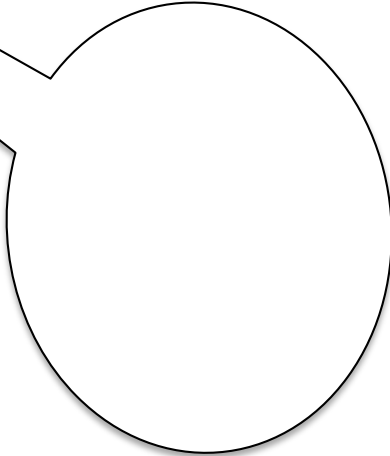
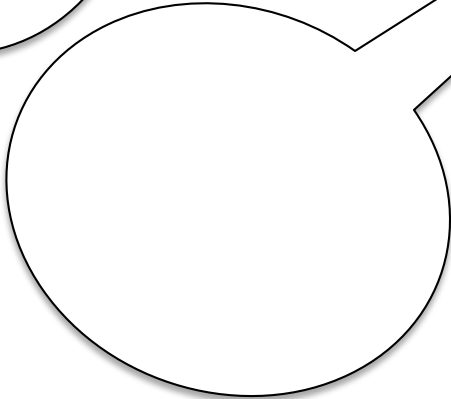
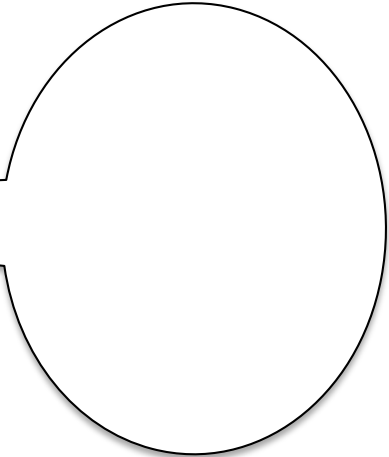
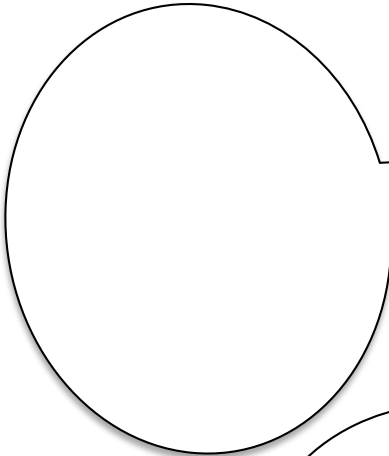
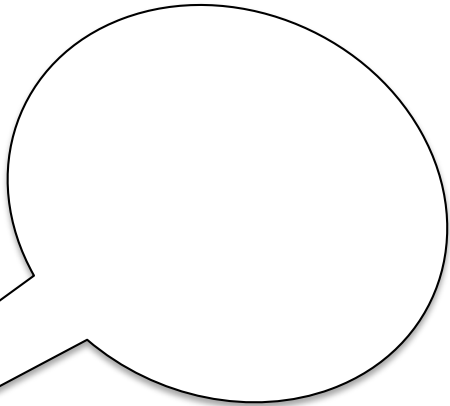
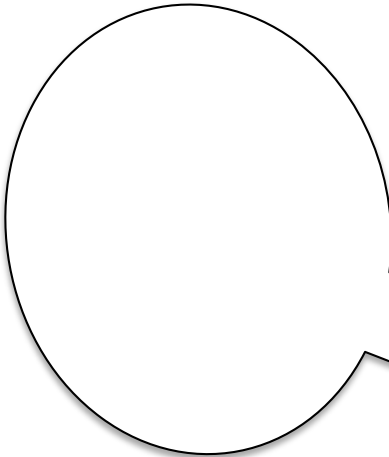


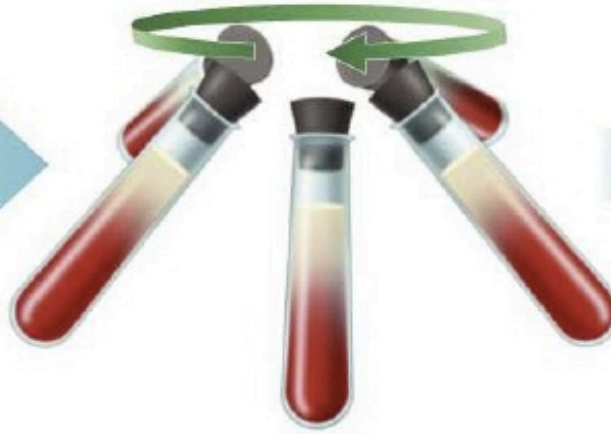
<b>Topic</b>	The components of blood	<b>Level</b>	For students aged 11-16
<b>Outcomes</b>	To list what substances and cells are found in blood? To describe how centrifugation works To predict how blood from different people may be different		

What is inside this tube of blood?

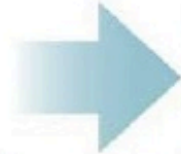




**Whole Blood Sample**



**Sample Placed in Centrifuge**



**Blood Sample That  
Has Been  
Centrifuged**

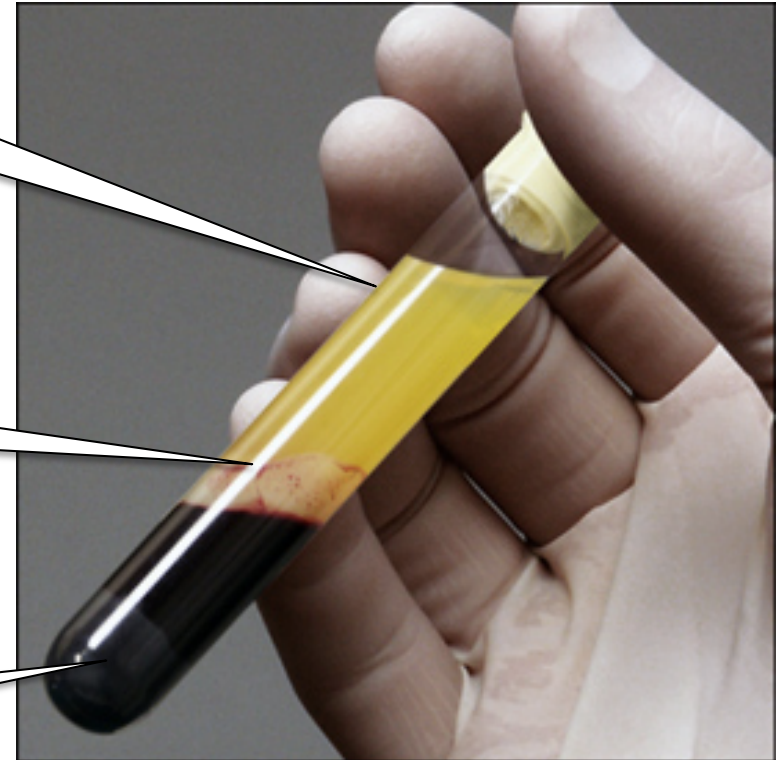
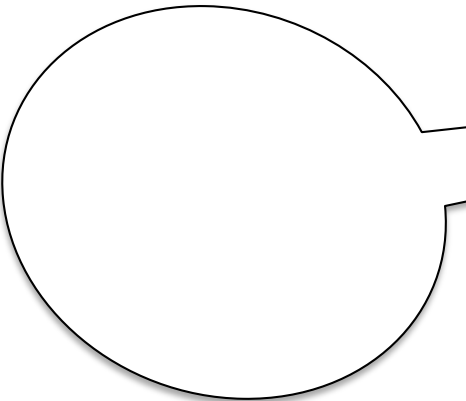
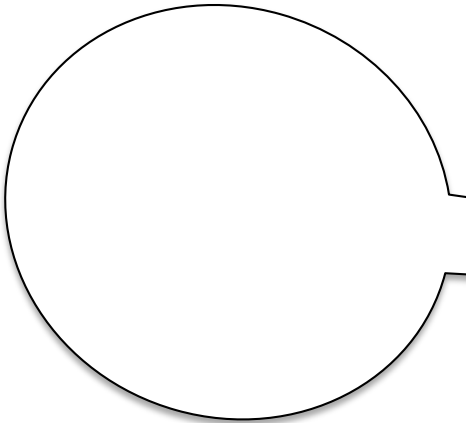
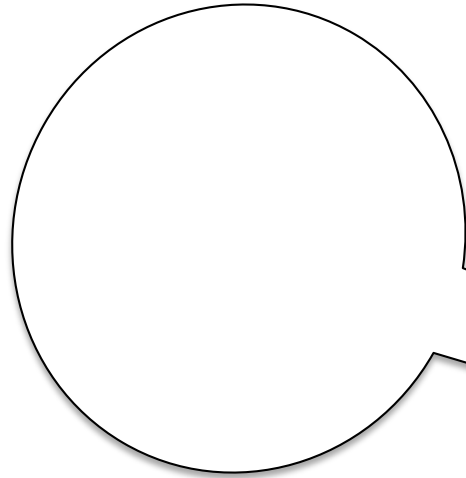
Plasma

Platelets

White blood  
cells

Red blood  
cells

**In which layer would you find most:** red blood cells, glucose, Na<sup>+</sup> ions, white blood cells, plasma, water, urea, testosterone, platelets, carbon dioxide, oxygen, iron, haemoglobin, and lipids? Add each substance to the correct box. Are there any other substances you can add that are present in blood?



# Blood samples

How would the blood from the following people be different to a healthy adult male?

1. A male diabetic
2. A male who had an infection
3. A male marathon runner just after their race
4. A healthy adult female