5.

1. The world coordinate system holds the xyz axes for the whole scene. For example, setting the position of a GameObject uses the world coordinate system.
2. The local coordinate system is the coordinate system relative to a game object. For example, the rocket has a local coordinate system where the top is considered the positive y direction. This is true regardless of which way you rotate the rocket in the game world.
3. Vector3 is structure in Unity used to represent the xyz axes, so it holds three values for each axis. It is used to easily input directions and positions. For example, vector3.left would represent the vector (-1, 0, 0) because it moves objects in the negative x direction. vector3.up is (0, 1, 0) because it moves the GameObject in the positive y directioin.
4. Rigidbody.AddRelativeForce applies a force to a game object relative to the object’s local coordinate system. In the case of the rocket, we used AddRelativeForce in the positive y direction with vector3.up, so the rocket will always thrust in the direction that the top is facing. This allows us to rotate the rocket and change the direction that it moves.
5. Input.GetKey allows for detecting input from physical keys on the keyboard. For example, we check for input from the W key to make the rocket thrust upward in this project.