

Lead in



► Look at the following pictures. At first sight, they seem to have been chosen at random, with no relation among them. But if you look more carefully, you will realize that they have one **element** in common. What is this element?



► Now, take a look at the title of the Unit, and combine it with the pictures. Can you guess what this Unit mainly focuses on?

► You saw above that the word **element** is bold-faced and printed in red. There is actually a play on words going on here. Can you understand the two meanings the word **element** is used with? You can take another look at the first picture to help you.

► Activity 1: Now, fill in the gaps in the following sentences that sum up all the above. Use:

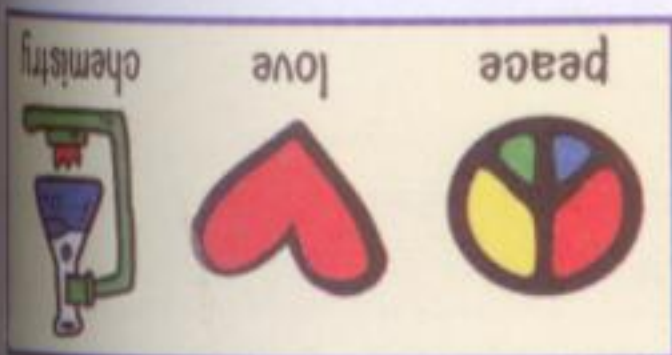
corresponds / piece / related / chip / manufactured / illustrates

The three pictures above are all (1) _____ to silicon. This is their common **element**. The first picture (2) _____ a tiny part of the periodic table of **elements**, the part that (3) _____ to silicon; the second depicts a (4) _____ of silicon, which is an **element** in the periodic table; and the third picture shows a silicon (5) _____. The present Unit focuses on periodic table **matters** that really **matter**, namely the **matter** from which chips are (6) _____. (Did you get the second play on words? No? What's the **matter** with you?)

► Let's take a pause here. *The periodic table?* Based on your background knowledge, can you answer the following questions? You can check some of your answers in Activity 2 below.

- What is the periodic table? Why is it called *periodic*?
- Why is it important for scientists and students of electrical engineering and computing?
- Do you know of any electronic and electrical components which are built from some sort of chemical?

► Activity 2: Match the sentence halves to make meaningful pairs:



A	1. The periodic table (also known as the <i>periodic table of the elements</i>)	a) their increasing atomic number, electronic configuration, and chemical properties.
	2. It organizes the chemical elements according to	b) first recognizable periodic table in 1869, and formulated the Periodic Law.
	3. The adjective periodic means	c) conductivity followed by copper and gold.
	4. In other words, there is a recurring pattern	d) occurring in repeated periods or cycles.
	5. Legendary Russian scientist, Dmitri Mendeleev, published the	e) is a tabular display of the chemical elements.
	6. Silver is the element with the highest electrical	f) in certain properties.
B		