

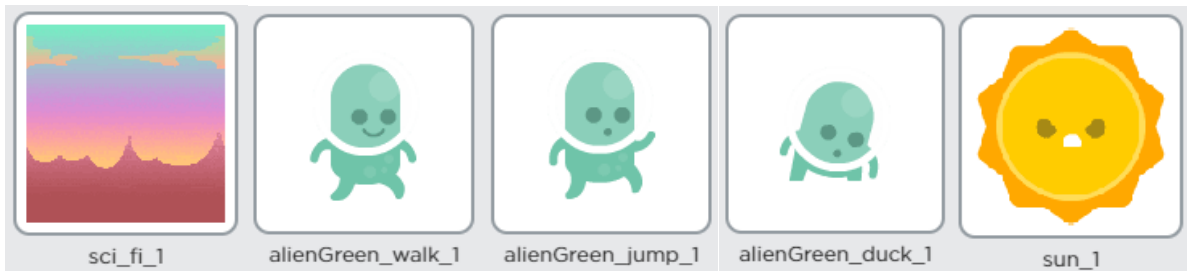
# Jumper

This game has a scrolling background and an alien who jumps over the burning hot sun-thing.

- If the alien jumps the sun and maintains its distance, the alien gains a point.
- If the sun gets too close, the alien loses the point.



You will need these 5 animations:



Move to the code frame.

Start the background scrolling

```
1 //Space Background - 2 frames to scroll
2 var frame1 = createSprite(200, 200);
3 frame1.setAnimation(▼"sci-fi_1");
4 frame1.velocityX = -4;
5
6 var frame2 = createSprite(600, 200);
7 frame2.setAnimation(▼"sci-fi_1");
8 frame2.velocityX = -4;
9
```

Add the alien, and its sun-enemy.

```
10 //Main character
11 var jumper = createSprite(100, 300);
12 jumper.setAnimation("alienGreen_walk_1");
13
14 //Enemy
15 var enemy = createSprite(410, 300);
16 enemy.setAnimation("sun_1");
17 enemy.scale = 0.25;
18 enemy.velocityX = -4;
19
20 //Score variable
21 var score = 0;
22
```

Make your draw loop. Handle the scrolling movement.

```
23 function draw() {
24   drawSprites();
25
26   //Handle background scrolling movement
27   //Alternate what is on the screen
28   if (frame1.x < -200) {
29     frame1.x = 600;
30   }
31   if (frame2.x < -200) {
32     frame2.x = 600;
33   }
34 }
```

### RUN YOUR CODE.

- Is the background scrolling?
- Is there an alien? Does the sun move across the screen once?
- Remember there are no collisions yet and the sun is not yet respawning.

A jump has three pieces:

1. Hit the ground (code it first as it is the default)
2. Jump up
3. Fall down

```
34
35 //hit the ground
36 if ( jumper.y > 300 ) {
37     jumper.velocityY = 0;
38     jumper.setAnimation (▼ "alienGreen_walk_1" );
39 }
40
41 //jump
42 if ( keyWentDown (▼ "space" ) ) {
43     jumper.velocityY = jumper.velocityY - 3;
44     jumper.setAnimation (▼ "alienGreen_jump_1" );
45 }
46
47 //gravity pulls down
48 if ( jumper.y < 180 ) {
49     jumper.velocityY = 3;
50     jumper.setAnimation (▼ "alienGreen_duck_1" );
51 }
52
```

Now, RUN the code!

- Can your alien jump when you hit the space bar?
- Are its pictures changing correctly?
- Remember that the sun doesn't yet respawn!

Then we have to handle the score and the sun respawn.

1. Alien hits the sun. score goes down. Sun respawns.
2. The sun hits the edge. Score goes up. Sun respawns.
3. Print the score out.

```
53 //enemy hits alien
54 //score: decreases, respawn enemy farther over
55 if ( jumper.isTouching(enemy) ) {
56     enemy.x = randomNumber (510, 530) ;
57     score--;
58 }
59
60 //enemy gets to edge
61 //score: increase, respawn enemy
62 if ( enemy.x < -50 ) {
63     enemy.x = randomNumber (410, 430) ;
64     score++;
65 }
66
67 //display score
68 textSize (20) ;
69 text ( "Score: "+score , 10, 20) ;
70 }
```

Now everything should be working!

Run your code to check!

- The sun respawns when HIT or when it reaches the edge.
- The score works correctly.