

Activity – Dusting for Fingerprints

Equipment –

This can be carried out individually or in groups

- Fingerprint brush
- Black powder
- Magnetic
- Fluorescent powder
- Glass slides
- Lifting tape
- Cobex sheets
- Scissors
- Permanent marker



Instructions

Part 1: Normal Black Powder

Step 1

You will be developing your own prints so that you can identify the way in which you apply the print determines the quality of print which you will obtain. Factors such as pressure, what is on your fingers, and the movement of the finger will all affect the print which you can lift. Apply your finger or thumbprint to the glass slide. Then rub the same finger against a sweaty area, such as your face or neck and apply another print next to the first. You may already be able to see the print when you hold the slide up to the light.

Step 2

Apply a small amount of powder to the brush by dipping it slightly in the powder; if the brush has been used before there will already be enough powder. **Do not overload the brush** with powder as this will clog the print. When using powder ensure that you **do not inhale any of it**.

Step 3

Shake off any excess powder back into the powder supply and lightly brush over the area where you placed the prints. When the print begins to be visible brush it along the general ridge direction, this is to prevent the print becoming clogged with powder. Repeat this lightly to enhance the ridge detail until all of the ridges are visible.



Step 4

Using scissors cut a length of lifting tape from the reel, apply the tape to the print, either starting at one side of the print and smoothing to the other side ensuring that you do not get any air bubbles or pressing down in the middle of the print and smoothing towards the edges. Whichever method is preferred the desirable outcome is that the print is covered without any air bubbles.



Step 5

Carefully peel away the tape from the surface with the print and apply it to the transparent Cobex sheet, be careful to prevent air bubbles as these can distort or damage the print.

Step 6

Label the lifted print with the necessary details; **where it was lifted from, who lifted it, and evidence number**. Sign over the edges of the tape, this is done to ensure that no one can contaminate the print.

Part 2 – Magnetic Powder

- With magnetic powder the method is slightly different. Carry out step one as with the black powder but rather than being sparing with the fingerprint powder the magnetic wand can be used to pick up quite a lot of the magnetic powder.
- This loaded magnetic powder can then either be used like a normal fingerprint brush; brushing lightly over the print, or the applicator can be held over the print and the powder released by pulling on the black spring. This moves the magnet away from the powder and so releases the powder. This method is not used normally in the UK but is standard practice elsewhere in the world.
- The magnetic applicator can then be used to remove all of the excess powder which can then be placed back into the tray.
- The print is then lifted as with steps 4-6 with the black powder.



Part 3 – Fluorescent Powder

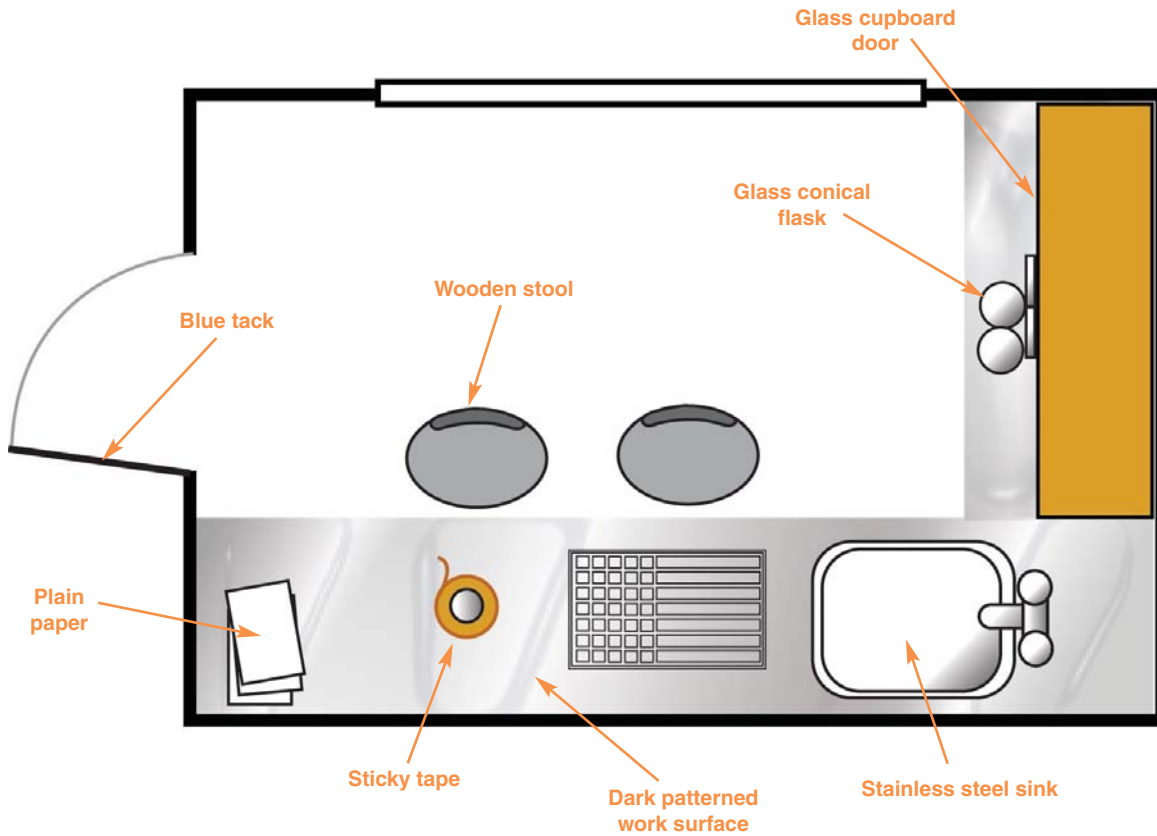
- The method for fluorescent powder is the same as with black powder however the powder can be examined differently afterwards.
- This method is especially useful on multicoloured or patterned backgrounds. With the use of a UV lamp the powder can be made to fluoresce, if this is photographed the photograph can then be examined, this can be done before or after lifting using the lifting tape.

Part 4 – Further work

Experiment with different surfaces or different intensities of prints, can you lift prints straight of the desk or from paper using any of these powders?

Questions & Suggested Answers

What fingerprint lifting technique would you use to collect/develop prints from the following surfaces?
Explain your answers.



1.
Wooden Stool

2.
Sticky Tape

3.
Work Surface (dark patterned)

4.
Stainless Steel sink

5.
Plain Paper

6.
Glass Door

7.
Blue Tack

8.
Conical Flask

Latent Fingerprint Development and Lifting Techniques

Fingerprints can be found on a variety of different surfaces and can themselves be made of a large range of constituents. These latent prints can be of a wide range in terms of clarity etc because the examiner at the scene will not know how long a print has been there and so they will have to make a decision about how they will go about looking for, developing and/or lifting any prints they may encounter at a crime scene.

