

Name: \_\_\_\_\_ Date: \_\_\_\_\_

Period: \_\_\_\_\_ Do Now# 2.10 Homework: 2.10

**Aim:** How are materials circulated in humans?

**Vocabulary:** (12)

- |           |           |               |               |              |                |
|-----------|-----------|---------------|---------------|--------------|----------------|
| 1. Blood  | 3. marrow | 5. hemoglobin | 7. platelets  | 9. antigen   | 11. Immunity   |
| 2. plasma | 4. RBC    | 6. WBC        | 8. antibodies | 10. clotting | 12. phagocytes |

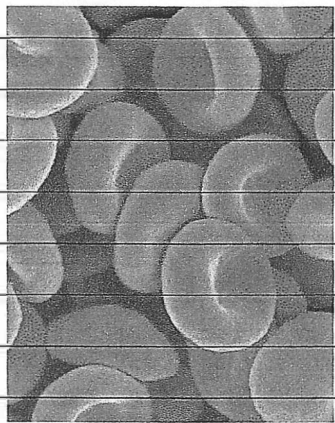
What is **blood**? • Only fluid tissue in the body.

What are the different parts of the blood?

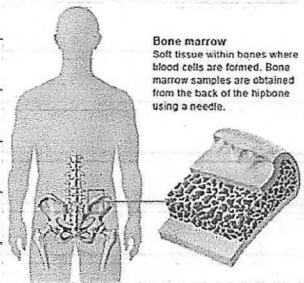
1. Plasma
  - 75 % of the blood.
  - Clear, mainly water.
  - Liquid part of the blood.
  - Transports: a. wastes  
b. nutrients  
c. salts
  - Regulates body temperature.



What makes the blood red?

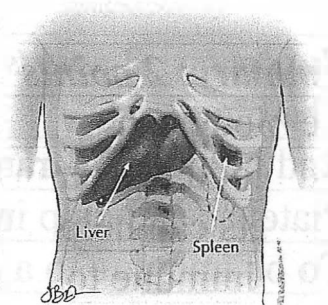


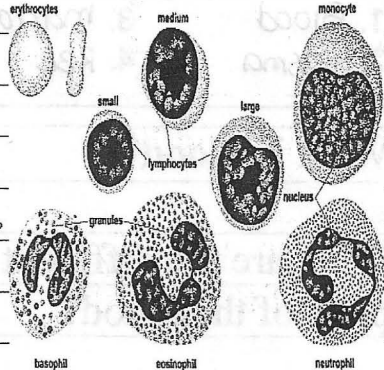
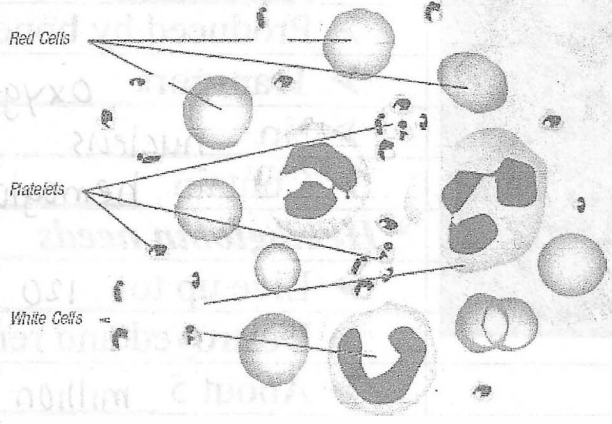
2. Red Blood Cells (RBC)
  - Disc shaped.
  - Produced by bone marrow.
  - Transport oxygen.
  - No nucleus.
  - Contain hemoglobin (protein in RBC)
  - \* **Hemoglobin needs iron**.
  - Live up to 120 days.
  - Destroyed and removed by spleen and liver.
  - About 5 million in a drop of blood.



What happens when you have less RBCs?

1. Anemia
2. Less oxygen



Questions/Main Ideas:	Notes:
Which blood cell prevents disease?	3. <u>White blood cell (WBC)</u>
	➤ With <u>nucleus</u>
	➤ <u>200,000 - 250,000</u> cells per drop.
	➤ Produced by <u>marrow</u>
	➤ <u>Increase</u> in number during infections.
What are 2 types of WBC's?	a. <u>Phagocytes</u>
	➤ <u>Engulf</u> bacteria.
	b. <u>Leukocytes</u>
	➤ Develops <u>Immunity</u>
	➤ Produce <u>antibodies</u> that
	<u>neutralize antigens.</u>
	
	↓
What is the smallest particle in the blood?	4. <u>Platelets</u> (form scabs)
	➤ Not a <u>cell</u>
	➤ No <u>nucleus</u>
	➤ Last <u>5-10</u> days.
	➤ For blood <u>clotting</u>
	

**Summary: 2 points**

- The blood can
- Red blood cells transport
- Platelets can help in
- To be immune to a disease my white blood cells