***Affricates and Fricatives***

Affricates – an affricate is a consonant which begins as a stop (plosive), characterized by a complete obstruction of the outgoing airstream by the articulators, a build up of air pressure in the mouth, and finally releases as a fricative, a sound produced by forcing air through a constricted space, which produces turbulence when the air is forced trough a smaller opening.  Depending on which parts of the vocal tract are used to constrict the airflow, that turbulence causes the sound produced to have a specific character (compare pita with pizza, the only difference is the release in /t/ and /ts/).  There are two types of affricate in English.  For an interactive example of each sound (including descriptive animation and video), click this link, then in the window that opens, click affricate, and select the appropriate sound.

/ts/  /dz/ lingua-alveolar affricates

A lingua-alveolar (from lingua tongue and alveola the ridge just behind the front upper teeth) affricate is a sound which the flow of air out of the body is initially interrupted in the same manner as a lingua-alveolar stop /t/ or /d/, then immediately released in the same manner as a lingua-alveolar fricative /s/ or /z/,  constricted by touching the tongue to the alveolar ridge — the part of the roof of the mouth, just behind the upper front teeth, creating a narrow opening through which the air passes. English has two lingua-alveolar affricates — voiceless /ts/ as in pizza and its, and /dz/ which is voiced as in ads and adze.

/t∫/  /dʒ/  postalveolar affricates

A postalveolar (from post- after and alveola the ridge just behind the front upper teeth) affricate is a sound which is a combination of a lingua-alveolar stop /t/ or /d/ and a lingua-palatal fricative /∫/ or /ʒ/.  Because a postalveolar afficate is a combination of two sounds with different points of articulation (in this case, the spot where the tip of the tongue contacts the top of the mouth), its point of articulation falls between that of its two component sounds.  In a lingua-alveolar stop, the tongue interrupts the flow of air by pressing against the alveolar ridge — the part of the roof of the mouth, just behind the upper front teeth. In a lingua-palatal fricative, the flow of air out of the body is constricted by very nearly touching the tongue to the hard palate — the part of the roof of the mouth, just behind the alveolar ridge, creating a narrow opening through which the air passes.  In a postalveolar affricate, the point of articulation for both the stop and fricative release occurs between these two positions, just behind the alveolar ridge but not quite on the hard palate.  English has two postalveolar affricates — voiceless /t∫/ as in cheese, catch, and ligature, and /dʒ/ which is voiced as in judge, magic, and jam.