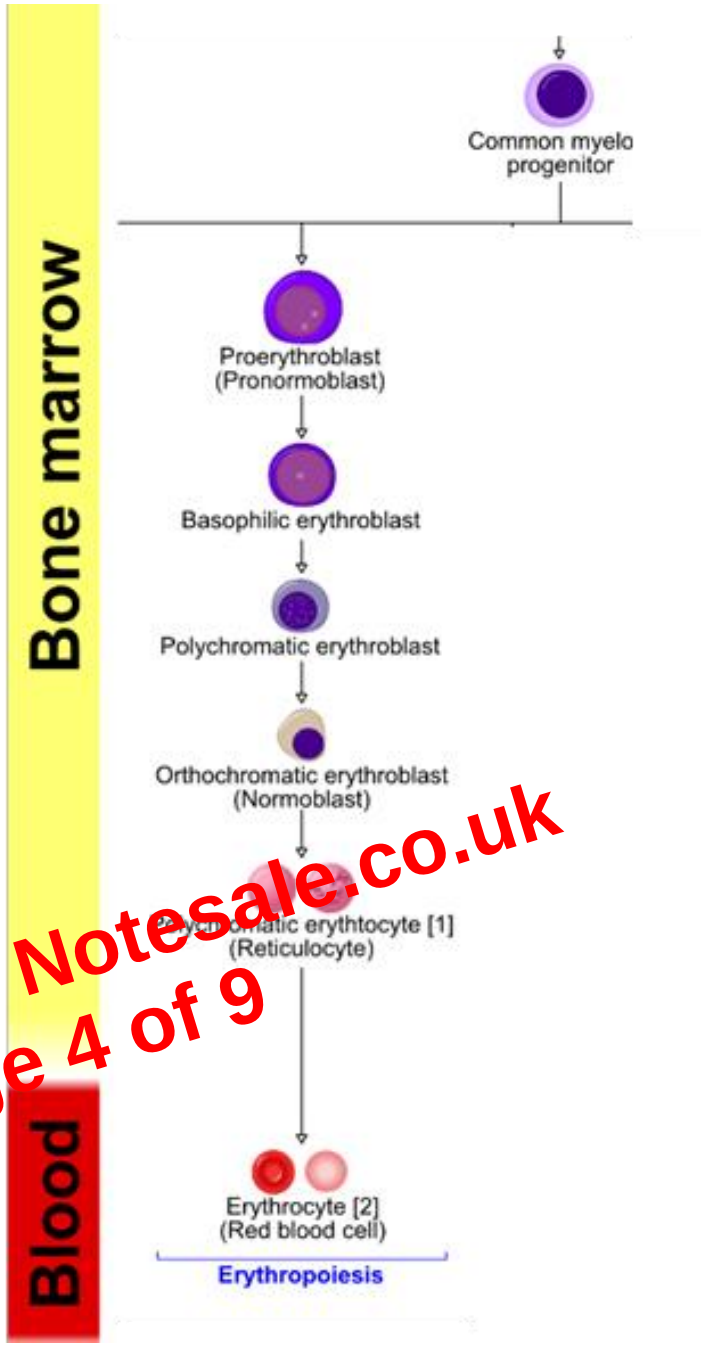
8/3/19
Blood Science

Changes during maturation

1. Colour change
2. Diameter of cell decreases
3. Diameter of nucleus decreases then disappears
4. Chromatin becomes clumped, then eliminated
5. Reduction of DNA and RN synthesis
6. Increase in haemoglobin



- A single stem cell can produce 16 erythrocytes

Haemoglobin

- Haemoglobin is a 64KDa tetrameric protein.
- Haemoglobin is a highly adapted protein complex for oxygen transport to tissues.
- Haemoglobin binds tightly to oxygen and is ideal for delivery to tissues. (When the haemoglobin reaches tissues high in CO_2, the acidity increases and this makes the O_2 come off the haemoglobin and move to the tissues).
- 95% of the erythrocyte cytoplasm is haemoglobin. There are about 600 million molecules of Hb in each mature erythrocyte.