

YEAR 12 Scheme of Work – BBAB

****NB Baselines should be completed at the beginning of each half-term****

Year 12 Autumn 2 – Photography Techniques - Analogue

Lesson 1 of 12		
Learning Objective	Success Criteria	I can
<p>A bulk loader is a piece of equipment which carries a large amount of film, and is used to transfer film into a cassette</p> <p>A 35mm camera should be loaded with 35mm film, in order to take photographs</p> <p>A light meter is often necessary when shooting with film, as the results cannot be viewed immediately (as it can with digital)</p> <p><u>Key Vocabulary</u> <i>35mm Camera</i> – 35mm refers to the size of the film that this camera uses</p> <p><i>Light meter</i> – this is a way of measuring the light in a scene/on a subject, to ensure the correct exposure value</p> <p><i>Exposure value</i> – how much light the film/sensor receives (this is affected by the light in the scene/on the subject; the 'f' number, and the shutter speed [exposure time])</p> <p><i>Cassette</i> – a plastic, or metal container, designed to hold film in light tight conditions</p>	<p>Load film into 35mm film cassette</p> <p>Load cassette into camera</p> <p>Use light meter to correctly expose film (shoot <u>constructed forms</u>)</p>	<p>Load 35mm film from the bulk loader into 35mm cassettes</p> <p>Load a 35mm camera</p> <p>Use a light meter</p> <p>Use the 'Sunny 16' rule</p>
Process	Context	Expected outcome
<p>Bulk loader Loading 35mm camera Using a light meter</p>	<p>Sunny 16 – Ansel Adams</p>	<p>35mm film from bulk loader into cassette</p> <p>Cassette loaded in the camera</p> <p>Correctly exposed shots (through the use of a light meter)</p>
Extension		
<p>Deliberate under and over exposure</p>		

Lesson 2 of 12		
Learning Objective	Success Criteria	I can
<p>The dark bag allows us to transfer the light sensitive film from the 35mm cassette into the developing tank</p> <p>The developing tank provides a means for the light sensitive film to remain in darkness, while allowing the developing chemicals to contact the film</p> <p>Three chemicals will be used –</p> <ul style="list-style-type: none"> • Developer (this makes the image visible [though the film remains light sensitive]) • Stop bath (this stops the developer from working on the film [when processing film, it is acceptable to use water]) • Fixer (this ensured the film is no longer light sensitive, so we can view it in the light) <p><u>Key Vocabulary</u> <i>Process</i> – in this contest, processing is what we do to film to develop it. The three chemicals will be used to bring up the image. The chemicals in the darkroom when using paper are given the same names, but we call this procedure ‘printing’ i.e. we process film, and print paper</p>	<p>Load the developing tank in darkness (using a dark bag)</p> <p>Process the 35mm film using developer, stop bath, and fixer (wash as a final step)</p>	<p>Load a developing tank</p> <p>Process 35mm film</p>
Process	Context	Expected outcome
35mm B&W negative film processed	Daguerre Fox Talbot Nicephore Niepse	Processed film
Extension		
Push/pull processing		

Lesson 3 of 12

Learning Objective	Success Criteria	I can
<p>A contact sheet can be produced by exposing light sensitive paper, through the film, while in contact with the paper</p> <p><u>Key Vocabulary</u> <i>Light sensitive paper</i> – this is commonly known as ‘photo paper’ when working with analogue processes; this should not be confused with ‘photo paper’ which we can buy to go through the computer’s printer</p>	<p>Make a test strip (or more than one if exposures vary drastically)</p> <p>Print a contact sheet (according to the test strips)</p>	<p>Use test strips to correctly expose a contact sheet</p>
Process	Context	Expected outcome
Analogue processed contact sheet	Elliott Erwitt – dogs Arnold Newman – Igor Stravinsky	Contact sheet of 35mm B&W negative film processed previously
Extension		
Crop and selection marks (Prismacolor pencils)		

Lesson 4 of 12		
Lesson Objectives	Success Criteria	I can
<p>A test strip can be used to discern the correct exposure</p> <p>We are using variable contrast paper (VC); AKA Multigrade paper (MG). We will need to use contrast filters to decide on the tonal contrast of the print</p> <p>Allowing more light to be exposed to the paper will ensure the paper is darker, since we are using a negative process. We can mask certain areas to ensure they are brighter, by exposing them to less light (dodging); or give some areas more time under the light, ensuring these areas are darker (burning in)</p> <p><u>Key Vocabulary</u> <i>Negative process</i> – the tones are reversed i.e. the highlights appear dark, and the shadows appear bright</p> <p><i>Straight print</i> – a print taken with no burning and dodging; this can be annotated to show where the burning and dodging should occur</p> <p><i>Enlarger</i> – a device with a light source and a lens which projects light through the film; this is used to expose photo paper to the projected light NB both the film and paper are negatives, so the end result is a positive</p> <p><i>Film tray/contrast filter tray</i> – part of the enlarger intended to house film/contrast filter</p>	<p>Ensure a grade 3 contrast filter is in the filter tray of the enlarger</p> <p>Insert the film into the film tray of the enlarger (shiny side up)</p> <p>Stop the aperture of the enlarger’s lens to its brightest setting</p> <p>Ensure the size of the projection is as you intend, and it is in focus</p> <p>Stop the aperture of the lens down by approximately 3 or 4 stops</p> <p>Complete a test strip</p> <p>Complete a straight print</p> <p>Use the straight print to make judgment of burning and dodging</p> <p>Complete a print which is burned and dodged appropriately</p>	<p>Choose a contrast filter for Variable Contrast/Multigrade paper</p> <p>Change the aperture on the enlarger to ensure control over the exposure</p> <p>Adjust the enlarger to ensure intended scale, and correct focus</p> <p>Use a test strip to ensure intended exposure on a print</p> <p>Create a straight print</p> <p>Burn and dodge</p>
Process	Context	Expected outcome
<p>Analogue printing:</p> <ul style="list-style-type: none"> • Test strip • Contrast filters • Burning in • Dodging 	<p>Pablo Inirio – Magnum printer</p> <p>Ansel Adams – straight print</p>	<p>A final print</p>
Extension		
<p>Use burning and dodging creatively i.e. not aiming to produce accurate results; instead aiming for something abstracted</p>		

Lesson 5 of 12		
Lesson Objectives	Success Criteria	I can
<p>If we insert multiple negatives into the enlarger's film tray, the light will project a composite of these images – this is known as sandwiching film</p> <p>Much more light will be masked by the multiple films, so exposure times are likely to be longer</p> <p><u>Key Vocabulary</u> <i>Film tray/contrast filter tray</i> – part of the enlarger intended to house film/contrast filter</p> <p><i>Exposure time</i> – time the photo paper is exposed to projected light</p> <p><i>Composite</i> - made up of several parts or elements</p>	<p>Insert multiple negatives into the neg tray NB consider the composition of the negs, and how well you think they may look as a composite image</p> <p>Complete a test strip</p> <p>Complete a straight print</p> <p>Annotate the straight print</p> <p>Complete a final print (burned in and/or dodged)</p>	<p>Create multiple exposures using sandwiched negatives</p>
Process	Context	Expected outcome
Sandwiched negs print	Anton Corbijn	Analogue print with composite images
Extension		
Make a print on paper with approximately half exposure; change negative, and make another exposure on the same paper – this will create a composite image		

Lesson 6 of 12

Lesson Objectives	Success Criteria	I can
<p>Man Ray was a fashion photographer before digital photography. He was in a relationship with a fashion model, later turned fine art photographer, Lee Miller. The two had a darkroom at their residence. On one occasion, while in the development stage of processing a film, a mouse ran across Lee Miller's foot; she was scared, so turned the light on, exposing the film to white light during the development process. There was concern that the film would be ruined, but instead they found that exposing the film to white light during the development process, created a unique visual effect. This technique (exposing film/paper to white light during development) is now known as solarisation.</p> <p><u>Key Vocabulary</u></p> <p><i>Solarisation</i> - Initially, the term "solarization" was used to describe the effect observed in cases of extreme overexposure of the photographic film or plate in the camera.</p> <p>The effect generated in the dark room was then called <i>pseudo-solarization</i>. Spencer defines the Sabattier effect as: "Partial image reversal produced by brief exposure to white light of a partly developed silver halide image"</p>	<p>Expose a film correctly</p> <p>Begin processing the film in a developing tank</p> <p>Half way through the developer stage, drain the tank of developer (keep the developer)</p> <p>Very briefly expose the film to white light</p> <p>Return the developer to the tank and continue processing as normal</p> <hr/> <p>Expose photo paper correctly</p> <p>Place the exposed paper into the developer tray as usual</p> <p>Very briefly expose the paper to white light</p> <p>Continue processing the paper as normal</p>	<p>Solarise a film</p> <p>Solarise a print</p>
Process	Context	Expected outcome
<p>Include white light to the light sensitive material during the developer stage of the process</p>	<p>H. de la Blanchère Armand Sabattier Man Ray Lee Miller</p>	<p>Solarised film</p> <p>Solarised paper</p>
Extension		
Solarise a print taken from solarised film		

Lesson 7 of 12**Lesson Objectives****Success Criteria****I can**

A film is transparent; to see the image, we need to shine light through it

Most scanners work with reflected light i.e. to see a photograph, we view the light **reflecting** off the surface. With a print scanner (most scanners), they produce light from below, the light reflects off the surface of the subject, and is recorded by the scanner.

With a film scanner, there is an extra part which is used to produce light from above, shining through the film, so it can be scanned from below.

When scanning, we do not want to make creative decisions (this will happen later in a digital editing programme [like Photoshop]). At the scanning stage, we are aiming to import as much information as possible from the film. Our histogram should then be broad, maintaining a high dynamic range

Key Vocabulary

Histogram – graph; in this context, it refers to the amount of each tone present in the photograph (shadows on the left; highlights on the right)

Dynamic range – the range between extremes. In this context, we are concerned with tone and colour

DPI – dots per inch; this is concerning printing

PPI – pixels per inch; this is concerning working with digital images on the screen

Scan negatives in a contact sheet format

Scan negatives in a contact sheet format

Process**Context****Expected outcome**

Film scanning

Vivian Maier

Scanned film

Extension

HDR scan i.e. scan for shadows, mid-tones, and highlights

Lesson 8 of 12

Lesson Objectives	Success Criteria	I can
<p>A correctly scanned negative will preserve the maximum information available in the film (this is the digital equivalent to an analogue 'straight print')</p> <p>We can use digital software to make creative decisions about the visuals we intend to create</p> <p>A straight print will often lack tonal contrast; this is much the same in a straight scan. We can use Photoshop masks to increase the tonal contrast in parts of the image where we intend. This is the equivalent to burning and dodging in the darkroom</p> <p><u>Key Vocabulary</u> <i>Tonal contrast</i> – contrast can be read as 'difference', and tone can be read as 'brightness'; we are then increasing or decreasing the difference in shadows, mid-tones, and highlights</p> <p><i>Straight print</i> – a print taken with no burning and dodging; this can be annotated to show where the burning and dodging should occur</p> <p><i>Straight scan</i> – this is not actually a known term, but it is a good device to understand the intention when scanning</p> <p><i>Burning and dodging</i> – when analogue printing, burning is making part of the print darker by exposing the print to more light; dodging is making part of the print brighter by exposing it to less light</p>	<p>In Photoshop, create a mask to edit the tone of the whole image</p> <p>Adjust the entire image to the tonal contrast you intend for just one part i.e. if your scene has sky with clouds, and buildings, when the buildings are exposed how you would like, the sky will likely appear too bright. Use the adjustment mask to correct the sky, while allowing the buildings to lose the intended exposure</p> <p>Invert the adjustment mask (Ctrl + I). This will make the edits no longer visible</p> <p>Use a paint brush tool with black, grey or white to paint in the part of the image where you would like to view your edits. NB Black will have no effect, white will show the effects of your edits entirely and your tone of grey will have variable effects depending on its brightness</p> <p>Once you have understood the process, choose 100% white, and lower the opacity of the brush to around 10-15% - now you can use multiple clicks for greater effect</p> <p>NB It is often advisable to ensure your brush has soft edges i.e. 0% hardness</p>	<p>Scan negatives ensuring a high dynamic range</p> <p>Use adjustment masks to ensure the intended exposure and contrast in different parts of the image</p>
Process	Context	Expected outcome
Controlling tonal range in scanned neg through the use of adjustment masks in Photoshop	Edward Weston	HDR outcome from a scanned negative image
Extension		
Creative outcome i.e. use the process to adjust colours etc. creating an abstracted image		

Lesson 9 of 12		
Lesson Objectives	Success Criteria	I can
<p>35mm film is still in use, as it was the most popular format in the times when analogue photography was widely used</p> <p>35mm film was most popular as it was most versatile, appealing to professionals, as it was large enough to make big prints without losing too much quality, but small enough that it could be produced relatively cheaply (so appealed to amateurs)</p> <p>There were many other systems in film used also; some used film about 1/10th the size of 35mm, and some which were around 50 times the size. These films each needed their own camera systems</p> <p>One system which was used was known as 127; some 127 cameras are big enough that we can adapt 35mm film, and fit it into the camera</p> <p>Box cameras often used 120 film. We can put photo paper into these cameras and produce a paper negative</p> <p><u>Key Vocabulary</u> <i>120 film</i> – still used today; also known as ‘medium format’. The film is much bigger than 35mm, so it is much more expensive!</p> <p><i>Box cameras</i> – this is much like it sounds; box cameras are light tight boxes, with a lens in one plane</p>	<p>Load some 35mm film from the bulk loader into a cassette</p> <p>Cut a leader which will work with the 127 cameras</p> <p>Ensure the red window at the back of the 127 camera is covered, so not able to let light through</p> <p>Wind the camera, to ensure fresh film is able to be exposed</p> <p>Take multiple exposure shots with the 127 camera</p> <p>Take the film out of the camera in a dark bag</p> <p>Rewind the film into the cassette (also in the dark bag)</p> <hr/> <p>In safelight conditions, cut photo paper to the size appropriate to fit in your box camera</p> <p>Make multiple exposures using the box cameras</p> <p>Process the paper as normal</p> <p>Scan the results</p>	<p>Shoot 35mm film in a 127 camera</p> <p>Use photo paper to shoot using a box camera, then scan the results and reverse the tones</p>
Process	Context	Expected outcome
Incorrect light sensitive media for camera	Alireza Rostami	Experimental photographs
Extension		
Home-made cameras		

Lesson 10 of 12**Lesson Objectives**

Colour film deals with tone and colour. It does this by including three coloured layers

The film used the primary colours of additive colour theory RGB (since the image will be viewed by shining light through it, so is adding light)

In black and white photography, the film is made of a layer of transparent plastic, with a layer of gelatine containing silver halide crystals. The crystals which are exposed to light change in chemically, and stick to the plastic layer. The developer used in black and white wash away the crystals which have not been exposed to light. The areas which have been exposed to light then appear dark – hence the tones are reversed, and this is a negative process

In colour the process is similar, but there are coloured dyes, so the chemistry used to wash away unexposed areas is different

In colour negative process, a widely used processing chemistry is called C-41

Key Vocabulary

Silver halide crystals – any metal, combined with a salt will be light sensitive. These crystals are grown; the bigger the crystal, the more light sensitive it is. High ISO films have larger crystals. This is why high ISO films appear grainier

Success Criteria

Load a 35mm camera with colour negative film

Correctly expose photographs

Load the film into a developing tank (in the dark bag)

Process the film using C-41 ensuring all health and safety guidance is followed strictly

I can

Process colour negative film through C-41 chemicals

Process

Process colour negative film through C-41

Context

Saving Private Ryan – Stephen Spielberg

Expected outcome

Correctly processed colour negative film

Extension

Bleach bypass

Lesson 11 of 12		
Lesson Objectives	Success Criteria	I can
<p>With digital editing, we talk about working in 'post'; this is short hand for 'post production' i.e. after the image has been produced</p> <p>With analogue photography, the process is much slower than with digital, while this has obvious disadvantages, the advantage lies in the ability to edit during the process of producing the image</p> <p>We can distress film, ahead of printing/scanning it. Tried and tested methods for doing this include scratching the emulsion side of the film; bleaching it, and tinting it (with paints and/or inks)</p> <p><u>Key Vocabulary</u> Distressing – in this context the film will be mistreated, weathered, aged etc.</p> <p>Tinting – all of the lighter areas of the image would be coloured</p>	<p>Ensure your work is backed up digitally i.e. before beginning this destructive process, all negatives should be scanned correctly</p> <p>Use a sharp object to scratch the emulsion side of the negative</p> <p>Use a soft brush and diluted bleach to bleach the emulsion side of the negative</p> <p>Use a soft brush and thinned inks to tint the emulsion side of the negative (remember the colours will be reversed)</p> <p>Analogue print the results</p>	<p>Distress film by scratching, bleaching, and tinting</p>
Process	Context	Expected outcome
Distress film by scratching, bleaching and tinting	Erik Hoffman Victor Sloan	Analogue printed distressed film print
Extension		
Scan and Photoshop the results		

Lesson 12 of 12		
Lesson Objectives	Success Criteria	I can
<p>Just as we can distress film, ahead of printing, we can distress prints, after printing</p> <p>We can scratch the emulsion surface, bleach will remove the dye – just as with the film, and we can paint over the surface (simply known as ‘over-painting’)</p> <p>This process can be sympathetic to the original image, or it can avoid reacting to the original image entirely</p> <p><u>Key Vocabulary</u> Sympathetic – in this context this is intended to mean that you (the artist) will react to the existing image</p>	<p>Use a sharp object to scratch the emulsion side of the print</p> <p>Use a soft brush and diluted bleach to bleach the emulsion side of the print</p> <p>Use a soft brush and thinned inks to tint the emulsion side of the print</p>	<p>Distress analogue prints by scratching, bleaching, and tinting</p>
Process	Context	Expected outcome
Distress prints by scratching, bleaching, and tinting	Victor Sloan Arnulf Rainer	Distressed prints (scanned and Photoshopped)
Extension		
Scan and Photoshop the results		