***A beginners guide to using blender:***

Most features are never used. Hence, we would use the 80/20 rule, where 80% of the results comes from the features.

Understanding the features common to a lot of people using blender:

* Modelling
* Lighting
* Create materials

Area we look through is called the 3D viewpoint. The properties panel is to the right of the viewpoint which contains a lot of buttons to control the properties of your models.

By clicking on the mesh, then going to the material properties, you can change some of the features including the colour or the texture of the mesh.

**\*\*Required: a mouse\*\***

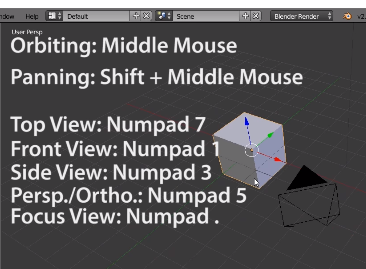
**You can change your user preferences to emulate a numpad, as this has shortcuts that are otherwise unable to repulicate.**

**\*\*Required: a numpad\*\***

Go to file, user preferences (Control alt u), input and check emulate numpad and change the mouse settings to click from left, as their default is right.

After emulating the num pad, you can click 1 to get the viewpoint of the x and the z axis (front view), 3 to get the y and z axis (side) and 7 to get the x and y axis (from above)

To move around the viewpoint, press the middle button on the mouse to move in viewpoint direction and hold shift as well act as a scroll from item to item.

The period button is the dot button. To look at any item, you click on it and press period.

By clicking the space bar, it allows you to type in what you what to achieve.

Keyboard shortcuts: <file:///C:/Users/user/college_y2/UnityStuff/BlenderHotkeyReference.pdf>

To scale an mesh, press **S** and the object will start to scale in all directions based on your mouse movements.

Control changes it to incremental steps, while shift makes subtle movements.

After adding a new object, for some objects, you will see an options bar to the side that allows you to determine the