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BLOOD

Simply put, blood is **the fluid that travels through your circulatory system**.

Blood has 3 main functions:

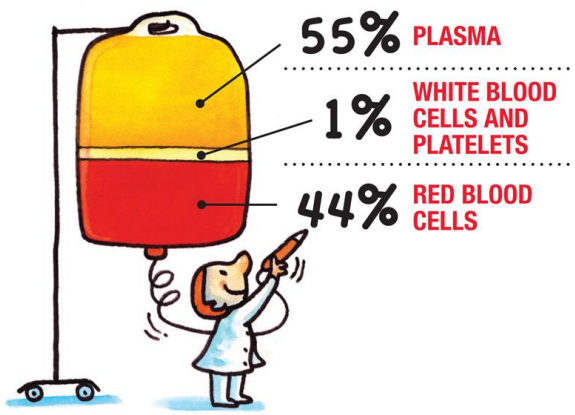
■ Nutrients and oxygen TO the cells ■ Waste and CO_2 AWAY from the cells	■ Body temperature ■ Body fluids	■ Protect against disease and infections.

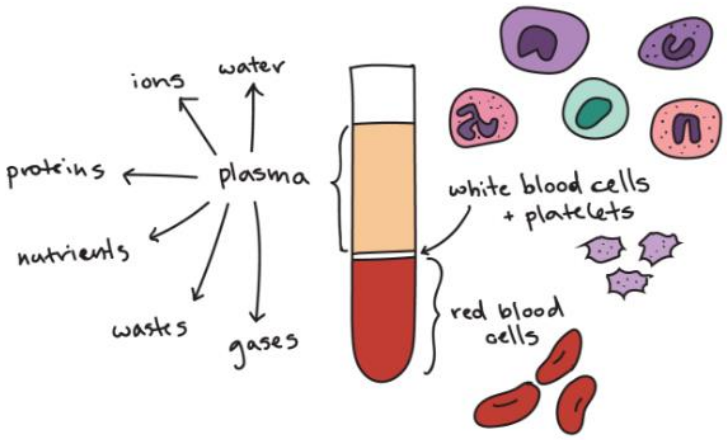
Blood passes through our liver at a rate of about: _____!

Our blood is made of two main components:

45%

55%





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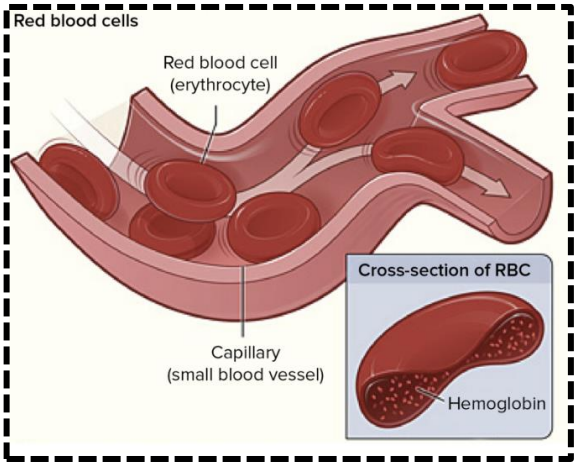
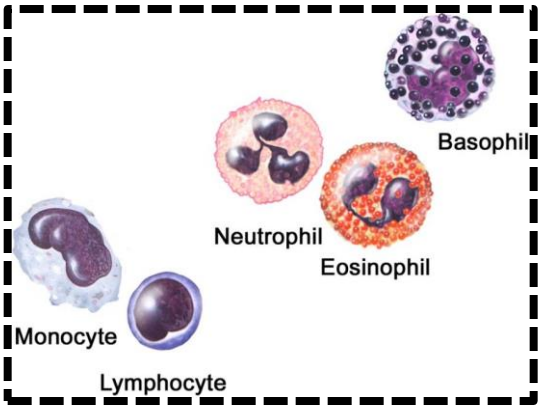
RED BLOOD CELLS (AKA: _____)



- _____
- Small shape (better for diffusion)
- _____
- Short life span
- Made in bone marrow
- Contains _____, a key protein in oxygen transport.
- Red blood cells have an average life span of _____ Old or damaged red blood cells are broken down in the _____, and new ones are produced in the _____

WHITE BLOOD CELLS (AKA: _____)

- Have a nucleus
- they are primarily involved in _____ _____.
- Different types of white blood cells have different lifetimes, ranging from _____
- One group, the _____, includes neutrophils, eosinophils, and basophils, all of which are granular and found in _____.
- The other group, the _____ includes monocytes and lymphocytes, which do not have granules and are found in _____.



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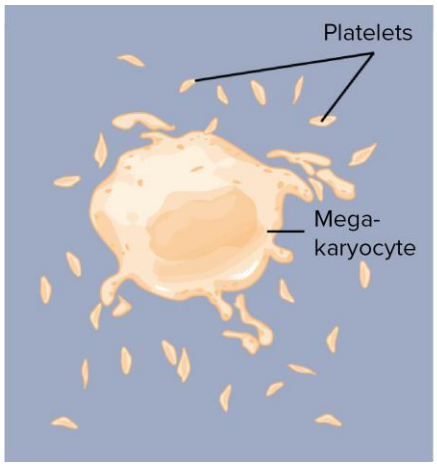
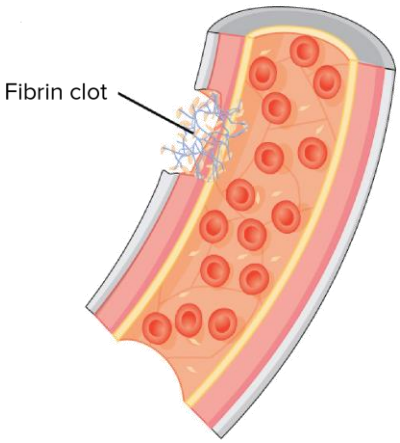
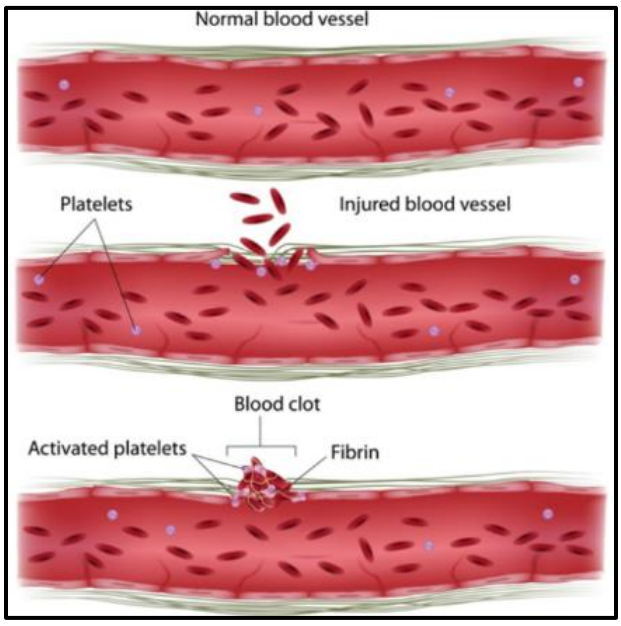
PLATELETS (AKA: _____)

- _____
- _____
- They are produced when large cells called _____ break into pieces, each one making 2000 - 3000 platelets as it comes apart.
- When the lining of a blood vessel is damaged (for instance, if you cut your finger deeply enough for it to bleed), platelets are attracted to the wound site, where they form a sticky plug. The platelets release signals, which not only attract other platelets and make them become sticky, but also activate a signaling cascade that ultimately converts fibrinogen, a water-soluble protein present in blood plasma, into _____ (a non-water soluble protein). The fibrin forms threads that reinforce the platelet plug, making a clot that prevents further loss of blood.







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IDENTIFYING BLOOD COMPONENTS

From what you know about blood cells, guess and check the images from the PowerPoint…

IMAGE	WHAT IS IT?	CORRECT?
IMAGE ONE		
IMAGE TWO		
IMAGE THREE		
IMAGE FOUR		
IMAGE FIVE		
IMAGE SIX		

PONDER IT…

Explain a real-life scenario when you, or someone you know had a blood test done. What was it for? How was it done? Where was it done? Did you have to wait for the results? Were the results useful?