CHAPTER 11 – COLOUR TEMPERATURE.

COLOR TEMPERATURE IS A MEASUREMENT OF THE WARMTH OR COOLNESS OF LIGHT. THE TEMPERATURE OF THE LIGHT AFFECTS ALL COLORS IN THE SCENE. YOU CAN ADJUST THE COLOR TEMPERATURE IN YOUR CAMERA OR DURING POST-PROCESSING.

COLOUR TEMPERATURE IS ALSO KNOWN AS WHITE BALANCE OR COLOUR BALANCE.

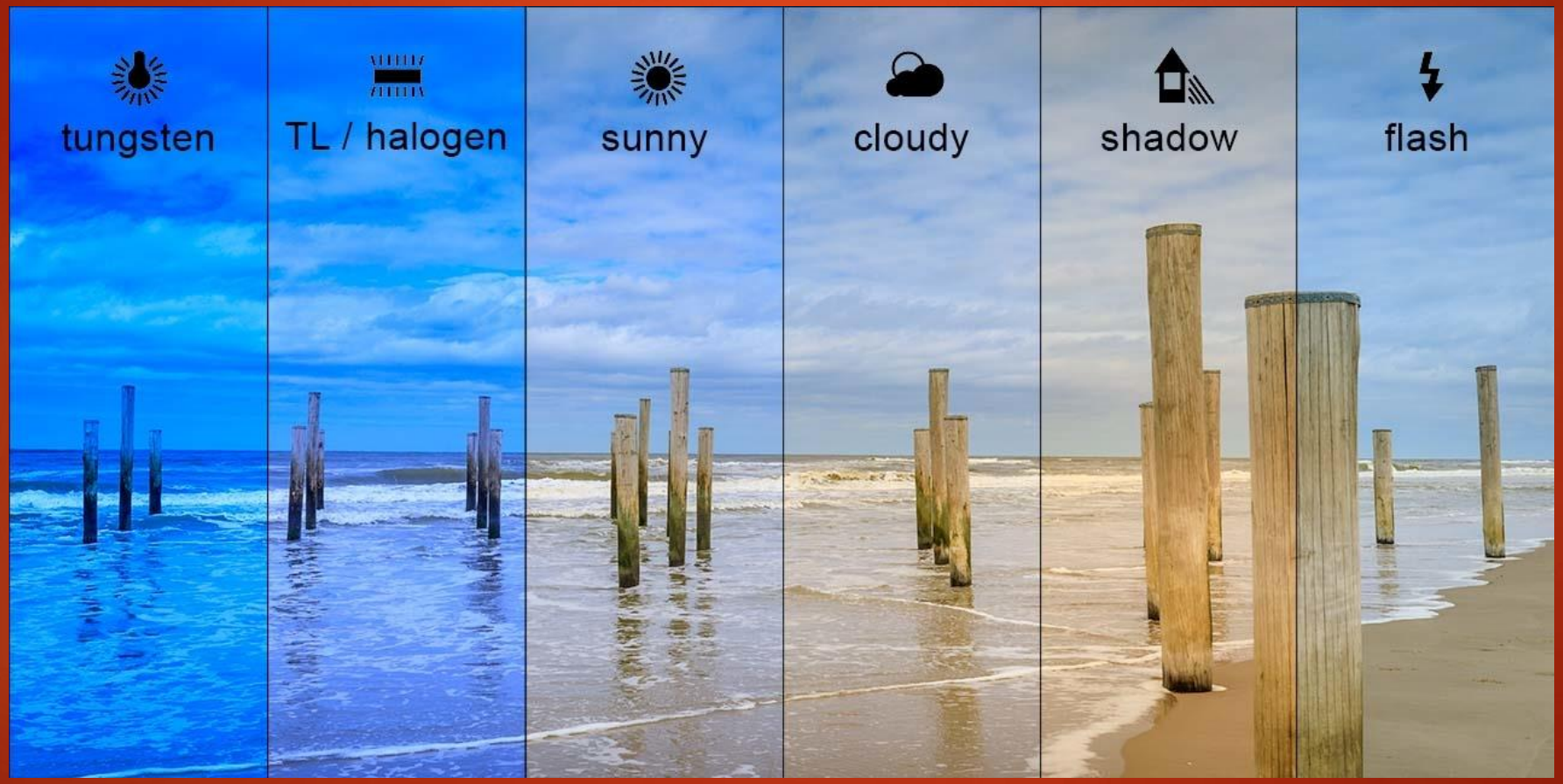
TYPES OF COLOUR TEMPERATURES

Temp	Typical Sources
1000K	Candles, oil lamps
2000K	Very early sunrise, low effect tungsten lamps
2500K	Household light bulbs
3000K	Studio lights (continuous), photo floods
4000K	Clear flashbulbs (now obsolete)
5000K	Typical average daylight, electronic flash
5500K	The sun at noon
6000K	Bright sunshine with clear sky
7000K	Slightly overcast sky
8000K	Hazy sky
9000K	Open shade on clear day
10,000K	Heavily overcast sky
11,000K	Sunless blue skies
20,000+K	Open shade in mountains on a really clear day

Why is colour temperature important?

- The look and feel of a space can be greatly affected by colour temperature. Therefore, it is important to choose the right colour temperature based on the mood you want to create. Based on the Kelvin numbered scale, the higher the colour temperature, the cooler, more energising light will be

Example of different types of colour temperature.



What is a white balance calibration card?

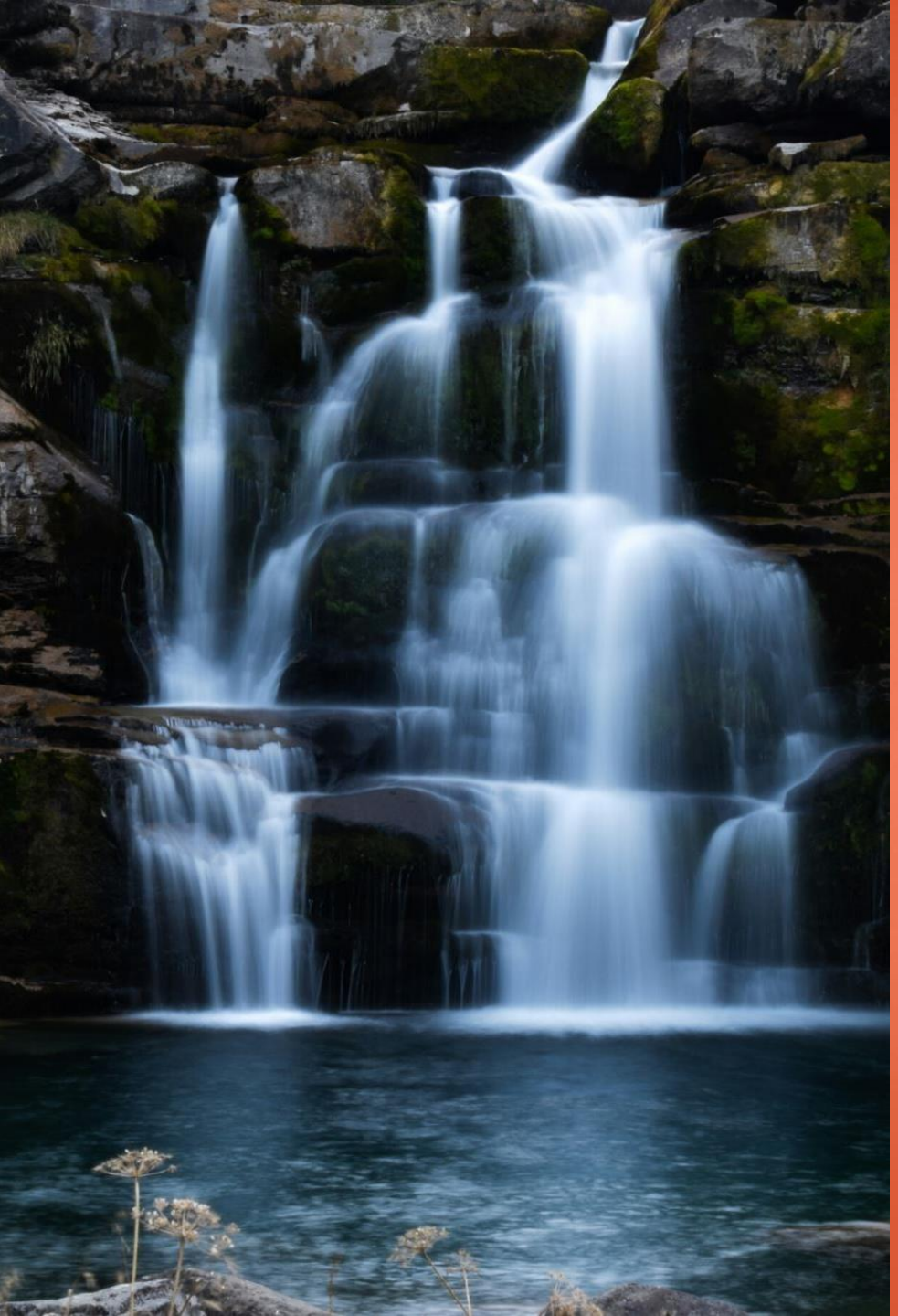
- You can use a grey card or white card (or any true white object available) to set a custom balance. By doing this, you are manually telling the camera exactly what true white looks like in the current lighting, and the camera will calibrate all other colors accordingly.

Is white balance important?

- White balance is important because, without it, colors in your images will take on warm or cool tones that you may not notice while photographing (something also known as “color cast”). Our eyes and brains are very good at filtering out (white balancing) unnatural hues.

Typical setting on a camera.

- White Balance
- Sunny
- Cloudy
- Shady
- Fluorescent
- Tungsten
- Auto

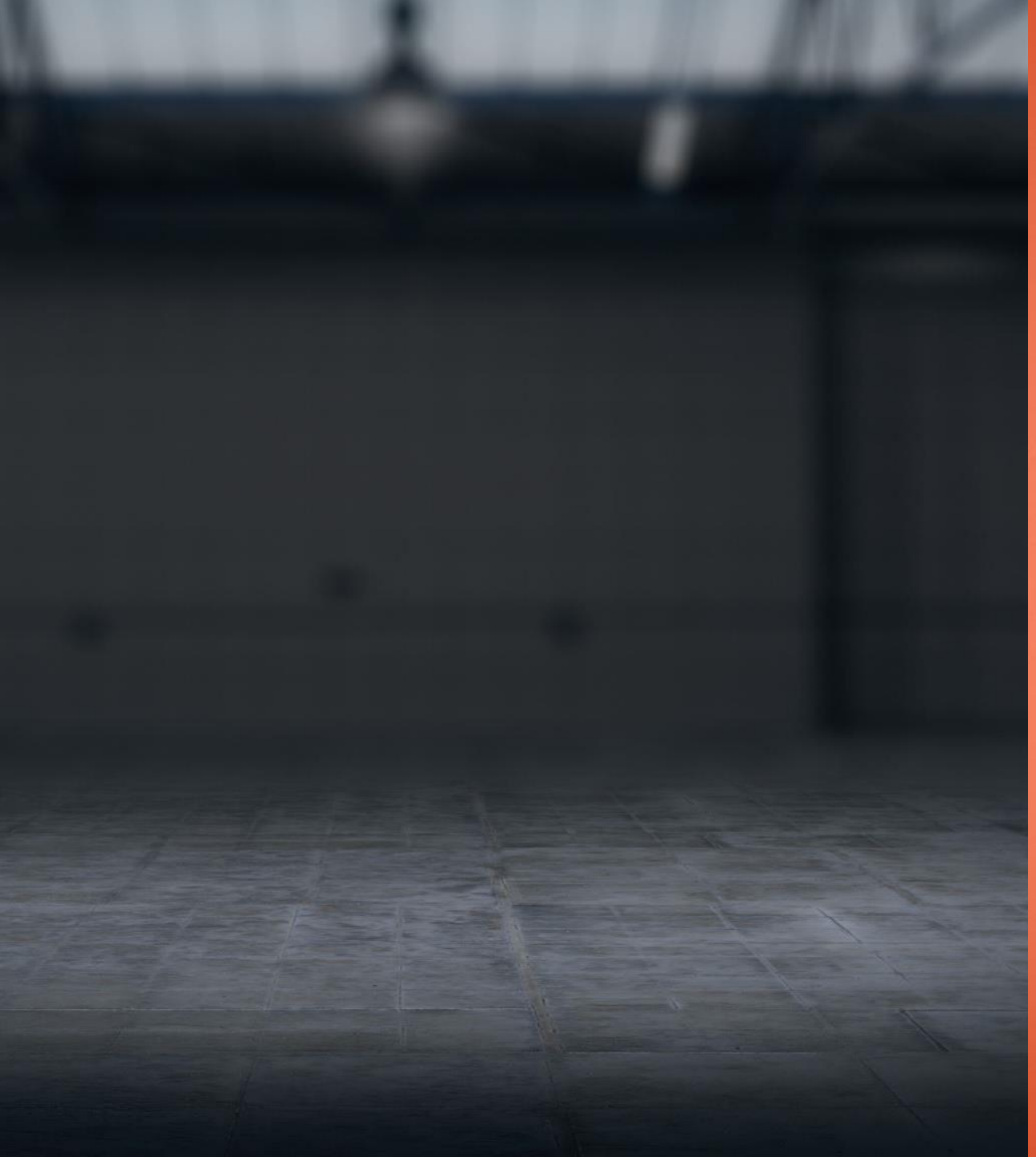


SUNNY WHITE BALANCE

- For typical sunny days, white falls about 5400-5500 on the Kelvin scale. If your camera is set on sunny white balance, and you're photographing a mid-day scene in sunshine, chances are your photograph will look fairly close to normal color.

CLOUDY WHITE BALANCE

- Cloudy. You'll need a slightly different white balance when shooting during cloudy days than sunny daylight. This is because the cloudy preset will set the color temperature of your camera to 6000K to give your images an extra shot of warmth.



SHADY WHITE BALANCE

- Shade (House with a Shadow) – Warmer than cloudy, adding orange colors to the photograph. Good for sunsets and shades. Choose Color Temperature (K) – Lets you manually change the Kelvin value (typically from 2,500 to 10,000). Preset (PRE) – Used for color matching with a white balance card.

FLUORESCENT WHITE BALANCE

- Fluorescent light is related to the slightly warm cast of fluorescent lighting (typically around 4000-4500K). The color temperature of the Daylight white balance setting is relatively neutral at 5000-6500K, and will typically be the best choice for shooting outdoors.

TUNGSTEN WHITE BALANCE

- Tungsten – This mode is used for light under a little bulb like tungsten, and it is often used while shooting indoors. The tungsten setting of the digital camera cools down the color temperature in photos

AUTO WHITE BALANCE

- In auto white balance mode, your camera examines the scene you're trying to photograph and chooses a color temperature (in Kelvin) it thinks will work best. However, your camera can easily get confused if the scene: Doesn't contain any colors which are white, or close to white.