Unity API Quick Reference

API	Note
Random.Range	Random number between 2 numbers. Make sure to use approproatly typed parameters! (floats or ints)
Random.insideUnitCircle	Random Vector2 of unit length
Random.insideUnitSphere	Random Vector3 of unit length
transform.position	Note position is a *value* type
transform.rotation	A quaternion, another value type
transform.localScale	Relative to the parent
transform.localPosition	
transform.localRotation	
transform.Translate	Can use local or world space
transform.Rotate	Can use local or world space
transform.RotateAround	Takes point, axis and angle. This and the subsequent call loose precision after a while
transform.RotateAroundLocal	Takes point, axis and angle
transform.SetParent	Often used to just keep the scene tidy
transform.up	Local up
transform.right	Local right
transform.forward	Local forward
transform.TransformPoint	Scales, rotates and transforms a point by a transform. Local to world space
transform.InverseTransformPoint	Scales, rotates and transforms a point by a transform. World to local space
transform.TransformDirection	Not affected by scale or position
transform.LookAt	Rotates the quaternion part to look at a point in world space
transform.ChildCount()	returns the number of children transforms parented to this transform
transform.GetChild(0)	returns child 0
gameObject.SetActive	Disables and enables a gameobject and any components attached to it will not have the Update method called

API	Note
gameObject.name	Name in the hierarchy
gameObject.Tag	Set up the strings in the Unity editor. Can use with FindGameObjectWithTag
gameObject.layer	A number. Set up different layers for different groups of objects like environment, different enemy types. Use with layer masks. Used for raycasting and rendering
gameObject.GetComponent<>	To return a component attached to a gameobject. Uses generics. Returns null if there is no component attached
gameObject.AddComponent<>	Retuns the new component
gameObject.GetComponentInChildren	Recursive search
GameObject.FindGameObjectWithTag<>	Returns the first matching object
GameObject.FindGameObjectsWithTag<>	Returns a typed array of objects
GameObject.CreatePrimitive	Creates cubes, spheres, cylinders etc
GameObject.Destroy	Pass in the gameobject or component you want to distroy
GameObject.FindObjectOfType	Searches the memory space for an instance of a class
Vector3.Dot	Multiplies 2 vectors returns a scalar. In front/behind or calculating angle between 2 vectors
Vector3.Lerp	Interpolates between 2 vectors using t
Vector3.Cross	Returns a vector that is mutully perpindicular to the 2 parameters
Vector3.Normalize	Makes the vector of length 1
Vector3.Up	The world up vector
Vector3.Right	
Vector3.Forward	
Vector3.Zero	The vector (0,0,0)
Vector3.One	The vector (1,1,1)
Vector3.Distance	Distance between 2 position vectors
Vector3.Angle	Angle between 2 vectors
x, y, z,	Note vectors are value types! (Structs)
vector3.normalized	
Quaternion.AngleAxis	This is how to make a quaternion! Angle is in degrees
Quaternion.Slerp	Interpolates between 2 quaternions

API	Note
Quaternion.Identity	No rotation
Quaternion.Euler	Make a quetarnion from euler angles
Quaternion.Inverse	Quaternion in the opposite direction
Quaternion.LookRotation	Makes a quaternion from a vector
Quaternion * by a Vector3	Rotates the vector by the quaternion
Quaternion * by a Quaternion	Combines 2 quaternion rotations
x, y, z, w	Components of the quaternion
Input.GetAxis("Vertical")	returns a value between 0 and 1. Used to move things in response to user input
Input.GetKey(KeyCode.Escape)	Check if a key is currently being pressed
Input.GetButtonDown("Fire1")	Check if a button is pressed this frame
OnDrawGizmos	Called by the Unity editor. Allows the game component to draw gizmos to the scene view
Gizmos.color	Sets the color of the subsequently drawn gizmos
Gizmos.DrawSphere	
Gizmos.DrawWireSphere	
Gizmos.DrawCube	
Gizmos.DrawLine	
Gizmos.DrawRay	