

```
//Start of Independent Code
//Animal Sprites were courtesy of Code.org
//place moving clouds at the bottom of the screen
var space = createSprite(200, 385);
space.setAnimation("sky1");
```

```
var numCats = 0;
//create Cats
var cat1 = createSprite(randomNumber(50, 350), randomNumber(50, 100), 10, 10);
cat1.setAnimation("cat1");
cat1.scale = 1/6;
//end of Independent Code
```

```
//start of collaboration
cat1.setVelocity(0, randomNumber(4, 6));
//end of collaboration
```

```
//start of Independent Code
numCats = numCats+1;
function createCat() {
  if (numCats>0) {
    cat1.x = randomNumber(50, 350);
    cat1.y = randomNumber(50, 100);
    cat1.velocityY = randomNumber(4, 6);
  }
}
```

```
//create Dogs
var numDogs = 0;
var dog1 = createSprite(randomNumber(50, 350), randomNumber(50, 100), 10, 10);
dog1.setAnimation("dog1");
dog1.scale = 1/6;
//end of independent code
```

```
//start of collaboration
dog1.setVelocity(0, randomNumber(4, 6));
//end of collaboration
```

```
//start of independent code
numDogs = numDogs + 1;
function createDog1() {
  if (numDogs > 0){
    dog1.x = randomNumber(50, 350);
```

```
dog1.y = randomNumber(50, 100);
  dog1.velocityY = randomNumber(4, 6);
}
}
```

```
var dog2 = createSprite(randomNumber(50, 350), randomNumber(50, 100), 10, 10);
dog2.setAnimation("dog2");
dog2.scale = 1/12;
//end of independent code
```

```
//Start of collaboration
dog2.setVelocity(0, randomNumber(4, 6));
//end of collaboration
```

```
//start of independent code
function createDog2() {
  if( numDogs>0){
dog2.x = randomNumber(50, 350);
dog2.y = randomNumber(50, 100);
  dog2.velocityY = randomNumber(4, 6);
}
}
numDogs = numDogs + 1;
```

```
//create airplane
var plane1 = createSprite(200, 300, 40, 40);
plane1.setAnimation("plane1");
```

```
//score counter
var counter = 0;
```

```
//draw clouds code
function drawClouds(x, y, width, height) {
  if (camera.isActive()) {
    stroke(rgb(255, 255, 255));
    fill("white");
    strokeWeight(3);
    ellipse(randomNumber(97, 100), y, width, height);
    ellipse(randomNumber(47, 50), y, width, height);
    ellipse(randomNumber(147, 150), y, width, height);
    ellipse(randomNumber(247, 250), y, width, height);
    ellipse(randomNumber(297, 300), y, width, height);
    ellipse(randomNumber(347, 350), y, width, height);
  }
}
```

```
}  
}
```

```
function draw() {
```

```
//Create Background  
background(rgb(135,206, 250));
```

```
//create clouds in sky  
drawClouds(100, 55, 60, 50);
```

```
//Display score  
fill("black");  
noStroke();  
textSize(20);  
text("Score: " + counter, 250, 60);
```

```
//Print Instructions  
fill("black");  
noStroke();  
textSize(12);  
text("Save the Animals by Moving the Plane Left and Right", 50, 18);
```

```
//airplane controls  
if (keyDown("left")) {  
  plane1.x = plane1.x-10;  
  plane1.mirrorX(-1);  
} else if ((keyDown("right"))) {  
  plane1.x = plane1.x + 10;  
  plane1.mirrorX(+1);  
}
```

```
//if plane catches animal, another appears at top  
if (plane1.isTouching(cat1)) {  
  createCat();  
  counter = counter + 1;
```

```
} else if (plane1.isTouching(dog1)) {  
  createDog1();  
  counter = counter + 2;
```

```
} else if (plane1.isTouching(dog2)) {  
  createDog2();  
  counter = counter + 3;
```

```
}  
  
//game over  
if (World.allSprites.isTouching(space)) {  
    endGame();  
}  
  
drawSprites();  
}  
  
//Print End Game  
function endGame() {  
    cat1.destroy();  
    dog1.destroy();  
    dog2.destroy();  
    plane1.destroy();  
    while ((World.seconds > 0)) {  
        fill("black");  
        noStroke();  
        textSize(55);  
        text("Game Over", 55, 200);  
        textSize(20);  
        text("Your Score is: " + counter, 125, 300);  
    }  
}  
//end of independent code
```