

Not all artificial chemicals are better, though. For example, lemonade made with real lemons has a lot of vitamin C. Vitamin C is very good for people. Lemonade made with artificial flavour does not usually have as much vitamin C.

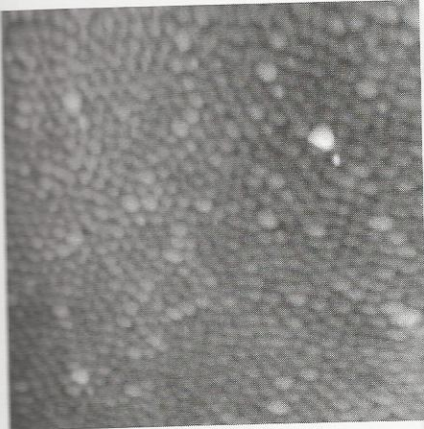
## THE MAKEUP OF MATTER

All matter is made of very tiny particles. You can see the particles only with a very strong microscope. These particles do not always look like the matter they make up.

Look at Figure 2. Aluminium foil looks smooth and shiny. It is made of aluminium particles. Now look at Figure 3. With a very strong microscope, you would see tiny bumps in the foil. These bumps show aluminium particles.



**Figure 2** Aluminium is made of just one kind of matter.



**Figure 3** A powerful microscope shows the particles in aluminium.

## THE PARTICLE THEORY OF MATTER

Scientists use the **particle theory of matter** (also known as the "particle theory") to explain what they know about matter. Table 1 lists the main ideas of the particle theory.

**particle theory of matter**  
an explanation of what matter is made of and how it behaves; the particle theory states that all matter is made up of tiny particles that are always moving, that attract each other, and that have space between them