

Unity For Flash Developers Lesson - Tutorial 7 (Basic Collision Detection)

OnCollisionEnter

In Flash, if you want to check for collisions you may use something like `hitTestObject` or `hitTestPoint`. In Unity we can use **OnCollisionEnter**.

<http://unity3d.com/support/documentation/ScriptReference/Rigidbody.OnCollisionEnter.html>

If you and method called `OnCollisionEnter` to your `gameObject/rigidbody`, an event will be thrown when this `gameObject` collides with something. The `collisionInfo` object will contain info about the object that was collided with and then you can decide what you want to do about it (ie destroy it, apply a force to it ...).

Note that collision events are only sent if one of the colliders also has a non-kinematic `rigidbody` attached.

Exercise:

1. Create a cube and add the `collision.js` script to it as shown below and add a `rigidbody` component as well.

collision.js

```
function OnCollisionEnter (collisionInfo : Collision) {  
    if (collisionInfo.gameObject.tag == "marble"){  
        //decide how we want to respond --> I decided to add forces, but you  
could do almost anything  
        var randy: int = Random.Range(-200, 200);  
        collisionInfo.gameObject.rigidbody.AddForce(Vector3.up * 500);  
        collisionInfo.gameObject.rigidbody.AddForce(Vector3.right * randy);  
    }  
}
```

2. Create a sphere and add a `rigidbody` component to it.
3. Create plane and position the sphere over top of the cube on top of the plane.
4. Test you movie! You should see the sphere fall onto the cube, the cube will detect a collision with the sphere, and then apply forces to the sphere.