Enough room for you?

The population of the world reached 6 billion on 12 September 2000 and is expected to reach 10 billion by 2100. The question is: 'Will there be room for everyone?' The total land area of the world is approximately 135 million square kilometres.

Task A   How much space does a single person need? Discuss, and perhaps experiment, to come up with an answer giving reasons for your decision. Now work out how much space 1 million people would need using your answer.

Task B   The total land area 135,000,000 divided by 6,000,000,000 is 0.0225 square kilometres or 22,500 square metres. That's about 2¼ football pitches each. Plenty of room you might say, but some parts of the world are fairly undesirable places to live. For example Antarctica takes up about 14 million square kilometres. Can you think of some other places that are unsuitable to live in? Also, as well as actual space for us we need to have room to grow some food for ourselves, to dispose of our rubbish etc. Visit www.ecologicalfootprint.com to find out more about your ecological footprint - this is the amount of land you use to live.

Task C   Use the following data, which gives you the area and population of several countries, to compare the space people have to live in. You can divide the area by the population to get the population density (the number of people per square kilometre) and then draw a bar chart of your results. To find data for more countries visit the CIA factbook at www.cia.gov/library /publications/the-world-factbook/index.html on the web.

Country	Land area (square km)	Population (2009)
Australia	7,617,930	22,155,000
China	9,326,410	1,319,175,330
France	545,630	65,073,482
India	2,973,190	1,198,003,000
Italy	294,020	60,157,214
Monaco	2	32,965
Norway	307,860	4,858,200
Spain	499,542	46,661,950
South Africa	1,219,912	49,320,000
United Kingdom	241,590	61,612,300

A map showing how the world's population is spread out.