



Unity C# Cheat Sheet and Quick Reference

Create Objects

```
Instantiate(prefab,  
position, Quaternion.identity) as Ga  
meObject;
```

Destroy Objects

```
Destroy(myObject);
```

Accessing Components

```
gameObj.GetComponent<AudioClip>();
```

GameObject Events

Awake()

Called before Start(), after prefab instance.

OnEnable()

Called just after the object is enabled.

Start()

Called once per script before first frame update.

OnApplicationPause()

Called at the end of a frame when the pause is detected.

Update()

Called once per frame

FixedUpdate()

Called multiple times per frame as a fixed rate.
Time.deltaTime not needed.

LateUpdate()

Called once per frame after Update() has finished.
Good for camera movement.

OnGUI()

Called multiple times per frame in response to GUI events.

OnApplicationQuit()

Called on all GameObjects before game is quit.

OnDisable()

Called when object is disable or inactive.

OnDestroy()

Called after all the updates in response to Object.Destroy or closure of a scene.

Vector Variables

Vector3.up, Vector3.down,
Vector3.forward, Vector3.back,
Vector3.left, Vector3.right, Vector3.one,
Vector3.zero

myVector.x, myVector.y, myVector.z,
myVector.magnitude,
myVector.normalized

Timing Variables

Time.deltaTime

Time it took to complete last frame

Time.fixedTime

Time since the latest fixedUpdate.

Time.time

The time in seconds since the start of the game.

Time.timeScale

The scale at what time is passing

Physics Events

OnCollisionEnter

OnCollisionStay

OnCollisionExit

OnTriggerEnter

OnTriggerStay

OnTriggerExit

Coroutine Example

```
private IEnumerator myCoroutine() {  
    for (int i = 0; i < 10; i++) {  
        Debug.Log(i);  
        yield return  
    }  
    StopCoroutine("myCoroutine");  
}  
StartCoroutine("myCoroutine");
```

Coroutine Return Types

yield

yield WaitForSeconds

yield WWW

yield WaitForFixedUpdate

yield StartCoroutine