

Lecture 03: Detailed Study of English Vowels

a e i o u

➤ We have 5 **vowels** in English alphabet, but **20 vowel sounds**

The vowel letters	Vowel sounds
1. (a)	call / kɔ:l/, case / keɪs/, can / kæn/, can't / kænt/, American / ə'merɪkən/
2. (i)	Sit /sɪt/, site /saɪt/, discipline /dɪsəplɪn/

1. Definition of a vowel:

<p>1.1. From a linguistic point of view: a vowel is a sound that has the central function in a syllable <i>Examples:</i> - The indefinite article <i>a</i> (vowel) - at (vc+consonant) - to (-+...) - cat /kæt/ (cvc) - streets /stri:t/ (ccvcc) - fox /fɒks/ (cvcc)</p>	<p>1.2. From a phonetic point of view: a vowel is a sound articulated with a voiced egressive airstream without any closure/narrowing in the vocal tract to give rise to an audible friction. There are 20 vowel sounds in English</p>
---	---

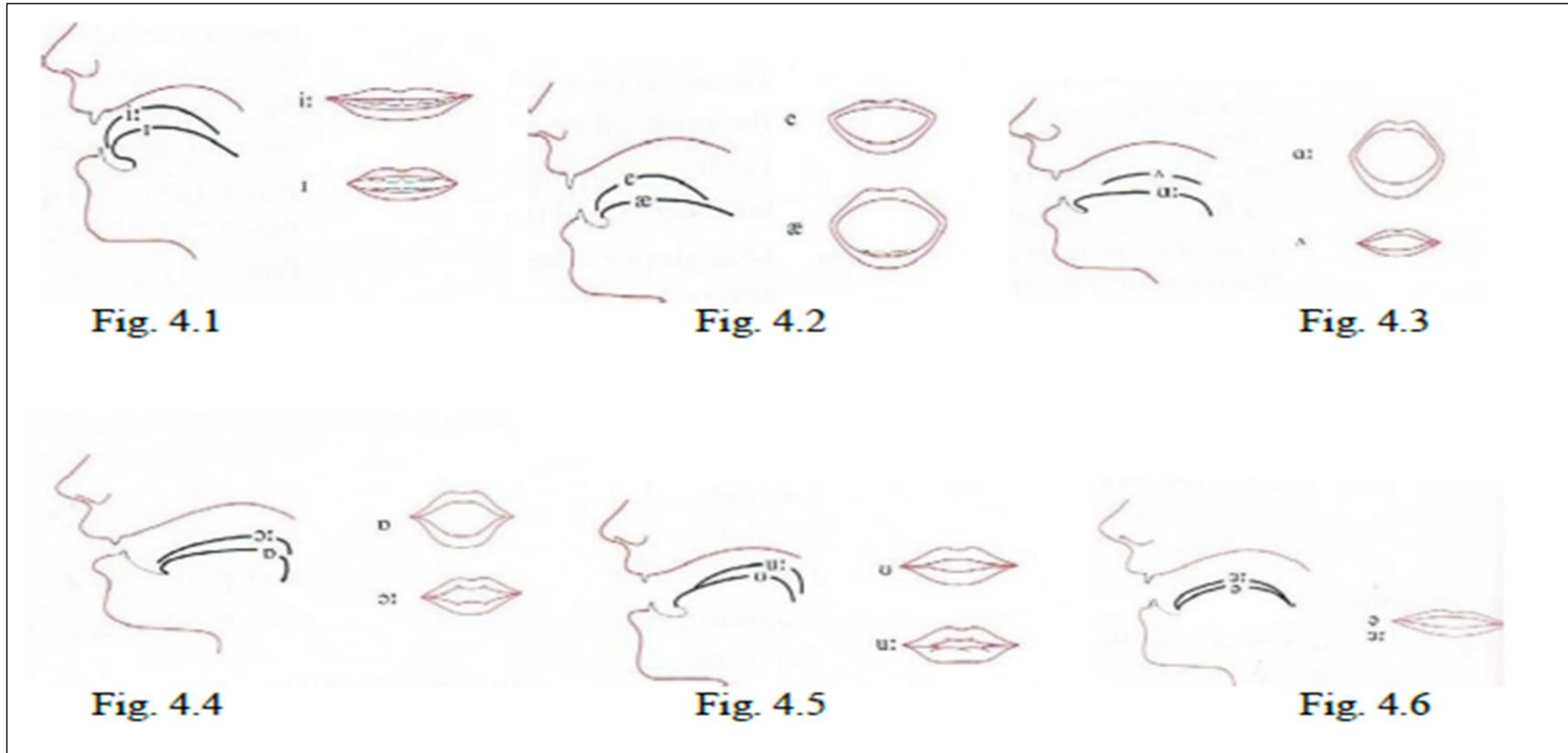
20 vowel sounds	
<p>12 monophthongs:</p> <ul style="list-style-type: none"> • 7 short vowels: /ɪ/, /e/, /æ/, /ʌ/, /ɒ/, /ʊ/, /ə/. • and 5 long vowels: /i:/, /ɑ:/, /ɔ:/, /ɜ:/, /u:/ 	<p>8 diphthongs:</p> <ul style="list-style-type: none"> • 5 closing vowels: /eɪ/, /aɪ/, /ɔɪ/, /aʊ/, /əʊ/. • and 3 centring vowels: /eə/, /ɪə/, /ʊə/

2. The Difference between Vowels and Consonants:

Consonantal Sounds	Vowel Sounds
1. There is an obstruction or narrowing of airflow in the vocal tract from the larynx to the lips.	1. There is no obstruction of airflow as it passes in the vocal tract from the larynx to the lips
2. We have voiced and voiceless consonants.	2. All the vowel sounds are voiced.
3. Optional in a syllable (we can find it or not).	3. Obligatory in any syllable (it must be found).

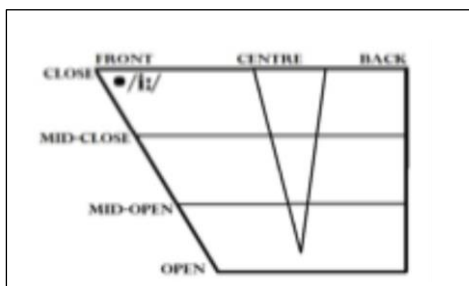
3. Description of a vowel:

English vowel sounds are affected by the changing shape and position of the articulators. The different vowels can be categorised according to four features:



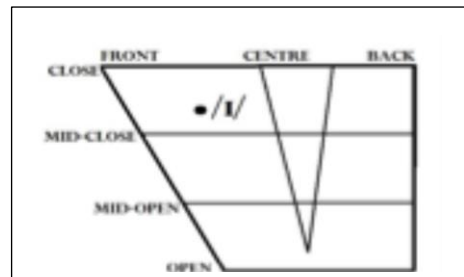
5.1. ARTICULATIONS OF THE FRONT VOWELS

5.1.1. Description of the articulation of /i:/:



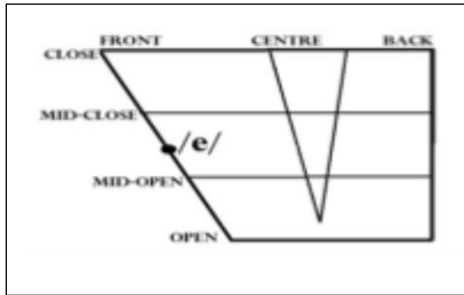
Soft palate: raised
Tongue: high
Lips: spread
Duration: long
e.g. meet, !bean, !people.

5.1.2. Description of the articulation of /ɪ/:



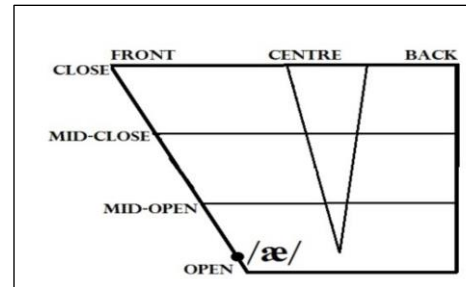
Soft palate: slightly raised
Tongue: slightly high
Lip: loosely spread
Duration: short
e.g. !kid, !busy, !women.!

5.1.3. Description of the articulation of /e/:



Soft palate: slightly lowered
Tongue: slightly low
Lips: neutral
Duration: short
e.g.: !Get,!leisure,!any,!dead.!

5.1.4. Description of the articulation of /æ/:



Soft palate: lowered
Tongue: low
Lip: neutrally open
Duration: short
e.g. Cat,!ran,!hand.!

Drills for practising front vowels

1) Listen and repeat

01b. /i:/ see agree eat seat team field piece these metre secret evening equal

02b. Peter key ski kilo litre pizza police machine people

03b. /ɪ/ if ship miss dinner swim busy building system history honey village

04b. /e/ check leg letter red sentence bread head read(pp) friend any
many again said

05b. /æ/ back camera factory hat jam manager map plan traffic family

2) Practise the following sets of minimal pairs

Minimal pairs are two words which differ in meaning when only one sound is changed. A group of words differentiated by each having only one sound different from all others, e.g. *pin* vs. *bin*, *cot* vs. *cut*...

1) /i:/ /ɪ/



Beat	bit
Heel	hill
Lead	lid
Neat	knit
Teen	tin

2) /e/ /æ/



bet	bat
hell	Hal
led	lad
set	sat
ten	tan

3) Read the sentences and find the front vowels in the following words

08b.

1. Can you see the sea?
2. A piece of pizza, please.
3. Peter's in the team.
4. A kilo of peaches and a litre of cream.
5. Please can you teach me to speak Portuguese?

09b.

1. Tell me again.
2. Send me a cheque.
3. Correct these sentences.
4. Twenty to twelve.
5. Help your friend.



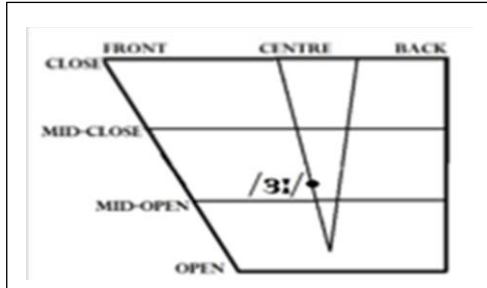
1. Fifty-six
2. Dinner in the kitchen.
3. A cinema ticket.
4. A picture of a building.
5. Big business.



1. Thanks for the cash.
2. I ran to the bank.
3. Where is my black jacket.
4. That man works in jam factory.
5. Let me carry your bags.

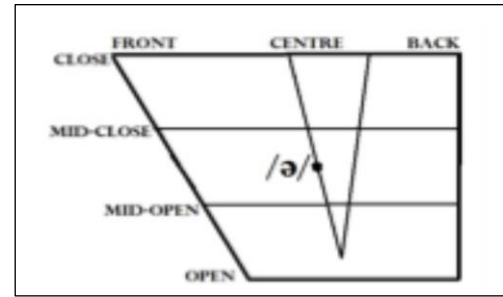
5.2. ARTICULATIONS OF THE CENTRAL VOWELS

5.2.1. Description of the articulation of /ɜ:/



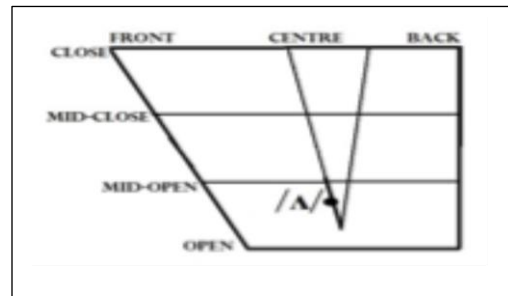
Soft palate: slightly lowered
Tongue: slightly low
Lips: neutrally open
Duration: long
e.g. Learn, burn, bird.

5.2.2. Description of the articulation of /ə/



Soft palate: slightly lowered
Tongue: slightly low
Lips: neutral
Duration: short
E.g. About, actor, centre, era

5.2.3. Description of the articulation of /ʌ/



Soft palate: lowered
Tongue: low
Lips: neutrally open
Duration: short
e.g. Run, front, double.

Drills for practising central vowels



1: Listen and repeat

/ʌ/ bus colour come cup front bus London luck Monday month
mother much nothing number run study sun uncle under

13b. /ɜ:/ bird first birthday circle thirty word work world worse turn

Thursday journey early earth heard learn service prefer verb

2: Practise the following sets of minimal pairs

14b.

1) /ɜ:/ /ʌ/
bird bud
lurk luck
burn bun
hurt hut
curt cut

15b.

2) /ɜ:/ /ɑ:/
bird bard
lurk lark
burn barn
hurt heart
curt cart

16b.

3) /ʌ/ /æ/
bud bad
luck lack
bun ban
hut hat
cut cat

3: Underline the following sentences 17b.

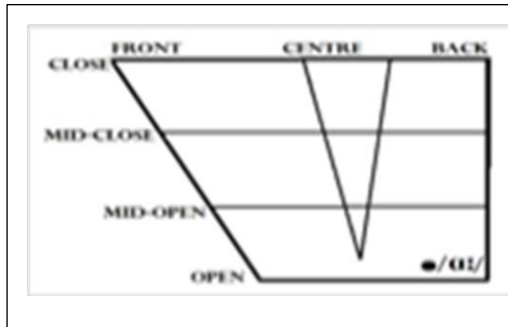
- Good luck with your exam next month!
- Take the number one bus.
- I said 'Come on Monday', not 'Come on Sunday'.
- My brother's studying in London.

4: Find the central vowels in the following sentences 18b.

- The girl was watching the birds.
- How far's the car park?
- That was the worst journey in the world.
- Have you ever heard this word?
- The cakes weren't very good.
- She went to university to learn German.

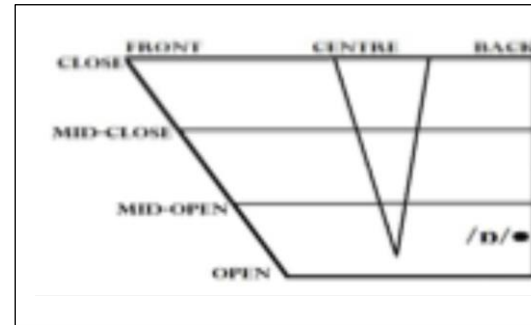
5.3. ARTICULATION OF THE BACK VOWELS

5.3.1. Description of the articulation of /ɑ:/:



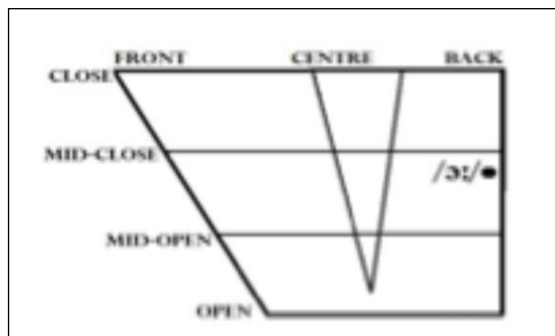
Soft palate: lowered
Tongue: low
Lips: fully open
Duration: long
e.g. Car, half, calm, farm.

5.3.2. Description of the articulation of /ɒ/:



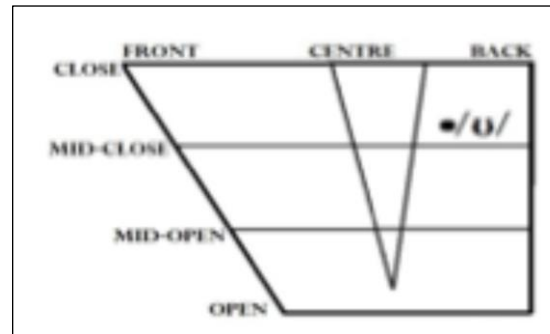
Soft palate: lowered
Tongue: low
Lips: slightly rounded
Duration: short
E.g. Got, lost, pot, what.

5.3.3. Description of the articulation of /ɔ:/:



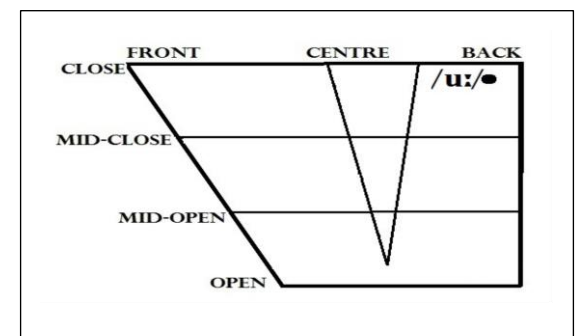
Soft palate: slightly lowered
Tongue: slightly low
Lips: rounded
Duration: long
e.g. Course, caught, bought.

5.3.4. Description of the articulation of /ʊ/:



Soft palate: slightly raised
Tongue: slightly high
Lips: rounded
Duration: short
e.g. Look, put, full, would.

5.3.5. Description of the articulation of /u:/:



Soft palate: raised
Tongue: high
Lips: rounded
Duration: long
E.g. Fool, moon, lose, you.

Drills for practising back vowels

1. Listen and repeat



/ɑː/ after afternoon ask answer bath bathroom can't class dance



fast father glass tomato car card far park star start

/ɒ/ bottle box chocolate clock coffee copy cost cross got



quality want wash wasn't watch what

/ɔː/ all ball call fall tall wall quarter warm water born



short autumn door saw before daughter taught thought

/ʊ/ full sugar book foot would woman good look put



/uː/ too group shoe blue music new two fruit juice



Consider the following sets of minimal pairs



1) /ɔː/ /ɒ/ 2) /ɔː/ /ɑː/ 3) /uː/ /ʊ/ 4) /ʊ/ /ɒ/

port pot port part pool pull good god

cord cod born barn fool full look lock

stork stock court cart suit soot put pot

cork cock store star Luke look could cod

sport spot form farm cooed could shook shock



3: Find the back vowels in the following sentences

- I'll ask my aunt where is my glasses.
- See you tomorrow afternoon.
- You can find him on the fourth floor.
- John has gone to the shops.
- The dinner will be ready soon.
- He bought a lot of books and novels.

5. Diphthongs & Triphthongs

8 diphthongs (<i>gliding vowels</i>) <i>two short vowels</i>	triphthongs
/eɪ/, /ɔɪ/, /aɪ/, /ɪə/, /eə/, /ʊə/, /əʊ/, /aʊ/	/eɪə/, /ɔɪə/, /aɪə/, /əʊə/, /aʊə/.

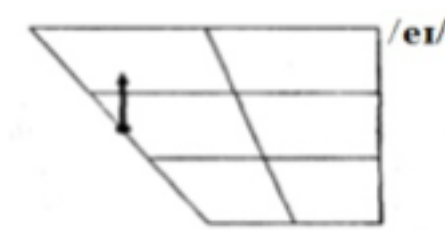
Diphthongs /'dɪfθɒŋz/:


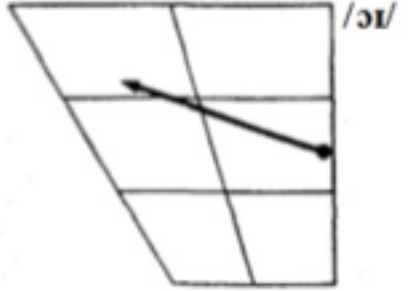
Definition: a diphthong or a gliding vowel is a term used in the phonetic classification of vowel sounds. It refers to a glide or a movement from one vowel to another one in which the first part is more prominent than the last. It involves a change in quality within the one vowel, they are classified according to their ending as follows:

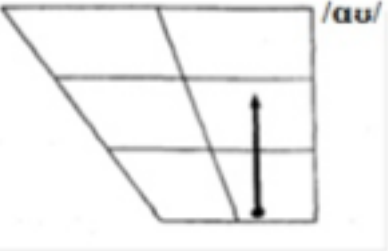
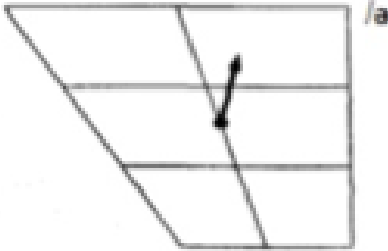
1. *Closing diphthongs* end in /ɪ/ like /eɪ/, /ɔɪ/, /aɪ/ or in /ʊ/ like /əʊ/, /aʊ/.
2. *Centering diphthongs* end in /ə/ like /ɪə/, /eə/, /ʊə/.

5.1. Closing Diphthongs:

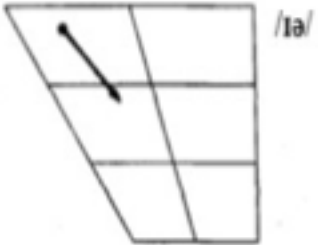
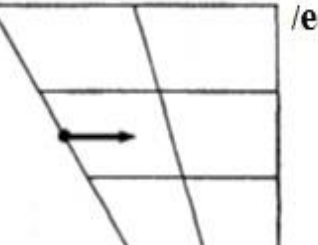

This category of diphthongs may be placed on the Cardinal Vowel Chart between a starting-point and ending in the space of close position (between mid-close and close position).

1. The diphthong /eɪ/		Exercise	
	<p>Description:</p> <p>1. Position : The starting-point: <i>front mid position /e/</i> The ending point: <i>front close position /ɪ/</i></p> <p>2. Lips : shift from <i>neutral to loosely spread</i></p>	<p>Examples: Ache /eɪk/, base /beɪs/, chase /tʃeɪs/, face /feɪs/, gaze /geɪz/, make /meɪk/, safe /seɪf/ Aim /eɪm/, Braille /breɪl/, fail /feɪl/, straight /streɪt/, veil /veɪl/, break /breɪk/, great /greɪt/, café /'kæfeɪ/</p> <p>Example sets of minimal pairs: Edge /edʒ/ - age /eɪdʒ/; let /let/ - late /leɪt/; met/met/ - mate /meɪt/; Pen /pen/ - pain /peɪn/; pepper /'pepə/ - paper /'peɪpə/; shed /ʃed/ - shade /ʃeɪd/; test /test/ - taste /teɪst/.</p>	<p>Exercise: <i>Underline the diphthong /eɪ/ in the following:</i> made, change, may, train, eight, grey.</p>

2. The diphthong /aɪ/			Exercise
	<p>Description:</p> <p>1. Position :</p> <p>The starting-point: front open position /æ/</p> <p>The ending point: front close position /ɪ/</p> <p>1. Lips : shift from neutrally open to loosely spread</p>	<p>Examples:</p> <p>Fly /flaɪ/, die /daɪ/, mine /maɪn/, hide /haɪd/, eyes /aɪz/, fight /faɪt/, aisle_isle /aɪl/.</p> <p>Example sets of minimal pairs:</p> <p>fight /faɪt/-fate /feɪt/; bite_byte /baɪt/-bit /bɪt/; might /maɪt/- mate /meɪt/.</p>	<p><i>underline the diphthong /aɪ/ in the following:</i></p> <p>why, hi, night, five, drive, miles, library.</p>
2. The diphthong /ɔɪ/			Exercise
	<p>Description:</p> <p>1. Position :</p> <p>The starting-point: back mid position /ɔ:/</p> <p>The ending point: front close position /ɪ/</p> <p>Lips : shift from rounded to loosely spread</p>	<p>Examples:</p> <p>Boy /bɔɪ/, noise /nɔɪz/, point /pɔɪnt/, joint /dʒɔɪnt/, choice /tʃɔɪs/, soil /sɔɪl/, voice /vɔɪs/.</p> <p>Example sets of minimal pairs: all /ɔ:l/-oil /ɔɪl/; corn /kɔ:n/-coin /kɔɪn/; roar /rɔɪ/- Roy /rɔɪ/.</p>	<p><i>try to transcribe the following /ɔɪ/:</i></p> <p>toy, noise, voice, spoilt, pointing, destroyed, poison.</p>

3. The diphthong /aʊ/			Exercise
 <p data-bbox="520 191 583 224">/aʊ/</p>	<p>Description:</p> <p>The starting-point: back open position /ɑː/</p> <p>The ending point: Back close position /ʊ/</p> <p>1. Lips : shift from fully open to rounded</p>	<p>Examples: how /haʊ/, gown /gaʊn/, now /naʊ/, around /ə' raʊnd/, couch /kaʊtʃ/, plough /plɑʊ/</p> <p>Minimal pairs: now /naʊ/ - no /nəʊ/; mice /maɪs/ - mouse /maʊs/; sand /sænd/ - sound /saʊnd/</p>	<p>Look up the transcription of the following: Audi, count, ground, foul, flour, mountain</p>
4. The diphthong /əʊ/			Exercise
 <p data-bbox="625 597 688 630">/əʊ/</p>	<p>Description:</p> <p>The starting-point: back open position /ə/</p> <p>The ending point: Back close position /ʊ/</p> <p>Lips : shift from neutral to rounded</p>	<p>Examples: bow /bəʊ/, joke /dʒəʊk/, know /nəʊ/, low /ləʊ/, smoke /sməʊk/, shown /ʃəʊn/, so/səʊ/.</p> <p>Minimal pairs: must /mʌst/-most /məʊst/; abide /ə'baɪd/ - abode /ə'bəʊd/; whole /həʊl/- hill /hɪl/.</p>	<p>Find the transcription of the words: folio, folklore, load, road, gross, soldier, role, own.</p>

5.2. Centering Diphthongs:

5. The diphthong /ɪə/			Exercise
	<p>Description: The starting-point: <i>front close position /i:/</i> The ending point: <i>Central mid position /ə/</i> Lips : shift from spread to neutral</p>	<p>Examples: here /hɪə/; near /nɪə/; peer_pear /pɪə/; zero /'zɪərəʊ/; Algeria /æ'l dʒɪəriə /; mania /'meniə/ Minimal pairs: fear /fɪə/-fare /feə/; peer /pɪə/-pair /peə/; fierce /fɪəs/-face /feɪs/; pierce/pɪəs/-piece /pi:s/.</p>	<p><i>Find the transcription of the words:</i> hero, sincere, deer, cheer, career, weird, idea, media, material, familiar, year, real, area, beard, period, opinion, previous, medium, million, union.</p>
6. The diphthong /eə/			Exercise
	<p>Description: The starting-point: <i>front mid position /i:/</i> The ending point: <i>Central mid position /ə/</i> Lips : neutral</p>	<p>Examples: air /eə/, pair /peə/, care /keə/, fair_fare /feə/, where /weə/, there /ðeə/, scarce /skeəs/. Minimal pairs: spare /speə/ - spear /spɪə/; bear /beə/ - beer /bɪə/; rear/rɪə / - rare /reə/; air - ear.</p>	<p><i>Find the transcription of the following:</i> bare, hair, heir, their, swear, share, various.</p>
7. The diphthong /ʊə/			Exercise
	<p>The starting-point: <i>back close position /u:/</i> The ending point: <i>Central mid position /ə/</i> Lips : shift from rounde to neutral</p>	<p>Examples: poor /pʊə/, plural /'plʊərəl/, pure /pjʊə/, cure /kjʊə/, endure /m'dʒʊə/, during /'dʒʊəriŋ/. Minimal pairs: sure /ʃʊə/ - show /ʃəʊ/; moor /mʊə/ - more /mɔ:/; poor /pʊə/ - pour /pɔ:/.</p>	<p><i>Transcribe the following words:</i> curious, furious, security, actual, mutual, usual, gradual, influence, valuable.</p>

6. Triphthongs /'trɪfθɒŋz /:

Definition: a triphthong is a glide from one vowel to another and then to a third, all produced rapidly and without interruption. For example, a slow pronunciation of the word “hour” begins with a vowel quality similar to /ɑ:/ and goes on towards /ʊ/ then ends with schwa /ə/ to get /ɑʊə/. A triphthong is made up of two vowel sounds, a closing diphthong plus a schwa (diphthong+ schwa= triphthong).

The triphthongs are composed of the five closing diphthongs described before, with schwa /ə/ added to the end. Thus we get:

/eɪ/ + /ə/ = /eɪə/	i.e: Player /'pleɪə/, payer /'peɪə/
/aɪ/ + /ə/ = /aɪə/	i.e: Fire /'faɪə/, higher /'haɪə/
/ɔɪ/ + /ə/ = /ɔɪə/	i.e: Loyal /'ləɪə/, royal /'rɔɪə/
/əʊ/ + /ə/ = /əʊə/	i.e: Lower /'ləʊə/, slower /'sləʊə/
/aʊ/ + /ə/ = /aʊə/	i.e: Our-hour /'aʊə/, power /'paʊə/

Performance Exercises

Task 1.1 Listen, and practise the difference.

low	law	toe	tore
Joe	jaw	tone	torn
yoke, yolk	York	snow	snore
boat	bought	hole	hall
cold	called	sew, sow	saw
bowl	ball	show	shore

Task 1.2: find the spelling form (orthography) of the following minimal pairs.

/mʊə, mɔ:/	/meə/	/baɪ/	/bəʊt/
/pʊə, pɔ:/	/peə/	/daɪ/	/dəʊ/
/tʊə, tɔ:/	/teə/	/flaɪ/	/fləʊ/
/bʊə, bɔ:/	/beə/	/naɪ/	/nəʊt/
/ʃʊə, ʃɔ:/	/ʃeə/	/raɪ/	/rəʊt/

References for further study:

- 1- Roach, Peter. *English Phonetics and Phonology*. pp 18-25. Cambridge University Press.
- 2- Gimson, A, C. *Pronunciation of English*. pp 32-37. Cambridge University Press.
- 3- Hancock, Mark. *English Pronunciation in Use*. pp 44-50. Cambridge University Press.