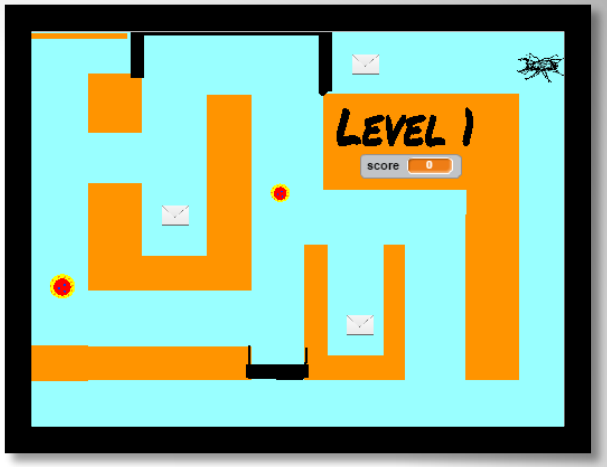
I used the Gamemaker's tool kit to:

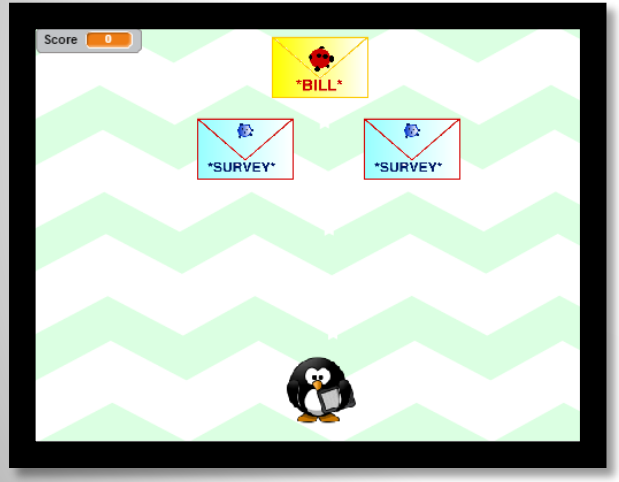
- Learn how to make and move enemies
- Make things explode
- Add scores, lives and timers
- Create shooting things
- Use sensors

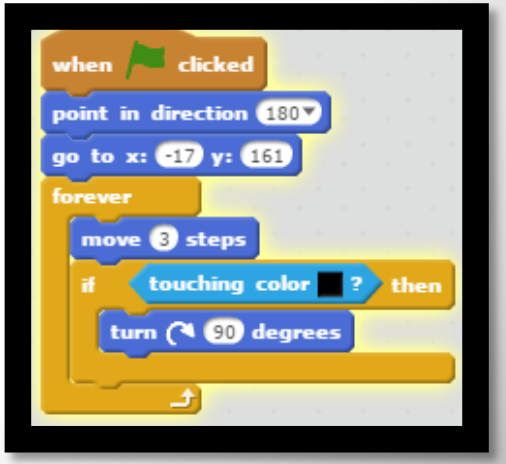
The hardest things to do:

- When a life was lost, returning the character to the start.
- Changing costumes
- Make the shooting parts

MAISIE

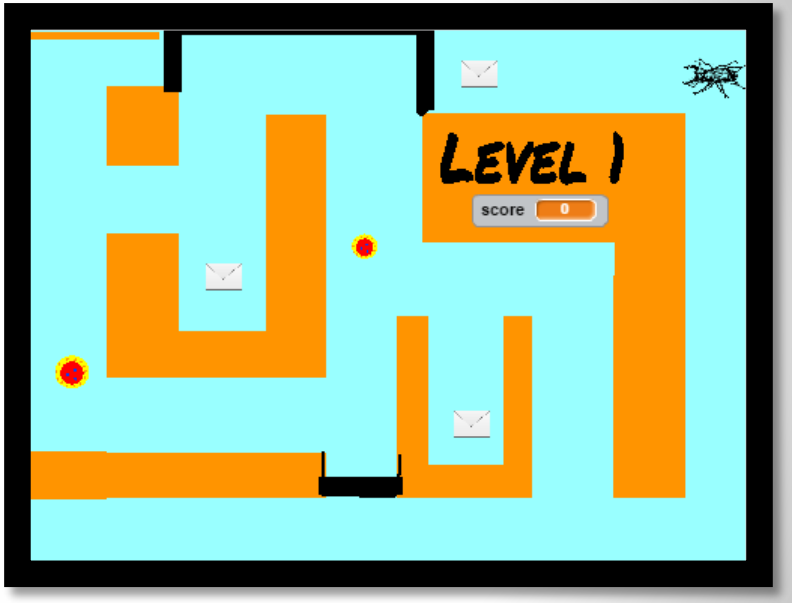

LEVEL 1
score 0


Score 0
BILL
SURVEY
SURVEY


when clicked
point in direction 180
go to x: -17 y: 161
forever
move 3 steps
if touching color ? then
turn 90 degrees

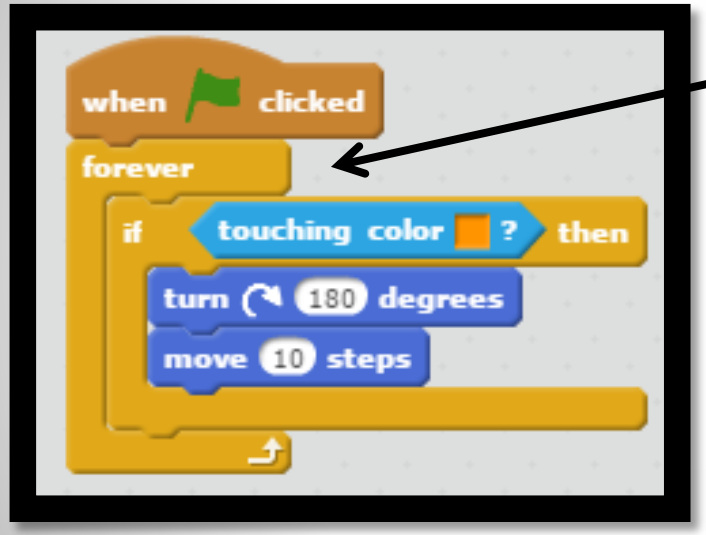
My Game

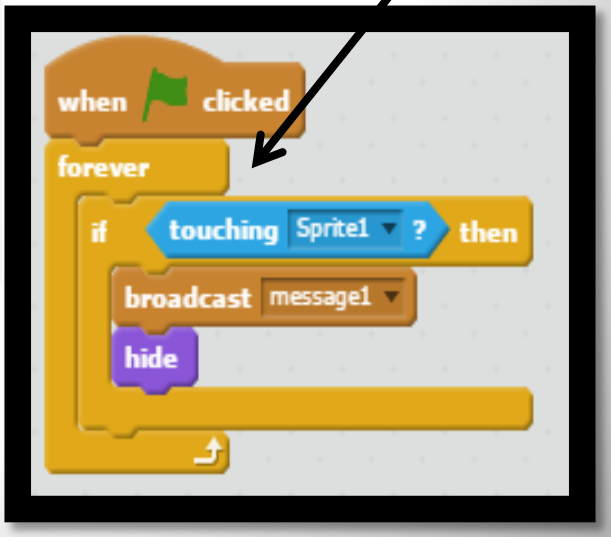
- E safety theme
- Score points
- Simple and fun



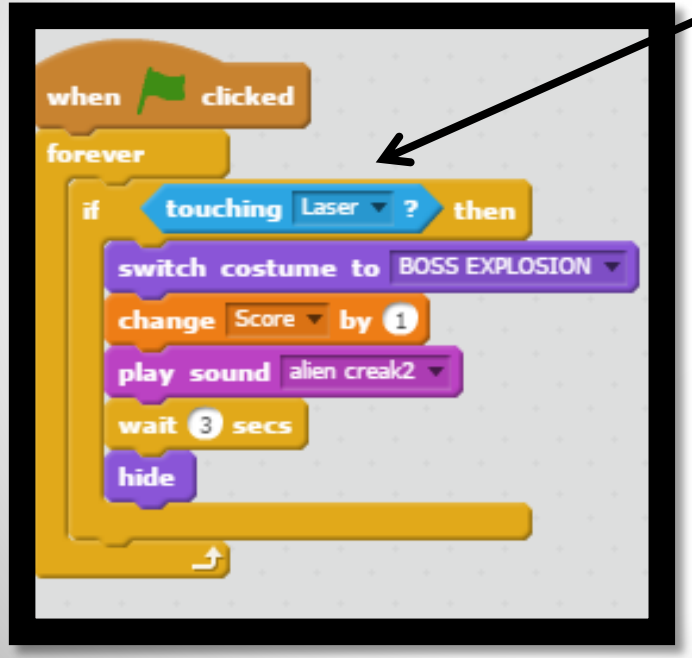
Repetition

Repeats the instruction





Selection

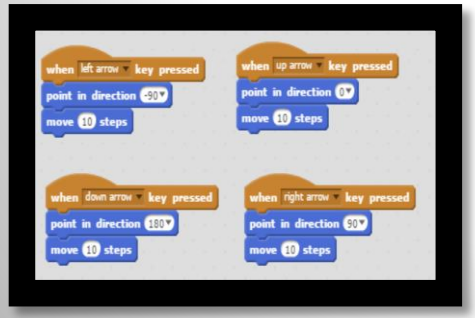


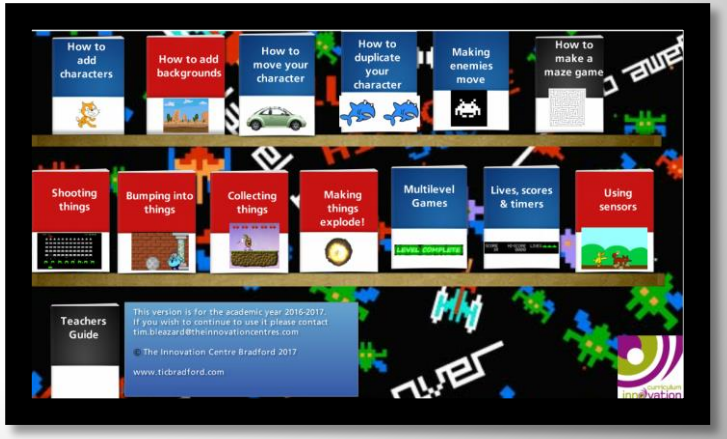
Example of Selection

Game Makers' Tool Kit

www.ticbradford.com/articulate/GTB/story.html

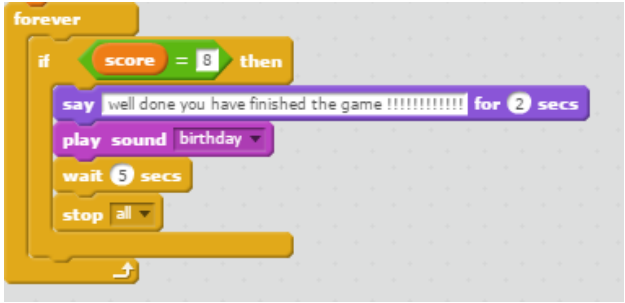
- Simple coding (easy to understand)
- Range of different things to do and code
- Comes with video and image of script
- Good for beginners
- Useful instructions





Debugging

- Exploding items
- Watching the video again
- Noticing differences in the scripts



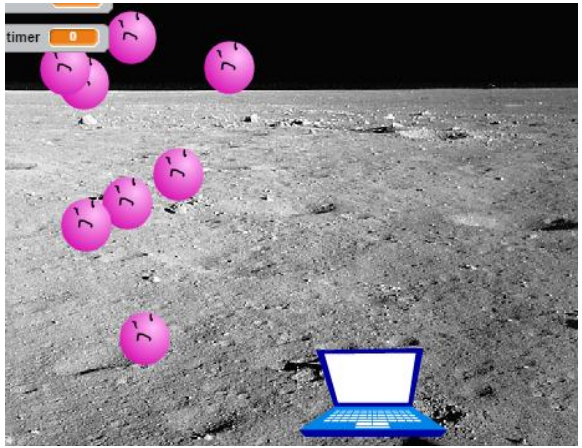
MOLLY

I’m Molly . My game is called laptop shooting!

My Game

. My game is based on E safety

. Simple but fun



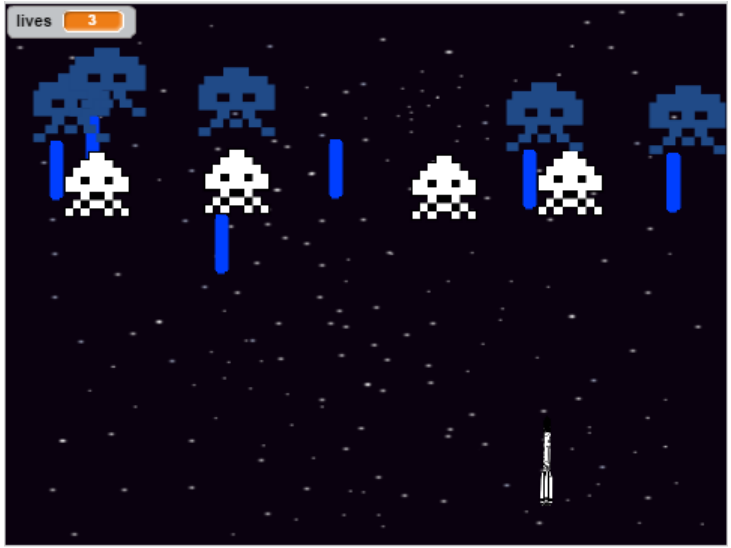
Repetition

This is a type of Repetition. It makes this happen forever, until your game ends .

If you don't want it to last for ever, then you could use a repeat box .

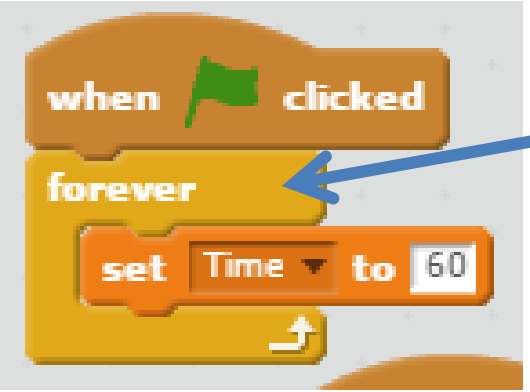
Hello I’m Ralph Morgan
From Saltaire Primary School
and I’m here to talk to you about my game!

My Game



- **This is my Game**
- **The aim of the game is to shoot all of the space invaders**

Repetition

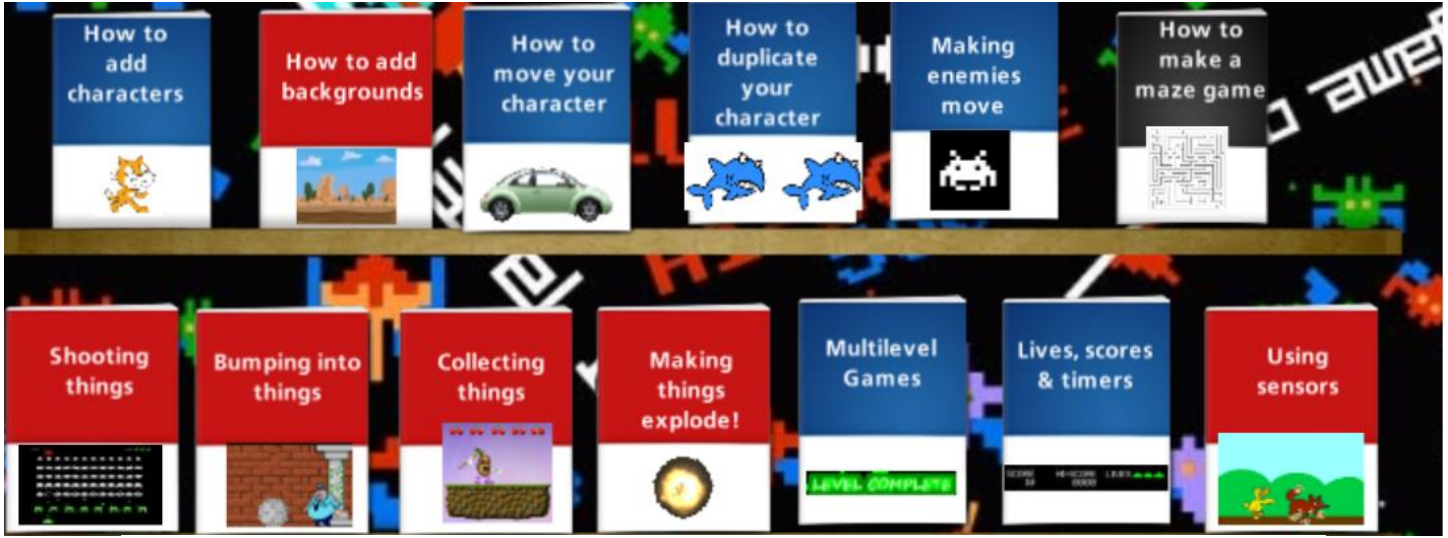


Repetition is when you do things again and again.

Variables

- A variable is where you have a value in a program that can change.

How Gamemaker’s Toolkit Helped Me



WWW.TICBRADFORD.COM/ARTICULATE/GTB/STORY.HTML

At first I wasn’t great at coding but with the Gamemaker’s toolkit I am now quite good!

Thanks for listening to my power point

Thanks for your time
Ralph

GAME MAKERS' TOOL KIT

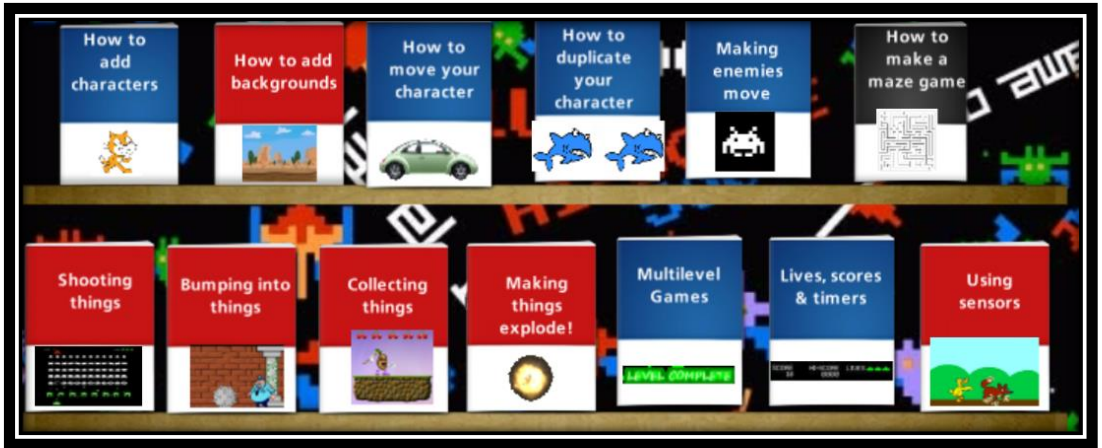
.SIMPLE STEPS

.ALL YOU NEED TO MAKE A GAME

.EASY TO UNDER STAND

Great for starters

www.ticbradford.com/articulate/GTB/story_html5.html



GAME MAKERS' TOOL KIT HELPED ME WITH:

www.ticbradford.com/articulate/GTB/story_html5.html

- Making my characters move

  Making other characters move

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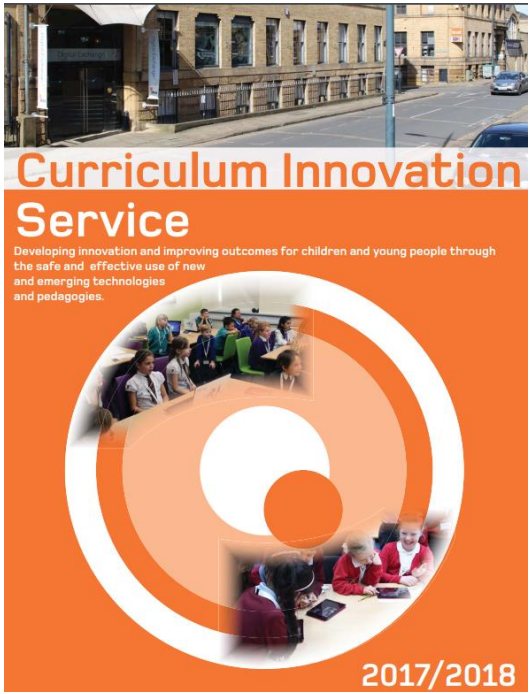

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