

PROCESS

- Dactyloscopy is the study of fingerprint identification. Dactylograms (fingerprints) have been used for over a century to identify people for different purposes.
- No two people have ever been found with the same fingerprint.
- All fingerprints fall into three categories: whirls, arches or loops.



SIGNIFICANT SCIENTISTS



Significant Scientists

- Robert Wilhelm Eberhard Bunsen** (31 March 1811 – 16 August 1899) was a German chemist who created the Bunsen burner which now has his name. He also managed to save his own life: he found an antidote for arsenic poisoning and later used it to save himself when he became ill.

CAREERS



Careers

- A forensic scientist provides scientific evidence for use in courts of law to support the prosecution or defence in criminal and civil investigations. They are primarily concerned with searching for and examining contact trace material associated with crimes such as blood and other body fluids, hairs, fibres from clothing etc. TV series can often misguide people in what it is actually like to be a forensic officer.

PROPERTIES



Matter makes up our planet and the whole universe. On Earth, all matter exists in one of three main states: solid, liquid or gas

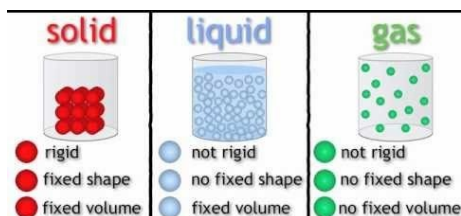
A **solid** can hold its shape (for example, water in solid form is ice).

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A **liquid** like water forms a pool: it flows or runs but it can't be stretched or squeezed.

A **gas** can flow, expand and be squeezed; if it is in an unsealed container it escapes (water in gas form is steam).

Depending on its temperature, matter can change state; heating, cooling, evaporating and condensation are ways a material can change state.



HEALTH AND SAFETY



- Within the laboratory there are many potential hazards, these include potentially dangerous chemicals. To help keep us safe, all chemicals are labelled to show what potential hazards they could result in.

RECORD



- When drawing apparatus, there are different rules that need to be followed. One of these is that all drawing should be done two dimensionally.
- Experiment write-ups should include an aim, hypothesis, equipment list, method, diagram, results and conclusion.

Key vocabulary and meanings

- Hazard**— a chance of potential danger or risk
- Risk**— a situation involving exposure to danger
- Bunsen burner (always spelt with a capital letter)**- a small adjustable gas burner
- Thermometer**- an instrument for measuring and indicating temperature
- Hypothesis**— a prediction, often based on reasoning, made prior to an experiment taking place
- Observation**- the action of closely monitoring something or someone
- Mixture**- a substance made by mixing other substances together
- Solute**- a dissolved substance
- Solvent**— something capable of dissolving other substances
- Solution**- a liquid mixture
- Soluble**- able to be dissolved, especially in water
- Insoluble**— not able to be dissolved
- * **Distillation**- a chemical process where a mixture made of two or more liquids
- * **Condensation**- a process by which a substance changes from a gaseous state to a liquid state
- Chromatography**- the separation of mixtures
- Evaporation**- the process of changing from a liquid to a vapour
- Dissolve**— the process of something mixing completely with a liquid

