**Assignment 1 – Description of Game Objects & Scene**

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| GameObject | Material | Position | RigidBody | | Remarks | Description |
| G | K |
| Plane | Teal | ( 0 , 0 , 0 ) |  |  |  | Most objects actually hover above the plane unless otherwise specified to use gravity. |
| Sphere | Blue | (-3 ,1 ,-3 ) |  |  |  | Just a sphere, nothing special |
| Sphere | Red | (-2.5,1,0 ) | N | Y |  | Since this sphere does not use gravity, it remains at a y position of 1, however since it has a rigid body, it is moved back by the orange capsule. |
| Sphere | Red | (-1.5,1, 0) |  |  |  | This sphere does not have a RigidBody, which allows the orange capsule to pass right through it. |
| Sphere | Green | (-3, 1 , 3 ) | Y | y | Scale 2 | This sphere is twice it’s normal size. It uses gravity and is kinematic. The selection of kinematic pushes the green sphere outside of Unity’s physics. However, since the sphere is double its size, it lays on the plane anyways. |
| Cube | Yellow | ( 0, 1 ,-3 ) |  |  | RotateIt() | A script is implemented to rotate the object. It doesn’t not interact with other objects. |
| Capsule | Orange | ( 0, 1 , 0 ) | N | Y | MoveIt() | This object functions outside of Unity’s physics engine and moves using a script. This object interacts with many objects, however only has effect on objects with a rigidbody that is not kinematic. |
| Sphere | Purple | ( 0, 1 , 3 ) |  |  | ResizeIt() | This sphere uses a script in order to grow and shrink |
| Sphere | White | (1.5, 1,0 ) | N | Y |  | This sphere has a rigidbody, but is kinematic which allows for the capsule to pass through it. |
| Sphere | White | (2.5, 1,0 ) | Y | N |  | This sphere has a rigidbody, but is not kinematic. The orange capsule collides with this white sphere, which then hits the black cube, pushing it out into the scene . |
| Sphere | Grey | ( 3,10,-3) | Y | N |  | The grey sphere starts suspended, and when the scene is played out, falls using gravity. Because this sphere has its collider on, it stops on the plane. |
| Sphere | Black | ( 3,10, 3) |  |  | No Collider | This sphere starts suspended, and uses gravity to fall. The sphere continues to fall through the plane because it does not have a collider |
| Cube | N/A | (5.5, 0, 0) |  |  |  | This cube interacts with the white sphere as it is pushed by the capsule. The cube stops the sphere from falling off of the plane because its center is at 0, making it span to just above the plane. |
| Cube | Black | ( 4 , 1, 0 ) | N | N |  | This cube starts at a rotation of 45 on the z axis. When it is pushed by the white sphere, it does not collide with the colourless cube. It is sent off into the scene propelled upwards because it does not use gravity. |