

Name: _____

Red Gold - The Epic Story of Blood

<http://www.pbs.org/wnet/redgold/> --- click on BLOOD JOURNEY

Phase 1: The Creation of Blood

1. What are the three kinds of cells found in blood? _____
2. What molecule in the blood cell carries oxygen? _____
3. What element makes blood red? _____
4. What is the function of leukocytes? _____
5. What is the function of platelets? _____
6. Plasma is made of 90% _____

How is Blood Produced?

7. Where in the body are blood cells made? _____
8. What might cause the body to produce more blood cells?

Phase 2: The Circulatory System

9. Approximately how many liters of blood move through the circulatory system?

10. Name the three parts of the circulatory system:

11. _____ circulation is when blood flows through the kidneys.

12. What is the main artery that leaves the heart?

13. Blood moves from arteries into _____

Phase 3: Donation

14. How long does it take for your body to replace fluids lost during blood donation?

15. What should you do before donating blood?

16. What organization collects blood? _____

' Testing Donated Blood

Write short descriptions for each of the following as you browse the site.

Bone marrow _____

Stem Cell _____

Red blood cell _____

White blood cell _____

Hemoglobin _____

Platelet _____

Plasma _____

Transfusion _____

Artery _____

Vein _____

Capillary _____

Aorta _____

Leukemia _____

Hepatitis _____

17. What are the four blood types? _____

18. Rh type can be _____ or _____

19. Name two diseases you would be tested for before donating blood: _____

Phase 4: Blood Banks

20. Blood donated is split into three components. What are they? _____

21. What type of patients might use the platelets? _____

22. What type of patients might use the plasma? _____

Phase 5: The Transfusion

23. Which blood type can receive blood from all groups? _____

24. What are the two most common blood types in the U.S.? _____

EXTENSION: Using what you know about blood and transfusions, design a poster to educate on blood donations and encourage people to donate. There are some examples on the site at [Blood History ' The Impact of War ' Poster Gallery](#). You may draw your poster below or design it on the computer to print.