

Name: _____

Blood Typing Internet Activity

Period: _____

Check out the website below to answer the questions below.

<http://www.wisc-online.com/objects/ViewObject.aspx?ID=AP14804>

1. Which of the following best describes an antigen?

- a. A doorway into a red blood cell
- b. a recognition molecule on the surface of a cell
- c. A recognition molecule on the inside of a cell
- d. a protein that attacks foreign molecules

2. Label the blood cells below with the appropriate blood type. Then match them to the antibody that would attack them if mixed in with the RBC's



Which antibody? _____

X

Y

3. Of what type of protein are antibody molecules made? _____

4. Fill in the chart showing what blood types are "compatible" in the event of a blood transfusion. A (+) means compatible while a (-) means NO! See the example – A patient with type A blood could receive A blood with no problem but could not receive type B. Circle the "best" blood type for that patient.

Patient blood type ↓	Donor blood→	A	B	AB	O
A		+	-		
B					
AB					
O					

5. Draw what happens when an antibody and antigen react.

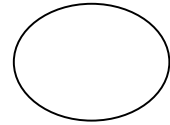
6. What is RhoGAM? How does it work?

Next site:

http://nobelprize.org/educational_games/medicine/landsteiner/readmore.html

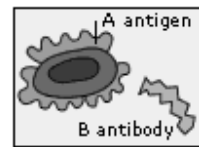
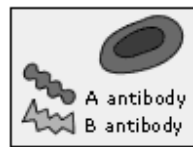
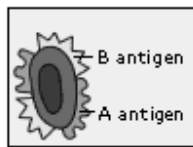
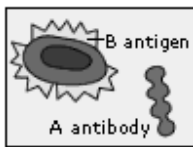
1. Who won the Nobel Prize for his research in blood groups? _____
2. What happens when a red blood cell agglutinates? _____
3. Blood clumping is a _____ reaction which occurs when the _____ of a blood transfusion has _____ against the _____.

4. Describe an antigen. Draw where one would be found on the red blood cell →.



5. Describe an antibody. Where would it be found in the blood?

6. Identify the blood types below. Write the type above the box.



7. Describe what is meant by a person *developing* the Rh antibody.

8. Summarize how a blood typing test works in 3 steps, each two sentences or less.

1.

2.

3.

http://nobelprize.org/educational_games/medicine/landsteiner/landsteiner.html

Patient 1:



What is this patient's blood type? _____ Draw in the results of his test:



What type(s) of blood did you give him? _____

Explain why these blood types are compatible in terms of antigens/antibodies.

Patient 2:



What is this patient's blood type? _____ Draw in the results of his test:



What type(s) of blood did you give him? _____

Explain why these blood types are compatible in terms of antigens/antibodies.

Patient 3:



What is this patient's blood type? _____ Draw in the results of his test:



What type(s) of blood did you give him? _____

Explain why these blood types are compatible in terms of antigens/antibodies.

On your own, research the following topics and describe them:

- Bombay blood –
- Autologous blood donations -
- Duffy blood group and its relationship to malaria -