How does the human population growth curve differ from that of most other organisms?

Human population size remained relatively low until the development of agriculture and the industrial revolution allowed it to increase exponentially.

In most organisms this exponential growth would lead into stationary phase, where the population is limited by external factors. **However humans differ from this trend in that the exponential rise has continued without capping.**

What factors affect the growth and size of human populations?

The balance of births and death, immigration and emigration will influence the size of individual populations.

Factors affecting birth rate:

- **Religious/cultural backgrounds** – some countries encourage large families and some religions oppose birth control
- **Birth control** – countries without or which deny access to birth control will often have higher birth rates
- **Economic conditions** – low per capita income countries have higher birth rates
- **Political factors** – high levels of taxation/education policies influence birth rates

Factors affecting death rates:

- **Life expectancy** – MEDC populations often live longer than LEDC populations (the age at which 50% of the individuals of a population are still alive)
- **War** – results in the immediate loss of lives and a long term drop due to loss of fertile adults
- **Age profile** – the greater the proportion of elderly people the greater the death rate
- **Food supplies** – lack of adequate nutrition increases chances of an earlier death
- **Sanitation** – better sanitation reduces risk of contracting water borne diseases
- **Medical care** – better treatment of trivial illnesses
- **Natural disasters** – more natural disasters increases the death rate

$$Birth\ or\ death\ rate = \frac{number\ of\ births\ or\ deaths\ per\ year}{total\ population\ that\ year} \times 1000$$

Human populations can be represented on population pyramids, there are 3 main types:

- **Stable** – birth and death rate are balanced, there is little change in population size
- **Increasing** – birth rate is greater than death rate
- **Decreasing** – death rate is greater than birth rate