

Articles

Articles are often used before nouns to show how general or specific the thing you're referring to is. Consider the following sentences:

Use a spectrophotometer to measure the absorption of light.
Use the spectrophotometer to measure the absorption of light.
Spectrophotometers measure the absorption of light.

The sentences are nearly identical except for the articles. How does this small difference change the meaning? What does the article imply about the spectrophotometer in each sentence?

Overview

A and **an** are called **indefinite** articles:

Use a spectrophotometer to measure the absorption of light.

These articles refer to any single example of something. The sentence here doesn't *define* exactly which spectrophotometer you should use; it is telling you that you can use *any* spectrophotometer for this measurement.

The is called the **definite** article:

Use the spectrophotometer to measure the absorption of light.

This article *defines* exactly which thing we are talking about. In this sentence, the writer implies that there is *one specific* spectrophotometer that the reader will know to use—maybe because it has been mentioned before in the text (see “Going from non-specific to specific” below), or maybe because the writer and the reader have the common understanding that there is only one spectrophotometer available.

If you are talking very generally about a type of thing, or an abstract concept, you **may not need to use an article** at all:

Spectrophotometers measure the absorption of light.
Spectrophotometry measures the absorption of light.

The first example states a *general truth* about *all* spectrophotometers. The second states a general truth about the practice of spectrophotometry.

Unfortunately, it is difficult to provide rules about articles because every rule has many exceptions. However, if you keep in mind that **the** usually refers to something specific, **a/an** refers to a non-specific single example, and **no article** refers to the noun very broadly, you will avoid most mistakes with articles.

A deeper look:

Now that you can recognize the different types of articles and what they usually mean, let's look at some examples of article use in particular situations:

Going from non-specific to specific. When we use an important noun for the first time in our text, we often use **a/an**, because that noun *has not yet been defined*—that is, our reader hasn't been introduced to it yet. When we refer to the noun in a subsequent sentence, we can use **the** because now our reader knows *which specific noun* we are referring to.

Sentence 1: *TUM researchers conducted a survey about recycling initiatives in Munich.*
Sentence 2: *More than 2,000 people participated in the survey. (= the survey already specified)*

Sentence 1: *The Japan Meteorological Agency detected an active volcano in Hawaii.*
Sentence 2: *The volcano erupted at 09:25 local time. (= the volcano already specified)*

Groups or species. In this construction—**the + singular noun**—we refer to an *entire* species by naming a *single* example:

The polar bear is the natural predator of the bearded seal.

Even though the noun (and its verb) is in the singular form, our reader understands that we mean *all polar bears*. Similarly, we sometimes refer to a *whole* group of people by using **the + adjective**:

The homeless are more vulnerable to many health problems than the general population.
The wealthy often resist efforts to raise income taxes.

Note that in this construction, the verbs are in their plural form.

Countable vs. uncountable nouns. Your article choice is often dependent on whether or not your noun *can be counted* (e.g. people, molecules, computers) or cannot be counted (e.g. water, cholesterol, electricity). (For a detailed explanation, please see our handout titled Countable and Uncountable Nouns.)

With **countable nouns**, both **a/an** and **no article + plural** can be used to give an example that illustrates a tendency or describes a *general* rule...

In a parallel circuit, electricity can flow through several different paths.
In parallel circuits, electricity can flow through several different paths.

...but we sometimes use **the** if the example is *specific* to a situation.

In this schematic diagram, the parallel circuit is illustrated with lines and symbols.

We use **the** because the noun is *defined* more precisely when we name the situation or context in which it occurs.

Similarly, with **uncountable nouns**, we use **no article** to refer to a broad topic or concept *in general*...

Researchers have learned that it is difficult to measure intelligence.

...and we often use **the** to refer to a *specific* example or application of that topic:

Methods of measuring the intelligence of public school children are numerous but problematic.

Again, this is because the noun is now *defined* within a specific context.

We **never** use the **indefinite article** with uncountable nouns (e.g. “an advice” or “a knowledge” are incorrect). We also don’t use **plurals** with uncountable nouns (e.g. “advices,” “knowledges”). They have no plural form because they cannot be counted as individual items.

A or an? Sound matters!

Usually, we use **a** before a word starting with a consonant, and **an** before a word starting with a vowel. However, it is not the spelling but the *sound* that determines which you choose. We say **an** hourglass and **an** MBA, as well as **a** euphoric moment and **a** one-euro coin. Read the words aloud: they are pronounced **ourglass**, **em-bee-ay**, **yoophoric**, **won**. The first two begin with vowel *sounds*, although not with vowels, and the second two begin with consonant *sounds*, although not with consonants.