

Technical English for Engineers
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Lecture - 23
Word Formation

Good morning, before I start the class today, please take a look at this text; a sample text and then once you read it; **once we read it**, I will tell you what we are supposed to do.

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Sample

- Many concerns have been raised over the ***inadequate*** testing of the effects of genetic engineering on humans and the environment.
- Almost all GE foods contain ***antibiotic*** resistance marker genes.
- ***unlike*** chemical and nuclear contamination, which can at least be contained, genetic pollution cannot be isolated and separated from the environment in which it is spreading.
-

Kindly pay attention to the highlighted words. Let us read, many concerns have been raised over the ***inadequate*** testing of the effects of genetic engineering on humans and the environment. Almost all GE foods contain ***antibiotic*** resistance marker genes. ***Unlike*** chemical and nuclear contamination, which can at least be contained, genetic pollution cannot be isolated and separated from the environment in which it is spreading. These highlighted words *inadequate*, *antibiotic*, *unlike* what category is or what category do they come under; we are talking about prefix.

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Perhaps we have touched upon this element of the English language earlier, but let us consider it today in greater detail. I am very sure that even in Indian languages, we have prefixes as part of our grammar. I can give you example from Hindi language itself, let us consider **samanya [FL]** that is ordinary and **asamanya[FL]** you add a in front or before the word and it becomes extraordinary.

So, we do have examples of prefixes in our languages as well, you may have to consider more if you are interested in this area, a wonderful area for research. So prefixes; in the English language prefixes as well as suffixes. In the earlier sentences, in the earlier slide that we have just seen, you may have come across the word contamination. Now, the root word is contaminate and it turns into noun with the addition of 'i o n' that is is **shun tion** or 't i o n'. So, **you turn the category**, you change the category of a word from a verb contaminate to contamination.

So, prefixes and suffixes these are the words that cannot stand by their own. Let us say t i o n, what does it mean nothing u n, a prefix t i o n; a suffix, a t e another suffix. They do not stand alone, they do not mean anything by themselves. You cannot write them separately, they always have to come along or be attached along with the root word. Today, we are going to consider, how to identify root words also. It is not that simple, it

is not that easy. Many students, the non native speaker students; they do make errors, severe errors in the way they form or they use word formation especially in the written communication and also in oral communication.

Again, I go back to my previous statement; suffixes, prefixes they do not stand alone to make a word, but can be added prefix at the beginning, suffix at the end to make a different word. Let me give you some examples that you may find of some use, I am giving you examples of prefixes, let us say a g r o; agro, a m b i; ambi let me write it.

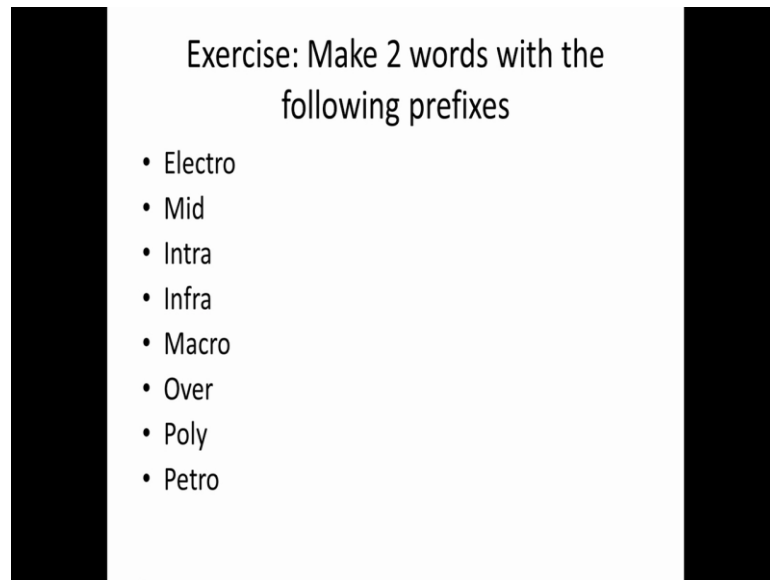
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So, I am talking prefixes agro, ambi, im, in, dis, macro, micro. So, these are specialized fields of inquiry right; chrono, bi, try, contra, ante; a n t e, What do these mean? What do these prefixes mean? By themselves they make very little sense, but you add agro and you get agro industry, you have ambi you have ambidextrous, ambivalent something that suggest duality. You have ante; ante's room, ante room, ante mean something before that occurs before, bi; something that occurs twice, bilingual; so someone who can speak two languages, bimonthly, biannual; duration frequency. Chrono; chrono generally suggest time, so chronometer, chronology and then you have contra; contra is against contrary we say so contra indicator, this is the way we use.

Now, here I am going to give you an exercise, please make two words with the following prefixes and here is your list, please look at the slide.

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Exercise: Make 2 words with the following prefixes

- Electro
- Mid
- Intra
- Infra
- Macro
- Over
- Poly
- Petro

Electro, mid, intra, infra, macro, over, poly, petro. Please work in pairs and come up with at least two words and using the following and using these prefixes, you may please consider your dictionary if necessary. Now look at this sample text.

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Sample: Suffix

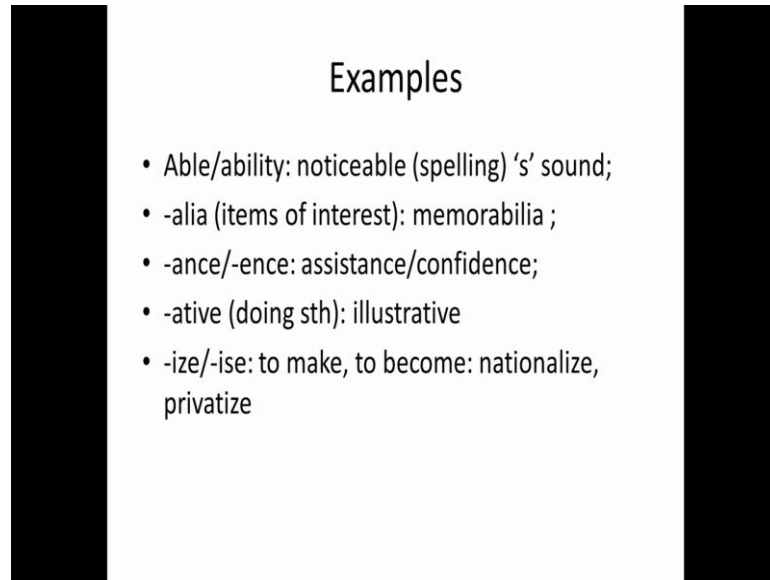
- Melinda Gates notes that paid **parental** leave has been linked to **higher** birth weights and lower rates of infant **mortality**, long-term **emotional** health of both parents and children, and greater **engagement** from fathers and **professional** opportunity for mothers.

Here I am giving you example of a suffix or of a few suffixes, read the text with mean. 'Melinda Gates notes that paid **parental** leave has been linked to **higher** birth weights and lower rates of infant **mortality**, long-term **emotional** health of both parents and children, and greater **engagement** from fathers and **professional** opportunity for mothers'. Look at the highlighted words, perhaps there are more than the highlighted words, the words that can go as suffixes.

But here let us look at some of the words highlighted; parental, higher, mortality, emotional, engagement, professional. Where do you think are the suffixes in these words? So, let us consider one by one; parent, parental, it becomes an adjective. Look at the word noun, the leave right after it which is the noun, so parental leave qualifies the noun leave, higher birth weights, so high and head and e r and turn it into a degree of comparison. We have already done comparative adjectives. Look at infant mortality, now this is your noun; mortal, mortality, long-term emotional health again an adjective; emotion and health. So, a l becomes your suffix greater engagement; engage and m e n t ment is another very commonly use suffix and last professional opportunity; professional, profession and with an a l it turns into an adjective, opportunity also you have the opportunity by itself is a noun. You can convert it into an adjective opportune.

So, opportune moment we may discuss this thing at some opportune moment, so opportunity is your noun, opportune is your adjective. Now, look at these examples.

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The slide is titled "Examples" and is flanked by two vertical black bars. It contains a bulleted list of suffixes and their corresponding meanings or uses:

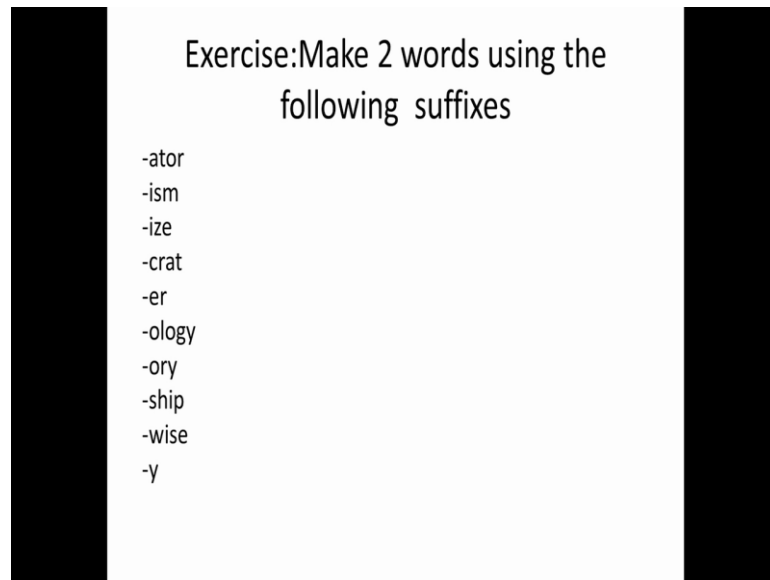
- Able/ability: noticeable (spelling) 's' sound;
- -alia (items of interest): memorabilia ;
- -ance/-ence: assistance/confidence;
- -ative (doing sth): illustrative
- -ize/-ise: to make, to become: nationalize, privatize

Look and also their meanings; able, ability these are commonly used suffixes, an example noticeable is spelling is please note their spelling s. So, here you have to note their spelling of noticeable it is not n o t i c a b l e, but it is n o t i c e a b l e. If you want to say noticeable, then you have to eliminate e, but the pronunciation is definitely not noticeable, it is noticeable so therefore e remains; look at the other suffix a l i a, this means items of interest like memorabilia a n c e or e n c e. You have confidence, assistance, a t i v e that is doing something demonstrative, illustrative; you have i z e, i s e; that means, to make to become nationalize or privatize.

At this moment, let me also do drive your attention to the distinction between British and American spellings; i z e is American, i s e is British. The rule is that if you want to use American grammar, American English then please be consistent about it, do not switch between American and British way of the spelling. It is always important to consult your teacher, your faculty, your supervisor while writing your dissertations digitations that which spelling you should use. See, in e-mail writing or in more informal and semi formal kinds of writing, you can use American English and its variants, however it is

always advisable to check with your supervisor, with your professor what kinds of English or what variety of English would he or she prefer.

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Exercise: Make 2 words using the following suffixes

- ator
- ism
- ize
- crat
- er
- ology
- ory
- ship
- wise
- y

Look at this slide and this is an exercise for you, make two words using the following suffixes ator, ism, ize, crat, er, ology, ory, ship; s h i p, wise and y. So, this is what I want you to do and again as usual you may work in pairs and consult your dictionary, make at least two words using these suffixes. So, we have just seen how there are and so many words that can be made using prefixes and suffixes. Now, consider let me move on to something else now. So, let us consider words such as amaze; a m a z e.

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Amaze, this is a verb, you amaze me. This was one invention of the 21st century that truly amazed me. Amazing is an adjective, you have added i n g. This was an amazing invention, now you are using it as **an** **in** adjective. Amazingly, what is it ly form, so it is your adverb and she starred at the gadget in amazement, in sheer amazement. Amazement could be of shock well you as well you can be so pleased or so thrilled or you can be so put off by something that you are amaze. So, amaze can work either way and amazement is a noun, so she looked at something in amazement. This is the way we construct words, we form words, so please look at the slide given here.

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Word formation

- Differ (v)(N).....Adj.....Adv
- Accuse (v).....(N).....Adj.....Adv
- Compete (v).....(N).....Adj.....Adv
- -----(v)(N)curious (Adj).....Adv
- -----(v) Human (N).....(Adj).....Adv
-(v) Method (N).....(Adj)..... (Adv)
- Presume (v).....(N).....Adj.....Adv

Word formation; now I will guide you how to do this, please look at the slide. Differ is a verb, I want you to do noun, adjective and adverb for it, accuse is a verb please do noun, adjective adverb for it, compete is a verb and you have to fill in for noun, adjective and adverb form of it, curious is an adjective write adverbs, noun and verb for it, human is a noun write adjective adverb and verb for it, method is a noun write verb, adjective and adverb for it, presume is a verb write noun, adjective and adverb for it. I will give you two minutes to complete this exercise and then we will discuss the answers.

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Answers

- Differ Difference Different Differently
- Accuse Accusation Accusatory Accusingly
- Compete competition competitive competitively
- nil (v) nil (N) curious curiously
- Humanize Human Humanitarian humanly
- Nil (V) Method Methodical Methodically
- Presume Presumption Presumptive Presumably

So, let us discuss the answers differ; noun is difference, adjective different, differently. Accuse; verb accusation, noun accusatory; accusatory remark. Remember, accusingly is adverb. Compete, competition, competitive see look at your, i v e form and competitively. Curious, curiously it has no noun form and no verb form, so what is the rule here every word cannot be converted into whatever we wish it to. So, there are certain rules and we have to abide by those. Humanize; verb human, noun humanitarian and humanly adverb, method there is no verb for it; methodical adjective, methodically is your adverb. Presume, presumption, presumptive. Please look at the category and the word presumptive the spelling of this word presumably is adverb.

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Exercise: Word form

- i. Allergy
- ii. Argue
- iii. Assume
- iv. Broad
- v. Drama
- vi. Electric
- vii. Idea
- viii. Grow
- ix. Science
- x. Solve

Now, look at this exercise word formation I would like you to find nouns, adverbs, adjectives and of course, noun, verbs, adverbs and adjectives for these words. You may consult your dictionary please and work in pairs if you think necessary. Allergy, argue, assume, broad, drama, electric, idea, grow, science, solve not as easy as it appears; it will take some effort and some dictionary skills on your part to identify the various forms of these words. Now, let us look at this paragraph or passage.

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Word-formation

- The perfume **industry** is facing a major problem: maintaining constant levels of quality is necessary, but it is increasingly difficult to obtain a regular supply of all the necessary natural ingredients. Essential oils cannot be synthesised in the laboratory. But supplies are dwindling and need to be protected, in some cases by the perfume industry itself.

Adapted from :

<http://www.theguardian.com/business/2014/mar/04/chanel-perfume-legislation-guerlain-loreal>

The perfume **industry** is facing a major problem maintaining constant levels of quality is necessary, but it is increasingly difficult to obtain a regular supply of all the necessary natural ingredients. Essential oils cannot be synthesized in the laboratory, but supplies are dwindling and need to be protected, in some cases by the perfume industry itself. I have highlighted the first noun for you, that is industry my question to you is to identify all the nouns here and make various words, other categories of words using the same nouns. This is your exercise, I will repeat, I have marked the noun for you, the first sentence that is industry, I would like you to identify all the nouns in this passage, it is a very short passage and please use different words or forms of words for those nouns.

Let us move on. This is another exercise for you.

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Exercise

Spiderman is(argue) the most popular(cinema)superhero since Superman. In most successful movie franchises it's hard for the sequels to match the original, and in the case of superhero action movies the(cohesive) of plot and dialogue tend to diminish in favor of ever more (spectacle) and improbable action sequences and special effects. *Spiderman 3* is no exception to this phenomenon, however, that said, it's still really fun to watch and the CG sequences are truly amazing. Now when analyzing the physics in a superhero fantasy obviously you have to suspend (belief) and accept the basic and impossible premise of the movie if you want to have any fun.

Source: <http://www.popsoci.com/article/2007-10/physics-spiderman-3>

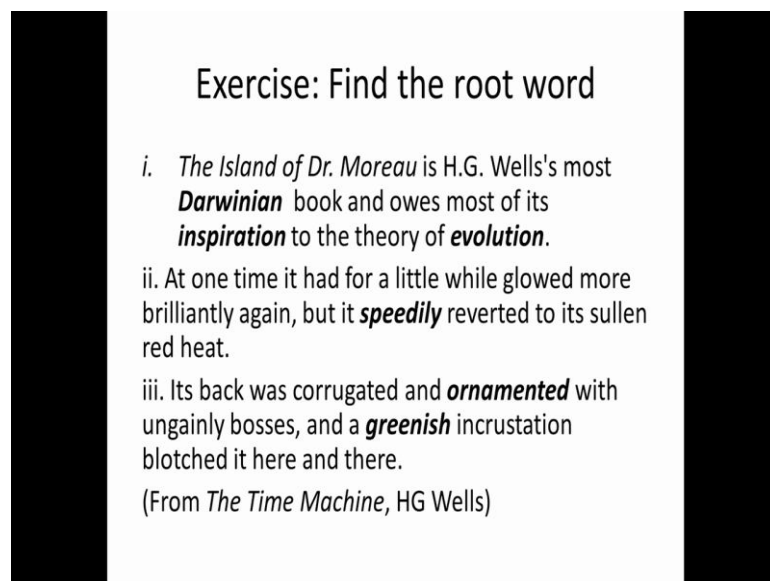
In the brackets there are certain words given, you have to write the proper or the appropriate form of these words. **Spiderman; let us read the passage, let us look at the passage.** ‘Spiderman is dash; (argue) the most popular dash; (cinema) superhero since superman. In most successful movie franchises, it's is hard for the sequels to match the original and in the case of superhero action movies, the (cohesive) of plot and dialogue tend to diminish in favor of ever more (spectacle) and improbable action sequences and special effects. Spiderman 3 is no exception to this phenomenon, however, that said it's is still really fun to watch and the CG sequences are truly amazing. Now when analyzing the physics in a superhero fantasy obviously you have to suspend dash; (belief) and accept the basic and impossible premise of the movie if you want to have any fun’. Take a minute and then we will solve the exercise.

Now, let us consider the exercise all over again; let us look at the slide, Spiderman is arguably the most popular cinematic; please consider it is not cinema hero, it is cinematic hero. We always use the word cinematic experience, so cinematic adjective is hard, I have skipped up little, it is hard for the sequels to match the original and in the case of superhero action movies, the cohesiveness of plot and dialogue tend to diminish in favor of ever more and see look at the next word, we have an adjective here; improbable defining action, adding to action sequences. So, it has to be an adjective again, it is not

spectacle action sequences, but it is spectacular action sequences. This is the logic that you apply here is, Spiderman 3 is no exception to this phenomenon; however, that said it is still really fun to watch and the CG sequences are truly amazing. Now when I analyzing the physics in a superhero fantasy obviously you have to suspend and you cannot suspend belief, you are suspending disbelief.

I do not believe that all these things are can happen or are possible. So, willing suspension of disbelief, this is a literary term; this is such a popular literary term, that it has become part of the idiom and lexicon of the English language, so willing suspension of so you have to suspend your disbelief. There is a prefix here and accept the basic and impossible premise of the movie, if you want to have any fun. If you do not want to have fun, you are not going to suspend disbelief, but if you want to have fun you have to go with the flow.

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Exercise: Find the root word

- i. *The Island of Dr. Moreau* is H.G. Wells's most **Darwinian** book and owes most of its **inspiration** to the theory of **evolution**.
- ii. At one time it had for a little while glowed more brilliantly again, but it **speedily** reverted to its sullen red heat.
- iii. Its back was corrugated and **ornamented** with ungainly bosses, and a **greenish** incrustation blotched it here and there.

(From *The Time Machine*, HG Wells)

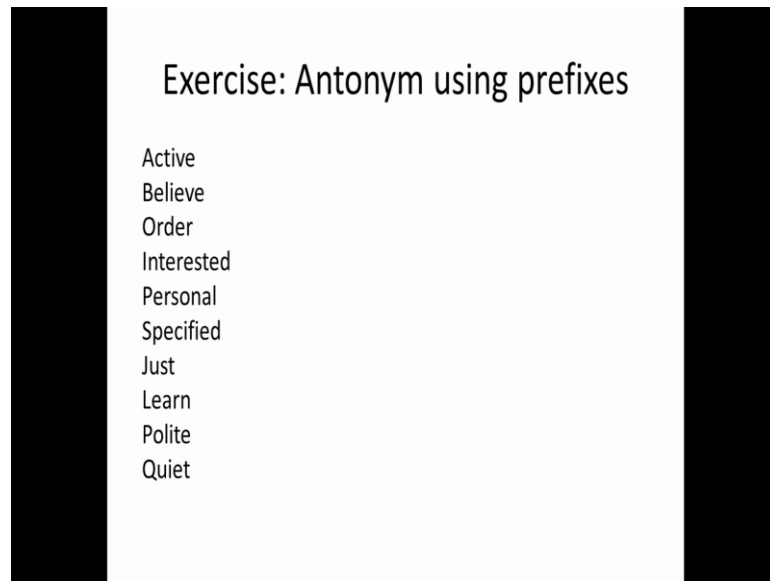
Let us look at this exercise now and the question is finding the root word. Three sentences for you, first sentence about; 'The island of Dr. Moreau is H.G. Well's most **Darwinian** book and owes most of its **inspiration** to the theory of **evaluation**'. **Second** and these two second sentence, second and three that taken from the time machine again by H.G. Well's one of the greatest writers of science fiction genre. 'At one time, it had for

a little while glowed more brilliantly again, but it **is speedily** reverted to its sullen red heat. Its back was corrugated and **ornamented** with ungainly bosses, and a **greenish** incrustation blotched it here and there’.

So, let us look at the first sentence, Darwinian now the root word is Darwinian, it comes from Darwin. Darwin is the proper noun, adjective Darwinian, every name of every author cannot be changed into an adjective. Writer has to be of such great magnitude, such great importance that we can change his style and his thoughts and we can make an adjective out of that. So, Darwin, Darwinian that is an honor we give him; Dickens, Charles Dickens; Dickensian, but we cannot take everyone who writes a novel and turn it into an adjectival word, owes most of his inspiration, inspire is the basic word, inspiring is an adjective, inspiration is a noun.

Theory of evolution, evolve is your verb, evolution is your noun and like wise please solve this exercise. Speedily, what could be the answer; speedily is; obviously, an adverb speed, speed is your basic root word. Ornamented is used as a verb here, ornament is a noun and the basic and root word greenish is a color green is a color, green can be use as a noun and a green dress; it can be used as an adjective, greenish; i s h it is a noun here or if you want in a greenish incrustation, yes so a noun or an adjective. So, it can be used in different places, in different situations as various categories.

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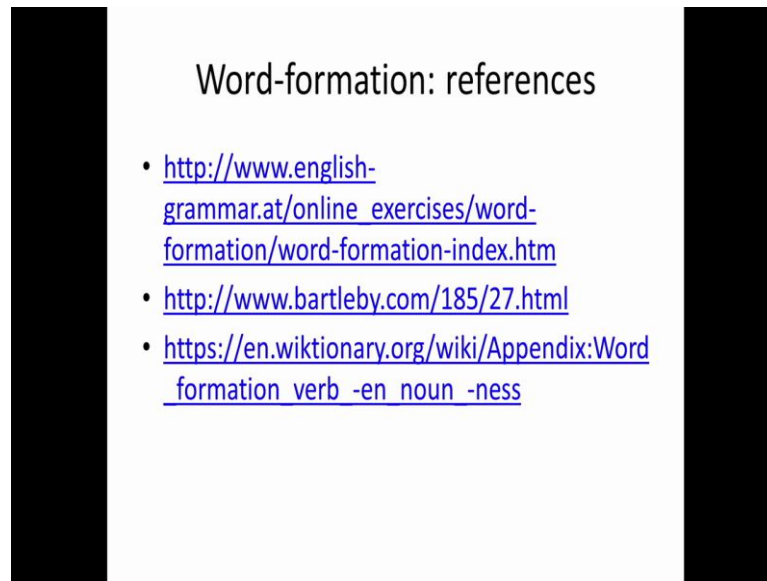


Exercise: Antonym using prefixes

- Active
- Believe
- Order
- Interested
- Personal
- Specified
- Just
- Learn
- Polite
- Quiet

Now, here is an exercise, you turn these words into their antonyms using prefixes. Active, believe, order, interested, personal, specified, just, learn, polite, quiet. I will give you one example; you write in; as a prefix and it turns into inactive. So, diametrically opposite of active is inactive using just a little prefix in. So, in use in as a prefix and inactive from active it becomes inactive. So, the answers are active, inactive; believe, disbelieve; order, disorder; interested, uninterested, there is also word called disinterested; it is again very interesting word and you have to see, consider the difference between disinterested and uninterested. You have personal, impersonal; specified, unspecified; just, unjust; learn, unlearn; polite, impolite; quiet, disquiet and here is a useful slide for you.

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Word-formation: references

- http://www.english-grammar.at/online_exercises/word-formation/word-formation-index.htm
- <http://www.bartleby.com/185/27.html>
- https://en.wiktionary.org/wiki/Appendix:Word_formation_verb_-en_noun_-ness

Please look at the slide for references, if you want to learn more about references or these are your go to links, extremely useful websites. Before we wind up, I want you to do some practice in speaking. **Now, your homework is and this is your, this is something that you have to do on your own.** I want you to talk about what cities are famous in our country and what makes them famous or what are those qualities that make them famous. What cities are famous or what are the famous cities in our country and what are the factors that make them famous.

This is your pre-speaking discussion and your main activity is, describe a city that you **are** enjoyed visiting. You should be able to talk about where is the city? What is so unique about the city? And what are the facilities available for the tourist in this city? So, you have to do some pre-discussion and then you have to talk about a specific city that you enjoyed visiting. This is something that I would like you to discuss and practice speaking.

Thank you very much. We will meet soon for our next class.

Tags

Reading English, English for Engineers, English words, English Exercise, Exercises in English, Grammar usage, English Grammar, vocabulary, words and phrases, spoken communication, written communication, English writing, English speaking, scientific English, report writing, CV, formal letter, Speech-Preposition, Noun Phrases, Countable and uncountable nouns, singular, plural, Modals and Voice, Tenses, Effective Speaking

Essay writing, word categories, word formation, formal tone, paragraph writing, tone in writing, speaking tone, signal words, Letter writing, understanding essays, Mechanics of Essays, publishable essays, nouns, pronouns, verbs, adverbs, adjectives, propositions, determiners, linking words, 'be' form, linking words, reading, listening, sentence, Subject, Verb, Object, Articles, comparatives, passive voice, Dictionary skills, Presentation, Punctuation, collocation