

Course three

What is Mathematics (Maths) ?

What is Mathematics in simple words?

Mathematics is the study of numbers, shapes and patterns. The word comes from the Greek word "μάθημα" (máthēma), meaning "science, knowledge, or learning", and is sometimes shortened to maths (in England, Australia, Ireland, and New Zealand) or math (in the United States and Canada). ... Numbers: how things can be counted

Mathematics is the science that deals with the logic of shape, quantity and arrangement. Math is all around us, in everything we do. ... The needs of math arose based on the wants of society. The more complex a society, the more complex the mathematical needs.

What is the full meaning of mathematics?

Mathematics (from Greek: μάθημα, máthēma, 'knowledge, study, learning') includes the study of such topics as quantity (number theory), structure (algebra), space (geometry), and change (mathematical analysis). ... The research required to solve mathematical problems can take years or even centuries of sustained inquiry.

What is Mathematics and its importance?

Mathematics is a methodical application of matter. ... Mathematics makes our life orderly and prevents chaos. Certain qualities that are nurtured by mathematics are power of reasoning, creativity, abstract or spatial thinking, critical thinking, problem-solving ability and even effective communication skills.

Do we need mathematics everyday?

We need math in our everyday lives. Just doing the basic essentials is dependant on your ability to do math. Let's take for instance time, in today's society one cannot survive without a watch. Just make an experiment and see how many times a day you use your watch.

*General grammar :

Adjectives, and Adverbs:

1) Adjectives:

What is an adjective? Simply put, an adjective is a word you use to describe a person, place, or thing. An adjective modifies nouns or pronouns. Without adjectives, we wouldn't know if you had a serene vacation or a disastrous vacation. Let's dive into the intricacies of this important part of speech so you can identify an adjective when you see one.

What are adjectives? When it comes to function, adjectives are information gatherers. Specifically, they provide further information about an object's size, shape, age, color, origin or material. Here are some examples of adjectives in action:

It's a big table. (size)

It's a round table. (shape)

It's an old table. (age)

It's a brown table. (color)

It's an English table. (origin)

It's a wooden table. (material)

It's a lovely table. (opinion)

It's a broken table. (observation)

It's a coffee table. (purpose)

Adjectives Answer Questions

Adjectives serve another important role: they answer questions like, "Which one?" "How many?" and "What kind?" You can see how they do this job in the following examples:

Which cat did you see? It was the grey cat.

What kind of potatoes did you buy? I bought red potatoes.

How many cars were in the parking lot? There were few cars.

How many people like ice cream? Most people like ice cream.

Which spoon did you use to stir the soup? I used the wooden spoon.

What kind of coffee do you like? I like black coffee.

Adjectives Use Certain Suffixes

A suffix is the ending portion of a word. They often follow familiar patterns. In general, many English adjectives end with these suffixes:

-able/-ible: adorable, invisible, responsible, uncomfortable

-al: educational, gradual, illegal, nocturnal, viral

-an: American, Mexican, urban

-ar: cellular, popular, spectacular, vulgar

-ent: intelligent, potent, silent, violent

-ful: harmful, powerful, tasteful, thoughtful

-ic/-ical: athletic, energetic, magical, scientific

-ine: bovine, canine, equine, feminine, masculine

-ile: agile, docile, fertile, virile

-ive: informative, native, talkative

-less: careless, endless, homeless, timeless

-ous: cautious, dangerous, enormous, malodorous

-some: awesome, handsome, lonesome, wholesome

Course four

What is Physics?

What is physics in simple words?

Definition. Physics is the study of energy and matter in space and time and how they are related to each other. ... For example, velocity and acceleration are used by physics to show how things move. Also, physicists study the forces of gravity, electricity, magnetism and the forces that hold things together.

What is definition of physics?

Physics is the basic physical science. ... Physics can, at base, be defined as the science of matter, motion, and energy. Its laws are typically expressed with economy and precision in the language of mathematics.

Physics encompasses the study of the universe from the largest galaxies to the smallest subatomic particles. Moreover, it's the basis of many other sciences, including chemistry, oceanography, seismology, and astronomy (and can be applied to biology or medical science).

What is the study of physics?

Physics encompasses the study of the universe from the largest galaxies to the smallest subatomic particles. Moreover, it's the basis of many other sciences, including chemistry, oceanography, seismology, and astronomy (and can be applied to biology or medical science).

What are the major branches of physics?

There are Two Main Branches of Physics, Classical Physics and Modern Physics. Further sub Physics branches are Mechanics, Electromagnetism, Thermodynamics, Optics, etc.. The rapid progress in science during recent years has become possible due to discoveries and inventions in the field of physics.

What are the 7 branches of physics?

Terms in this set (7)

.Mechanics. Motion and its causes; interactions between objects.

.Thermodynamics. Heat and temperature.

.Vibrations and Waves Phenomena. Specific types of repetitive motions- springs, pendulums, sound.

.Optics. Light (including mirrors), lenses, colors.

.Electromagnetism. ...

.Relativity. ...

.Quantum Mechanics.

***General Grammar**

Adjectives, and Adverbs:

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Adjectives Use Certain Placement in a Sentence

What if you come across a word that doesn't have one of the above suffixes, but you still suspect it's an adjective? You can use sentence placement as a clue.

For instance, some adjectives end in -y, -ary, or -ate (or any other suffix for that matter). These words can be nouns, adverbs, verbs, or adjectives. The key to knowing whether a word is an adjective is to look at where it is and what it's doing in the sentence.

-Before a Noun

If it comes immediately before a noun, it's likely an adjective. For example, in "blue plate," "blue" is an adjective describing the noun "plate."

-Between an Article and a Noun

If it comes between an article like "the," "an," or "a" and is followed by a noun, it is almost definitely an adjective. For example, in "the grassy field," "grassy" is the adjective describing the noun "field."

-Between a Possessive and a Noun

If it comes between a possessive pronoun or noun and another noun, it is almost definitely an adjective. For example, in "his red kite," "red" is an adjective to describe "kite." The same is true for "Sam's red kite."

-Between a Demonstrative and a Noun

If a word comes between a demonstrative like "this," "that," "these," or "those" and a noun, it is probably an adjective. For example, in "that immaculate kitchen," "immaculate" is an adjective describing "kitchen."

-Between an Amount and a Noun

If a word comes between an amount, including "some," "most," "all," or "a few," and a noun, it is often an adjective. For example, in the phrase "a few ordinary days," "ordinary" is an adjective describing "days."

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Adjectives Can Act As Complements

Adjectives can also act as complements. Complements complete a sentence when the verb is "to be." Not every complement is an adjective, but some adjectives can be complements. For example:

She is tall.

He is smart, handsome, and rich.

This tent is malodorous.

A Note on the Order of Adjectives

If you're using adjectives in your writing, order is important. When you list several adjectives in a row, there's a specific order they need to go in. Native English speakers tend to put them in the correct order naturally, but if you're learning English, you'll have to memorize the order.

It goes like this:

- Determiner - An article (a, an, the), a number or amount, a possessive adjective (my, his, her, its, your, our, their), or a demonstrative (this, that, these, those)

- Observation/Opinion - Beautiful, expensive, gorgeous, broken, delicious, ugly

Size - Huge, tiny, 4-foot-tall

Shape - Square, circular, oblong

Age - 10-year-old, new, antique

Color - Black, red, blue-green

Origin - Roman, English, Mongolian

Material - Silk, silver, plastic, wooden

Qualifier - A noun or verb acting as an adjective

This is the correct cumulative order for adjectives that come directly before a noun. They are not separated by commas.

My beautiful big circular antique brown English wooden coffee table was broken in the move.

An Important Exception

When an item is defined by its purpose, that word isn't usually an adjective, but it acts as one with the noun in that situation.

Coffee table

Pool hall

Hunting cabin

Baseball player

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More Resources for Adjectives

There's a lot to learn about adjectives. If you'd like to know more about the specifics of their use, these resources will help:

Take a deep dive into types of adjectives, such as participial adjectives, demonstrative adjectives, comparative adjectives, superlative adjectives, and more.

Learn how to use an adjective clause and an adjective phrase.

Try some activities with adjectives and adjective games to help you learn this part of speech in a fun way.

Check out some adjective lesson plans or a cool adjective quiz to help students learn how to use adjectives.

Adjectival Expertise

What are adjectives? Adjectives come in many shapes and sizes. That makes sense, given their important function.

Nouns are one of the most important parts of speech. It's only fitting that their comrades are multi-faceted.

The thing with adjectives is you never want to overdo it. Too many adjectives can bulk up a sentence, reducing its fluidity. Like the adverb, only use adjectives when they'll really pack a punch and help you paint a picture. Your writing will be better for it.

***Phonetics:**

Diphthongs:

A diphthong (/ˈdɪfθoŋ/ DIF-thong or /ˈdɪpθoŋ/ DIP-thong; from Greek: δίφθογγος, diphthongos, literally "double sound" or "double tone"; from δίς "twice" and φθόγγος "sound"), also known as a gliding vowel, is a combination of two adjacent vowel sounds within the same syllable. Technically, a diphthong is a vowel with two different targets: that is, the tongue (and/or other parts of the speech apparatus) moves during the pronunciation of the vowel. In most varieties of English, the phrase no highway cowboys /ˌnoʊ ˈhaɪweɪ ˈkaʊboɪz/ has five distinct diphthongs, one in every syllable.

Diphthongs contrast with monophthongs, where the tongue or other speech organs do not move and the syllable contains only a single vowel sound. For instance, in English, the word ah is spoken as a monophthong (/ɑ:/), while the word ow is spoken as a diphthong in most varieties (/aʊ/). Where two adjacent vowel sounds occur in different syllables—for example, in the English word re-elect—the result is described as hiatus, not as a diphthong. (The English word hiatus /ˌhaɪˈeɪtəs/ is itself an example of both hiatus and diphthongs.)

Diphthongs often form when separate vowels are run together in rapid speech during a conversation. However, there are also unitary diphthongs, as in the English examples above, which are heard by listeners as single-vowel sounds (phonemes) Transcription

In the International Phonetic Alphabet (IPA), monophthongs are transcribed with one symbol, as in English sun [sʌn], in which ⟨ʌ⟩ represents a monophthong. Diphthongs are transcribed with two symbols, as in English high [haɪ] or cow [kaʊ], in which ⟨aɪ⟩ and ⟨aʊ⟩ represent diphthongs.

Diphthongs may be transcribed with two vowel symbols or with a vowel symbol and a semivowel symbol. In the words above, the less prominent member of the diphthong can be represented with the symbols for the palatal approximant [j] and the labiovelar approximant [w], with the symbols for the close vowels [i] and [u], or the symbols for the near-close vowels [ɪ] and [ʊ]:

vowel and semivowel	⟨haj kaw⟩	broad transcription
two vowel symbols	⟨haj̩ kaʊ̩⟩	
	⟨hɑɪ̯ kɑʊ̯⟩	narrow transcription

Some transcriptions are broader or narrower (less precise or more precise phonetically) than others. Transcribing the English diphthongs in high and low as ⟨aj aw⟩ or ⟨a̠ a̠w̠⟩ is a less precise or broader transcription, since these diphthongs usually end in a vowel sound that is more open than the semivowels [j w] or the close vowels [i u]. Transcribing the diphthongs as ⟨a̠̩ a̠̩w̠̩⟩ is a more precise or narrower transcription, since the English diphthongs usually end in the near-close vowels [ɪ ʊ].

The non-syllabic diacritic, the inverted breve below (◌̩), is placed under the less prominent part of a diphthong to show that it is part of a diphthong rather than a vowel in a separate syllable: [a̠̩ a̠̩w̠̩]. When there is no contrastive vowel sequence in the language, the diacritic may be omitted. Other common indications that the two sounds are not separate vowels are a superscript, ⟨a' a'w'⟩, or a tie bar, ⟨ā̠̩ ā̠̩w̠̩̄⟩ or ⟨ā̠̩ ā̠̩w̠̩̄⟩. The tie bar can be useful when it is not clear which symbol represents the syllable nucleus, or when they have equal weight. Superscripts are especially used when an on- or off-glide is particularly fleeting.

The period (·) is the opposite of the non-syllabic diacritic: it represents a syllable break. If two vowels next to each other belong to two different syllables (hiatus), meaning that they do not form a diphthong, they can be transcribed with two vowel symbols with a period in between. Thus, lower can be transcribed ⟨'loʊ.əɹ⟩, with a period separating the first syllable, /loʊ/, from the second syllable, /əɹ/.

The non-syllabic diacritic is used only when necessary. It is typically omitted when there is no ambiguity, as in ⟨haɪ kaʊ⟩. No words in English have the vowel sequences *[a.ɪ a.ʊ], so the non-syllabic diacritic is unnecessary.

Types of diphthongs :

Falling and rising

Falling (or descending) diphthongs start with a vowel quality of higher prominence (higher pitch or volume) and end in a semivowel with less prominence, like [aɪ] in eye, while rising (or ascending) diphthongs begin with a less prominent semivowel and end with a more prominent full vowel, similar to the [ja] in yard. (Note that "falling" and "rising" in this context do not refer to vowel height; for that, the terms "opening" and "closing" are used instead. See below.) The less prominent component in the diphthong may also be transcribed as an approximant, thus [aj] in eye and [ja] in yard. However, when the diphthong is analysed as a single phoneme, both elements are often transcribed with vowel symbols (/aɪ̩/, /ɪ̩a/). Semivowels and approximants are not equivalent in all treatments, and in the English and Italian languages, among others, many phoneticians do not consider rising combinations to be diphthongs, but rather sequences of approximant and vowel. There are many languages (such as Romanian) that contrast one or more rising diphthongs with similar sequences of a glide and a vowel in their phonetic inventory (see semivowel for examples).

Closing, opening, and centering

Vowel diagram illustrating closing diphthongs of Belgian Standard Dutch, from Verhoeven

Vowel diagram illustrating centering diphthongs of the Dutch dialect of Orsmaal-Gussenhoven, from Peters
In closing diphthongs, the second element is more close than the first (e.g. [ai]); in opening diphthongs, the second element is more open (e.g. [ia]). Closing diphthongs tend to be falling ([ai̩]), and opening diphthongs are generally rising ([i̩a]), [10] as open vowels are more sonorous and therefore tend to be more prominent. However, exceptions to this rule are not rare in the world's languages. In Finnish, for instance, the opening diphthongs /ie/ and /uo/ are true falling diphthongs, since they begin louder and with higher pitch and fall in prominence during the diphthong.

A third, rare type of diphthong that is neither opening nor closing is height-harmonic diphthongs, with both elements at the same vowel height. These occurred in Old English:

beorht [beoɾxt] "bright"

ċeald [tʃæoɫd] "cold"

A centering diphthong is one that begins with a more peripheral vowel and ends with a more central one, such as [ɪə̠], [eə̠], and [ʊə̠] in Received Pronunciation or [iə̠] and [uə̠] in Irish. Many centering diphthongs are also opening diphthongs ([iə̠], [uə̠]).

Diphthongs may contrast in how far they open or close. For example, Samoan contrasts low-to-mid with low-to-high diphthongs:

'ai [ʔai̩] 'probably'

'ae [ʔaɛ] 'but'

'auro [ʔauro] 'gold'

ao [aɔ] 'a cloud'

Narrow and wide

Narrow diphthongs are the ones that end with a vowel which on a vowel chart is quite close to the one that begins the diphthong, for example Northern Dutch [ɛɪ], [øʏ] and [oʊ]. Wide diphthongs are the opposite - they require a greater tongue movement, and their offsets are farther away from their starting points on the vowel chart. Examples of wide diphthongs are RP/GA English [aɪ] and [aʊ].

Length

Languages differ in the length of diphthongs, measured in terms of morae. In languages with phonemically short and long vowels, diphthongs typically behave like long vowels, and are pronounced with a similar length.[citation needed] In languages with only one phonemic length for pure vowels, however, diphthongs may behave like pure vowels.[citation needed] For example, in Icelandic, both monophthongs and diphthongs are pronounced long before single consonants and short before most consonant clusters.

Some languages contrast short and long diphthongs. In some languages, such as Old English, these behave like short and long vowels, occupying one and two morae, respectively. Languages that contrast three quantities in diphthongs are extremely rare, but not unheard of; Northern Sami is known to contrast long, short and "finally stressed" diphthongs, the last of which are distinguished by a long second element.[citation needed]

Phonology

In some languages, diphthongs are single phonemes, while in others they are analyzed as sequences of two vowels, or of a vowel and a semivowel.

Sound changes

Certain sound changes relate to diphthongs and monophthongs. Vowel breaking or diphthongization is a vowel shift in which a monophthong becomes a diphthong. Monophthongization or smoothing is a vowel shift in which a diphthong becomes a monophthong.

Difference from semivowels and vowel sequences

While there are a number of similarities, diphthongs are not the same phonologically as a combination of a vowel and an approximant or glide. Most importantly, diphthongs are fully contained in the syllable nucleus while a semivowel or glide is restricted to the syllable boundaries (either the onset or the coda). This often manifests itself phonetically by a greater degree of constriction, but the phonetic distinction is not always clear. The English word *yes*, for example, consists of a palatal glide followed by a monophthong rather than a rising diphthong. In addition, the segmental elements must be different in diphthongs [ij] and so when it occurs in a language, it does not contrast with [i:]. However, it is possible for languages to contrast [ij] and [i:].

Diphthongs are also distinct from sequences of simple vowels. The Bunaq language of Timor, for example, distinguishes /sai̯/ [saj] 'exit' from /sai/ [sa'i] 'be amused', /tei̯/ [tej] 'dance' from /tei/ [te'i] 'stare at', and /poi̯/ [poj] 'choice' from /loi/ [lo'i] 'good'.

Examples; Germanic languages

English

See also: International Phonetic Alphabet chart for English dialects

In words coming from Middle English, most cases of the Modern English diphthongs [aɪ, oʊ, eɪ, aʊ] originate from the Middle English long monophthongs [i:, ɔ:, a:, u:] through the Great Vowel Shift, although some cases of [oʊ, eɪ] originate from the Middle English diphthongs [ɔy, aɪ]. Due to complex regional variation Hiberno-English diphthongs are not enumerated below.

Standard English diphthongs

English

diaphoneme	RP (British)	Australian	North American
			GenAm Canadian

low	//oʊ//	[əʊ]	[əʊ]	[oʊ][t2 1]	
loud	//aʊ//	[aʊ]	[æʊ]	[aʊ~æʊ]	[aʊ~æʊ][t2 2]
lout		[ʌʊ][t2 3]			
lied	//aɪ//	[aɪ]	[ɑɪ]	[äɪ][t2 4]	
light		[ʌɪ][t2 3]			
lay	//eɪ//	[eɪ]	[æɪ]	[eɪ][t2 1]	
loin	//ɔɪ//	[ɔɪ]	[oɪ]	[ɔɪ]	
loon	/u:/[t2 5]	[ʊ]	[ɜ:]	[ɜʊ]	
lean	/i:/[t2 5]	[ɪ]	[ɪ]	[i]	
leer	//ɪər//	[ɪə]	[ɪə][t2 6]	[ɪ]	
lair	//ɛər//	[ɛə][t2 7]		[e:]	[ɛɪ]
lure	//ʊər//	[ʊə][t2 7]		[ʊə]	[ʊɪ]

In Scottish, Upper Midwestern, and California English, /oʊ/ is monophthongal [o:].

In Pittsburgh English, /aʊ/ is monophthongal [a:], leading to the stereotypical spelling "Dahntahn" for "downtown". Canadian English and some dialects of northern American English exhibit allophony of /aʊ/ and /aɪ/ called Canadian raising – in some places they have become separate phonemes. GA and RP have raising to a lesser extent in /aɪ/.

In several American dialects such as Southern American English, /aɪ/ becomes monophthongal [a:] except before voiceless consonants.

The erstwhile monophthongs /i:/ and /u:/ are diphthongized in many dialects. In many cases they might be better transcribed as [ɪʊ] and [iɪ], where the non-syllabic element is understood to be closer than the syllabic element. They are sometimes transcribed /uw/ and /ij/.

Most Australian English speakers monophthongize "-ee-" vowels. However, Western Australian English is an exception, as it generally features centring diphthongs in words like fear and beard.

In Received Pronunciation, the vowels in lair and lure may be monophthongized to [ɛ:] and [o:] respectively (Roach

Course five

What is Chemistry ?

What is chemistry in short answer?

Chemistry, the science that deals with the properties, composition, and structure of substances (defined as elements and compounds), the transformations they undergo, and the energy that is released or absorbed during these processes.

What is chemistry and its importance?

Chemistry is important because everything you do is chemistry! Even your body is made of chemicals. Chemical reactions occur when you breathe, eat, or just sit there reading. All matter is made of chemicals, so the importance of chemistry is that it's the study of everything.

How chemistry affects our life?

Chemistry is a big part of your everyday life. You find chemistry in daily life in foods you eat, air you breathe, soap, your emotions and literally every object you can see or touch. ... Food is made from chemicals. Many of the changes you observe in the world around you are caused by chemical reactions.

Why do we need chemistry?

Chemistry is essential for meeting our basic needs of food, clothing, shelter, health, energy, and clean air, water, and soil. Chemical technologies enrich our quality of life in numerous ways by providing new solutions to problems in health, materials, and energy usage.

What do chemists do?

Chemists investigate the properties of matter at the level of atoms and molecules. They measure proportions and reaction rates in order to understand unfamiliar substances and how they behave, or to create new compounds for use in a variety of practical applications.

The five main branches of chemistry :

Traditionally, chemistry is broken into five main branches, according to the online chemistry textbook published by LibreText. There are also more specialized fields, such as food chemistry, environmental chemistry and nuclear chemistry, but this section focuses on chemistry's five major subdisciplines.

Analytical chemistry: involves the analysis of chemicals, and includes qualitative methods like looking at color changes, as well as quantitative methods like examining the exact wavelength(s) of light that a chemical absorbed to result in that color change.

These methods enable scientists to characterize many different properties of chemicals, and can benefit society in a number of ways. For example, analytical chemistry helps food companies make tastier frozen dinners by detecting how chemicals in food change when they are frozen over time. Analytical chemistry is also used to monitor the health of the environment by measuring chemicals in water or soil, for example.

Biochemistry: as mentioned above, uses chemistry techniques to understand how biological systems work at a chemical level. Thanks to biochemistry, researchers have been able to map out the human genome, understand what different proteins do in the body and develop cures for many diseases.

Related: Unraveling the human genome: 6 molecular milestones

Inorganic chemistry : studies the chemical compounds in inorganic, or non-living things such as minerals and metals. Traditionally, inorganic chemistry considers compounds that do not contain carbon (which are covered by organic chemistry), but this definition is not completely accurate, according to the ACS.

Some compounds studied in inorganic chemistry, like "organometallic compounds," contain metals, which are metals that are attached to carbon — the main element that's studied in organic chemistry. As such, compounds such as these are considered part of both fields.

Inorganic chemistry is used to create a variety of products, including paints, fertilizers and sunscreens.

Organic chemistry : deals with chemical compounds that contain carbon, an element considered essential to life. Organic chemists study the composition, structure, properties and reactions of such compounds, which along with carbon, contain other non-carbon elements such as hydrogen, sulfur and silicon. Organic chemistry is used in many applications, as described by the ACS, such as biotechnology, the petroleum industry, pharmaceuticals and plastics.

Physical chemistry : uses concepts from physics to understand how chemistry works. For example, figuring out how atoms move and interact with each other, or why some liquids, including water, turn into vapor at high temperatures. Physical chemists try to understand these phenomena at a very small scale — on the level of atoms and molecules — to derive conclusions about how chemical reactions work and what gives specific materials their own unique properties.

This type of research helps inform other branches of chemistry and is important for product development, according to the ACS. For example, physical chemists may study how certain materials, such as plastic, may react with chemicals the material is designed to come in contact with.

***General Grammar**

Adjectives, and Adverbs:

2) adverbs:

What is an Adverb?

An adverb is a word that is used to change, modify or qualify several types of words including an adjective, a verb, a clause, another adverb, or any other type of word or phrase, with the exception of determiners and adjectives, that directly modify nouns. A good way to understand adverbs is to think about them as the words that provide context. Specifically, adverbs provide a description of how, where, when, in what manner and to what extent something is done or happens. Normally, we can spot an adverb by the fact that it often ends in -ly, but there are lots of adverbs that don't end in this way. Moreover, adverbs can be used in many combinations with each other.

Traditionally considered a single part of speech, adverbs perform a wide variety of functions, making it difficult to treat them as a single, unified category. However, spotting an adverb, especially one that ends in -ly is easy. Adverbs normally help paint a fuller picture by describing how something happens, such as.

When? She always arrives early.

How? He drives carefully.

Where? They go everywhere together.

In what way? She eats slowly.

To what extent? It is terribly hot.

This function of providing more information about how something is done is called the adverbial function, and it may be accomplished by using adverbial clauses and adverbial phrases as well as by adverbs that stand alone.

There are many rules for using adverbs, and these rules often depend upon which type of adverb you are using. Remember these basics and using adverbs to make sentences more meaningful will be easier for you.

Adverbs can always be used to modify verbs. Notice that the second of these two sentences is much more interesting simply because it contains an adverb:

The dog ran. (You can picture a dog running, but you don't really know much more about the scene.)

The dog ran excitedly. (You can picture a dog running, wagging its tail, panting happily, and looking glad to see its owner. You can paint a much more interesting picture in your head when you know how or why the dog is running.)

Adverbs are often formed by adding the letters "-ly" to adjectives. This makes it very easy to identify adverbs in sentences. There are many exceptions to this rule; everywhere, nowhere, and upstairs are a few examples.

An adverb can be used to modify an adjective and intensify the meaning it conveys. For example:

He plays tennis well. (He knows how to play tennis and sometimes he wins.)

He plays tennis extremely well. (He knows how to play tennis so well that he wins often.)

As you read the following adverb examples, you'll notice how these useful words modify other words and phrases by providing information about the place, time, manner, certainty, frequency, or other circumstances of activity denoted by the verbs or verb phrases in the sentences.

Types of Adverbs

Adverbs of Manner

An adverb of manner will explain how an action is carried out. Very often adverbs of manner are adjectives with -ly added to the end, but this is certainly not always the case. In fact, some adverbs of manner will have the same spelling as the adjective form.

Some examples of adverbs of manner include:

Slowly / Rapidly / Clumsily / Badly / Diligently / Sweetly / Warmly / Sadly .

Adverb of manner examples in the following sentences are in bold for easy identification.

She passed the exam easily.

They walk quickly to catch the train.

The dinner party went badly.

Ahmed answered the question correctly.

Notice how the adverbs are formed by adding -ly to the adjectives bad, correct and quick, although there is a slight spelling change when forming an adverb with the adjective easy.

As mentioned, some adverbs of manner take the same spelling as the adjective and never add an -ly to the end:

The boys had worked hard.

The car drives

Amina dances well.

Adverbs of place

An adverb of place, sometimes called spatial adverbs, will help explain where an action happens. Adverbs of place will be associated with the action of the verb in a sentence, providing context for direction, distance and position: southeast, everywhere, up, left, close by, back, inside, around. These terms don't usually end in -ly.

Adverbs of place examples in the following sentences are in bold for easy identification.

Directions

Robbah is located south of Eloued.

They traveled down the mountainside.

First, I looked here, and then I looked there, but I can't find them anywhere.

Notice that here and there are often used at the beginning of a sentence to express emphasis or in exclamation.

Here comes the sun.

There is love in the air.

Here you are!

Many times, adverbs of place can be used as prepositions as well. The difference is, when the phrase is used as an adverb, it is modifying a verb; when it is used as a preposition, it is always followed by a noun.

Robbah is located south of Eloued -> Robbah is on the map.

They travelled down river -> They travelled in the first compartment.

That puppy was walking around by itself-> We put a collar around its neck.

Distance

There was a deli

Salah is moving far away.

Carly is sitting close to me.

Position

The treasure lies underneath the box.

The cat is sleeping on the bed.

Why are you standing in the middle of the dancefloor?

In addition, some adverbs of position will refer to a direction of movement. These often end in -ward or -wards.

Ahmed travelled onward to Algiers.

Hanane looked upwards to the heavens.

Mustapha, move forward to the front of the queue, please.

Adverbs of Frequency

Adverbs of frequency are used to express time or how often something occurs. Adverbs of frequency can be split into two main groups. The first, adverbs of indefinite frequency, are terms that have an unclear meaning as to how long or how often something occurs: usually, always, normally. These adverbs will usually be placed after the main verb or between the auxiliary verb and infinitive.

Adverbs of frequency examples in the following sentences are in bold for easy identification.

The adverb is usually placed before the main verb.

I can normally make the shot.

I will always love

Adverbs of definite frequency will usually be placed at the end of the sentence.

We get paid hourly.

I come here

The situation seems to change monthly.

The newspaper is bought daily.

Adverbs of Time

Adverbs of time, while seemingly similar to adverbs of frequency, tell us when something happens. Adverbs of time are usually placed at the end of a sentence.

Adverbs of time examples in the following sentences are in bold for easy identification.

I will see you

Hassan forgot his lunch yesterday and again today.

I have to go now.

We first met Julie last year.

While it's almost always correct to have the adverb of time at the end of the sentence, you can place it at the start of the sentence to put a different emphasis on the time if it is important to the context.

Last year was the worst year of my life.

Tomorrow our fate will be sealed.

Yesterday my troubles seemed so far away.

Adverbs of Purpose

Adverbs of purpose, sometimes called adverbs of reason, help to describe why something happened. They can come in the form of individual words – so, since, thus, because – but also clauses – so that, in order to. Notice in the examples that the adverbs of purpose are used to connect sentences that wouldn't make sense if they were formed alone. Adverbs of purpose examples in the following sentences are in bold for easy identification.

I was sick, **thus** didn't go to work today.

I started jogging **so that** I wouldn't be late.

Because I was late, I jogged **a little faster**.

Since it's your birthday, I will buy you **a gift**.

Positions of Adverbs

The positions of adverbs are not a fixed or set thing. As you have seen, adverbs can appear in different position in a sentence. However, there are some rules that help us decide where an adverb should be positioned. The rules will be different depending on whether the adverb is acting to modify an adjective or another adverb, a verb or what type of adverb it is.

Positional adverb examples in the following sentences are in bold for easy identification.

Adverb position with adjectives and other adverbs

These adverbs will usually be placed before the adjective or adverb being modified:

We gave them **a really tough** match. The adverb **really** modifies the adjective **tough**.

It was **quite** windy that night. The adverb **quite** modifies the adjective **windy**.

We don't go to the movies **terribly often**. The adverb **terribly** modifies the adverb **often**.

Adverb position with verbs

This can be a bit trickier because, it will depend on the type of adverb – place, position, time etc. – and there are many exceptions to the rules. However, a basic set of guidelines is shown below:

Adverbs of manner or place : are usually positioned at the end of the sentence.

She laughed **timidly**.

I stroked the cat **gently**.

Djamel lived **here**.

There is money **everywhere**.

As mentioned, if the adverb is of definite time it will be placed at the end of the sentence.

I did it **yesterday**.

We can discuss it **tomorrow**.

Let's go to Constantine **next week**.

However, if it is an indefinite period of time, it will go between the subject and main verb.

We often go to Constantine **in the springtime**.

Youcef regularly swims **here**.

Youcef and Adel always loved fishing **by the lake**.

Order of Adverbs.

Adverb order is so important it has clear rules. It's already mentioned that some adverbs will act to modify another, but how do you decide the structure of a sentence with several adverbs? Thankfully, there is a simple set of rules to follow, called the order of adverbs. Handily, the order of adverbs, sometimes also called the royal order of adverbs, can help us determine sentence structure too. In short, the adverbs get preference (are placed first) in the following order:

Adverbs of manner.

Adverbs of place.

Adverbs of frequency.

Adverbs of time.

Adverbs of purpose.

Consider this sentence:

I run (verb) **quickly** (manner) down the road (place) **every morning** (frequency) before school (time) because (purpose) I might miss the bus.

While it is good to remember the order of adverbs, there is always flexibility with language, and we have already mentioned that adverbs of time and frequency can be placed at the start of a sentence to change the emphasis. So, bottom line: think of the order of adverbs as more of a guideline than a rule that can't be broke.

Examples of Adverbs

As you read each of the following adverb examples, note that the adverbs have been italicized for easy identification. Consider how replacing the existing adverbs with different ones would change the meaning of each sentence.

She was walking rapidly.

The kids love playing together in the sandbox.

Please come inside now.

His jokes are always very

You don't really care, do you?

Adverbs List

There are many different words that function as adverbs. The following list is broken down into segments which list adverbs by function. After reading, you will be able to think of additional adverbs to add to your own list – after all, there are thousands.

Many adverbs end in “-ly”. This makes it very easy to spot the adverbs in most sentences.

Abruptly / Boldly / Carefully / Deliberately / Excitedly / Financially / Horribly / Mildly / Naughtily / Openly / Poorly
Quickly / Sadly / Terribly / Willingly / Yearly.

Some adverbs tell us where the action happened. These are known as adverbs of place.
Everywhere / Here / Inside / There / Underground / Upstairs.

After / Always / Before / Later / Now / Today / Yesterday.

Many adverbs tell us the extent of the action.

Certain adverbs let us know when or how often the action happened. These are known as adverbs of time and adverbs of frequency.

Almost / Enough / So / Too / Quite / Rather / Very.

Some adverbs are used as intensifiers.
Absolutely / Certain / Completely / Heartily / Really.

Certain adverbs called adverbs of manner tell us about the way in which something was done.
Briskly / Cheerfully / Expectantly / Randomly / Willingly.

Some groups of words serve the same functions as adverbs. These are known as adverb clauses. Be sure to read the adverb clause section to learn new ways to make your sentences even more interesting.

*Phonetics:

What is Triphthongs in phonetics?

In phonetics, a triphthong (/ˈtrɪfθɒŋ/ or /ˈtrɪpθɒŋ/) (from Greek τριφθογγος, "triphthongos", literally "with three sounds," or "with three tones") is a monosyllabic vowel combination involving a quick but smooth movement of the articulator from one vowel quality to another that passes over a third.

What is the meaning of Triphthongs?

Triphthong(noun) a combination of three vowel sounds in a single syllable, forming a simple or compound sound; also, a union of three vowel characters, representing together a single sound; a trigraph; as, eye, -ieu in adieu, -eau in beau, are examples of triphthongs.

Examples

First segment is the nucleus

English

In British Received Pronunciation, monosyllabic triphthongs with R are optionally distinguished from sequences with disyllabic realizations:

[aʊə] as in hour (compare with disyllabic "shower" [aʊ.ə])

[aɪə] as in fire (compare with disyllabic "higher" [aɪ.ə])

[ɔɪə] as in "loir" (compare with final disyllabic sequence in "employer" [ɔɪ.ə])

As [eɪ] and [əʊ] become [ɛə] and [ɔ:] respectively before /r/, all instances of [eɪ.ə] and [əʊ.ə] are words with the suffix "-er".

In Cockney, triphthongal realizations [ɪjə, eɪə, ɔjə, æjə] of /iə, eə, ɔə, æʊ/ are possible and regarded as "very strongly Cockney".[1] Among these, the triphthongal realization of /ɔə/ occurs most commonly. There is not a complete agreement about their distribution: according to Wells (1982), they "occur in sentence-final position",[3] whereas according to Mott (2012), these are "most common in final position".

Triphthongs and smoothing

We now turn to a very interesting phenomenon which is somewhat disconcerting for Spanish speakers: the pronunciation of English triphthongs. Being aware of it will help you not only to sound more natural and fluent but also to understand what native speakers say better.

English has five triphthongs, which are formed by the diphthongs ending in /ɪ/ and /ʊ/ + the sound /ə/. Let's see some examples:

/aʊ/ + /ə/ = [aʊə]	sound_loud_speaker hour
/aɪ/ + /ə/ = [aɪə]	sound_loud_speaker fire
/eɪ/ + /ə/ = [eɪə]	sound_loud_speaker player
/əʊ/ + /ə/ = [əʊə]	sound_loud_speaker mower
/ɔɪ/ + /ə/ = [ɔɪə]	sound_loud_speaker employer

As you can see, triphthongs have three vowel sounds in a row. However, they are not always fully pronounced since very often the second element (that is, the [ɪ] or [ʊ] in the middle) is considerably weakened or left out altogether. This process is called smoothing and it is very typical of British RP (it occurs less frequently in General American).

The smoothing phenomenon particularly affects the diphthongs /aʊ/, /aɪ/ and /eɪ/, which become [aə], [aə] and [eə]. So, the result is as follows:

Full version

sound_loud_speaker hour /aʊə/
sound_loud_speaker fire /faɪə/
sound_loud_speaker player /pleɪə/

Smoothed version

sound_loud_speaker hour /aə/
sound_loud_speaker fire /fəə/
sound_loud_speaker player /pleə/

