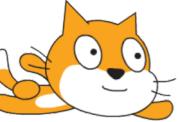


Lesson 2

Teaching Your Kids
Programming with



Previously

- Motivation
- Made  fly
- Example of completed lesson: <https://scratch.mit.edu/projects/275716807/>

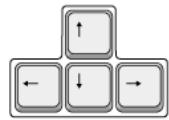
Coming up

- Making a game from the flying 

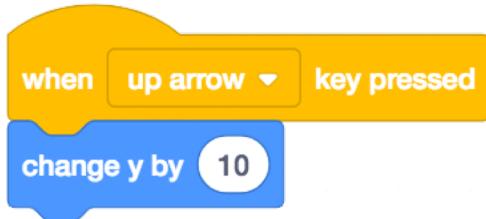
Elements of the game

- Ability to move
- A point system
- Rule for losing points
- Rules for ending the game
- A way to shoot “lasers”
- Rule for gaining points
- High score

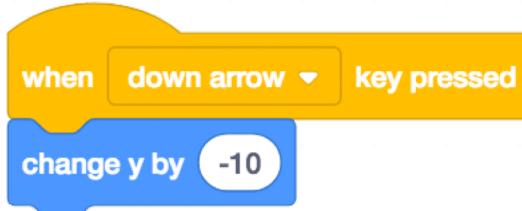
Making the cat move



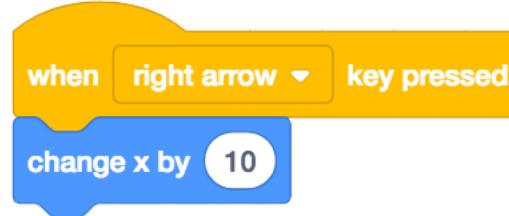
- Moving up



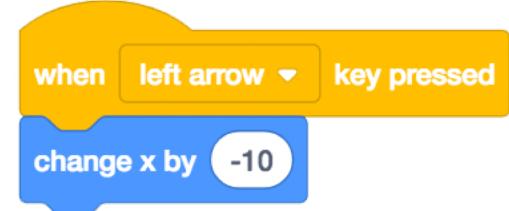
- Moving down



- Moving to the right

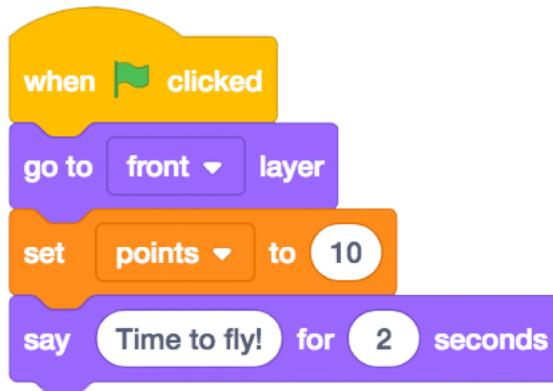


- Moving to the left



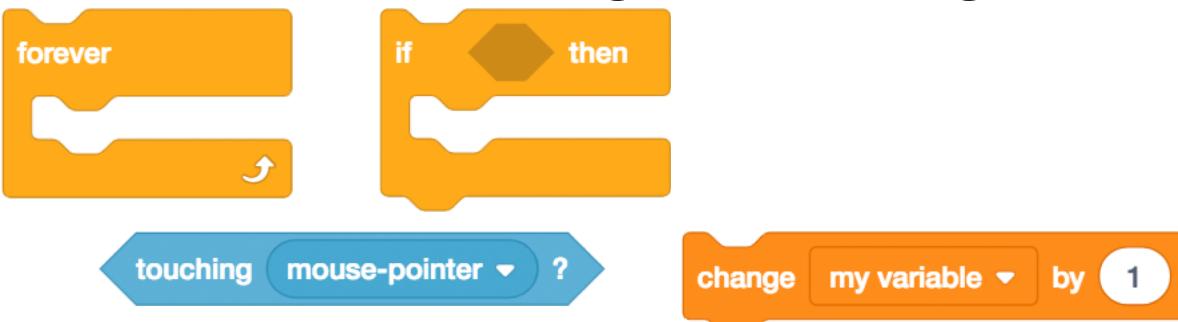
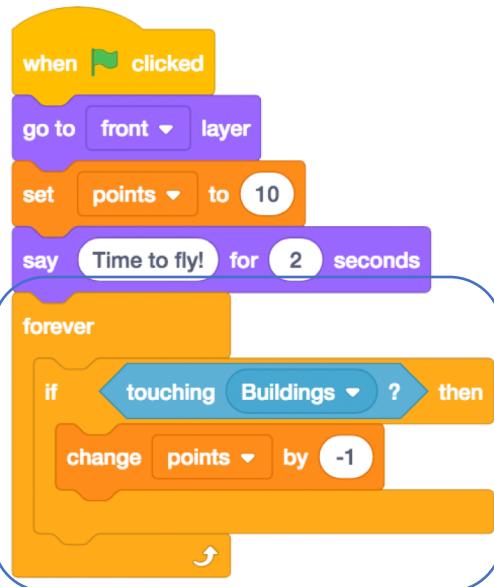
Adding a point system

- From **Variables**, make a new variable for all sprites called “points”
- In the character script area
- Add  between “go to front” and “say ... for 2 secs” and change it to set points to 10



Decreasing points

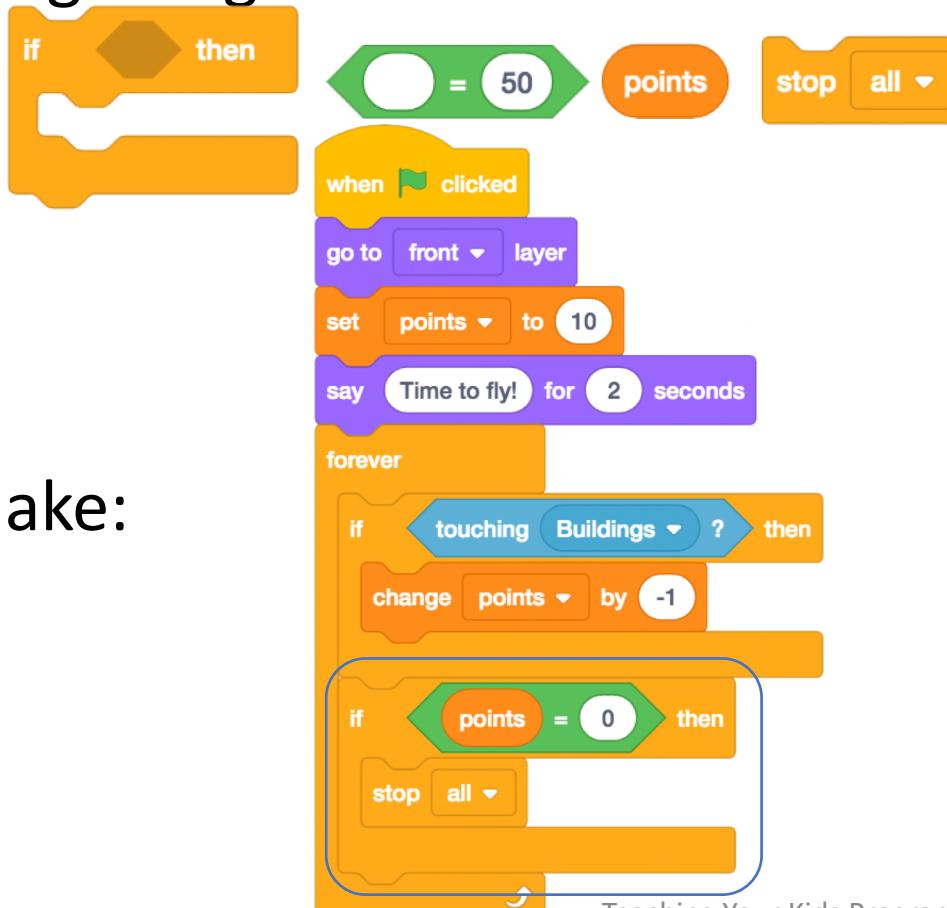
- To make the points drop, we can consider that hitting the building hurts our character
- Drag the following elements:



- Make:

- This ends up as a problem: **points -165**

Ending the game

- Avoid getting to $-\infty$
- Drag  under the **if** block

Shooting lasers

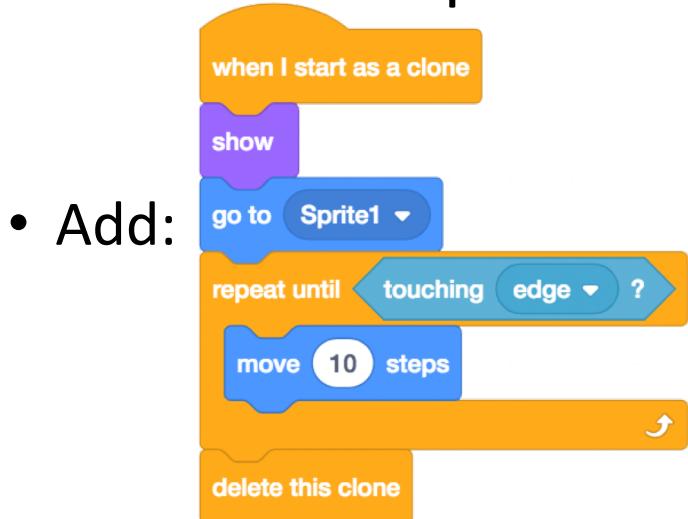
- Create a new sprite, Button2:  /  (you can shrink it if it looks too big)
- Add the following script to the cat script area:



- We don't want to see the laser when the space key is not pressed, so we can hide this sprite: 
- We should also place it somewhere else: 

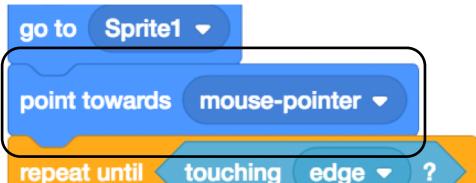
Making the laser move when it's created

- In Button2's script area:

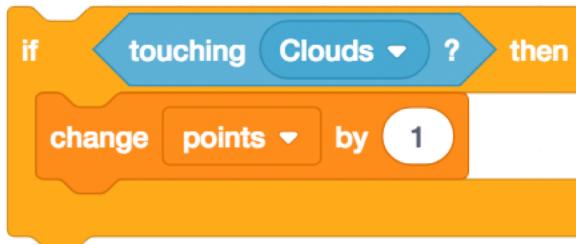


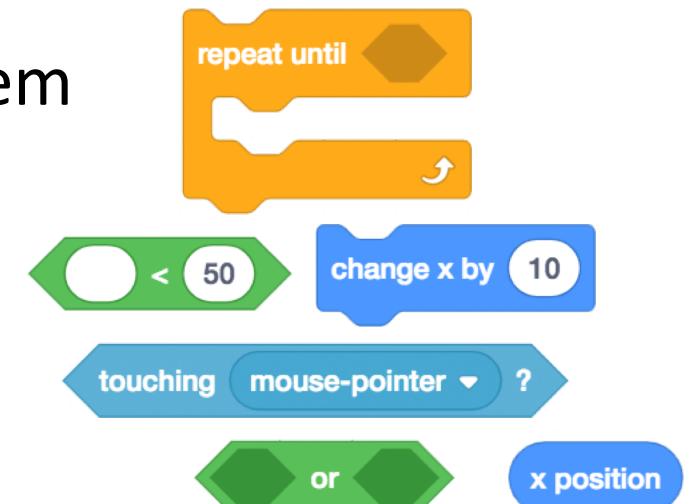
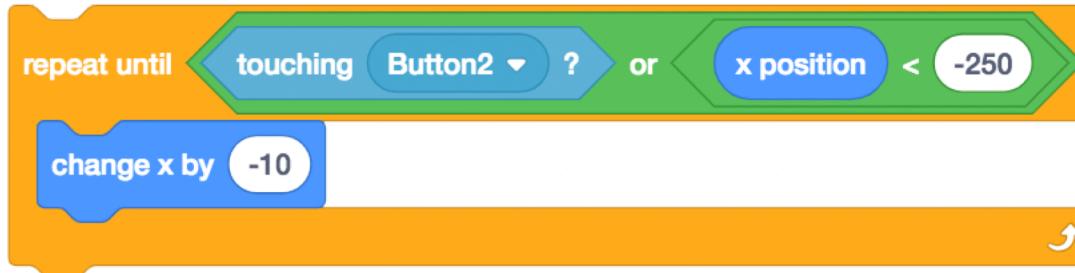
- Add:

- This will make the laser shoot straight ahead
- Optionally, you can modify it to control the button with your mouse:



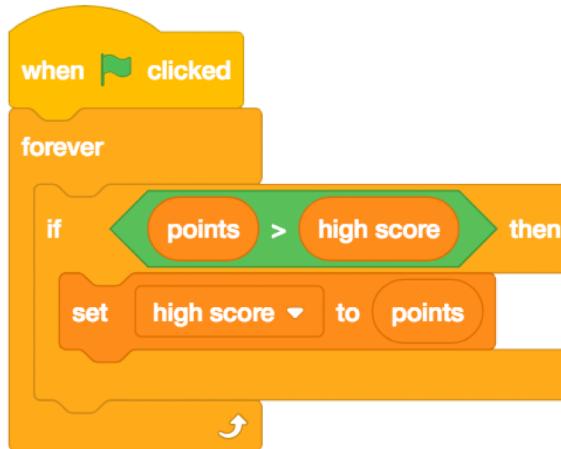
Making points by clearing clouds

- In Button2's script area:
 - Add  under the existing  in the repeat block
- We want the clouds to clear when we shoot them
- In Clouds' script area:
 - Replace the existing repeat block with:

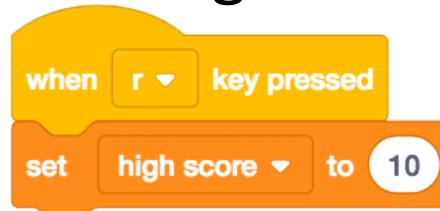


Creating a high score

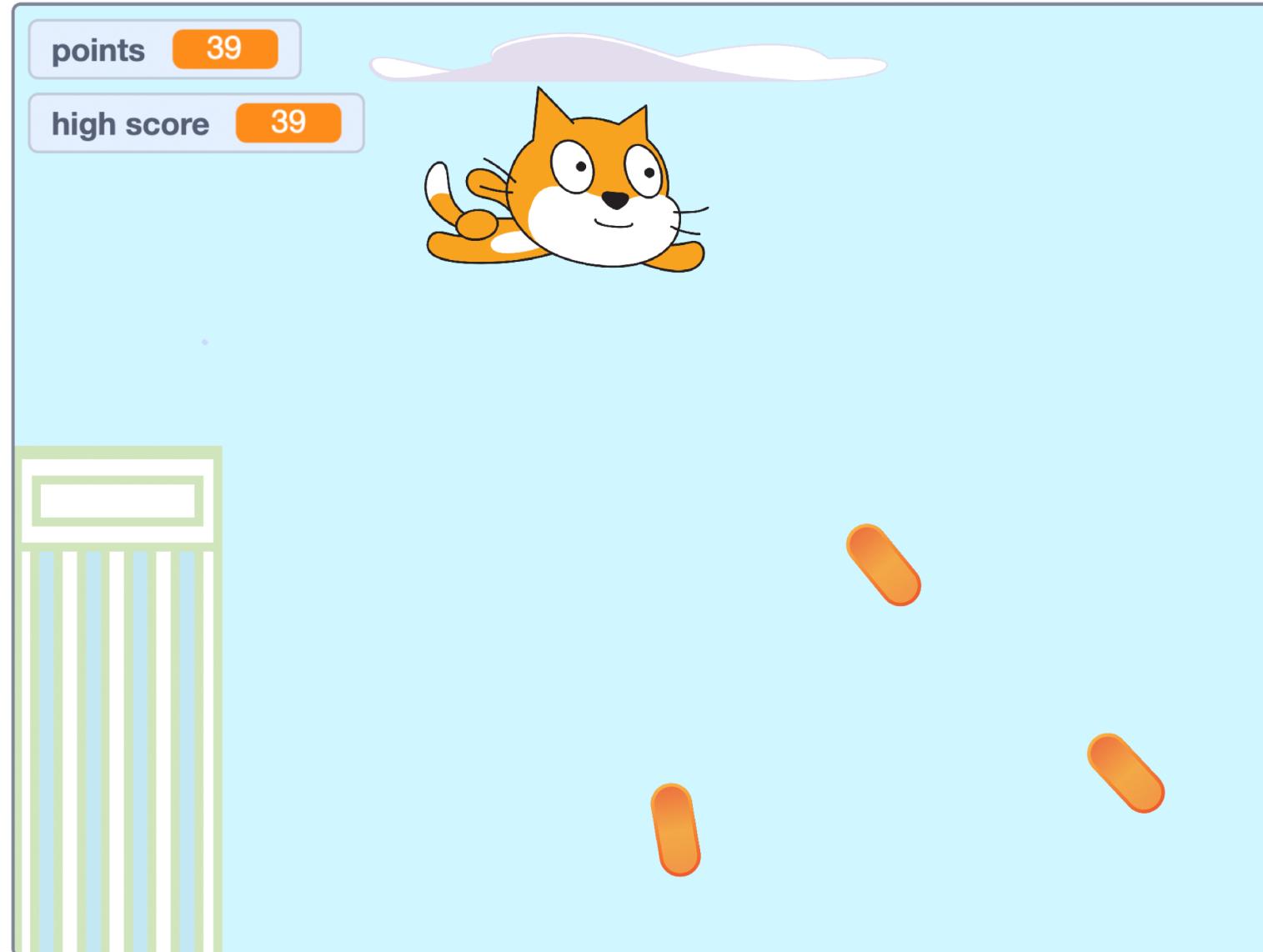
- Make another variable called “high score”
- Add the following to the character’s script area:



- If there is the need to reset the high score, we can create that option:



<https://scratch.mit.edu/projects/277348682/>



Resources:

- Tutorials
- Forums
- Online examples
- Shared projects
- Just trying out things

Find more projects to try

- <https://scratch.mit.edu/explore/projects/all>
- Categories to choose from:
 - Animations
 - Art
 - Games
 - Music
 - Stories