

Chapter 30 - Virtual Lab Blood Typing

Name:

Go to "classzone.com". Click on High School; California; Go. Then choose the McDougal Littell book with the hatching alligator on it. Under "Labs" choose Virtual labs, and pick Blood Typing.

Read the Problem.

1. What must the doctors do before the transfusion?

Follow the steps and answer the questions below.

2. Explore the science lab and list the function of the following items:
 - a. Anti-A Serum-
 - b. Anti-B serum-
 - c. Biohazard Container-
 - d. Anti-Rh serum-
3. Read the Additional Information in your Lab Notebook and the Background Information.
 - a. What are the four main blood types?
 - b. What does the immune system create to fight against foreign blood cells?
4. Do you think The Antibody attaches (clumps) or Doesn't Attach (no clumping) with the blood type. Write your prediction below and in the notebook. Then Follow the steps of the procedure.

Blood Type	Anti- A Antibody	Anti-B Antibody	Anti-Rh Antibody
A			---
B			---
AB			---
O			---
Rh+	---	---	
Rh-	---	---	

5. Record your observations from the procedure into the table below and in the notebook. Enter "yes: if the blood sample clumped together when mixed with serum, and enter "no" if the blood sample did not clump together. After you've entered all of your observations, determine the type of each sample. For example, if the blood cells clumped together when they were mixed with Anti-A, but not when they were mixed with Anti-B and Anti-Rh, the blood type is Type A-.

RESULTS:

Blood Sample	Clumps in Response to Anti-A	Clumps in Response to Anti-B	Clumps in Response to Anti-Rh	Blood Type
1				
2				
3				
4				

6. Which, if any, of the blood samples tested can the patient with Type B+ blood receive? Explain why.

7. Explain how you were able to use your knowledge of how different types of blood react with Anti-A, Anti-B, and Anti-Rh antibodies to determine the blood types of the four samples.

8. If a person has Type A blood, he or she would have antibodies for what blood type?

9. Why is Type O negative blood known as the universal donor?

10. If a person has Type O blood, what type(s) of blood could they not receive?

11. Is knowing the ABO blood type of a potential blood donor enough to determine a suitable match? Explain your answer.

12. What might happen if someone with Type A received a transfusion of Type B blood?