Why Opposites Attract: Agglutination

Student Data Page 3B

Part I. Antigens and Antibodies

❒ 1. Draw a diagram showing how your antibodies and antigens attached to each other.

Antigen/Antibody Type A

Antigen/Antibody Type B

❒ 2. What blood type did you have?

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❒ 3. Describe how you made the antibody associated with your blood type.

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❒ 4. What blood antigen or antigens fit your antibody/antibodies?

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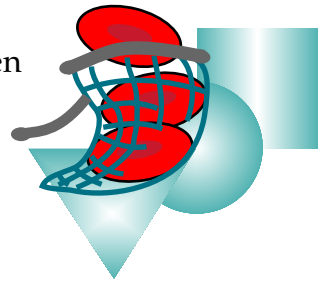
Part II. Agglutination (Clumping)



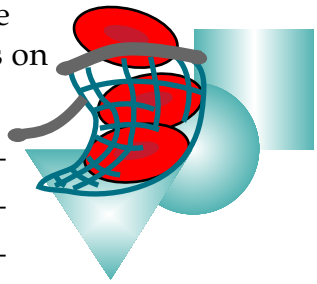
1. Draw a diagram showing what happened to the red blood cells when the antigens and their antibodies attached to each other. Be sure to label the antigens, antibodies and red blood cells.

Agglutination

2. What happened to the red blood cells when your antibody/antibodies attached to the appropriate antigen/antigens? **Note:** This process is called agglutination.

3. Explain the process of agglutination in terms of antigens and antibodies.

4. Red blood cells actually have many antigens attached to their surface rather than one as in your model. How would having more antigens on the surface affect agglutination? Explain your answer.



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5. Based upon what you have discovered about antigens and antibodies, fill in *Table 1* below.

Table 1 - Antigens and Antibodies Associated With Each Blood Type

Blood Type	Antigen on Red Blood Cells	Antibody in Plasma of Bloodstream*
A		
B		
AB		
O		

***Hint:** If a person has type A antigens on the red blood cells, that person CANNOT have A antibodies in the plasma. We make antibodies only for antigens we do not have on our red blood cells.

6. How would AB blood look when it agglutinates? Explain and sketch.

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