

Introduction English pronunciation can be challenging due to the presence of consonant clusters; groups of two or more consonant sounds occurring together within a syllable. Example: The "brrr" sound people make when they feel cold is a bilabial trill. 2. Alveolar Trill [r] This is produced by the rapid vibration of the tongue against the alveolar ridge. Example: Some speakers of Scottish English pronounce words like rolled and arrow with a trilled /r/. 3. Uvular Trill [R] (Less common) Some English speakers who imitate French or German accents may produce a uvular trill, which is common in those languages.

Conclusion Understanding the organs of speech is essential for analyzing how sounds are produced in human language. These organs, including the lungs, larynx, tongue, lips, and velum, work together to create the full range of speech sounds. Each organ plays a unique role in shaping articulation, phonation, and resonance, allowing for the production of different consonants and vowels. By studying these structures, students gain a deeper appreciation of how speech works and can improve their pronunciation and phonetic analysis skills. This knowledge is especially valuable for language learners, linguists, and speech therapists.

Introduction Phonetics and phonology are two interrelated fields within linguistics that deal with speech sounds. While phonetics focuses on the physical properties of sounds, phonology examines their functional and systematic roles in a particular language. Understanding these distinctions is essential for linguistic analysis, speech processing, and language acquisition studies.

I. Definitions 1. Phonetics Phonetics is the branch of linguistics that studies the physical characteristics of speech sounds, including their production, transmission, and perception. It is primarily concerned with the articulatory, acoustic, and auditory properties of sounds, irrespective of their linguistic function. Key aspects of phonetics

- o Articulatory phonetics: Examines how speech sounds are physically produced by the vocal tract (e.g., tongue placement, airflow).
- o Acoustic phonetics: Analyzes the physical properties of speech sounds, such as frequency, duration, and amplitude.
- o Auditory phonetics: Studies how speech sounds are perceived by the human ear and processed by the brain.

Example: The [p] sound in "pat" and "spat" is physically different: in "pat," it is aspirated ([ph]), while in "spat," it is unaspirated ([p]). Words ending in "s" and another consonant: "Plants" can sometimes be pronounced as "plants-uh" especially when spoken slowly.

Factors Influencing Epenthesis:

- ? Regional accents and dialects play a significant role.
- ? The speed of speech influences how likely epenthesis is to occur.
- ? A speaker's native language can also influence the pronunciation of consonant clusters in a second language.

In essence, vowel insertion is a natural phonological process that helps speakers navigate the complexities of consonant clusters.

- o Certain clusters are more frequent in English (e.g., bl, tr, sp, gr).

4. Common Pronunciation Challenges and Strategies

- o Omission: Consonant omission in English occurs in various contexts, such as rapid speech, historical sound changes, and dialectal variations. Here are some common examples:
 - ? Consonant Omission in Connected Speech (Elision) e.g., Next day → Nex' day (the /t/ sound is dropped), Friendship → Frien'ship (the /d/ sound is dropped).
 - ? Consonant Omission in Informal Speech (Casual Reduction) e.g., Going to → Gonna (the /g/ sound is weakened, and /t/ is dropped), Give me → Gimme (the /v/ sound is omitted).
 - ? Dialectal and Regional Variations e.g., Want to → Wanna (common in American English), Asked → As'ked or Ast (found in some regional dialects)
- o Insertion: Learners may add a vowel (film → fil-um).
- o Reordering: Rearranging sounds in English words is called metathesis, where two sounds (usually consonants) swap

places. This occurs due to historical sound changes, dialectal variations, or speech errors. Here are some examples: ? Historical Metathesis (Permanent Sound Changes) e.g., Bird → brid (Old English), Third → thridda (Old English), Horse → hros (Old English), Wasps → Waps (older variation) ? Common Metathesis in Casual Speech e.g., Ask → Ax ("Let me ax you a question."), Comfortable → Comfterble (kumf-tur-bul instead of kum-fur-tuh-bul), Introduce → Interduce, Prescription → Perscription. ? Can stand alone (e.g., "a," "go") or be part of a multisyllabic word (e.g., "com-pu-ter").

Example of Syllables in English

- o Monosyllabic words (one syllable): cat, go, tree, school
- o Disyllabic words (two syllables): ta-ble, win-dow, doc-tor
- o Polysyllabic words (three or more syllables): com-pu-ter, a-ma-zing, in-cred-i-ble

II. Structural Components of the English Syllable

The English syllable consists of three main structural components: Onset (The initial consonant(s) in a syllable), Nucleus (The core of the syllable, typically a vowel), and Coda (The final consonant(s) in a syllable). These components determine the phonological structure of a syllable and contribute to pronunciation, stress, and syllabification.

1. The Three Main Components

- ? Onset
 - o The onset is the consonant or consonant cluster that appears before the vowel (nucleus) in a syllable.
 - o A syllable may or may not have an onset.
 - o Onsets can consist of:
 - o A single consonant (e.g., cat, dog, tree).
 - o A consonant cluster (two or more consonants together) (e.g., sport, throw, glass).
 - o No consonant at all (zero onset) (e.g., eat, arm, oak).
- ? Nucleus (Peak)
 - o The nucleus is the core or central vowel sound of the syllable.
 - o It is typically a vowel (e.g., /a/, /e/, /i/, /o/, /u/), but in some cases, a syllabic consonant (e.g., /l/, /n/, or /r/) can function as the nucleus (e.g., *bottle, *sudden, butter).
 - o The nucleus carries the greatest energy (sonority) and serves as the syllable's peak.
- ? Coda
 - o The coda consists of consonants that follow the nucleus in a syllable.
 - o Some syllables have no coda (e.g., go, hi, true), making them open syllables.
 - o Others end in one or more consonants (e.g., hand, desk, plant), making them closed syllables.
 - o The coda can consist of:
 - o A single consonant (e.g., cat, dog, pen).
 - o A consonant cluster (e.g., text, asked, glimpse).

2. The Rhyme (Rime) – The Nucleus and Coda Together

- o The rhyme (or rime) is a combination of the nucleus and coda. (e.g., "at" in "cat").

This course provides a comprehensive exploration of consonant clusters in English, covering:

- o Definition and classification of consonant clusters
- o Phonotactic rules governing their usage
- o Pronunciation challenges and strategies to overcome them
- o Engaging practice tasks to reinforce understanding

Mastering consonant clusters enhances pronunciation and fluency in English.

Velarization occurs:

- o At the end of words (word-final position) examples: "feel" → [fi:l], "small" → [sm?:l], "pool" → [pu:l], "school" → [sku:l], "people" → [ˈpi:pl]
- o In syllable-final positions (coda position) examples: "bottle" → [ˈb??l] (in Cockney & Estuary English, the /t/ may be glottalized), "middle" → [ˈmɪdl], "table" → [ˈtɛbl], "candle" → [ˈkaen.dl]
- o In many dialects of American and British English (General American, Cockney, Estuary English) examples: "mail" → [mɛl] (In General American English, most final /l/ sounds are strongly velarized [ɫ]), "people" → [ˈpi:po] (Cockney often changes the [ɪ] to [o] sound), "bottle" → [ˈb??o] (the /t/ is glottalized, and the dark [ɪ] becomes a vowel).

Complex Syllables:

Can have multiple consonants in the onset or coda (e.g., "strength").

Summary Table

Component	Definition	Example
Onset	Consonant(s) before the nucleus	/pl/ in "plant"
Nucleus	Core vowel sound (peak of the syllable)	/æ/ in "plant"
Coda	Consonant(s) after the nucleus	/nt/ in "plant"
Rhyme	Nucleus + Coda	/ænt/ in "plant"

III. Phonotactics

defines the possible sound patterns in English and explains why some combinations

are allowed while others are not.

Engaging Tasks

Task 1: Identifying Syllable Structures

Instructions: Label the syllable components (Onset, Nucleus, Coda) for the following words. Some clusters, such as *pl*, *tr*, *sp*, occur frequently in everyday speech, while others, like *lfths* in *twelfths* or *mpts* in *prompts*, present articulation difficulties.

Articulatory System (Shaping Sounds)

o **Pharynx:** A passage that directs airflow from the larynx to the oral or nasal cavity, influencing resonance. Additionally, clusters can vary in complexity, with some consisting of two consonants (e.g., *bl* in *black*), while others contain three or more (e.g., *str* in *street* or *twelfths* with four consonant sounds in the final position). **Note:** In English, nasalization happens before nasal consonants, but it is not contrastive (does not change meaning).

o **Labialization [w]:** Labialization (marked with [w]) occurs when a consonant is pronounced with simultaneous rounding of the lips.

Definition and Characteristics of Consonant Clusters

A consonant cluster is a sequence of two or more consonant sounds occurring together within a syllable without intervening vowels.

Definition of a Syllable

A syllable is a unit of pronunciation in spoken language that consists of a single vowel sound (nucleus) with or without surrounding consonants (onset and coda). This course will provide an insightful exploration of English consonants, allophones, vowels (short and long), diphthongs, and triphthongs, highlighting their characteristics and significance in spoken English. In contrast to consonant digraphs (where two consonants form a single sound, such as *ch* in *chair*), each consonant in a cluster retains its individual phonetic value. The ability to pronounce and recognize consonant clusters is crucial for mastering English phonology, as they contribute to word distinctiveness and speech clarity.....

ow (cl, bl, pl)

Task 3: Pronunciation Practice

Instructions: Read the following sentences aloud, paying special attention to consonant clusters.

Fleb ->

Introduction

Diacritics are small marks added to phonetic symbols in transcription to indicate modifications in pronunciation. Devoicing occurs when a normally voiced sound (like /b, d, g, v, z/) is pronounced without vocal cord vibration, making it sound more like its voiceless counterpart?

Active Articulators (Movable Parts)

o **Tongue:** The most flexible speech organ, responsible for producing different vowel and consonant sounds by changing its position (tip, blade, dorsum, root). Moreover, different languages impose specific phonotactic constraints, making certain English clusters harder for non-native speakers.

Metathesis in Dialects and Non-Standard Speech

e.g., *Spaghetti* -> *Pasketti* (common in child speech), *Nuclear* -> *Nucular* (a well-known mispronunciation), *Relevant* -> *Revelant*. They assist linguists in identifying finer details of speech sounds, such as aspiration, devoicing, velarization, and glottalization.

Aspiration occurs in:

- o **Word-initial voiceless plosives** (/p, t, k/) when they occur at the beginning of a stressed syllable.

Other Common Diacritics

o **Nasalization [̃]:** Nasalization occurs when air flows through the nose during speech, typically due to the lowering of the velum (soft palate). Understanding these fundamental elements of phonetics is essential for improving pronunciation, speech clarity, and listening comprehension.

Introduction to English Diphthongs and Triphthongs

In English, vowels can be classified into monophthongs (single vowel sounds), diphthongs (two vowel sounds combined), and triphthongs (three vowel sounds combined).

Spelling Patterns:

Many triphthongs appear in words with *-er* endings (e.g., *fire*, *power*).

Introduction

Speech is one of the most complex and defining features of human communication. The study of these organs helps linguists, language learners, and speech therapists

comprehend the mechanics behind pronunciation and articulation. Phonation System (Sound Production)

- o Larynx (Voice Box): Contains the vocal cords, which vibrate to produce voiced sounds or remain open for voiceless sounds.
- o Oral Cavity (Mouth): The primary area where articulation occurs, allowing modifications of airflow to produce different sounds.

Passive Articulators (Fixed Structures)

- o Teeth: Assist in producing dental sounds (/t/, /d/) and help shape other consonants like /s/ and /z/.
- o Soft Palate (Velum): Controls airflow between the oral and nasal cavities, raising for oral sounds and lowering for nasal sounds.

A trill is a type of consonant sound produced by the rapid vibration of an articulator (such as the tongue or lips) against another part of the vocal tract.

- o Phonological rules: Patterns governing how sounds are distributed and modified in different contexts (e.g., assimilation, elision). Understanding consonant clusters is essential for learners as they affect pronunciation, fluency, and spelling. This course explores the components of the English syllable, its structural patterns, and phonotactic constraints. It serves as the basic building block of words and contributes to their rhythm, stress and intonation, and phonological processes like linking and elision. Examples:

- o Cat -> Onset: /c/, Rhyme: /at/ (Nucleus: /a/, Coda: /t/)
- o Sing -> Onset: /s/, Rhyme: /ing/ (Nucleus: /i/, Coda: /ng/)

3. E.g., ba-by -> /beɪ.bi/, la-dy -> /leɪ.di/

- o Double Consonant Rule: When two consonants appear between vowels, they are often split, unless they form a common consonant cluster. E.g., hap-py -> /hæp.i/, let-ter -> /let.ər/
- o Consonant Clusters: If a consonant cluster can begin a word in English, it stays together in the next syllable. E.g., a-pril -> /eɪ.prəl/, e-clipse -> /ɪˈklips/
- o Vowel Digraphs: A pair of vowels representing a single sound is never split in syllabification. It determines the possible syllable structures, allowable consonant clusters, and sound combinations in English.

Aspiration does NOT occur:

- o After /s/ in clusters (e.g., "spin", "stop", "school").
- o At the end of words (final position). Examples:

- o [ph] -> "pin" [phɪn] (aspirated) vs. "spin" [spɪn] (unaspirated).

Glottal stop [ʔ] (Sound Replacement) A complete closure of the vocal cords, causing a brief pause in airflow before the sound is released. [men] ->

Introduction The English language consists of a rich and diverse phonetic system that plays a crucial role in pronunciation and communication.

Glides (Semi-vowels) – Glide into the following vowel: /w/, /j/

II. Allophones in English

1. English has 8 diphthongs, categorized into two groups:

- a) Closing Diphthongs (End with /ɪ/ or /ʊ/)

Diphthong Example Transcription

- /eɪ/ face /feɪs/
- /aɪ/ time /taɪm/
- /ɔɪ/ boy /bɔɪ/
- /aʊ/ house /haʊs/
- /ʊə/ go /ɡoʊ/

- b) Centering Diphthongs (End with /ʊ/)

Diphthong Example Transcription

- /ɪə/ beer /bɪə/
- /eə/ hair /heə/
- /ʊə/ tour /tʊə/

B. In phonetics, understanding the organs of speech is essential for analyzing how sounds are produced, classified, and articulated.

- o Lower Jaw (Mandible): Supports tongue and lip movement, adjusting the size of the oral cavity for different sounds.

The Manner of Articulation The manner of articulation refers to how speech sounds are produced by manipulating airflow in the vocal tract. In English, consonant clusters follow specific phonotactic constraints, meaning that not all possible consonant combinations are permissible. "Film": Many people, in casual speech, might pronounce this as "fil-um" or "fi-lim," inserting a short "uh" or "ih" sound.

Engaging Tasks and Answer Keys

Task 1: Identify the Consonant Clusters

Instructions: Identify and underline the consonant clusters in the following words:

1. Understanding its structure is essential for mastering pronunciation, phonological patterns, and stress placement in English.

Key Features of an English Syllable

- o Must contain a vowel sound (or a syllabic consonant like

/l/, /n/, or /r/ in some cases). Syllable Division (Syllabification) Syllable division, also known as syllabification, is the process of splitting words into syllables based on their phonological and morphological structure. English allows complex onset clusters (e.g., spring, throw), but certain combinations are not allowed (bnick, ptar are not possible). English allows up to three consonants in an onset cluster, but they follow strict patterns: ? English allows multiple consonants in a coda (e.g., texts /teksts/, asks /aeks/). It occurs when a consonant, typically a voiceless plosive (/p, t, k/), is pronounced with a strong burst of air after its release. Velarization [ʔ] A secondary articulation where the back of the tongue is raised towards the soft palate (velum) while pronouncing a sound. Examples: o "full" -> [fʔl] (dark L at the end of a syllable) o "bottle" -> [bʔʔl] (final /l/ is velarized) o "milk" -> [mlɪk] (velarized /l/) ? Velarization does NOT occur: o In syllable-initial /l/ sounds (like in "light" [laɪt]). Glottalization [ʔ] or [ʔʔ] A sound produced with a constriction at the glottis (vocal cords). Glottal constriction [ʔ] (Sound Reinforcement) Some languages add a glottal constriction to certain consonants, making them sound more tense or creaky. This type of nasalization occurs due to surrounding sounds, usually when a vowel appears before a nasal consonant (e.g., /m/, /n/, /ŋ/). [ŋ] – A dentalized /n/, as in the pronunciation of "tenth" [tenʔ]. Note: In English, dentalization commonly happens when /t, d, n, l/ appear before /ʔ/ or /d/ (e.g., "eighth" [eɪtʔ]). Introduction to Consonants Consonants are speech sounds produced with some degree of obstruction in the vocal tract. Fricatives – Partial obstruction with continuous airflow: /f/, /v/, /ʃ/, /dʒ/, /s/, /z/, /ʔ/, /ʔ/, /h/ 3. They occur due to different phonetic environments but are still perceived as the same sound by native speakers. Types of Allophonic Variations A. Aspiration: A puff of air released when pronouncing a consonant. /ph/ in "pin" (aspirated) ? p/ in "spin" (unaspirated) Rule: Voiceless plosives (/p, t, k/) are aspirated at the beginning of stressed syllables but not after /s/. "light" [l] (clear /l/) vs. "full" [ɪ] (dark /l/) E. Nasalization: A vowel is nasalized when followed by a nasal consonant. Introduction to English Vowels Vowels are speech sounds produced without any obstruction in the vocal tract. Diphthongs and triphthongs involve a gliding movement from one vowel sound to another within the same syllable. These organs can be divided into: o Respiratory system: Lungs, diaphragm, trachea (provide airflow). Fricatives o Narrow constriction allowing continuous airflow with friction. Key concepts of phonology o Phonemes: The smallest unit of sound that distinguishes meaning in a language (e.g., /p/ vs. /b/ in pat vs. bat). Unlike digraphs, where two letters produce a single sound (e.g., sh in ship), consonant clusters maintain the distinct sounds of each consonant. These clusters can appear at the beginning, middle, or end of words and play a crucial role in phonetics, word formation, and speech clarity. Four-consonant clusters: twelfths, strengths, prompts 3. Rules and Constraints of Consonant Clusters (Phonotactics) o Not all consonant combinations are possible in English. o Some clusters require insertion of a vowel sound in connected speech for easier pronunciation (Epenthesis). "Athlete": It is not uncommon to hear "ath-a-lete," with a small "uh" sound inserted between "th" and "l." While this is the insertion of a consonant, it is a similar process to vowel insertion, that eases the transition between the m and th sounds. ? Task 2: Fill in the Gaps Instructions: Complete the words below by adding the correct consonant cluster. The students stacked their books on the desks. Introduction The syllable is a fundamental unit of spoken language. Types of Syllables in English o Open Syllables (CV): End in a vowel (e.g., "go"). o Closed Syllables (CVC): End in a consonant (e.g., "cat"). Key Rules for Syllable

Division in English o Single Consonant Rule: A single consonant between two vowels usually joins the second vowel in spoken English. E.g., boat-ing -> /boʔ.tɪn/, rain-bow -> /reɪn.boʔ/

o Affixation Rule: Prefixes and suffixes are generally separated from the root word. Some vowels and consonants never appear together in a syllable (tl at the beginning of a word is not allowed in English, but it exists in other languages).

Conclusion o Syllable division (syllabification) helps in pronunciation, word recognition, and hyphenation.

Devoicing occurs:

- o At the end of words (word-final position): Voiced sounds become partially or fully devoiced.
- o Before voiceless consonants: A voiced consonant loses some voicing when followed by a voiceless sound.

Devoicing does NOT occur:

- o Between vowels (where voicing is usually maintained). This can result in the full replacement of a sound by a glottal stop [ʔ] or reinforcement of another consonant with a glottal constriction [ʔ]. Examples:
 - o "butter" -> [ˈbʔʔʔʔ] (in some accents, /t/ is replaced by a glottal stop).
 - o "kitten" -> [ˈkɪʔn] (instead of /t/, a glottal stop is used).

Note: This occurs in Cockney English, Estuary English, and some American English accents (especially in rapid or casual speech). This means that while the primary articulation happens at a certain place (e.g., alveolar, velar), the lips are also rounded. Note: In these cases, labialization is caused by coarticulation (influence from nearby rounded vowels).

- o Dentalization [ɹ̥]: Consonants are articulated with the tongue against the teeth ([nʔ] 'tenth') Examples: 1.

II. Practice Tasks

Task 1: Identify the diacritic used in the following transcriptions and explain its function.

Task 3: Identify the difference in pronunciation between the following minimal pairs and explain how diacritics affect meaning.

1. /t/ in "butter" -> [ɹ] (sounds like a soft 'd' in American English)

C. Glottalization: Replacing /t/ with a glottal stop [ʔ]. Example: ? /t/ in "bottle" -> [ʔ] (glottal stop in some accents, e.g., Cockney English)

D. A. Short Vowels: Short vowels are typically pronounced quickly and are found in stressed syllables. /ʊ/ as in book /bʊk/

B. Long Vowels: Long vowels are pronounced with a longer duration and may have a slight diphthongal quality. The ability to produce and articulate sounds depends on various anatomical structures working together in a coordinated manner.

- o Vocal Cords: Control pitch and intensity of the voice by adjusting tension and airflow.
- o Lips: Help produce bilabial sounds (/p/, /b/, /m/) and shape vowels (rounded vs. unrounded).

Affricates o A combination of a plosive and a fricative; complete closure followed by gradual release.

Trills o The articulator vibrates rapidly due to airflow.

Phonology Phonology is the study of the abstract, cognitive, and functional aspects of speech sounds in a given language. It focuses on how sounds pattern and interact within a linguistic system and how they contribute to meaning distinctions. Clusters can occur at the beginning (initial position), middle (medial position), or end (final position) of words.

Types of Consonant Clusters

A. Initial Consonant Clusters (Beginning of Words) Examples: ?

Three-consonant clusters: street, split, spring

B. Medial Consonant Clusters (Middle of Words) Examples: ?

extra, upgrade, football

C. Final Consonant Clusters (End of Words) Examples: ?

Three-consonant clusters: banks, tasks, texts

?"Warmth": Some speakers will insert a small /p/ sound, making it sound like "warmph".....

ain (br, tr, gr) 2.....

ight (bl, fl, pl) 3.

Phonotactics Phonotactics refers to the rules and constraints that govern which sounds can appear together in a given language.

Task 2: Syllable Division Instructions: Divide the following words into syllables.

Task 3: Phonotactic Constraints Instructions: Identify which of the following sound combinations are possible in English.

Aspiration [h] Aspiration refers to a strong burst of air that follows the release of a plosive sound. In English, aspiration

occurs in specific environments, but it does not change word meaning (it is not phonemic).o Partially in word-medial positions, depending on stress.o [th] -> "top" [th?p] (aspirated) vs. "stop" [st?p] (unaspirated). o [kh] -> "kill" [khɪl] (aspirated) vs. "skill" [skɪl] (unaspirated).Devoicing [] A voiced sound loses its voicing, often due to assimilation.Note: This occurs in some Scottish and Cockney English accents.

Classification of Consonants

A. Place of Articulation (Where the sound is produced)

1.Introduction to Allophones Allophones are variations of a phoneme that do not change the meaning of a word.Example: o The /p/ sound in "pin" [ph] (aspirated) vs. the /p/ in "spin" [p] (unaspirated). o The /t/ in "top" [th] vs. the /t/ in "stop" [t] vs. the /t/ in "butter" [r] (flapping in American English).

B. Flapping (in American English): A rapid tapping of the tongue against the alveolar ridge.In English, vowels can be classified as short vowels and long vowels, which differ in duration and quality.

Spelling Patterns: o Short vowels are often found in closed syllables (e.g., bit, cat, cup).

Pronunciation Complexity: Triphthongs require more tongue movement and are harder to master.These structures, known as the organs of speech, form part of the vocal apparatus and play a crucial role in speech production.o **Phonation system:** Larynx, vocal cords (produce voice).o **Articulatory system:** Tongue, lips, teeth, alveolar ridge, hard and soft palate, and velum (shape speech sounds).

Respiratory System (Air Supply) o **Lungs:** Provide the airflow necessary for speech production by pushing air through the vocal tract.o **Trachea (Windpipe):** Acts as a passage for air between the lungs and the larynx.o **Uvula:** A small structure at the end of the velum, influencing certain speech sounds in some languages.

Here are the primary manners of articulation in articulatory phonetics: 1.o Example: /r/ (Spanish perro) Note : Trills are not common in Standard English, but they do appear in certain contexts and dialects.

A phone is any distinct speech sound that can be produced by the human vocal tract.It is a concrete and measurable sound, studied in phonetics.

Continuous practice with different word positions will improve both listening and speaking skills.....eep (sp, st, sl) 4.The blue splinter sparkled in the sunlight.o May have an onset (one or more consonants before the vowel).o May have a coda (one or more consonants after the vowel).o It forms the part of a syllable that can be rhymed with another word (e.g., cat and bat share the same rhyme: - at).It follows specific rules that determine where a word can be divided when spoken or written.

Key Phonotactic Rules in English o **Syllable Structure Constraints** ?The most common structure in English is CVC (Consonant-Vowel-Consonant) (e.g., cat, dog, pen).Some sequences like /nr/ or /dl/ are not possible in English onsets.However, some sequences that exist in other languages are not possible in English, like */ngs/ at the end of a word.o **Vowel and Consonant Sequences** ?English does not allow two identical consonants to appear at the beginning of a word (bbat is not possible).This extra airflow creates a slight 'h'-like sound.Note: Aspiration disappears after /s/ because /s/ prevents the burst of air.o In carefully articulated speech (where voicing is preserved)."used to" -> [ju:st t?] (the /z/ in "used" is devoiced to [s]).It is marked by the diacritic [ʔ], placed after the affected consonant.[dʔn] ('dawn' in some accents) – The vowel /ʔ/ is nasalized before /n/.Task 2: Add the correct diacritic to these transcriptions.Task 4: Transcribe the following words using appropriate diacritics.Task 5: Explain why the following words have diacritics and how they influence pronunciation.They are classified based on: o Place of articulation (where the sound is produced) o Manner of articulation (how the sound is produced)

2.Glottal (produced at the glottis) – /h/B.Liquids (Approximants) – Air flows around the tongue: //, /r/

6. Understanding allophones improves pronunciation and listening skills. /æ/ in "man" becomes nasalized [æ̃] due to the following nasal sound /n/. ? /i/ in "green" → [gri:n] III. Duration: Long vowels take more time to pronounce than short vowels. o Long vowels frequently appear in open syllables or with silent e (e.g., bike, cute, mate). IV. English Diphthongs and Triphthongs 1. A. English Diphthongs Diphthongs are vowel sounds that begin with one vowel and glide into another. English Triphthongs Triphthongs involve a glide from one vowel to another and then to a third vowel. There are 5 common triphthongs in English: Triphthong Example Transcription /eɪ/ player /pleɪ/ /aɪ/ fire /faɪ/ /ɔɪ/ royal /rɔɪ/ /aʊ/ power /paʊ/ /əʊ/ lower /ləʊ/ 2. Differences Between Diphthongs and Triphthongs 1. Number of vowel sounds: Diphthongs have two, while triphthongs have three. I. Definition The organs of speech are the physical structures involved in the production of speech sounds. They include various parts of the vocal tract, from the lungs to the lips, working together to produce different sounds. The following figure displays the different organs of speech. II. Functions of the Organs of Speech Each organ of speech plays a specific role in the production of speech sounds. Below is an overview of the key organs involved and their functions: 1. o Alveolar Ridge: A crucial point of contact for sounds like /t/, /d/, /s/, and /z/. Plosives (Stops) o Complete closure of the airflow followed by a sudden release. Approximants o Articulators approach each other but do not create friction. Taps and Flaps o A single, quick touch of the tongue against another articulator. Bilabial Trill [B] o This sound is made by vibrating both lips together. Phones are written in square brackets [] to indicate their actual pronunciation. o Allophones: Variants of a phoneme that do not change meaning (e.g., [th] and [t] in English). Time [thalm] The /t/ is aspirated at the beginning of a stressed syllable. Two-consonant clusters: spot, black, train ? Two-consonant clusters: help, hand, ask ? Minimal pair exercises ? Slow articulation drills ? The strong stranger sprinted swiftly. Syllable Division and Phonotactics 1. o Onset Restrictions ? /s/ + voiceless stop (/p/, /t/, /k/) + liquid/glide (/r/, /l/, /w/, /j/) ? o Coda Restrictions ? I. Common Diacritics and Their Functions 1. Examples: o Word-final devoicing: ? o Before voiceless consonants: ? Note: English devoicing is phonetic (it does not change word meaning). This creates a darker, more hollow sound. One of the most common examples of velarization in English is the dark L [ɫ]. o In some accents (e.g., Irish English uses only a clear /l/). It often replaces certain consonants. Examples: o "black" → [bʔlaek] (glottalized /b/). o "bad" → [bʔaek] (glottalized /b/). It can happen in different ways depending on the language and context. [maen] ('man') – The vowel /æ/ becomes nasalized before /n/. [sɪŋ] ('sing') – The vowel /i/ is nasalized before /n/. [kw] in ('queen') → [kwɪ:n] (the /k/ is produced with lip rounding). [dw] in ('dual') → [dwu:ɪ] (the /d/ is slightly rounded before /u/). [t̪] – A dentalized /t/ (produced with the tongue touching the upper teeth). [d̪] – A dentalized /d/ (same as above but voiced). [li:f] vs. [fɪ] → Alveolar (tongue and alveolar ridge) – /t/, /d/, /s/, /z/, /n/, /l/ 5. Palatal (tongue and hard palate) – /j/ 7. Velar (tongue and soft palate) – /k/, /g/, /ŋ/ 8. Manner of Articulation (How the sound is produced) 1. Plosives (Stops) – Complete closure and sudden release: /p/, /b/, /t/, /d/, /k/, /g/ 2. Affricates – Combination of stop + fricative: /tʃ/, /dʒ/ 4. Nasals – Air escapes through the nose: /m/, /n/, /ŋ/ 5. /ɜ:/ as in bird /bɜ:d/ 2. Differences Between Short and Long Vowels 1. Quality: Some long vowels have a different tongue position compared to their short counterparts. o Nasal Cavity: Used for nasal sounds like /m/, /n/, and /ŋ/ when air passes through the

nose. o Hard Palate: The roof of the mouth, important for palatal sounds like /ʃ/ and /tʃ/. o Examples: /f/, /v/, /s/, /z/, /ʃ/, /tʃ/, /d/ o Example words: fish, van, sun, zoo, ship, vision, think, this

3. Nasals o Air flows through the nose while the mouth is closed. Glides (Semivowels): /w/, /j/ (we, yes) 6. Examples of Trills in English: 1. However, in English, they do not change the meaning of a word, so they are considered allophones of the same phoneme /p/. What is a Phone? Stop [stʰp] The /t/ is unaspirated because it follows /s/. Examples: ? o Practice Strategies: ? Using tongue twisters 5. Textbook -> I. Understanding the Syllable 1. E.g., re-act -> /ri'ækt/, hope-less -> /'hoʊp.ləs/ 2. E.g., spring, street, splash ? Elephant -> Watermelon -> Butterfly -> Bnat -> Trom -> Gdra -> Plum -> o In fast or casual speech: Some sounds naturally lose voicing in connected speech. "bad" -> [baed] (may sound closer to "bat" [baet] in some accents). "dog" -> [dʒg] (may sound more like "dock" [dʒk]). "have to" -> [haef tʰ] (the /v/ in "have" is devoiced to [f]). Examples: 1. [tw] in ('twenty') -> [twenti] (the /t/ is rounded due to the following /w/). [kaet] ('cat') with a glottalized final sound -> [phln] vs. [spln] -> [bʰ??] vs. [bʰtʰ] -> Man (nasalized) -> Butter (glottalized) -> I. English Consonants 1. Bilabial (both lips) - /p/, /b/, /m/, /w/ 2. Labiodental (lower lip and upper teeth) - /f/, /v/ 3. Dental (tongue and teeth) - /t/, /d/ 4. Post-alveolar (tongue behind alveolar ridge) - /ʃ/, /tʃ/, /tʃ/, /dʒ/ 6. Although these sounds are pronounced differently, they do not change the meaning of the word. Dark and Clear /l/: Clear /l/ -> at the beginning of words or syllables, and Dark /l/ -> at the end of words or syllables. English Vowels: Short and Long Vowels 1. Examples: ? Examples: /u:/ as in moon /mu:n/ ? Each of these organs works together to produce the full range of human speech sounds. III. o Examples: /p/, /b/, /t/, /d/, /k/, /g/ o Example words: pat, bat, tip, dog, cat, go 2. o Examples: /tʃ/, /dʒ/ o Example words: chip, judge 4. o Examples: /m/, /n/, /ŋ/ o Example words: man, nose, sing 5. o Includes: ? Liquids: /l/, /r/ (lip, red) ? 1. 2. ?? Street -> 2. Climb -> 3. 4. Grandfather -> 5. Strength -> 1. 1. 2. 3. 2. ??? 1. Dog -> 2. Tree -> 3. Open -> 4. School -> 5. 1. 2. Computer -> 3. 4. Incredible -> 5. Chocolate -> 1. 2. 3. 4. 5. ??? 3. 4. ??? 5. 2. 3. 2. 3. 2. 3. 1. [thelk] -> 2. [baed] -> 3. [fʰtʰ] -> 4. [kwlk] ->

.....5.[maen] ->1.[paɪ] ('pie') ->2.[bɪg] ('big') in
 final position ->3.2.3.1.Play ->2.Tree ->3.Quick
 ->4.5.1.[θɪp] ->2.[dʒ] ->
3.[kaetʃ] ->4.[ɪlpw] ->
5.2.Example: ?Example: ?Example: ?Example: ?/l/ as in bit /bɪt/ ?/e/
 as in bet /bet/ ?/æ/ as in cat /kæt/ ?/?/ as in pot /pɒt/ (British English) ?/?/ as in cup /kʌp/ ?/i:/ as in seat
 /si:t/ ?/?:/ as in car /kɑːr/ (British English) ?/?:/as in door /dɔː/ ?2.3.2.3.2.3.4.5.o Example: /r/ (as in butter
 in American English) 7.Both [ph] and [p] are phones because they are physically different speech
 sounds.2.