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## The ABO's of Blood Types

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## THE ABO's OF BLOOD TYPES

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"Today, students, we are going to study blood. Johnny, do you know what type of blood you have?"

"Type of blood? Red, I guess."

"No, no, I mean is it A, B, AB, or O?"

"Well, I guess so, Ma'am."

From this propitious beginning, the teacher explains patiently that a century ago nobody knew any more than Johnny about the question. Experience with blood transfusions proved that mixing the blood of certain people could be fatal. Doing it in a test tube showed why — a sort of curdling effect called agglutination. Such tests showed that people are of four main types, and a person can't change his type any more than his fingerprints.

In these aseptic modern days, shedding blood in school is frowned on except under supervision of a registered nurse or medical technician. Of course the teacher can use pallid substitutes such as mixing milk and dilute vinegar, but it may be possible to arrange a "field trip" to good advantage. The local hospital, medical laboratory, clinic, and blood bank usually can find time between emergencies to show off their techniques and expertise. Perhaps everybody in the class can be blood-typed in a jiffy. Most kids are not repelled by the sight of blood because they see so much of it spilled on TV, but learning about their own can be an exciting and memorable experience.

For high school age students the blood types can be a useful introduction to heredity. It has been shown, for example, that if both parents are type O, their children must all be type O: it is recessive to A and to B.

Many students get the notion that recessive means scarce. Here is the disproof: type O is recessive but the most common. The combination AB on the other hand is rarest of all.

What good are these blood types? No one seems to have a final answer. Some mild statistical correlations with medical conditions have been found, such as less incidence of duodenal ulcers in type A, and more in type O, but nothing exciting. The ABO's remain a challenging mystery.

More strange is the phenomenon of "lectins" which occur in saline extracts of raw lima beans and specifically agglutinate red cells of type A, but not B, or O.

Next question: Will lima beans cause trouble in people that eat them? Well, cooking destroys the lectin, and there aren't many type A students who eat raw beans anyway.