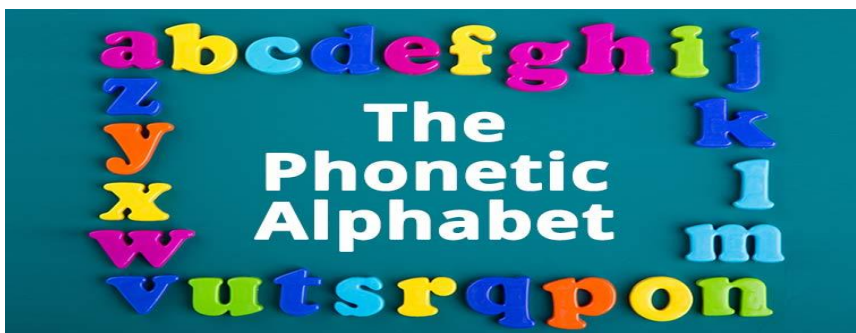# [fəˈnɛtɪks]

What is Phonetics?

Phonetics is the scientific study of speech sounds and their production, transmission, and perception.

The three main sub-disciplines of phonetics are:

1. **Articulatory phonetics**: it investigates and classifies speech sounds. It deals with how sounds are articulated (produced) by the speech organs.
2. **Acoustic Phonetics**: It deals with the physical properties (sound waves) made by the human speech organs.
3. **Auditory phonetics**: it focuses on the reception and the perception of sounds by the ear and the brain.

The Phonetic Alphabet:

English is not a phonetic language, and hence, we often do not utter the word the same way it is spelled.

1. Some words have the same spelling but different pronunciation.

Examples: "read" (the infinitive form) and "read" (past participle).

2. In the same way, some words may have different spelling, but similar pronunciation.
   Examples: "read" (past participle) and "red" (the color).

3. Same sound may be represented by a combination of letters.
   Examples: Caesar- seas see

   Meat- meet

4. The same letter may stand for a variety of sounds:

Examples: Play- at- many.

   It-night

5. A combination of letters may represent a single sound.

Examples: moon- character Thing- thus- physics tough- boat.

6. A single letter may represent a combination of sounds.

Example: Xerox

7. Some letters in a word may not be pronounced at all.
Examples: psychology- column- castle- knock- climb- honest- plumber.

8. In some other cases, there may be no letter to represent a sound that occurs in a word.

   Examples: pure-use.

It was on this basis that the IPA (International Phonetic Alphabet) was established in 1886 (last updated in 2015) as an alphabetical system of phonetic notation based on a set of symbols that represent the sounds of the spoken language. The primary aim of the IPA is the promotion of the scientific study of phonetics by providing the academic community worldwide with a standardized notation system of phonetic symbols (consonants and vowels) that will make the transcription of languages and pronunciation more accessible.

English consonants:

/p/	/b/	/t/	/d/	/k/
Park	bee	tree	desk	cake

/g/	/f/	/v/	/θ/	/ð/
Girl	five	very	three	their

/s/	/z/	/ʃ/	/ʒ/	/tʃ/
Sea	zoo	shine	vision	church

/dz/	/h/	/m/	/n/	/ŋ/
Judge	human	money	name	sing

/l/	/w/	/j/	/r/	
Learn	wave	yellow	red	

English vowels:

Vowels are classified into three groups:

1. **Monophthong** or (pure vowels): they consist of one vowel only. They can be long or short.

   a. **Long vowels:**

/i:/ beat /bi:t/ - mean /mi:n/

/ɜː/ bird /bɜːd/ - girl /gɜːl/

/a:/ card /ka:d/, pass /pa:s/ - half /ha:f/

/ɔː/ board /bɔːd/ - horse /hɔːs/ - torn /tɔːn/

/u:/ food /fu:d/ - soon /su:n/

   b. **Short vowels**

/I/ hit /hɪt/ - bit /bɪt/ - fit /fɪt/

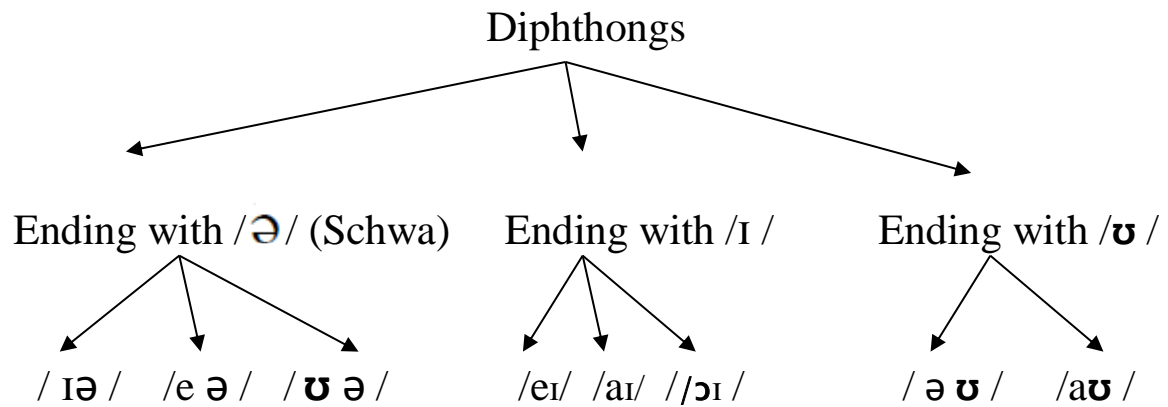/ ʌ / much /mʌtʃ/ - must /mʌst/

/ ɒ/ dog /dɒg/

/ ʊ / cook /kʊk/ , book /bʊk/

/e/ bed /bed/

/ ə / alone / ələʊn/ , ago / əgʊə /

2. **Diphthongs**: They consist of two pure vowels. In general, the first vowel is stronger than the second one in terms of intensity.

There are three types of diphthongs.

Diphthongs

Ending with /Ə/ (Schwa)   Ending with /ɪ /   Ending with /ʊ /

/ ɪə /   /e ə /   /ʊ ə /   /eɪ/   /aɪ/   /ɔɪ /   / ə ʊ /   /aʊ /

Type 1 Diphthongs

/ɪə / clear /klɪə /, fear /fɪə /

/e ə / hair /he ə /, fair /feə /

/ʊə /tour /tʊə /

Type 2 Diphthongs

/eɪ/ paid /peɪd/, pain /peɪn/

/aɪ/ time /taɪm/ , nice /naɪs/

/ɔɪ/ boy /bɔɪ/, toy /tɔɪ/

Type 3 diphthongs

/ ə ʊ / load /l ə ʊ d/ , most /məʊt/, home /hə ʊm/

/aʊ / house /ha ʊs/, loud /laʊd/

3. **Triphthongs** : a triphthong is a combination of a diphthong + a monophtong / ə/.

/eə / /ʊə / /eɪ/   / ə ʊ /   /aʊ /

- /eɪ/ +/ə / = /eɪə/ like player /ple ɪ ə/

- /aɪ/+ /ə / = /aɪə/ like liar /laɪə/

/ɔɪ/   +/ə / = /ɔɪə / like lawyer.

Exercises:

1. Transcribe the vowels of the following words:

Cook / /, send / /, flat / /, gun / /, should / /, rob / /, nurse / /, yawn / /, chew / /, bath / /, tear / /, stairs / /, space / /, joy / /, flight / /, hole / /, brown / /, fire / /, flour / /, Ireland / /.

2. Classify the following words in the table below according to their description:

Task- boot-pull- cow- eagle- burn- towel-host- flower-stone-big-bird.

Short vowel	Long vowel	Diphthong	Triphthong

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