



Global Video Game Designers

Grades 3 -5 Student Workbook

Student Name:			

Class Cheat Sheet

Class: Global Video Game Designers (3-5)

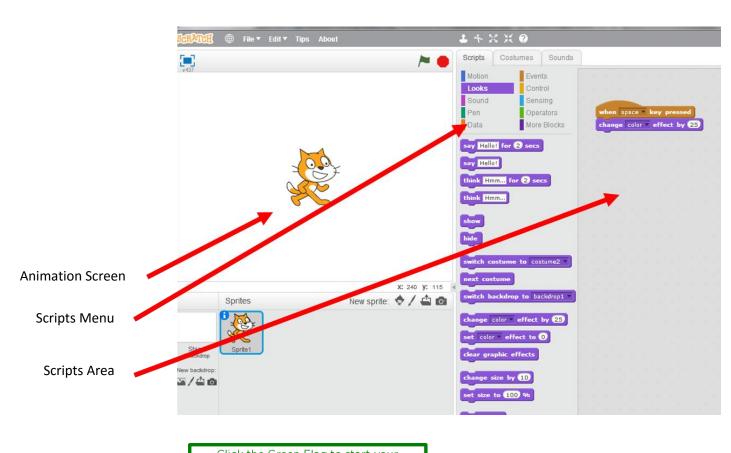
School: _____

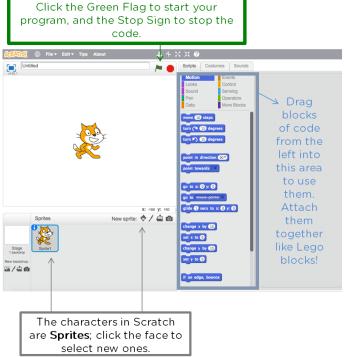
US Student Name:			
GP Student Name:			
Facts about yourself:			
1.			
2.			
3.			
Login Info:			
LUV Global Collaboration Platform:	MIT Scratch:		
Username:	Username:		
Password:	Password:		
Important Exchange Dates:	How to say 'hello' and 'goodbye' in your partner's language:		
 	Hello:		
3.	Goodbye:		

Lesson 1 and 2: Introduction to Scratch

Welcome to Scratch. When you know Scratch, you can use it to do almost anything. The first thing you need to learn are the parts of Scratch.

The first part is your **Animation Screen**. This is where the action happens. The second is your **Scripts Menu**. This is where you will get the blocks to control your video games. Finally you need to know the **Scripts Area**. This is where you will mix and match the blocks to make your games and animations do cool stuff.





Color Change

• Click the scissors at the top of the screen, and then click the cat sprite to delete it.



 Choose the face next to new sprite to bring up the sprite library.



· Pick a new sprite.

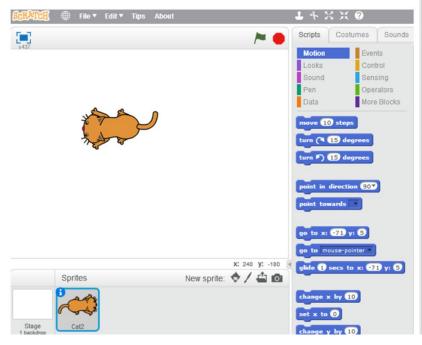


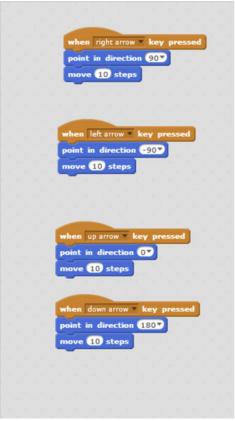
- From the Scripts Menu, choose Events, and drag the 'When Space Key Pressed" block to the Scripts Area.
- Choose Looks, and drag and attach 'Change Color Effect by 25' to 'When Space Key Pressed.'
- Press the Green flag, then press space. Watch the sprite change color!



Cat Control

- Replace the old Cat Sprite with the Cat Sprite you see here.
- Add the blocks you see, so you can control the cat with your arrow keys.
- Can you figure out how to make the cat move diagonally?

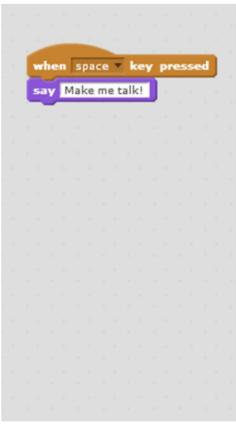




Make it Speak

- Choose a Sprite.
- Choose the 'When Space Key Pressed' block from the Events Tab.
- Choose the 'Say Hello' block from the 'Looks' tab (not Sounds).
- Click on the Green Flag, press Space Bar and see what happens.





Groove to the Beat

- Build the first group of blocks.
- Click the Green Flag.
- Without deleting, change your blocks into the second group. (Hint: Use Right Click and the Tab Key.)
- Click on the Green Flag and see what happens now.
- Can you make two different drums play at once?

```
when clicked

forever

move 10 steps

play drum 1 for 0.25 beats

move 10 steps

play drum 1 for 0.25 beats
```

```
when clicked

forever

move 10 steps

play drum 6 for 0.5 beats

move 30 steps

play drum 5 for 0.5 beats
```

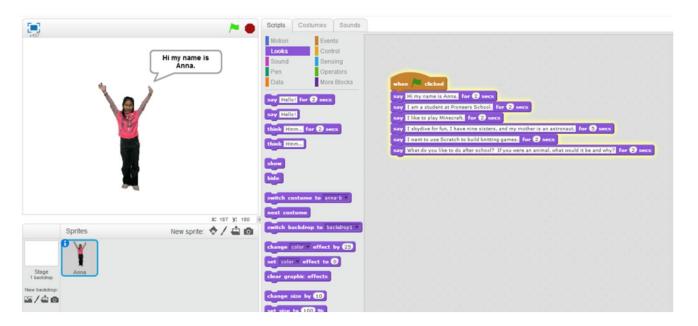
Introductory Sprite

Introduce yourself to your Global Partner. A basic example is on the right, but I bet you can do better.

Include:

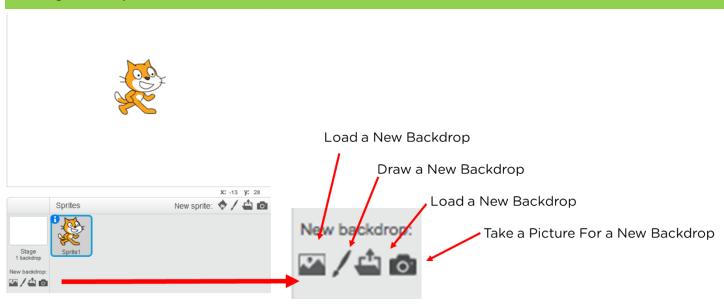
- Your name.
- · Your school.

- Three interesting things about you.
- One interesting thing about your school.
- Two questions for your partner.
- One thing you want to use Scratch to do.



Lesson 3: Adding Animations

Adding Backdrops



Initial Game

- 1. Build the code below.
- 2. Click the Green Flag.
- 3. Try to use this code to write the first letter of your own name.

```
when clicked

go to x: 48 y: 45

clear

pen down

forever

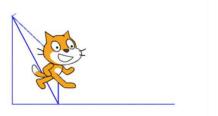
change pen color by 10

glide 0.5 secs to x: -150 y: 100

glide 0.5 secs to x: -150 y: -100

glide 0.5 secs to x: 150 y: 100

glide 0.5 secs to x: 150 y: -100
```



Ghost Glider

- 1. Choose the Ghost Sprite
- 2. Build the following blocks



```
when / clicked

go to x: 0 y: 0

glide 1 secs to x: -150 y: 100

glide 1 secs to x: -150 y: -100

glide 1 secs to x: 150 y: 100

glide 1 secs to x: -150 y: -100
```

Remember that the X and Y numbers change when you drag or move the sprite

- 3. Click the Green Flag
- 4. Can you make the Ghost glide in a square pattern? (Hint The Tab key will let you work faster)

```
when clicked

glide 1 secs to x: 139 y: -75

glide 1 secs to x: 139 y: 75

glide 1 secs to x: -139 y: 75

glide 1 secs to x: -139 y: -75

glide 1 secs to x: 139 y: -75
```

Lesson 4: Variables

Shark and Fish Game

- 1. Choose a Fish Sprite.
- 2. Build the fish code.
- 3. Why do you think the Score is set to 'Timer.'
- 4. How could you use the 'If, Then' blocks to make the fish move diagonally?
- 5. Using the Data Tab, create a Variable called 'Lives.'
- 6. Now build the Shark's code.
- 7. When you are done play the game.

```
when clicked

X: -73
y: 12

set Score to timer

if key up arrow pressed? then

point in direction 0

move 10 steps

if key right arrow pressed? then

point in direction 90

move 10 steps

if key right arrow pressed? then

point in direction 90

move 10 steps

if key left arrow pressed? then

point in direction -90

move 10 steps
```

Fish Code Sha

```
when clicked

set Score to 0

x: -163
y: -213

set Lives to 0

forever

point towards Fish2 move 5 steps

if touching Fish2 ? then

set Lives to -1

move 200 steps

if distance to Fish2 150 then

switch costume to shark-b

else

switch costume to shark-a

if Lives < 1 then

say Game Over

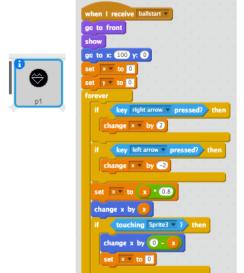
stop all v
```

Shark Code

Lesson 6: Volleyball Game

Volleyball Game

1. Click on the "Player 1" sprite and combine the following blocks



change y by 🕎

```
change y by ① - y

if key up arron pressed?

set y to 10

else

set y to 0

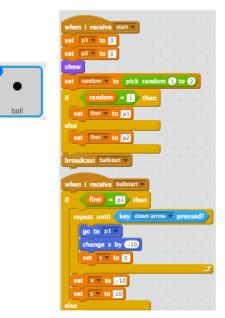
else

change y by 2

hide

when / Clicked
```

2. Click on the "Ball" sprite and combine the following blocks



Continued...

3. Click on the "Player 2" sprite and combine the following blocks $\label{eq:combined} \begin{tabular}{ll} \end{tabular}$



```
when | receive ballstart | QO to from | Show | QO to from | Show | QO to x | GOS y | QO | Set x | Y to | QO | Y to | QO | Set x | Y to | QO | Y to | QO | Set x | Y to | QO | Set x | Y to | QO | Set x | Y to
```