



In this activity you are going to investigate how the shape and pattern of blood splashes change under different circumstances and then apply these to cases of criminal investigations.



Materials

- red (water soluble) dye that has been thickened with gelatine
- newspaper and some butcher's paper for the tests
- metre ruler
- dropping pipette
- some other surfaces that are more porous than the paper (eg cloth) and some less porous (eg white ceramic tile)

Note: Paint may be given a more blood-like consistency by dissolving gelatine in it.



Procedure

1. Copy the tables shown on the next page into your science book under the heading 'Results'.
2. Cover the floor thoroughly with newspaper then place some butcher's paper over the centre where the 'blood' splashes are going to be dropped.
3. Using a ruler, measure a height of 10 cm above the butcher's paper, and then drop one drop of dye from this height. Label the drop 10 cm, then drop the following drop, next to the first drop, from 30 cm.
4. Repeat this procedure dropping more dye from 60 cm, 1 m and 2 m, or other heights your group chooses to test.
5. Sketch some of the drops in your science books, carefully labelling each with the height. Compare their shapes, and fill in the appropriate table.
6. Now take a board and cover it with butcher's paper then tilt it at about 30° to the horizontal.
7. Drip red dye onto the paper from two different heights (eg 20 cm and 80 cm). Record your results in the third table.
8. Repeat step 7 above with the board tilted at 70° to the horizontal. Try other angles such as 80° or 90° if you have time.
9. Lay some butcher's paper along the floor, and slowly walk along the paper, dropping a drop of dye each time your left foot touches the floor. Measure the distance between the splashes and observe their shape.
10. Repeat step 9, but this time walk quickly.
11. If you have time, drop some dye splashes onto materials that have different surfaces and compare their appearances.

