**Lighting Part B**

-Lighting and storytelling

**Things to think about:**

-Composition

 A way of **organizing or arranging elements** within an image to **convey the main idea** or goal of the work, as well as **direct the viewer’s eye** around the image to the main subject (**focal point**).

 The primary objective is to show the viewer where to look at.

-Contrast (Shadows & Highlights)
 Light creates **lines, contours and shapes** to direct the eye in the composition.

-Color & Mood
 Lighting is important in **establishing mood** and is very powerful in effecting us emotionally and or physically.
 **Color can influence how someone feels (especially when it’s universal to all cultures). It allows the audience to become emotionally involved with the story and characters.**

-What time of the day is it?

-Where is the main light source?
 -Finding your keylight

**Types of light you can use:**

**Spotlight:** A spot light shines a beam of light evenly within a narrow range of directions that are defined by a cone. The rotation of the spotlight determines where the beam is aimed. The width of the cone determines how narrow or broad the beam of light is. You can adjust the softness of the light to create or eliminate the harsh circle of projected light. You can also project image maps from spotlights.

**Ambient Light** Be careful with ambient lights and making things look too flat.

A Maya ambient light shines in two ways—some of the light shines evenly in all directions from the location of the light (similar to a point light), and some of the light shines evenly in all directions from all directions (as if emitted from the inner surface of an infinitely large sphere).

Use an ambient light to simulate a combination of direct light (for example, a lamp) and indirect light (lamp light reflected off the walls of a room).

**Area Light**: In Maya, area lights are two-dimensional rectangular light sources. Use area lights to simulate the rectangular reflections of windows on surfaces.

Compared to other light sources, area lights can take longer to render, but they can produce higher quality light and shadows. Area lights are particularly good for high-quality still images, but less advantageous for longer animations where rendering speed is crucial.

**Point Light:** A point light shines evenly in all directions from an infinitely small point in space. Use a point light to simulate an incandescent light bulb or a star.

**Volume Light** : Use a volume light to illuminate within a given space. Volume lights provide control of light direction, color and decay within a bounded volume.

**How to make a fog light:**

Different ways:

**1) Fog Spotlight**
 -Create spotlight and in the light’s attribute editor under “light Effects” tab, click on the checker box next to Light Fog.
 -Create a cone volume primitive from your spotlight.
 -Fog will be inside of the blue cone.

**2) Volume Primitive Box** -Create > Volume Primitive
 -By default has fog inside
 -In render settings, you can change volume samples if it’s grainy.

**Shadow Light**Manual Way:
 -Create a spotlight light. Set intensity to +1 with shadows turned on.
 -Duplicate the light. Set intensity to -1 with shadows turned off.

Non-manual way:
 -Make a spotlight and click on the shadow button that runs a script and makes the shadow light for you.
 **Occlusion Shader:** -Create a new layer.
 -Under presets, select occlusion.
 -Will automatically create override of occlusion shader.
 -Things will be rendered black and white; shadows are black.
 -Go into attributes to change settings and color. Don’t want to mix black and other colors.

 -Compile occlusion shader & beauty layer in photoshop.