Infinite Game World

What we did:

- Learn to scale the images in the game.
- Learn to log messages/ outputs from the program into the console for testing purposes.
- Learn to create an infinitely scrolling ground for the dinosaur to run on.

How we did it:

Step 1: Write comments for the codes : Now all the codes written are easily understandable.

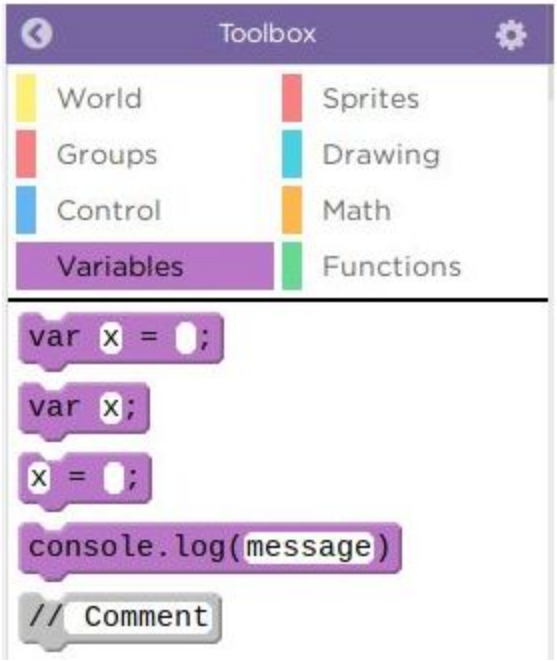
```
1  //create a trex sprite
2  var trex = createSprite(200,380,20,50);
3  trex.setAnimation("trex");
4
5  function draw() {
6    //set background to white
7    background("white");
8
9    //jump when the space key is pressed
10   if(keyDown("space")){
11     trex.velocityY = -10 ;
12   }
13
14   //add gravity
15   trex.velocityY = trex.velocityY + 0.8;
16
17   //create edges
18   createEdgeSprites();
19
20   //stop trex from falling down
21   trex.collide(bottomEdge);
22
23   drawSprites();
24 }
25
```

Step 2: Scaling the Dinosaur

Code:

```
1  //create a trex sprite
2  var trex = createSprite(200,380,20,50);
3  trex.setAnimation("trex");
4
5  //scale and position the trex
6  trex.scale = 0.5;
7  trex.x = 50;
8
9  function draw() {
10   //set background to white
11   background("white");
```

Step 3: Find out and correct errors in the program
The code studio has a console window where we can log any message while the program is running. We do this using console.log() instruction.



Step 4: Write the console.log() instruction inside the draw() function.
Instead of logging the name of the game, log the y position of the T-Rex sprite

```
 9
10
11 function draw() {
12   //set background to white
13   background("white");
14
15   //logging the y position of trex
16   console.log(trex.y);
17
18   //jump when the space key is pressed
19   if(keyDown("space")){
20     trex.velocityY = -10 ;
21   }
22
23   //add gravity
24   trex.velocityY = trex.velocityY + 0.8;
25
```

Step 5: Create a rectangular sprite called ground.
This is where the T-Rex dinosaur will run. The ground sprite should ideally cover the entire screen.
Code:

```
1  //create a trex sprite
2  var trex = createSprite(200,380,20,50);
3  trex.setAnimation("trex");
4
5  //scale and position the trex
6  trex.scale = 0.5;
7  trex.x = 50;
8
9  //create a ground sprite
10 var ground = createSprite(200,380,400,20);
11
```

```
17   //jump when the space key is pressed
18   if(keyDown("space")){
19     trex.velocityY = -10 ;
20   }
21
22   //add gravity
23   trex.velocityY = trex.velocityY + 0.8;
24
25   //stop trex from falling down
26   trex.collide(ground);
27
```

Output:

Step 6: Move the dinosaur

Give a backward velocity to the ground, add the code to reset the ground

```
5  //scale and position the trex
6  trex.scale = 0.5;
7  trex.x = 50;
8
9  //create a ground sprite
10 var ground = createSprite(200,380,400,20);
11 ground.setAnimation("ground1");
12 ground.x = ground.width /2;
13
14
15 function draw() {
16   //set background to white
17   background("white");
18
19   ground.velocityX = -2;
20   console.log(ground.x);
21
22   if (ground.x < 0){
23     ground.x = ground.width/2;
24   }
25
26   //jump when the space key is pressed
27   if(keyDown("space")){
28     trex.velocityY = -10 ;
29   }
```

Use an actual ground image

```
5  //scale and position the trex
6  trex.scale = 0.5;
7  trex.x = 50;
8
9  //create a ground sprite
10 var ground = createSprite(200,380,400,20);
11 ground.setAnimation("ground2");
12 ground.x = ground.width /2;
```

What's next? :

Fix the two bugs discovered in the game