

One of the best sites I have found for teaching students about blood typing is:
<http://nobelprize.org/medicine/educational/landsteiner/index.html>

There are a couple of different schemes that can be used to simulate blood typing procedures. I have included one persons' recipe in another document. It is based on chemical precipitation reactions and therefore the one I prefer, but I do not know what other judges will use. When I use this one, I doctor the "blood" with a drop of red food coloring. Here is another method I have heard of being used. It is based on color changes when different "bloods" and antigens that are doctored with food coloring are mixed. There are many different variations on this one,.

Blood type A Red food coloring
Blood type B Blue food coloring
Blood type AB Yellow food coloring
Blood type O Plain water

Antigen A Blue food coloring
Antigen B Red food coloring

The idea is that if you get a real difference in color when the antigen and "Blood" are mixed, it is evidence that there has been a reaction indicating the blood has that protein on the cell membrane . If there is no real color difference, just the color getting lighter or darker, then that indicates that thee cells do not have that protein on the cell membrane.