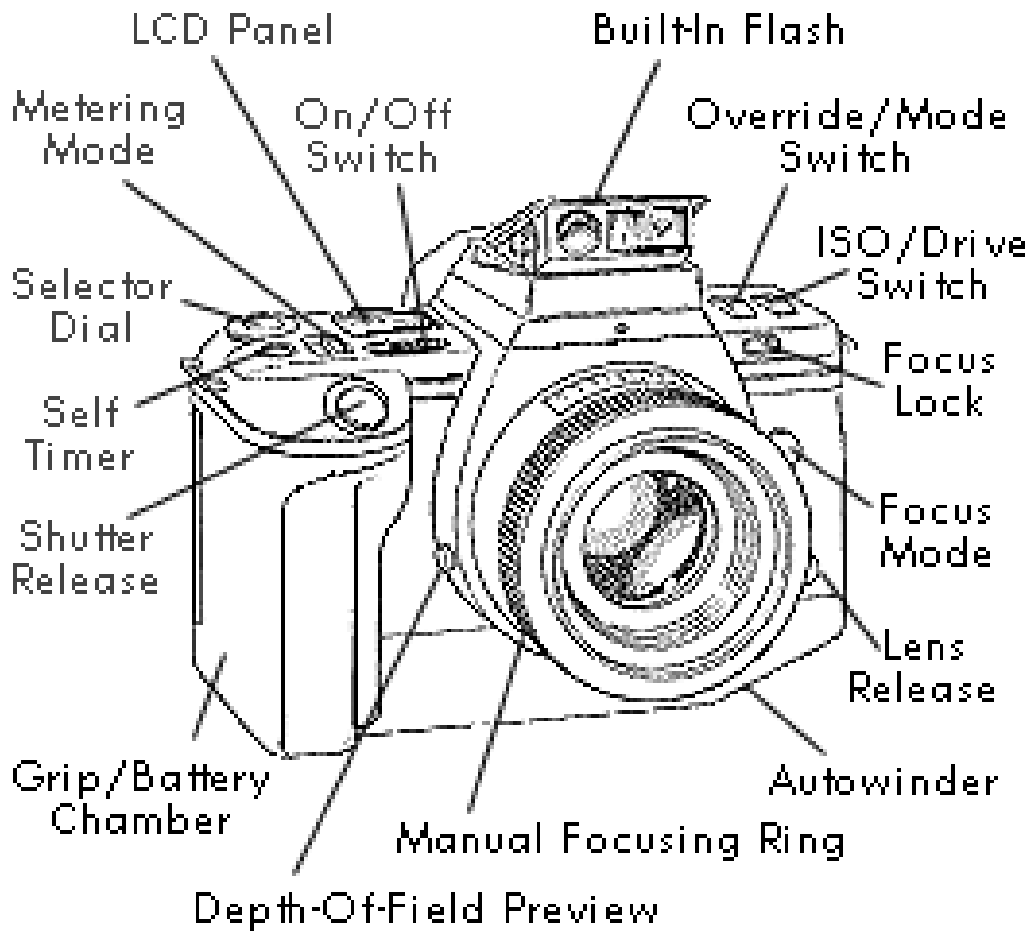

Using an SLR camera and working in the darkroom

In your power points write up the parts of an SLR camera

Standard Single Lens Reflex



Focus ring

Point of focus

The area of your photograph which you want to draw the viewers attention to is called the point of focus. As a photographer you should be able to control where the point of focus is to create the effect you want.

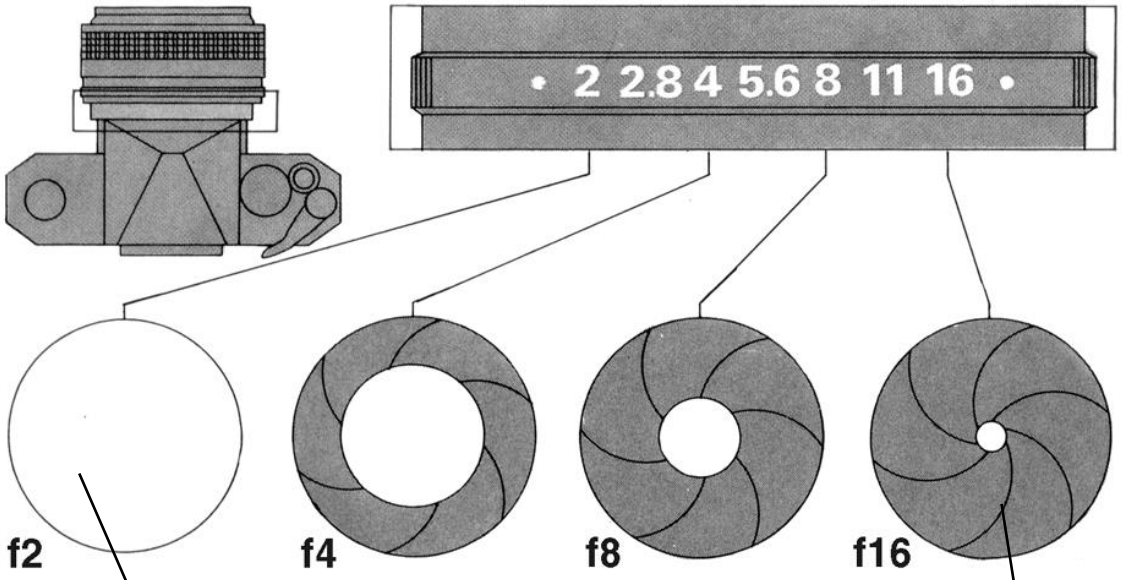
In this photograph the photographer has chosen the point of focus as the girls face and has shown movement by blurring the backg

In this photograph the photographer has chosen to show the whole landscape in focus and uses the subject of the river to lead the eye of the viewer.

- When using a manual SLR you have to focus it yourself using the focus ring. Sometimes photographs still come out fuzzy when you thought you focused them correctly this is usually because of camera shake and can be
- prevented by using a tripod and cable release or by changing the shutter speed.

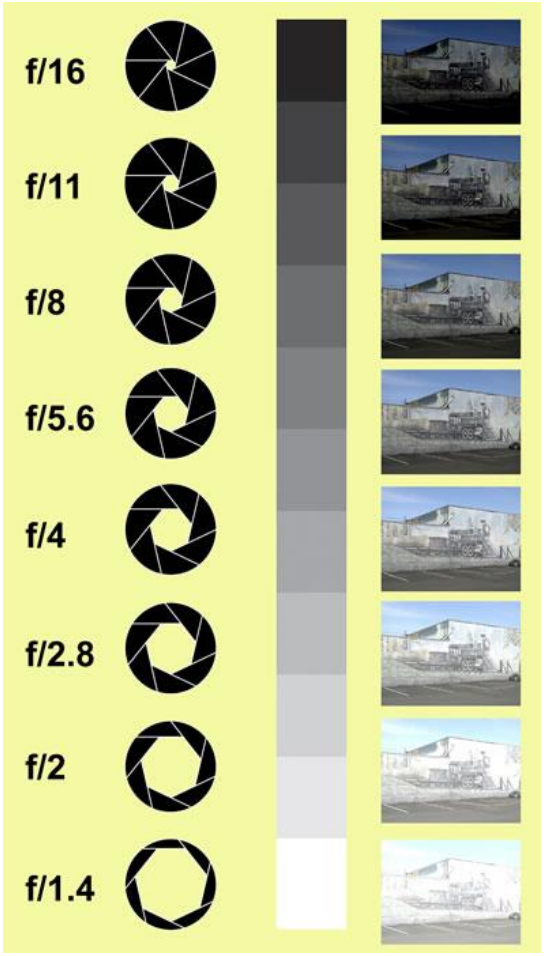
In your power point write at least a 2 slides on point of focus find examples of different points of focus and explain why you think a photographer chose a particular point of focus. You can also take some examples yourself.

How to change the aperture on your manual SLR camera



Aperture effects the depth Of field in your photograph

Aperture F22 (small) F1.4(big)



The very basics of

aperture:

- More depth of field (Landscape images) = Large aperture number f/8, f/11, f/22, f/32, etc.
- Less depth of field (Bring more focus to your subject and blurring the background) = Small aperture number f/1.4, f/2.8, f/5.6, etc.

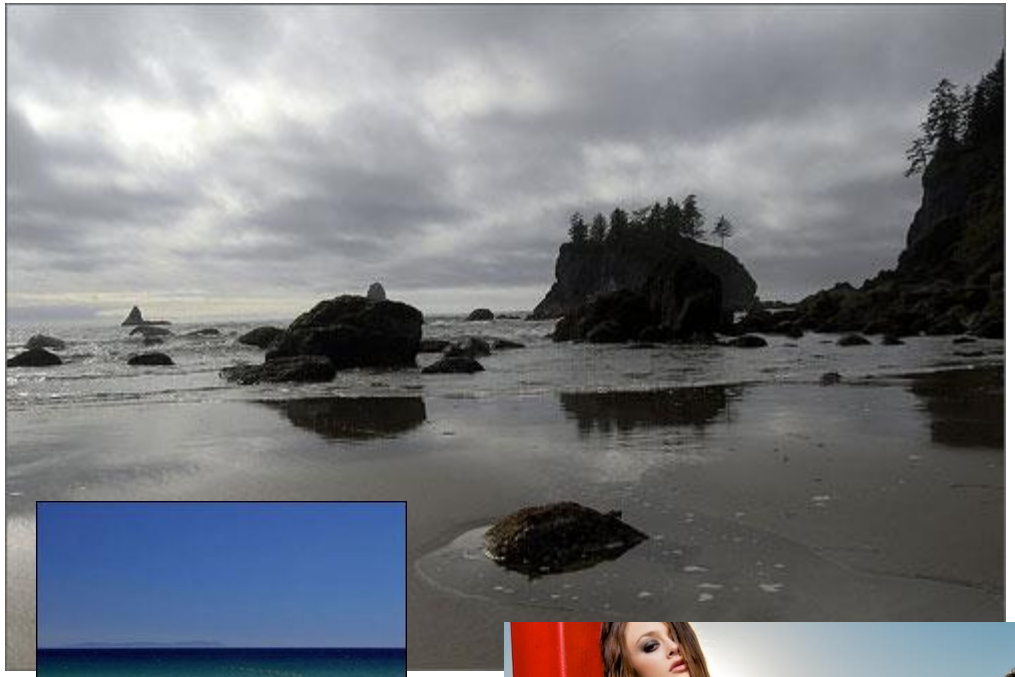
Sounds easy!

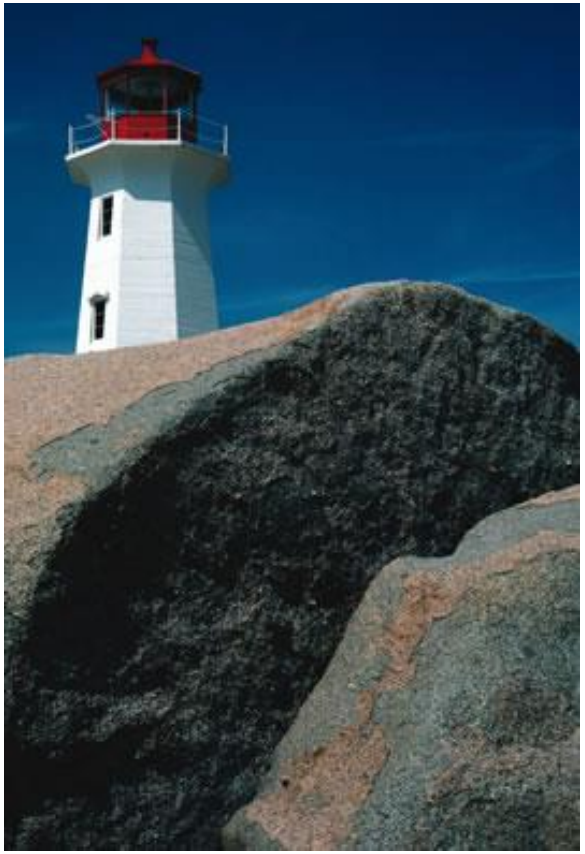
When changing the aperture you must also change the shutter speed—this will be explained later!

Examples:
Aperture F1.4 (big hole! Small number)

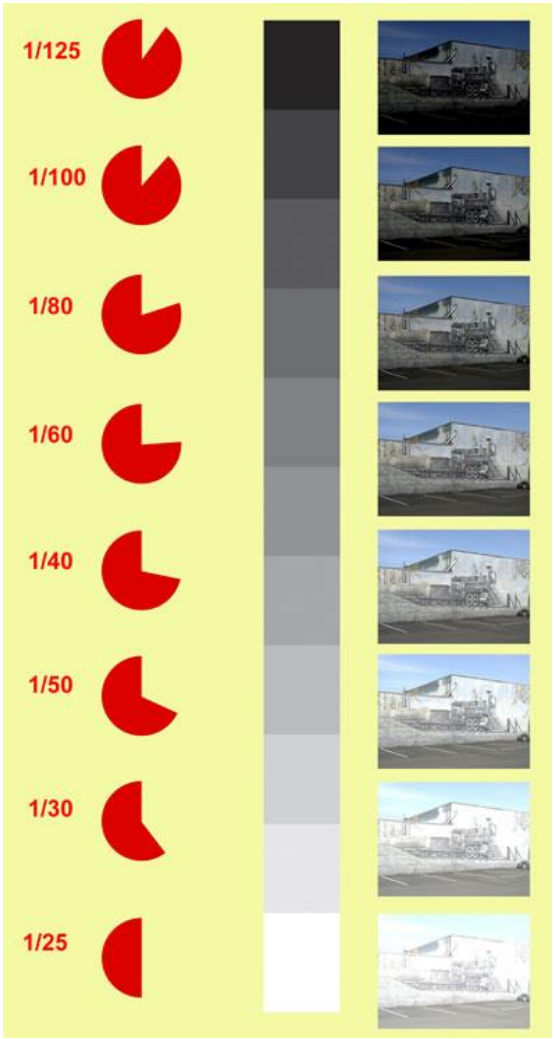
Find your own examples of different apertures. Using your camera take the same scene using different apertures write this up in your power point it should be at least four slides.

Examples:
Aperture F16 (Small hole! Big number)





Shutter Speeds



When using a manual SLR camera you have to change the shutter speed as well as the aperture to get the effect you desire in your photograph. The shutter speed tells the camera how much light to let in to expose the film amount.

Shutter speeds can capture a moment or show movement.

As a general rule any shutter speed under 1/60 you need a tripod to prevent camera shake

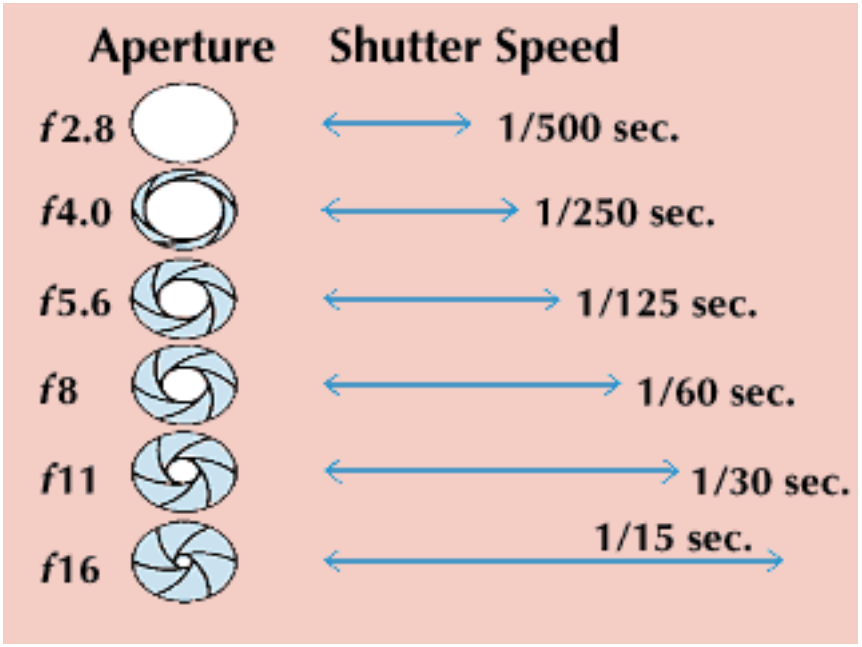
Shutter speed 1/25:

This photographer has used a panning technique to keep the car in focus.

Shutter speed 1/250:

Babies move a lot so a faster speed is needed to keep them in focus!

- This is where it gets a bit complicated.
- When you change the aperture you also have to change the shutter speed.
- The higher the F number i.e. F16 the less light is let in therefore the longer the shutter needs to be opened—got it?



On Your camera there will be some kind of light meter to tell you if you have correctly chosen the aperture and shutter speed. Some cameras are different but you should find it by switching on your camera and looking through the view finder. It is normally on the right it could be a line that goes up and down or a few lights you need to make sure it is in the middle! Adjust the shutter speed or aperture to get it right if you don't you will get an under or over exposed picture or no picture at all!

In your powerpoint write up how shutter speed relates to aperture find examples of it going wrong over exposed / under exposed. Make your own examples 4 slides minimum.

Film Speeds ISO numbers

From a hot bright beach to a football game in a dimly lit stadium, photographers take pictures in a wide variety of settings. No one film is just right for all of the situations photographers find themselves in. That is why there are many films speeds and types. Selecting the proper film is an important step in taking professional quality pictures. By matching the film to the job, you can get the best possible pictures.Film speed is an important part of film selection and can determine how successful your photographs will be. When selecting which film to use, you must decide what you want as an end result. Film speed is based on an ISO number. ISO is short for International Standards Organization, the group that set the standard. The most commonly seen are ISO 25 to 3200. The lower the ISO number, the less sensitive the film is to light. It takes longer to expose film that is ISO 25 than film that is ISO 100. The benefit behind using slower films, such as ISO 50, is that the resulting prints or slides are exceptionally sharp. Graininess is least apparent in pictures taken with a low ISO number film, that is properly exposed in good lighting conditions.

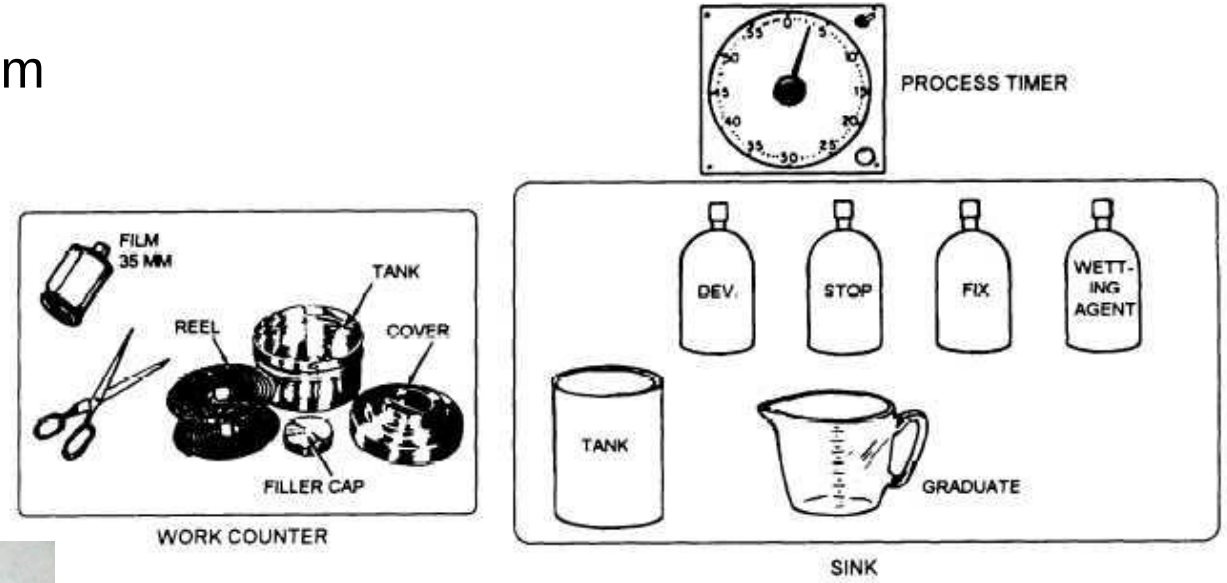
By choosing the slowest film suitable for your photography, you can get the best possible prints. The rule of thumb for most snapshot-type photography is that you should use ISO 100 film for pictures taken indoors with a flash or outdoors in bright light. ISO 200 film is for general purpose photography with a mix of flash and available light and ISO 400 is for sports or low light pictures without a flash.

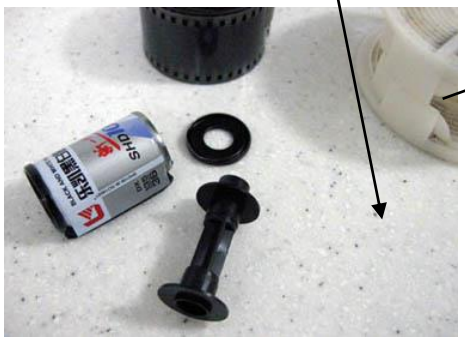
The ISO rating given to the film you buy is an optimal film speed and is the setting to use when the film will be processed normally according to the manufacturers directions.

In your powerpoints write up about film speeds

Developing a film

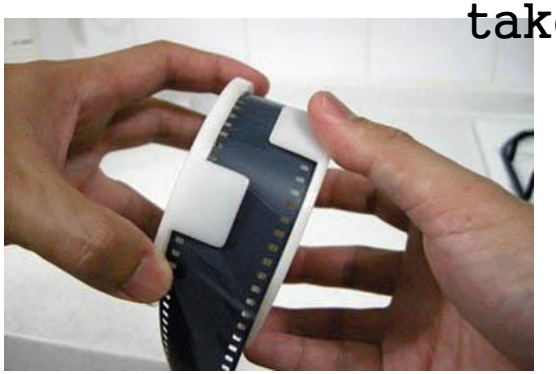
You will need:



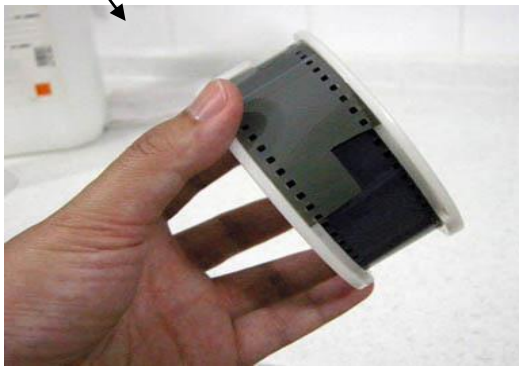


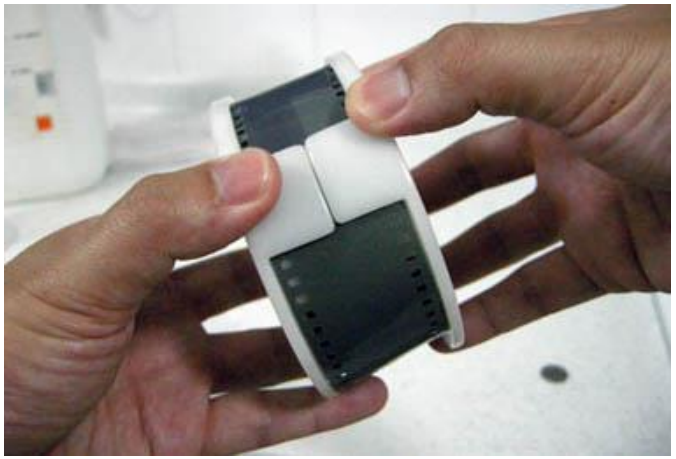
Take all your equipment to the darkroom and turn off all the lights! (including the red light)

Feed film onto reel this can be tricky so take your time!



Twist the reel back and fourth to load the film

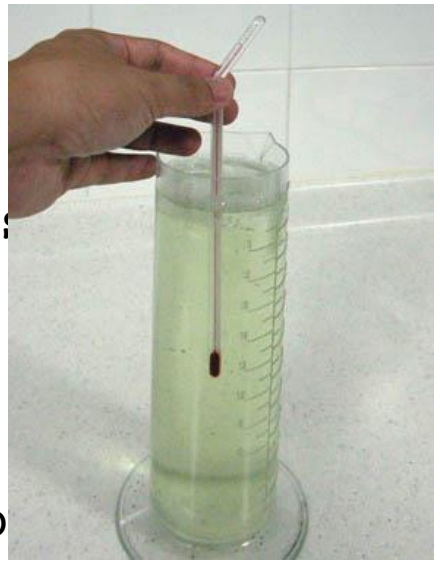




Whilst in dark place reel into tank and put lid on.

You can now take it out of the dark

You can now add the developing chemicals



Developing

Preparing the develop solution.

Follow the dilution instructions on the film. If you could not find the dilution instruction, check out this web site: http://www.digitaltruth.com/devchart.html

Pour the developer into the tank and agitate. Shake the tank for ten seconds for every minute of soaking

After pouring out the developer working solution, you will need to wash away any developer residue on the negatives surface.

You can either use the stop bath or flush the developer tank with plenty of water.

Rinse up to 4 to 5 times to ensure the developer is thoroughly washed off. If possible, shake the tank to make sure the negatives are thoroughly rinsed

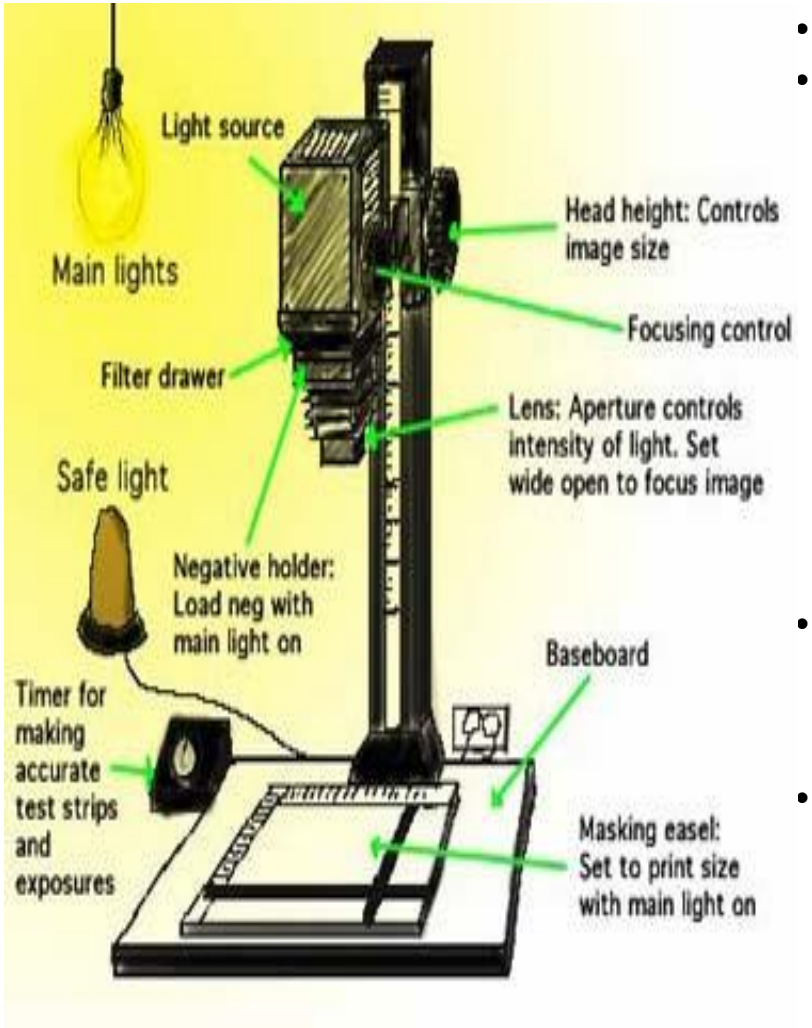
Make up the fixer

Pour fixer into
tank and agitate

Re-use the fixer

Rinse!

Admire your work!

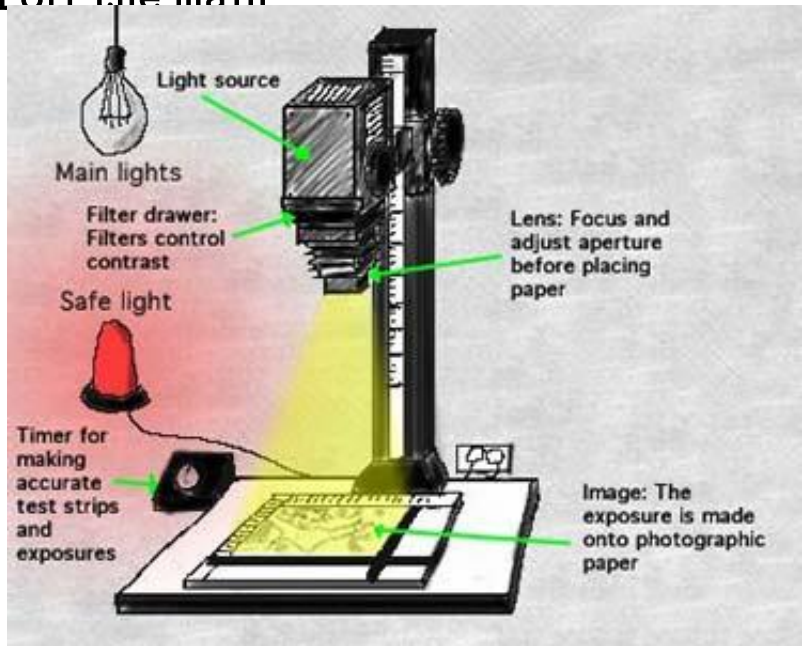


- **Making a black and white print**
- **What you need**
  - **Darkroom**
  - **Enlarger with timer**
  - **Photographic paper**
  - **Negatives**
  - **Scissors**
  - **Developer, stop and fix, ready to use**
  - **Processing trays**
  - **Tongs,**
  - **Thermometer,**
  - **Measuring cylinders and jugs,**
  - **Water supply and sink**
- **Tip:** Photographic paper is sensitive to light and the box must only be opened in safe lighting. Photographic paper can fog in seconds and is expensive to replace.
- **Setting up the enlarger**

select negative and place in holder upside down

With main lights on, place the negative you have chosen into the negative holder, making sure it is shiny side up and dust free. Then decide what size print you want, and set the masking easel to this size. Open up the aperture of the lens to its widest setting to allow lots of light through, it will be easier to focus the lens this way. Most of the other adjustments will have to be made under safe lighting.

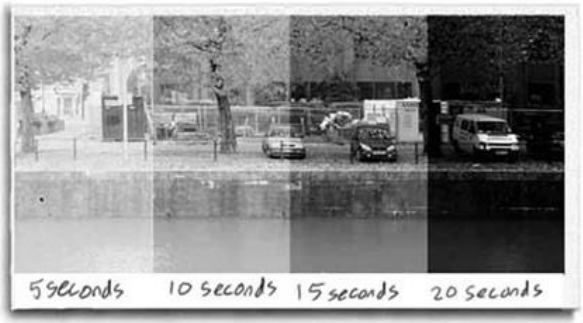
Place the pointer over the diagram to switch off the main darkroom lights and switch on safe lighting. again to switch the main lights back on.



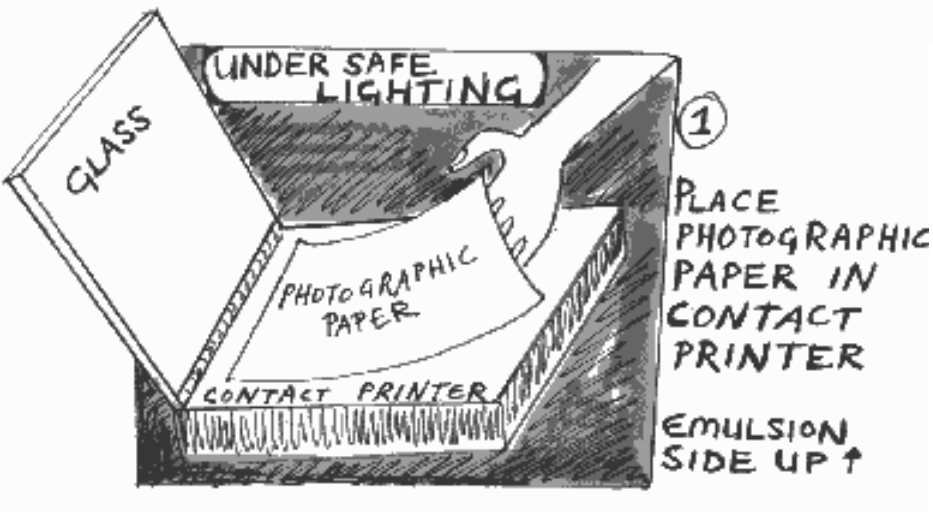
- Under safe lighting, raise or lower the enlarger head until the image is the size you want for your print.
- Now get the image into sharp focus by raising or lowering the lens. This can be checked using a focus finder, place this under the lens so that light falls into it and then look into the eye piece. When the image is in focus you should be able to see a grainy pattern - these are the particles of silver that make up the photographic image.
- If you are using variable contrast photographic paper, such as Ilford Multigrade, select a filter and place it in the filter drawer. Grade 2 or 3 is useful as a medium contrast filter to start off with, if you are not sure how much contrast you will need. You can change it later if necessary.
- Stop down the lens to a medium setting such as f.8, or your exposure time will be too quick and it will be hard to control adjustments.
- Turn the enlarger off and place a piece of photographic paper into the masking easel, without moving the easel out of position.
- Set the timer, and make the exposure. It is useful to make a test strip first, to find the correct exposure time, check contrast level and save paper. Process the print, wash and dry.

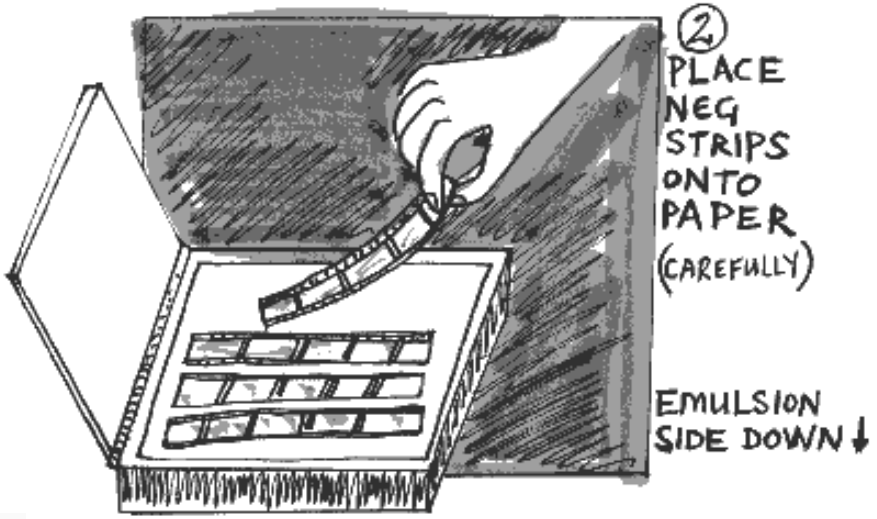
Making a test strip

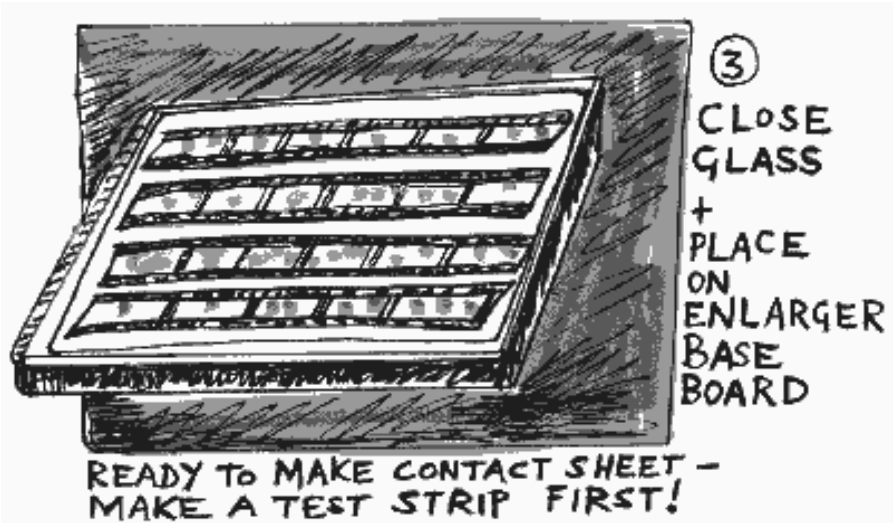
- **To make a test print, set up the enlarger as you would for a print. See Making a b & w print. Set the aperture of the enlarger lens to about f.8.**
- **Instead of placing a whole sheet of photographic paper in the masking frame, cut a strip of paper and place this in the masking frame across the middle of the picture, or where there is a good range of light and dark tones. This should be done under safe lighting and with the enlarger off.**
- **Set the timer to 5 seconds, and hold a piece of card over the image so that the light is masked off from most of the strip of paper. Expose about one quarter of the strip for 5 seconds.**
- **Move the card along allowing light to expose about half of the strip. Expose for a further 5 seconds. Do not allow the photographic paper to move.**
- **Repeat this until the entire test strip has been exposed in 5 second intervals, then process the test strip.**
- **When making a contact sheet, a test strip can be made by following the same procedure, using a strip of paper in the contact printer instead of a whole sheet.**



Making a contact sheet

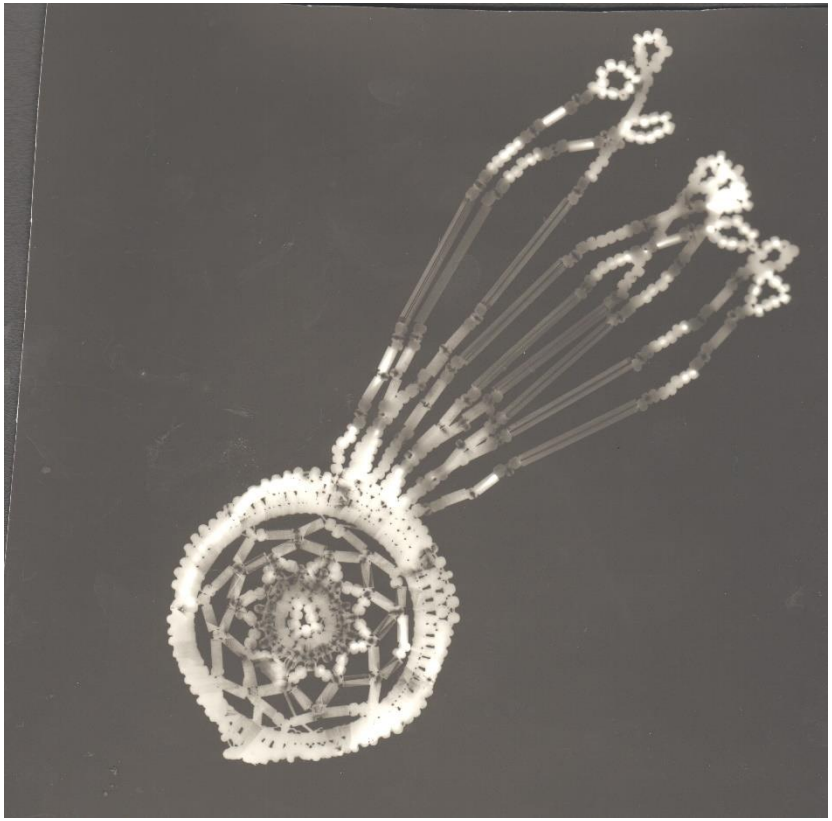


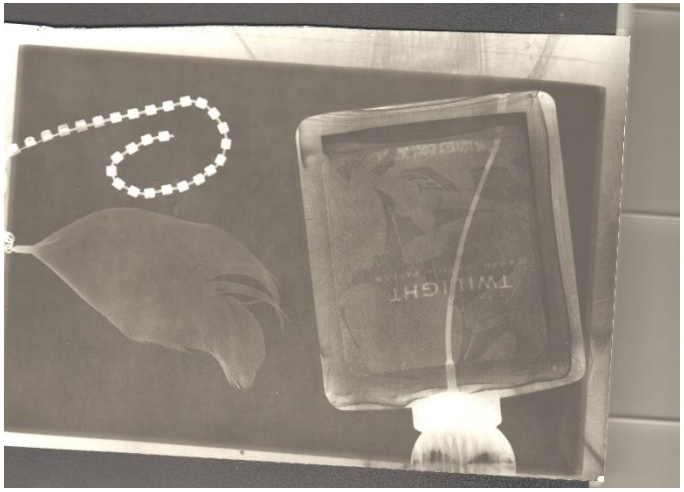


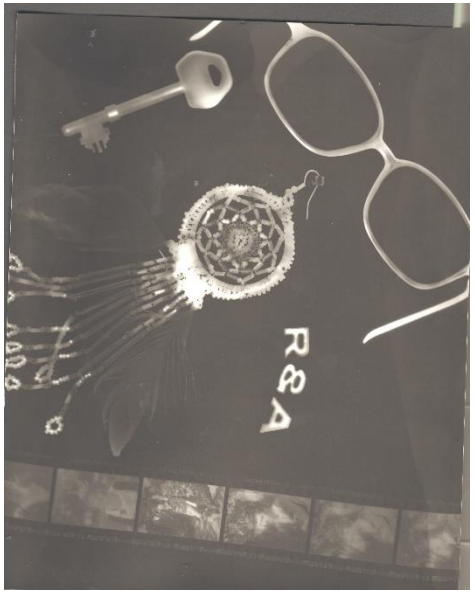


Write this up in your powerpoint in your own words!

Photograms



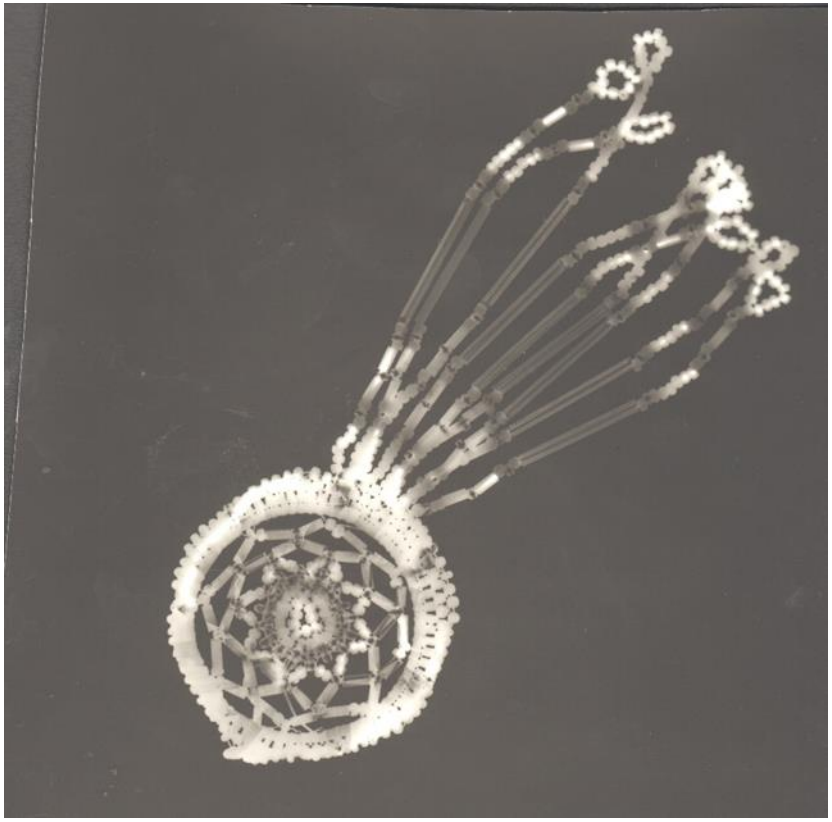


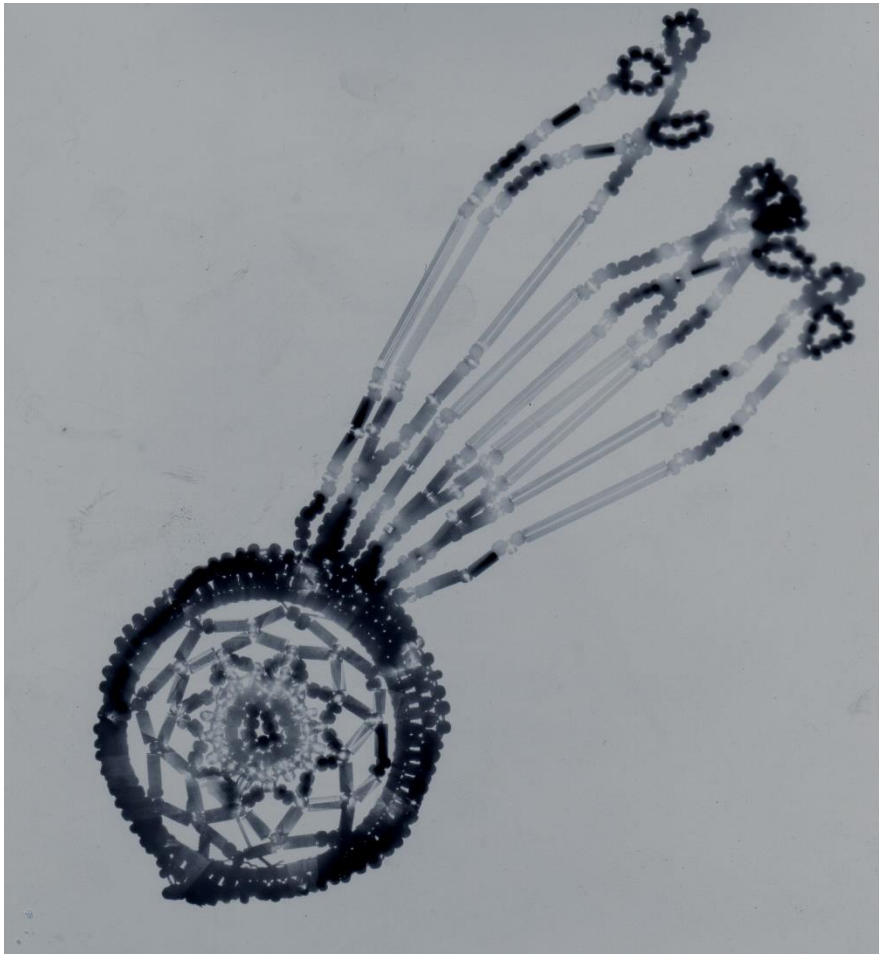


- A **photogram** is a photographic image made without a camera by placing objects directly onto the surface of a light-sensitive material such as photographic paper and then exposing it to light. The usual result is a negative shadow image that shows variations in tone that depends upon the transparency of the objects used.

Write up

- Write up your photograms in your power point
- Use photo shop to reverse your photograms, write this up
- Complete a slide on Man Ray photograms





Pinhole Cameras

- A **pinhole camera** is a simple camera without a lens but with a tiny aperture, a *pinhole* – effectively a light-proof box with a small hole in one side. Light from a scene passes through the aperture and projects an inverted image on the opposite side of the box, which is known as the camera obscura effect.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ILFORD DELTA 400 PRO
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