PBS NewsHour Student Reporting Labs Tutorial Assessment: Lighting

Fill in the blank using the words in the box below:

key window fill hair three sun

The standard lighting set up is called a **three** point setup. The **key** light is the strongest light and is placed at a 45’ angle from the subject on the opposite side from the camera. If you don’t have a light you can also use the **sun** or a **window**. Another light option is the **fill** light which is placed at a 90’ angle from the subject, and fills in shadows cast by the key light. The **hair** light is used to create a rim of light around subject’s head and shoulder to help those areas stand out from the background.

**Useful Lighting Vocabulary**

- **barn doors** - metal fixture mounted to a light source to help control the direction of the light

  ![Image](image)

  *When using a barn door make sure to wear gloves as it can get very hot*

- **diffused light** - light that is spread out instead of concentrated and produces softer light

- **diffusion gel** - a translucent filter used to soften lighting

- **flex fill** - a flexible springy cloth mounted to a solid shape that is used to diffuse and reflect light back on the subject. See different colors, shapes and sizes below:

![Image](image)

- **lighting/color temperature** - Color is produced by a lighting source dependent on its temperature in degrees Kelvin. See below for examples:

![Image](image)

- **texture** - the feel, appearance, or consistency of a surface or a substance
The Three-Point Setup

The standard method used when shooting in 2-Dimensions (film, photography) is called the three-point setup. By using three lights in the positions seen below you are able to illuminate the subject, control for shadows, and create texture to make images “pop” even though they are still in 2-D.

Identify each light in the picture below then explain how you know in your answer:

1. **Key**

2. **Fill**

3. **Hair**

Hard and Soft Lighting:

Complete the table below and write an “X” to indicate which type of lighting is being described:

<table>
<thead>
<tr>
<th>Descriptor</th>
<th>Hard Lighting</th>
<th>Soft Lighting</th>
</tr>
</thead>
<tbody>
<tr>
<td>Light comes from a single source.</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Light has been diffused.</td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>This type of lighting does not look good in an interview.</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>This lighting clearly defines shadows and highlights imperfections on the skin.</td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>This lighting is not good at emphasizing texture.</td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>Diffusion gel can produce this kind of lighting</td>
<td></td>
<td>X</td>
</tr>
</tbody>
</table>
Provide a short answer to the question and explain:

Overhead lighting (like fluorescent ceiling lights) should be avoided at all costs, why? Comment on using direct overhead lighting outside as well as inside.

_We want to be able to control our lighting source and have it hitting the subject at an angle. When it is straight above it creates unflattering shadows._

Why are things like barn doors, flex fills and diffusion gels helpful when lighting a setting? Explain and give specific examples.

_They are all helpful because they allow you to control the direction of the light (barn doors), to soften and bounce light back (flex fills), and to have some control over the temperature of the light and how it is diffused (diffusion gels)._ 

If you are outside on a sunny day how can you make sure your subject and your background exposure will match, and why is this important?

_The best thing to do in a situation like that is to go and find some shade. You don’t want your subject to be back lit._

Film is only able to capture flat or 2-D images, so how can we create images that “pop” with lighting?

_We can use all of our different light sources from our three point set up to create dimension and to make the subject stand out._

**Bonus:**

What can you do to make sure that your lighting stands don’t get knocked over?

_Put sandbag on your lighting stands._