

Worksheet 1.1

What use is chemistry?

Over the past 100 years, chemistry has transformed the lives of many people in different parts of the world. Our world society has been made totally different from how it was in the early 1900s by the availability of a great number of new products, materials and processes. Chemistry has provided the solution to some major problems that have faced the expanding world population. For instance, there are those who argue that the most significant scientific discovery of the twentieth century was Haber's process for the synthesis of ammonia, generating, as it did, the possibility of feeding the world's expanding population.

The distribution of the benefits is not even-handed, but what would life be like without shampoo and conditioner, shower gel and bubble bath, antiperspirants and deodorants, artificial fibres such as nylon and *Terylene*, brilliantly coloured dyes, lightweight tennis rackets, modern 'trainers' and other sports equipment, most make-up, detergents? Without our increased knowledge of chemistry, there would be no inorganic fertilisers (80% of the world would starve), no purified water, no aspirin, paracetamol or ibuprofen, no penicillin or other antibiotics, no anaesthetics, no modern glues and adhesives (your furniture would fall apart!), no house paint. Even in just the last few years, chemistry research has led to the development of flat screen televisions and monitors, smaller mobile phones (by improving battery technology) and scratch-resistant phone covers.

Think about the contribution that chemistry has made to our lives as you do one of the following activities.

- 1** Make a collage using pictures from old magazines, catalogues and other pictures to show the changes that chemistry has made to our lives in the last century or so. Try to find lots of pictures of things that would not exist without the contribution of modern chemistry.
- 2** Write about how your daily life would be different without all the things that chemistry has helped to provide. Consider these different aspects: what you wear, what you eat, your leisure activities and what happens if you get ill.