A.P.E.S. ~ POPULATION PROFILE MINI-LAB

WHAT TO TURN IN:	Graph	Questions #1-4

Background information

Population growth is affected by *age structure*— the number of individuals in different age groups—as well as by the numbers of births and deaths. Age structure is usually illustrated by a *population profile*, a graph in which horizontal bars represent the percentage of the population in each age group. Males are shown on the left and females on the right. The ages (or in some cases, the years of birth) for each bar are listed along the vertical axis of the graph, usually in five-year intervals. Each age group is called a *cohort*. The longer a bar is, the greater the proportion of individuals in that age group. Population profiles are useful for tracing the history of a population and for projecting future population trends. A population profile with more long bars for the younger age groups would indicate a growing population; when these large numbers of young begin to reproduce, they will add even more offspring to the population than did the older age groups.

Objectives

- To collect data on individual families and pool the data to produce a population profile diagram
- To interpret population profiles
- To understand the relationship between age structure and population growth

Procedure

1) Print page 2 of this document, which is the family data table.
2) Collect information to complete the family data table. Find out the birth date and gender of each member of your family. Include parents, aunts, uncles, cousins, grandparents, great-grandparents, etc. Submit your data to the teacher.
3) Your individual data will be pooled with that of your classmates. Record the class data on the family data table when that paper is returned to you.
4) Construct a population profile for the class data using graph paper. Do it by hand, not on the computer. You will need to decide how many people are to be represented by one square. Use the examples in your text and online to guide you, with pink for females and blue for males.

Questions

1) What is the percentage of people under 20? Over 60? (Show your work.) Is the population a young, growing one; an older, declining one; or a stable one?
2) Is there evidence in the diagram of the baby boom that followed World War II (1946-1964)? Is so, is there evidence of the effect of this baby boom in more recent years?
3) Describe any changes that have occurred in family size over the generations.
4) How does the pyramid for the class compare to that for the United States? If the United States is now at, or slightly below, the replacement level, why is the population of the country still growing?

POPULATION PROFILE: FAMILY DATA TABLE

Individual Family Data (fill out individually and turn in)			Pooled Class Data (class totals, announced by teacher)		
Age Range	Males	Females	Age Range	Males	Females
<1			<1		
1-5			1-5		
6-10			6-10		
11-15			11-15		
16-20			16-20		
21-25			21-25		
26-30			26-30		
31-35			31-35		
36-40			36-40		
41-45			41-45		
46-50			46-50		
51-55			51-55		
56-60			56-60		
61-65			61-65		
66-70			66-70		
71-75			71-75		
76-80			76-80		
81-85			81-85		
86-90			86-90		
91-95			91-95		
96-100			96-100		
>100			>100		