**Whose Baby?: Blood typing lab**

**Background:**

Because blood groups are inherited in a known way, they can be used to solve problems of relationship. During this activity you will analyze blood groups of two unwed mothers and three children. Using the data collected, you will determine which children are fraternal twins and which children belong to which mother.

**Scenario:**

Two years ago, Kim had twins and Andrea gave birth to her first child on the same day. Now, Andrea is claiming that the hospital sent her home with the wrong child and that her child was given to Kim. Your job is to determine the blood groups of Kim, Andrea and the three children and straighten out this mess.

**Data:**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | Kim | Andrea | Baby 1 | Baby 2 | Baby 3 |
| Anti A |  |  |  |  |  |
| Anti B |  |  |  |  |  |
| Anti D (Rh) |  |  |  |  |  |
| Blood Type |  |  |  |  |  |

**Post Lab Questions:**

Each person’s ABO group is controlled by a pair of alleles – one from the mother and one from the father. The ABO alleles A, B, and O can pair up six different ways, but only produce four different blood types.

1. What ABO alleles could Kim give her children?
2. What ABO alleles could Andrea give her children?
3. Which blood samples tested would be from Kim’s twins?
4. Which blood sample tested would then be from Andrea’s baby?
5. What is the blood type of the twin’s father?