

## CHEMISTRY

### Air and water

- atmospheric substances and their importance to the individual and the equilibrium of nature
- water and its properties, such as acidity and alkalinity
- flammability of substances; the combustion reaction; its description with the symbolic language of chemistry; the properties of combustion products and effects and the environment

### Raw material and products

- key elements and compounds to be found in the earth's crust and their properties, and the manufacture, use, sufficiency and recyclability of products
- symbolic designation, classification and distinction of elements and compounds; comparison and reaction rates
- interpretation of reaction equations and the balancing of simple reaction equations
- explanation of the properties and structures of elements and compounds with the aid of an atomic model of the periodic table

### Living nature and society

- photosynthesis and combustion: energy sources
- oxidation reactions and reaction products of organic compounds such as alcohols and carboxylic acids and the properties and uses of these products
- hydrocarbons, the petroleum-refining industry and its products
- carbohydrates, proteins and lipids; their composition and importance as nutritional substances and industrial raw materials
- washing and cosmetic materials; textiles