



Chemical elements in the Earth

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Fill in the blanks with the missing words.



The periodic table (1) all the different elements that have been found or created so far. These elements are used to make everything we find on earth. All of them, plus another one (californium) have been detected in space. (2) is the most common element in the Universe, followed by helium. Hydrogen makes up about 75% of all matter, whereas helium compounds account for most of the remaining percentage. Oxygen and

(3) are the third and fourth most abundant elements in the Universe. All the other elements are relatively rare. Oxygen is also the most abundant element by mass in the earth's (4) – making up about 46% of the earth's mass – and the second most abundant gas (after nitrogen) in our planet's atmosphere.

The chemical composition of the earth is a bit different from that of the universe. Of all the elements, only (5) are commonly found in the rocks that form the outer layer of the earth. As previously said, oxygen comprises nearly half of the mass of the crust. It is a highly (6) element that can combine with most other elements.

(7) is the second most abundant element, it accounts for over (8) of the crust. Oxygen and silicon combine together to form the most common compound in the crust, silicon dioxide, which can take the form of (9), quartz or other crystalline rocks. The third most common element is aluminium (8.1%) but it always occurs as a compound and it is never found (10) in nature.

The fourth element is iron (5.0%), the most common and (11) of all metals. Calcium is the fifth (3.6%), followed by sodium (2.8%), (12)

(2.6%) and magnesium (2.1%). These eight elements account for approximately (13) of the total mass of the earth's crust.

The atmosphere is primarily composed of nitrogen (78%), oxygen (14), and argon (1%). A myriad of other very influential components are also present which include greenhouse gases such as ozone, water vapour, carbon dioxide, (15) and nitrous oxide.

Traces of other compounds, pollutants and natural substances, can also be found in air samples.

