**Every Object has these variables built in:**

x, y, speed, direction, hspeed, vspeed, image\_angle, image\_speed, sprite\_index, gravity, gravity\_direction, friction …

**Directions:**   
0 right, 90 up, 180 left, 270 down

**To Create an Instance:**

bid = instance\_create(x, y, bullet)

bid.speed = 10

bid.direction = 270

bid.image\_angle = 270

**To Destroy an Instance:**

instance\_destroy() //this destroys the instance you are coding inside of

with other { //this destroys the instance that is known as the ‘other’ in a collision

instance\_destroy()

}

**To Create a Special Effect:**

effect\_create\_above(ef\_explosion, x, y, 1, c\_red) //0 small, 1 medium, 2 large , c\_red, c\_blue, c\_green, …

**Sounds:**

//add sounds to the sound folder first!

sound\_play(boomsound)

sound\_play(explosionNoise)

if sound\_isplaying(scream) = false {

sound\_play(scream)

}

**Random:**

num = irandom(100) //0-100 integers only

num = random(100) //0-99.9999999 decimals included!

num = irandom\_range(10,20) //10-20 integers only

num = random\_range(10,20) //10-19.9999999 decimals included!

**Rooms:**room\_goto(what\_you\_named\_your\_room)

room\_goto\_next()

**Messages:**

show\_message(“Hi There”)

**Draw Commands:**  
Make an object called *drawStuff*. Put it in the room.   
In the DRAW event, use code like  
draw\_text(50,100, “hit points”)  
draw\_text(70,100, string(player.hitpoints) )

**Structures:**

|  |  |  |
| --- | --- | --- |
| if x>10 {  //do some stuff  }  else if x>2 {  //do stuff  }  else {  //do other stuff  } | if name=”Bob” {  //hello bob  }  else{  //you are not Bob  } | if name=”Bob” && password=”abc” {  //you may pass  }  if name=”Bob” || name=”Mary” {  //you are my friend  }  && is how we write AND (shift 7 key) || is how we write OR (shift backslash above enter key) |