

COMPOUND NOUNS & ADJECTIVES

In this unit, we look at **compound nouns and adjectives**. These are groups of two or more nouns or adjectives, which are combined to express a complex single idea. **Compounds** are widely used in scientific and technological English as they allow new concepts with multiple meanings to be expressed in a concise way.

There are a large number of frequently used formulaic compounds: Deoxyribonucleic Acid (DNA), Acetyl-Coenzyme A (Acetyl-CoA), Adenosine Triphosphate,... but there is no definitive list as combinations are always being "invented" to express new concepts.

As you know, nouns can be modified in several different ways:

1. **ADJECTIVES** : *A big / a general / a private / a mental... hospital.*
2. **POSSESSIVE FORMS**: *A children's hospital.*
3. **"-ING" PARTICIPLES**: *A teaching hospital.*
4. **PAST PARTICIPLES** : *A well-built / a modernly-equipped ... hospital.*
5. **Prepositional Phrases**: Phrases that start with a preposition and add context.
*The substrate binds to the enzyme **at the active site**.*
6. **Relative Clauses**: Clauses that provide more information about the noun.
*Enzymes, **which are biological catalysts**, speed up chemical reactions in the body.*

However, it is very important to understand that nouns can also be modified by other **nouns**, i.e. these nouns function as if they were adjectives. These constructions are called **compound nouns**.

- Compound nouns are used to refer to specific, identifiable objects or concepts. They are extremely common in scientific and specialised English because they make it possible for complex notions to be expressed in a concise, elegant way. Compare:

X-ray therapy and ***a therapy using rays which are in the category X***

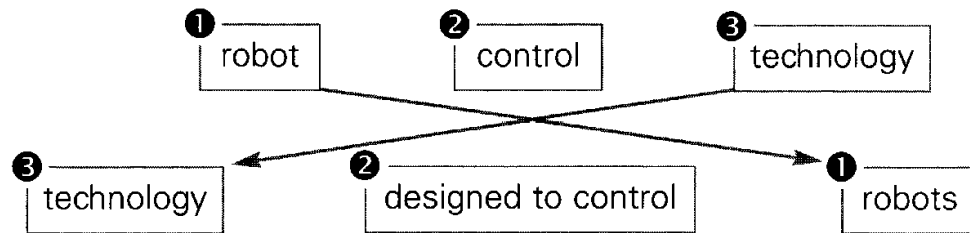
- Compound nouns are frequently difficult to understand. Why? It is because the order is the **inverse** of what is usual in many languages. This is particularly clearly illustrated by acronyms.

UNO → ONU (United Nations Organisation)

NATO → OTAN (North Atlantic Treaty Organisation)

The reason that the order is inverted is because the **principal** meaning of a compound noun is in the **final** word.

Example: What is a "robot control technology"?
 It is a **technology**.
 ↳ It is a **technology** designed to control.
 ↳ It is a **technology** designed to control robots.



- Modifying nouns have the same function as adjectives. This explains why they do not take an "-s" (with some exceptions^{G. Notes 28}) – **even after numerals**.

➤ a four **door** car • a 20 **euro** note • a 5 **man** crew ...

- There is no definitive list of compound nouns. As new ideas develop, new compound nouns are "invented" to correspond to specific purposes. Supposing that NASA required a new tool to detect radon gas on Mars. A new word (which, doubtless, has never been used before in the history of the language) can be invented to describe this tool:

➤ a remote controlled Mars radon detector

- The rules for spelling compounds are not fixed:
 - sometimes they are written as one word ➡ a wavelength
 - sometimes they are linked by a hyphen ➡ an X-ray
 - and sometimes they are written as two words ➡ a radon detector

2. Compound adjectives

There are three different forms:

- The "-ing" form

The present participle of the verb can be used as a modifier.

➤ a **hard-working** student (he/she works hard all the time) • an **amplifying** system • a **warning** device • a **distinguishing** feature ...

This form refers to a typical, defining characteristic.

- The past participle may also be used.

➤ a **well-written** report (the report was written well by someone) • a **well lubricated** machine • a **pre-tested** drug • **widely-used** techniques ...

This form has usually a **passive** meaning (i.e. you can add "by") and refers to something already done, something in the past.

- A small number of compound adjectives are formed by adding "-ed" to a **noun** (the nouns act as if they were verbs).

➤ a **cold-blooded** animal • a **red-haired** girl • a **two-winged** insect • a **twin-engined** plane • a **6-wheeled** lorry ...