Vocab:

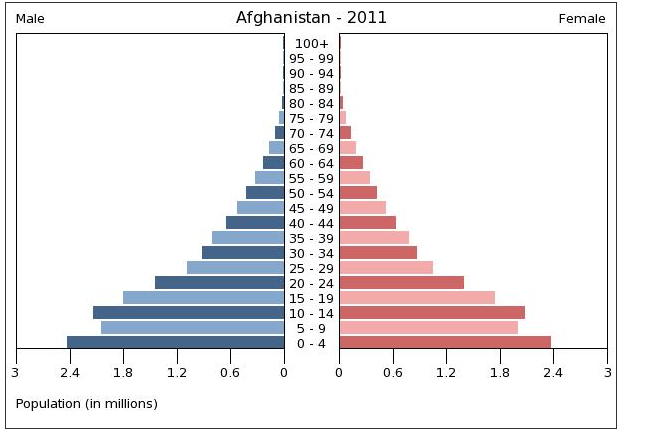
* Population Profile – A chart showing the breakdown of a population based on age
* Graying Population – A population that has an increasing large older population.
* Developed Countries – Countries that have the ability to provide effective medical care, adequate resources and adequate energy to their population.
* Developing Countries – Countries that do not have the ability to provide effective medical care, adequate resources and adequate energy to their population

**Human Populations**

1. A population is made up of many different types of organisms. With many different types of organisms it can be hard to quantify the different types of traits. However, humans can quickly and effectively communicate a lot of information about themselves. This allows us to see the difference between human populations.

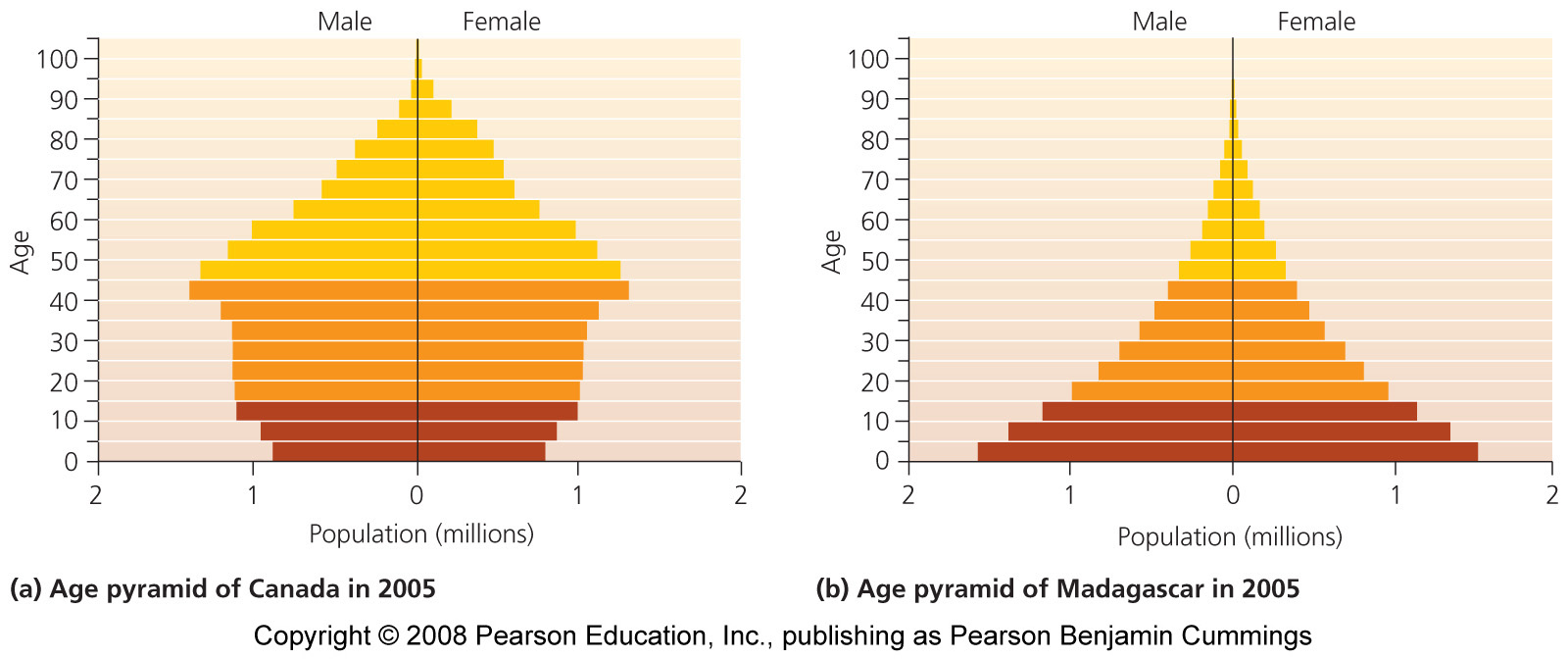
One of the major ways that we should evaluate a population is by age. Listing the ages involved inside of the population is called a **population profile**. Understanding the age structure of a population allows us to predict the growth of the population and the average life expectancy of the population.

Look at the population profile below and come up with two different observations about the population’s size based on age and the average life expectancy of the population.



|  |  |
| --- | --- |
| Population Size Based on Age | Average Life Expectancy |
| Most people are between ages 0 - 24 | The majority of the population does not survive past 44 years of age |
| Males are slightly more likely to survive past 44 years old | There are very few individuals that survive past 69 years of age |

Now compare and contrast the population profile of Afghanistan to the population profile from Canada.



|  |  |
| --- | --- |
| Canada | Afghanistan |
| * Population that has a small percentage of young people * Average age of population much higher * Overall less people * Population lives longer * Older population with females living longer than males | * Population with a high percentage of young people * Average age of population much younger * Overall more people * Population does not live quite as long * Even split between males and females in older population |

* Key note – Student may come up with their own answers. All are acceptable as long as they are supported by the two profiles.

1. Since there are major differences between the population profiles of each country, we need to understand why there is a difference. There are many reasons why there are differences, so let us see if you can come up with some on your own.

Why do some populations have larger groups of young people? Why do some populations have a **graying population**, a population that is getting older?

Theorize a reason why there are differences between these two types of populations.

**Work Space**

* Key note – There are many different cultural, economic, social and other issues that are the reasons for the difference between the two populations. Answers may reflect that idea.
* There are differences due to the following reasons…
  + Developed
    - Children are more expensive and time consuming in developed nations
    - Effective medicine is more available in developed nations
    - It is easier to grow mass quantities of food in developed nations with near unlimited energy
    - There may be more emphasis placed on education and career development over family
    - Birth control may be easier to obtain
  + Developing
    - The survival rate of children is lower in developing nations
    - Women in developing nations start having children earlier in life
    - The living conditions in developing nations might be more difficult, leading to an earlier death
    - There may be more importance placed on having a large family as opposed to education and career development
    - Women may have less control over their reproductive rights

1. Two of the major reasons why there are differences between these two types of population profiles have access to medical care and energy. If the populations of countries have the ability to access modern medical care and reliable energy sources they can live easier and longer.

Countries that have the ability to provide their citizens with modern medical care and reliable energy are called **developed countries**. These countries often have populations that can live longer and (generally) have less children. Examples of these countries would include the United States, the United Kingdom, Australia and Spain.

Countries that do not have the ability to provide modern medical care and reliable energy are called **developing countries**. The countries often have populations that (generally) have more children and live less long. Examples of these countries would include the Dominican Republic, Mexico, Sri Lanka and Uganda.

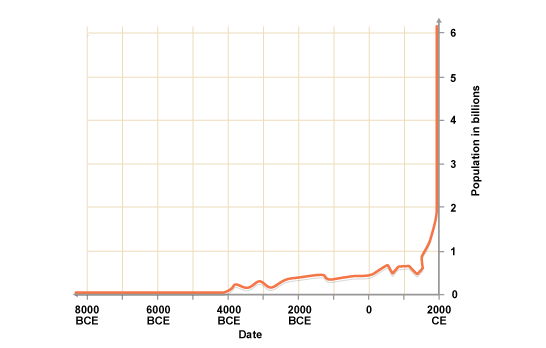
Use the internet to find the statistics to for the countries listed above. Fill in the chart below to get a sense of how these countries function. Use the most updated information that you can find

* Key note – These projections are the most current as of 2016. Numbers may change slightly from year to year.

|  |  |  |  |
| --- | --- | --- | --- |
| **Name** | **Developed**  **Or**  **Developing** | **Total Fertility Rate**  **(Number of Children per Woman)** | **Life Expectancy** |
| Australia | Developed | 1.86 | 82.25 |
| Spain | Developed | 1.27 | 83.08 |
| United Kingdom | Developed | 1.83 | 76.72 |
| United States | Developed | 1.83 | 78.94 |
| Dominican Republic | Developing | 2.48 | 73.50 |
| Cambodia | Developing | 2.64 | 68.21 |
| India | Developing | 2.43 | 68.01 |
| Uganda | Developing | 5.78 | 58.47 |

1. Human population is currently growing at an extraordinary rate. Look at the graph below of human population.

**Human Population Growth Since 8000BC**

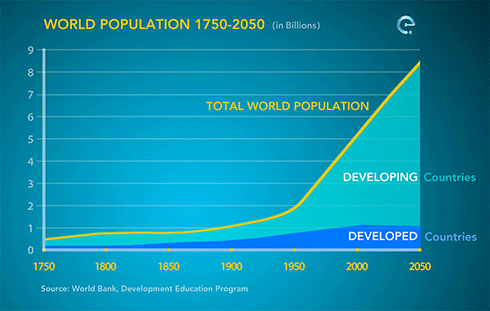


Compare the above graph to a similar graph when it is broken down between developed countries and developing countries.

The graph of overall human population is growing at an exponential rate. The increase in population seems to be evenly spread out around the world. However, the lower chart shows that the populations of developed countries and developing countries are not growing at the same rate.

The map that shows the developed country growth rate shows that developed countries are growing on a logistic curve. They have hit a carrying capacity around one billion and have leveled off their growth.

The map that shows the developing country growth rate shows that developing countries are growing (currently) on an exponential growth curve. They have not hit a large amount of limiting factors that affect their overall growth yet.



Using the space below, come up with a logical explanation for the following questions.

1. What type of growth curve is the overall human population following? Why?

Exponential growth. The population is rising rapidly with very few limits.

1. What type of growth curve are developing countries following? Why?

Exponential growth. The population is rising rapidly with very few limits

1. What type of growth curve are developed countries following? Why?

Logistic growth. The population has leveled off and is at its carrying capacity.

1. Why might the numbers of people in developing nations be increasing at such a fast rate?

The number of limiting factors is not enough to level off population growth.