## Atoms, elements and compounds

1. Which of these is the smallest particle?

- An atom
- A molecule
- A speck of dust

2. Which of these is the correct symbol for magnesium?

- MG
- mg
- Mg

3. Which statement about atoms and molecules is correct?

- Elements always exist as separate atoms
- Elements always exist as pairs of atoms called molecules
- Elements and compounds can exist as molecules

4. How many different atoms are there in a compound?

- One
- Always two
- Two or more

5. Approximately how many elements are there?

- 100
- 4
- 1,000,000

6. Which one is a compound?

- Water
- Hydrogen
- Helium

7. Which of these contains two carbon atoms and six hydrogen atoms?

- $\mathrm{CH}_{4}$
- $\mathrm{C}_{2} \mathrm{H}_{6}$
- $\mathrm{C}_{2} \mathrm{H}_{4}$

8. Which of these contains four hydrogen atoms?

- $\mathrm{CH}_{3} \mathrm{OH}$
- $\mathrm{H}_{2} \mathrm{O}$
- $\mathrm{H}_{2} \mathrm{O}_{2}$

9. How many atoms are there in total in a molecule of sulfur trioxide, $\mathrm{SO}_{3}$ ?

- Two
- Three
- Four

10. Why does air not have a definite formula?

- It contains different amounts of water depending on where you are
- It depends on the temperature
- It is not a compound

