3a) Time.delta.Time represents the time in seconds it took to complete the last frame. It is useful when you need to ensure that changes in a game are consistent regardless of the frame rate. It does this by multiplying movement by Time.deltaTime, normalizing the speed of objects so that they move at the same rate on both low and high frame rate machines.

3b) In Forza Horizon, as the cars speed up or slow down, Time.deltaTime would ensure that the car's velocity is updated consistently, regardless of the player's machine performance. Without Time.deltaTime, cars on lower frame rate machines would move slower because each frame would take longer, and cars on higher frame rate machines would move faster, creating an uneven experience across different systems.

5)

a) Mesh Renderer – handles displaying a 3D mesh in the scene, making it visible to the camera

b) Box collider – creates a box-shaped collision boundary around a GameObject in Unity, enabling collision detection and physical interactions for objects and characters in the scene

c) Input.GetAxis method – method that returns the value of a virtual axis, allowing input detection from devices such as keyboards, game controllers, and joysticks. Common axis names like Horizontal and Vertical are used to map controls to actions in the game

d) Rigid body – enables a GameObject to interact with Unity’s Physics engine, allowing for realistic behaviors like gravity, collisions, and the application of forces