Commentary ■■■

Don't worry if you can't find these distinctions. They will become clear during the next activities. What's important is that by trying to notice what you do, you are gradually strengthening your power of observation.

Describing the twenty-four consonants

All consonants (with the exceptions of /w/ and /j/) involve a restriction to the outflow of air, and it is the precise place and manner of this restriction that gives each consonant its unique sound. We can describe the uniqueness of each consonant quite well using these three variables:

1 voiced or unvoiced;
2 place of articulation (**where** the sound is produced in the vocal tract);
3 manner of articulation (**how** the sound is produced in the vocal tract).

Here are a few words about these three variables:

Variable 1: voiced or unvoiced

A sound is said to be *voiced* if it requires the vocal cords to vibrate, and *unvoiced* if it does not. In English the voiced/unvoiced distinction tends to coincide with gentle and strong aspiration (also referred to as *lenis* and *fortis*). This means that voiced consonants may be uttered with weaker breath force, while unvoiced consonants may be uttered with stronger breath force. (This is partly because voiced sounds take energy from the breath in order to drive the larynx, and partly because unvoiced sounds need to compensate for their lack of voice with force and clarity in their articulation.)

Variable 2: place of articulation

The place in the vocal tract where the physical restriction or block to the air flow takes place is referred to as *place of articulation*, ie **where** the characteristic component sounds of that consonant are initiated.

Variable 3: manner of articulation

The nature of the physical restriction to the air flow is referred to as *manner of articulation*, ie how the characteristic component sounds of that consonant are initiated.

By combining these three variables we arrive at a practical working description of how each consonant is produced. And since the consonants are arranged on the phonemic chart according to these three variables, understanding the layout will give you a useful grasp of how the consonants are made and how they can be altered.

p	b	t	d	tʃ	dʒ	k	g
f	v	θ	ð	s	z	ʃ	ʒ
m	n	ŋ	h	l	r	w	j

Fig. 21: The arrangement of consonants on the chart

The consonants of English

1. Friction consonants

The are nine consonant phonemes whose main sounds all have friction as their most important feature. They are /f, v, θ, ð, s, z, ʃ, ʒ, h/. For all of them the lungs push air through a narrow opening where it causes friction of various kinds.

/f/ and /v/

The bottom lip is very close to the upper front teeth: this forms the narrowing and when air is pushed through this narrowing it causes slight friction

/f/ unvoiced labio-dental fricative fast, father, life
/v/ voiced labio-dental fricative very, love, have

/θ/ and /ð/

The tip of the tongue is close to the upper front teeth: this is the narrowing where the friction is ~~made~~ made.

/θ/ unvoiced dental fricative three, thank, earth
/ð/ voiced dental fricative mother, father, with

/s/ and /z/

The tip and blade of the tongue are very close to the alveolar ridge. There is a very considerable narrowing at this point.

/s/ unvoiced alveolar fricative six, see, say
/z/ voiced alveolar fricative please, his, does

/ʃ/ and /ʒ/

There is a narrowing between the tip of the tongue and the backs of the alveolar ridge.

/ʃ/ unvoiced palato-alveolar fricative shall, shine,
/ʒ/ voiced palato-alveolar fricative vision, usual

/h/ This sound occurs before a vowel and consits of the sound of breath passing between the open vocal cords and out of the mouth which already prepared for the following vowel.

/h/ unvoiced glottal fricative
hand, head, have, he

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2. Stop consonants

In stop consonants the breath is compleltly stopped at some point in the mouth, by the lips or tongue-tip or tongue-back, and then relased with a slight explosion. There are four pairs of phonemes containing stops. /p, b/, /t, d/, /k, g/ and tʃ, dʒ/ and like the friction consonants one of each pair is strony and the other is weak.

/p/ and /b/

When the lips are opened suddenly the breath rushes out with a slight explosion or popping noise.

/p/ unvoiced bilabial plosive (stop)
/b/ voiced bilabial plosive (stop)

/t/ and /d/

The tip of the tongue (not be blade) is firmly against the middle of the alveolar ridge. When the tongue-tip is lowered suddenly from the teeth ridge the breath rushes out with a slight explosion or popping noise.

/t/ unvoiced alveolar plosive (stop)
/d/ voiced alveolar plosive (stop)

/tʃ and dʒ/

The tongue-tip touches the back part of the alveolar ridge, and the soft palate is raised so that the breath is trapped for a short time.

/tʃ/ unvoiced palato-alveolar affricate
/dʒ/ voiced palato-alveolar affricate

/K and g/

The back of the tongue is in firm contact with the soft palate, and the soft palate is raised, so that the breath is trapped for a short time. When the tongue is lowered suddenly from the soft palate, the breath rushes out of the mouth with a slight explosion or popping noise.

/K/ unvoiced velar plosive (stop)
/g/ voiced velar plosive (stop)

3. Nasal consonants

There are three phonems in English which are represented by nasal consonants, /m, n, ŋ/. In all nasal consonants the soft palate is lowered at the same time the mouth passage is blocked at some point, so that all the air is pushed out of the nose.

/m/ and /n/

The soft palate is lowered for both /m/ and /n/. For /m/ the mouth is blocked by closing the two lips, for /n/ by pressing the tip of the tongue against the alveolar ridge and the sides of the tongue against the sides of the palate. Both of them are voiced.

/m/ voiced bilabial nasal.
/n/ voiced alveolar nasal

/ŋ/

The soft palate is lowered and all the air passes out through the nose. The mouth is blocked by the back of the tongue pressed against the soft palate. The sound is voiced.

/ŋ/ voiced velar nasal.

singer, sing; song, ring