#### Slide 17: Affricates

- Affricates are a stop followed by a fricative release, treated as single phonemes.
- English affricates: /tʃ/ (as in church) and /dʒ/ (as in judge).
- /t[/ begins as /t/ and releases into /[/; /dʒ/ begins as /d/ and releases into /ʒ/.
- These sounds are voiceless (/tʃ/) and voiced (/dʒ/) counterparts.
- Example words: *chip* (/tʃɪp/), *gin* (/dʒɪn/).

#### Slide 18: Nasal Consonants

- Nasals: produced with the velum lowered so air flows through the nose.
- English nasals: /m, n, ŋ/.
- /m/ (bilabial nasal, map)
- /n/ (alveolar nasal, nap)
- /ŋ/ (velar nasal, sing).
- All are voiced and occur in all positions (e.g. /n/ in initial, /n/ only before /g/ or /k/).
- Nasal vowels are not phonemic in English (no contrast between nasal and oral vowels as in French).

# **Slide 19: Approximants and Liquids**

- Approximants: articulators approach but do not create turbulent airflow. English approximants: /j/ (y sound as in you), /w/ (as in we).
- Liquids: more constriction than vowels but less than fricatives. English liquids:
- /l/ (alveolar lateral *lip*, airflow around tongue sides)
- /r/ (alveolar/post-alveolar liquid *red*, often bunched or retroflex).
- These consonants are all voiced.
- In /l/, the alveolar closure and side gap distinguishes it from other approximants.

# **Topic 4: Syllable Structure, Stress, and Weak Forms**

### Slide 20: The Syllable - Basic Unit

- A syllable typically consists of: Onset (initial consonants) + Nucleus (usually a vowel)
  + Coda (final consonants).
- The nucleus is the core (usually a vowel or syllabic consonant like [n]).
- Syllables can be **open** (ending in a vowel, e.g. *go* /goʊ/) or **closed** (ending in a consonant, e.g. *got* /got/).
- Example: plant /plænt/ has onset /pl-/, nucleus /æ/, coda /-nt/.

# Slide 21: English Syllable Patterns

- English allows complex onset/coda clusters (e.g. /str-/ in street, /-mpl/ in ample).
- Possible pattern: up to 3 consonants in onset (e.g. *street* /stri:t/) and 4 in coda (e.g. *texts* /tɛksts/).
- Syllable division rules guide how to split words: e.g. graph+y vs gra+phy.
- Stress position and morphology often influence syllable breaks (e.g. *re-cord* (noun) vs *re-cord* (verb)).

# Slide 22: Strong vs Weak Syllables

- **Strong (stressed)** syllables have fuller vowels (often long or tense vowels); **weak** (**unstressed**) syllables have reduced vowels (often schwa /ə/ or /ɪ/).
- In a stress-timed language like English, stressed syllables occur at roughly regular intervals, causing other vowels to reduce.
- Schwa /ə/ commonly appears in weak syllables (e.g. the 'a' in about).
- Example: music /'mju:zik/ (first syllable stressed with /u:/, second weak with /i/).
- Syllabic consonants can serve as nuclei in unstressed syllables (e.g. button / bʌtn̩/, syllabic /n̩/).

# Slide 23: Word Stress – Simple Words

- **Stress** is the relative prominence of a syllable (louder, longer, higher pitch).
- Monosyllabic words carry main stress on the only syllable (e.g. dog, cat).
- Polysyllabic words have one **primary stress** (and sometimes a secondary). Primary stress is marked ' before the stressed syllable in transcription.
- In two-syllable nouns, stress often falls on the first syllable (e.g. *TAble* /'teɪbl/), while in verbs it may fall on the second (e.g. *to reCORD* /rɪˈkɔːd/).
- English does not have fixed stress placement, so stress patterns must often be learned (but see rules for complex words).

# **Slide 24: Complex Word Stress**

- **Prefixes:** Usually not stressed (e.g. *UNhappy* /ʌnˈhæpi/, stress on *happy*).
- **Suffixes:** Vary some change stress (e.g. *phoTOgraph* /ˈfəʊtəgrɑːf/ vs *phoTOgraphy* /fəˈtɒgrəfi/), others do not affect stress (e.g. *-ness*, *-less*).
- Compound words: Typically first element stressed (e.g. BLACKboard / blæk.bb:rd/ vs phrase black BOARD).
- Word-class pairs: Some words shift stress by part of speech (e.g. REcord (noun) vs reCORD (verb)).
- These patterns help predict stress in longer words, though many exceptions exist.

# Slide 25: Weak Forms in English

- Function words (articles, prepositions, conjunctions, auxiliaries) often have **weak forms** in connected speech: vowels are reduced when unstressed.
- Common weak vowels: /ə/ and /ɪ/.
- Examples: "to" can be /tu:/ (strong) vs /tə/ (weak); "and" /ænd/ vs /ənd/ (or /ən/); "have" /hæv/ vs /həv/.
- Weak forms are triggered by lack of stress (e.g. in a sentence: "He's going to school."  $/\text{tu:}/ \rightarrow /\text{te}/$ ).
- This reduction supports English rhythm (stress-timed) and makes speech more fluid.