## Section Three : Vowels and Consonants

The English Language is created through the different combinations of 44 sounds (phonemes), 20 vowels and 24 consonants. In our written language we refer to the letters of the alphabet as being consonant or vowel letters depending on which type of sound they are representing.

### 3.1 English vowels

Vowels are open sounds because they involve no obstruction to the flow of air from the lungs as it passes up through the windpipe (trachea), through the voice box (larynx) and out of the mouth. Other than positioning the tongue, jaws and lips there is nothing to obstruct the airflow. All vowels are produced with the vocal folds vibrating and are said to be voiced sounds.

Vowels are commonly described according to the following characteristics:

1. The part of the tongue that is involved in the articulation: front, central or back.
2. The tongue's height relative to the palate: close , close-mid, open-mid, open.
3. The shape of the lips: rounded, spread, neutral.
i) Make a vowel like the i: in the English word 'see' and look in a mirror; if you tilt your head back slightly you will be able to see that the tongue is held up close to the roof of the mouth. Now make an $\boldsymbol{æ}$ vowel (as in the word 'cat'). The difference between $i$ : and ae is a difference of tongue height, and we would describe i: as a relatively close vowel and ae as a relatively open vowel.
ii) In making the two vowels described above, it is the front part of the tongue that is raised. We could therefore describe i: and $\mathfrak{æ}$ as comparatively front vowels. A vowel in which the back of the tongue is the highest point is called a back vowel. If you make the vowel in the word 'calm', which we write phonetically as /a:/ you can see that the back of the tongue is raised. The vowel in 'too' ( $\mathbf{u}$ :) is also a comparatively back vowel.
iii) The lips can have many different shapes and positions: These are: 1) Rounded, where the corners of the lips are brought towards each other and the lips pushed forwards as in [u]. 2) Spread, with the corners of the lips moved away from each other, as for a smile as in [i]. 3) Neutral, where the lips are not noticeably rounded or spread as in $/ \partial /$.

### 3.1.1 The Cardinal Vowel System

It is a universal system for the description of the vowels of different languages and dialects. It was devised by Daniel Jones. It has become traditional to locate cardinal vowels on a four-sided figure (a quadrilateral of the shape seen in Fig. 4 - the design used here is the one recommended by the International Phonetic Association).

