**Forensic Blood Lab**

**Teacher Notes**

**Rationale:**

This lab activity allows students to identify characteristics of blood.

Students will

* Identify blood types based on the agglutination process (Part 1)
* Observe visible and invisible bloodstains using different chemicals (Part 2)
* Analyze bloodstain patterns based on angles of trajectory (Part 3)

**Materials:**

*Part 1* (This part can be purchasedas a “Blood-type Kit”from any biological supply company;they are inexpensive and refills are available)

* Synthetic blood samples (may be purchased from any biological supply company)
* Testing plates or glass slides
* Anti-A sera, Anti-B sera, and Anti-D sera
* Toothpicks

*Part 2* (For this part, animal blood, such as that from a liver, can be used to create the stains)

* A piece of cloth with 2 stains on it (one should be from actual blood and the other from another red liquid). Mark the stains A and B
* A nonporous area (such as the floor) where blood has been smeared then wiped up
* Kastle-Meyer solution (phenolphthalein/peroxide solution)
* Cotton swabs
* Distilled water
* A spray bottle with luminol\*
* The test for invisible bloodstains using luminol can be done in the classroom as a demo, where the teacher completely darkens the room and sprays the area with luminol as the students observe. Make sure that the room is well ventilated beforehand.

*Part 3*

* Simulated blood (or other red liquid to represent blood)
* A plastic dropper
* Protractor
* Ruler

**Directions:**

Refer to the student Forensic Blood Lab Worksheet for the specific lab procedure.

**Answers may vary**