

Object Design

Step 1 – Create the Shape object.

```
2    var shape = new createjs.Shape();
3    shape.graphics.beginFill('#ffffff');
4    shape.graphics.drawCircle(0, 0, 3);
```

Step 2 – Add properties to the Shape object.

```
6    shape.x = xP;
7    shape.y = yP;
8    shape.xVelocity = xV;
9    shape.yVelocity = yV;
```

Step 3 – Add functions to the Shape object.

```
11   shape.getLocation = function(){
12       return { x : this.x, y : this.y};
13   }
14   shape.update = function(){
15       this.x += this.xVelocity;
16       this.y += this.yVelocity;
17   }
```

Step 4 – Return the Shape object.

```
19    return shape;
```

Completed function looks like this -

```
1  function new_Bullet( xP, yP, xV, yV){
2      var shape = new createjs.Shape();
3      shape.graphics.beginFill('#ffffff');
4      shape.graphics.drawCircle(0, 0, 3);
5
6      shape.x = xP;
7      shape.y = yP;
8      shape.xVelocity = xV;
9      shape.yVelocity = yV;
10
11     shape.getLocation = function(){
12         return { x : this.x, y : this.y};
13     }
14     shape.update = function(){
15         this.x += this.xVelocity;
16         this.y += this.yVelocity;
17     }
18
19     return shape;
20 }
```

Constructing the Object

```
114     var bullet = new_Bullet(curX, curY, xVel, yVel);
```

Our game stores Objects like these globally.

```
1  var Asteroid_List;
2  var Asteroid_Generator;
3  var Bullet_List;
4  var Player_Object;
5  var Score_Object;
```

State Diagram

