



# The Fundamentals of Applied Linguistics: Communication through Language

## **Chapter 5** **Phonology**

*Preparing the Way: Teaching ELs in the PreK-12 Classroom*

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## **Part II. Place and Manner of Articulation**

ESOL in Higher Ed  
<http://esolinhighered.org>

# Visualization

A tropical beach scene with turquoise water, white sand, and palm trees under a blue sky. The word "Visualization" is written in a large, bold, blue serif font in the upper left quadrant. In the lower right quadrant, three lines of text in a smaller, italicized blue serif font are displayed.

*Linguistics is easy.*

*Linguistics is fun.*

*Linguistics is logical.*

## Essential Question:

What should teachers know about the **Place and Manner of Articulation** in English in order to effectively serve ELs?



# The Consonant System of the English Language

The chewing gum task did more than introduce you to some of the **Organs of Speech Production**.

You also began to learn about **Place and Manner of Articulation**.

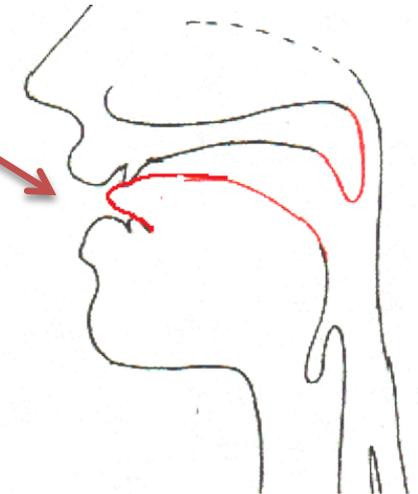
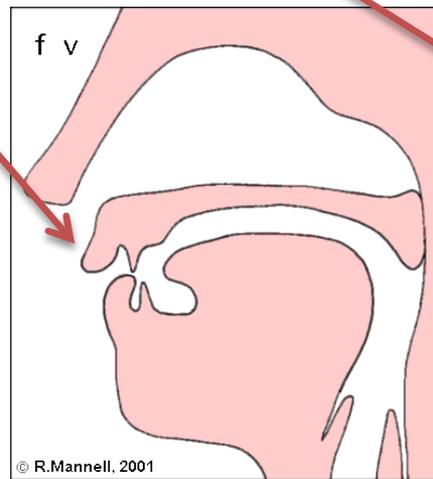
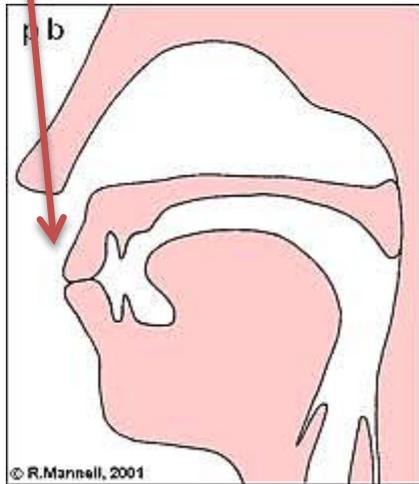
Look at **Figure 5.2** in your textbook.

Does the chart account for all possible sounds made in human speech? **No, only those found in English.**

Does the chart account for all the sounds in English?  
**No, only English consonants.**

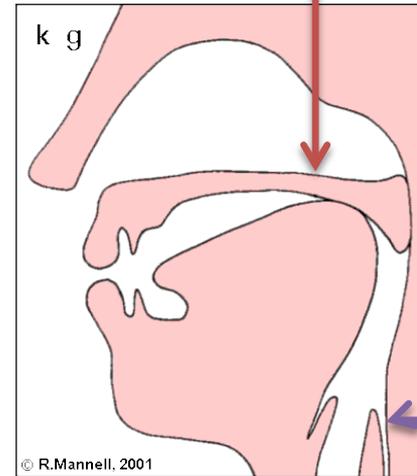
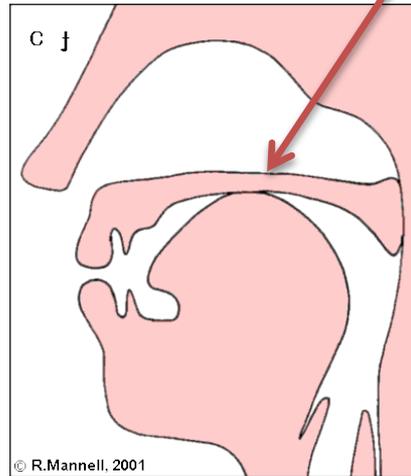
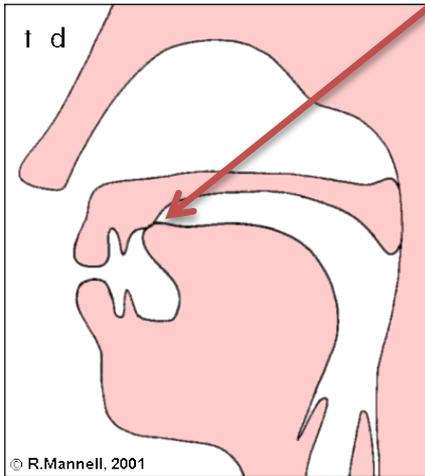
# PLACE of Articulation

Bilabial	Labio-dental	Inter-dental	Alveolar	Palatal	Velar	Glottal
p	f	th				



# PLACE of Articulation

Bilabial	Labio-dental	Inter-dental	Alveolar	Palatal	Velar	Glottal
			t	sh	k	uh-oh



# Review of Consonants

b	buy	f	five
d	die	θ	thigh
g	guy	s	sigh
p	pie	ʃ	shy
t	tie	h	high
k	kite	v	vie
w	why	ð	thy
j or y	yikes	z	Zion
l	lie	ʒ	vision
r	rye	tʃ	chime
m	my	dʒ	jive
n	nigh		
ŋ	ring		

Which symbol corresponds to the first sound of each of the following words?

ʃ shrink  
w wink  
dʒ jinx  
θ think  
tʃ chink  
s sink  
f fink  
m mink  
j yank

# Review of Consonants

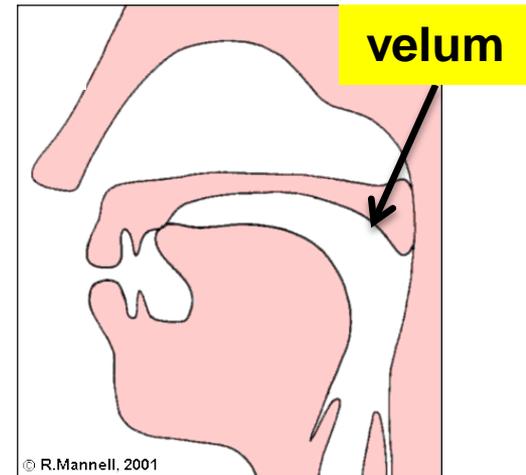
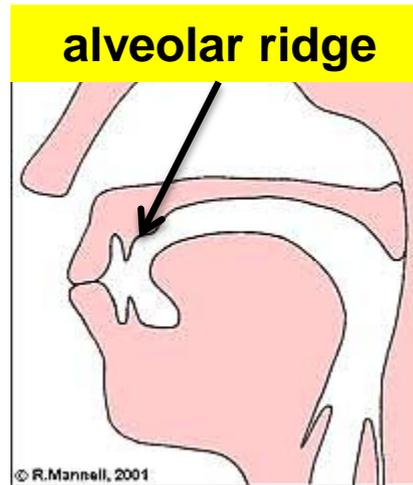
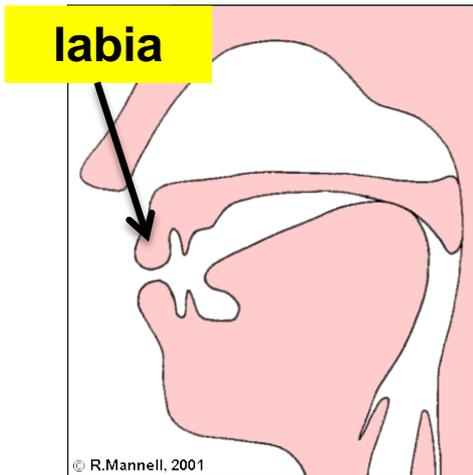
b	buy	f	five
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j or y	yikes	z	Zion
l	lie	ʒ	vision
r	rye	tʃ	chime
m	my	dʒ	jive
n	nigh		
ŋ	ring		

Which symbol corresponds to the last sound of each of the following words?

bathe      ð  
mirage     ʒ  
wish        ʃ  
age         dʒ  
witch       tʃ  
long        ŋ  
is            z  
bath        θ  
clique      k

# MANNER of Articulation

	Bilabial	Labio-dental	Inter-dental	Alveolar	Palatal	Velar	Glottal
<b>Stop</b> voiceless	<i>/p/ pole</i>			<i>/t/ two</i>		<i>/k/ cat</i>	
voiced	<i>/b/ bowl</i>			<i>/d/ dew</i>		<i>/g/ gas</i>	



**Match each pair of phonemes (sounds) with the correct image.**

# MANNER of Articulation

	Bilabial	Labio-dental	Inter-dental	Alveolar	Palatal	Velar	Glottal
<b>Stop</b> voiceless	<b>/p/</b> <i>pole</i>			<b>/t/</b> <i>two</i>		<b>/k/</b> <i>cat</i>	
voiced	<b>/b/</b> <i>bowl</i>			<b>/d/</b> <i>dew</i>		<b>/g/</b> <i>gas</i>	

Place your fingertips on your throat. Then make the sound /p/. Do not say the name of the letter.

Without taking your fingertips from your throat, make the sound /b/.

Do the same with /t/ and /d/ as well as /k/ and /g/.

Could you feel your vocal cords vibrating when you said /b/ but NOT when you said /p/, /d/ but not /t/ and /g/ but not /k/?

Most English consonants have a voiced and voiceless articulation. The difference is both in sound AND meaning (ex. *pole* vs. *bowl*).

# MANNER of Articulation: **VOICING**



Go to page 67 in your textbook to complete the following activity.

- 1. Make a list of rhyming words for each pair of voiced/voiceless consonants.**

example:      /p/      /b/      pit, bit  
                  /f/      /v/      fan, van

- 2. Go back to your completed list and add words in which the contrast occurs at the beginning (initial) and end (final) of each word.**

example:      pit, bit      rip, rib  
                  fan, van      leaf, leave



# MANNER of Articulation: **VOICING**



Before going on to the next slide, turn to page 71 in your textbook and complete the **Pause and Reflect** activity.

ANSWER: You should have underlined the following pairs with are minimally contrastive:

buy/ pie

fuss / fuzz

lip / lib

sue / zoo

tan / Dan

gum / come

cheap / jeep

puck / pug

half / halve

veal / feel

# MANNER of Articulation: STOPS

	Bilabial	Labio-dental	Inter-dental	Alveolar	Palatal	Velar	Glottal
Stop voiceless	<i>/p/ pole</i>			<i>/t/ two</i>		<i>/k/ cat</i>	
voiced	<i>/b/ bowl</i>			<i>/d/ dew</i>		<i>/g/ gas</i>	

## Manner of articulation

mostly concerns **air flow** from the **lungs** up through the vocal **tract**.

Air can either be briefly **obstructed** or allowed to **continue** to flow.

The **lips** and **tongue** play a major role in stopping air flow.

All six phonemes in the chart above are **STOPS**. A sound that is produced when both lips obstruct the air flow is called a **bilabial stop**.

What would we call a sound that is produced when the tongue stops the airflow at the alveolar ridge?

**an alveolar stop**

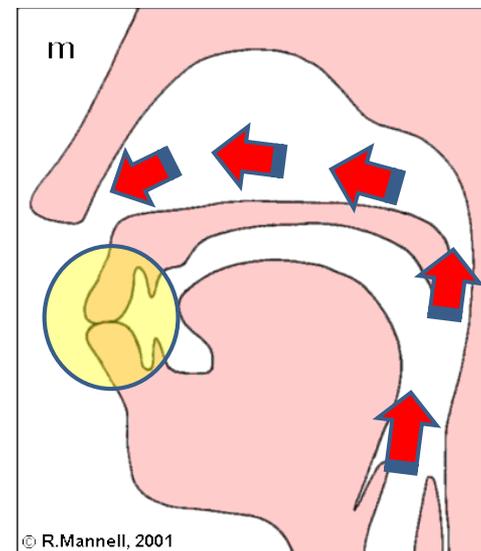
# MANNER of Articulation: NASAL STOPS

	Bilabial	Labio-dental	Inter-dental	Alveolar	Palatal	Velar	Glottal
<b>Stop</b> voiceless	<i>/p/ pole</i>			<i>/t/ two</i>		<i>/k/ cat</i>	
voiced	<i>/b/ bowl</i>			<i>/d/ dew</i>		<i>/g/ gas</i>	
<b>Nasal</b> voiced	<i>/m/ me</i>			<i>/n/ no</i>		<i>/ŋ/ ink</i>	

The three highlighted phonemes in the chart above are **nasals**.

When you make the sound /m/, is the air flow stopped or does it continue?

The airflow **IS stopped** at the **lips** (although it is allowed to continue to flow through the **nasal cavity**), so /m/ and all the nasals are **stops**.



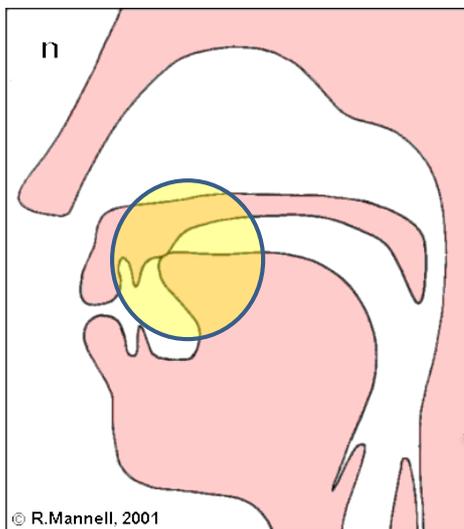
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	Bilabial	Labio-dental	Inter-dental	Alveolar	Palatal	Velar	Glottal
<b>Stop</b> voiceless	<i>/p/ pole</i>			<i>/t/ two</i>		<i>/k/ cat</i>	
voiced	<i>/b/ bowl</i>			<i>/d/ dew</i>		<i>/g/ gas</i>	
<b>Nasal</b> voiced	<i>/m/ me</i>			<i>/n/ no</i>		<i>/ŋ/ ink</i>	

Notice that /n/ and /ŋ/ are also nasal stops.

Where is the air obstructed in the image

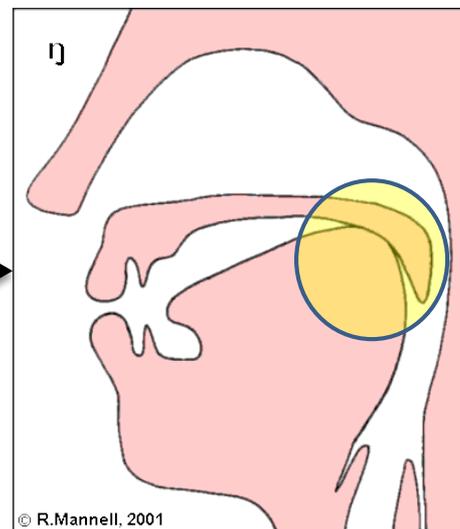
to the left? To the right?



Which phoneme is a  
velar nasal stop? →

Which is an

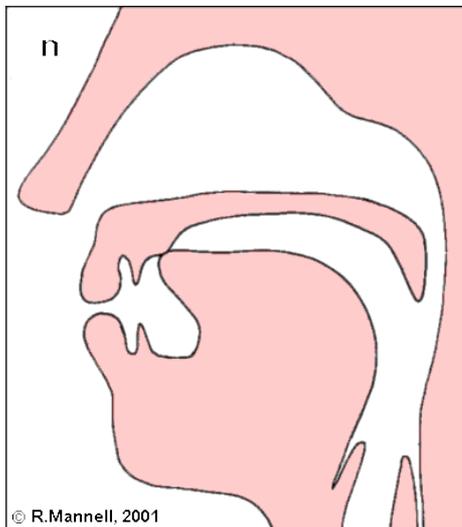
← alveolar nasal stop?



# MANNER of Articulation: NASAL STOPS

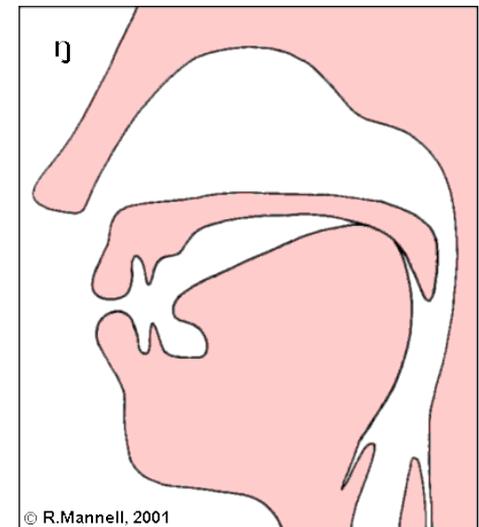
	Bilabial	Labio-dental	Inter-dental	Alveolar	Palatal	Velar	Glottal
<b>Stop</b> voiceless	<i>/p/ pole</i>			<i>/t/ two</i>		<i>/k/ cat</i>	
voiced	<i>/b/ bowl</i>			<i>/d/ dew</i>		<i>/g/ gas</i>	
<b>Nasal</b> voiced	<i>/m/ me</i>			<i>/n/ no</i>		<i>/ŋ/ ink</i>	

Do you notice anything else about nasal stops?



They are all voiced.

There are  
no voiceless nasals.



# MANNER of Articulation: **FRICATIVES**

	Bilabial	Labio-dental	Inter-dental	Alveolar	Palatal	Velar	Glottal
<b>Stop</b> voiced	/p/ pole			/t/ two		/k/ cat	
voiceless	/b/ bowl			/d/ dew		/g/ gas	
<b>Nasal</b> Voiced	/m/ me			/n/ no		/ŋ/ ink	
<b>Fricative</b> voiceless							
Voiced							

Place the following phonemes in the correct boxes in the chart above. *Try it first without your textbook.*

/z/ zoo

/θ/ thick

/s/ so

/h/ have

/v/ vote

/f/ fun

/ʒ/ vision

/ð/ the

/ʃ/ shoe

# MANNER of Articulation: FRICATIVES

	Bilabial	Labio-dental	Inter-dental	Alveolar	Palatal	Velar	Glottal
<b>Stop</b> voiced	/p/ pole			/t/ two		/k/ cat	
voiceless	/b/ bowl			/d/ dew		/g/ gas	
<b>Nasal</b> Voiced	/m/ me			/n/ no		/ŋ/ ink	
<b>Fricative</b> voiceless		/f/ fun	/θ/ thick	/s/ so	/ʃ/ shoe		/h/ have
Voiced		/v/ vote	/ð/ the	/z/ zoo	/ʒ/ vision		

Place the following phonemes in the correct boxes in the chart above. *Try it first without your textbook.*

/z/ zoo

/h/ have

/ʒ/ vision

/θ/ thick

/v/ vote

/ð/ the

/s/ so

/f/ fun

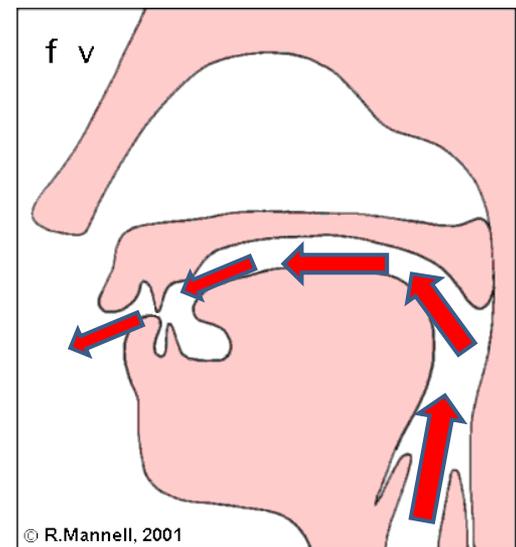
/ʃ/ shoe

# MANNER of Articulation: FRICATIVES

	Bilabial	Labio-dental	Inter-dental	Alveolar	Palatal	Velar	Glottal
<b>Stop</b> voiced	/p/ pole			/t/ two		/k/ cat	
voiceless	/b/ bowl			/d/ dew		/g/ gas	
<b>Nasal</b> Voiced	/m/ me			/n/ no		/ŋ/ ink	
<b>Fricative</b> voiceless		/f/ fun	/θ/ thick	/s/ so	/ʃ/ shoe		/h/ have
Voiced		/v/ vote	/ð/ the	/z/ zoo	/ʒ/ vision		

When producing the interdental fricative /f/, is the air flow stopped or allowed to continue?

It continues, but turbulence is created when the top teeth come into contact with the bottom lip. Notice the sound: f-f-f-f-ricative!

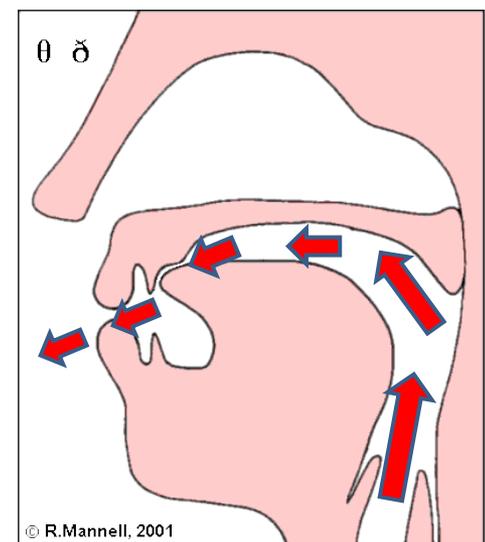


# MANNER of Articulation: FRICATIVES

	Bilabial	Labio-dental	Inter-dental	Alveolar	Palatal	Velar	Glottal
<b>Stop</b> voiced	<i>/p/ pole</i>			<i>/t/ two</i>		<i>/k/ cat</i>	
voiceless	<i>/b/ bowl</i>			<i>/d/ dew</i>		<i>/g/ gas</i>	
<b>Nasal</b> Voiced	<i>/m/ me</i>			<i>/n/ no</i>		<i>/ŋ/ ink</i>	
<b>Fricative</b> voiceless		<i>/f/ fun</i>	<i>/θ/ thick</i>	<i>/s/ so</i>	<i>/ʃ/ shoe</i>		<i>/h/ have</i>
Voiced		<i>/v/ vote</i>	<i>/ð/ the</i>	<i>/z/ zoo</i>	<i>/ʒ/ vision</i>		

All fricatives are characterized by noisy turbulence at the place of articulation.

Notice that some new symbols have been introduced. Practice writing them on a piece of paper.



# MANNER of Articulation: AFFRICATES

	Bilabial	Labio-dental	Inter-dental	Alveolar	Palatal	Velar	Glottal
<b>Stop</b> voiced	/p/ pole			/t/ two		/k/ cat	
voiceless	/b/ bowl			/d/ dew		/g/ gas	
<b>Nasal</b> voiced	/m/ me			/n/ no		/ŋ/ ink	
<b>Fricative</b> voiceless		/f/ fun	/θ/ thick	/s/ so	/ʃ/ shoe		/h/ have
voiced		/v/ vote	/ð/ the	/z/ zoo	/ʒ/ vision		
<b>Affricate</b> voiceless				/tʃ/ watch			
voiced				/dʒ/ joy			

**What is the first thing you notice about the affricates?**

They are made up of **two sounds**: a stop + a continuant

# MANNER of Articulation: **GLIDES**

	Bilabial	Labio-dental	Inter-dental	Alveolar	Palatal	Velar	Glottal
<b>Stop</b> voiced	<i>/p/ pole</i>			<i>/t/ two</i>		<i>/k/ cat</i>	
voiceless	<i>/b/ bowl</i>			<i>/d/ dew</i>		<i>/g/ gas</i>	
<b>Nasal</b> voiced	<i>/m/ me</i>			<i>/n/ no</i>		<i>/ŋ/ ink</i>	
<b>Fricative</b> voiceless		<i>/f/ fun</i>	<i>/θ/ thick</i>	<i>/s/ so</i>	<i>/ʃ/ shoe</i>		<i>/h/ have</i>
voiced		<i>/v/ vote</i>	<i>/ð/ the</i>	<i>/z/ zoo</i>	<i>/ʒ/ vision</i>		
<b>Affricate</b> voiceless				<i>/tʃ/ watch</i>			
voiced				<i>/dʒ/ joy</i>			
<b>Glide</b> voiced	<i>/w/ why</i>					<i>/j/ yes</i>	

**Glides are also called semi-vowels. Can you guess why?**

# MANNER of Articulation: **GLIDES**

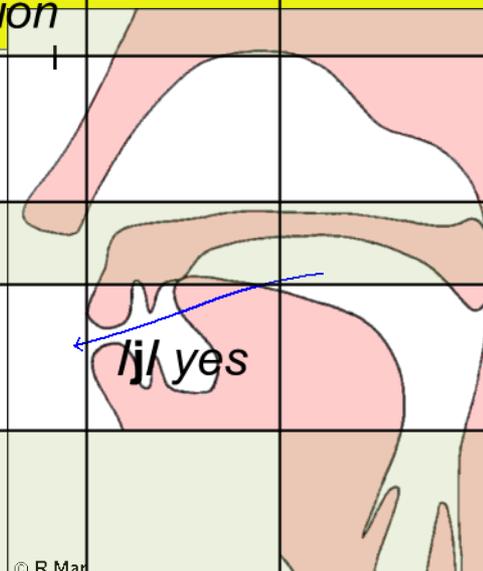
	Bilabial	Labio-dental	Inter-dental	Alveolar	Palatal	Velar	Glottal
<b>Stop</b> voiced	<i>/p/ pole</i>			<i>/t/ two</i>		<i>/k/ cat</i>	
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<b>Nasal</b> voiced	<i>/m/ me</i>			<i>/n/ no</i>		<i>/ŋ/ ink</i>	
<b>Fricative</b> voiceless		<i>/f/ fun</i>	<i>/θ/ thick</i>	<i>/s/ so</i>	<i>/ʃ/ shoe</i>		<i>/h/ have</i>
voiced		<i>/v/ vote</i>	<i>/ð/ the</i>	<i>/z/ zoo</i>	<i>/ʒ/ vision</i>		
<b>Affricate</b> voiceless				<i>/tʃ/ watch</i>			
voiced				<i>/dʒ/ joy</i>			
<b>Glide</b> voiced	<i>/w/ why</i>					<i>/j/ yes</i>	

**They have the quality of vowels but function as consonants.**

# MANNER of Articulation: LIQUIDS

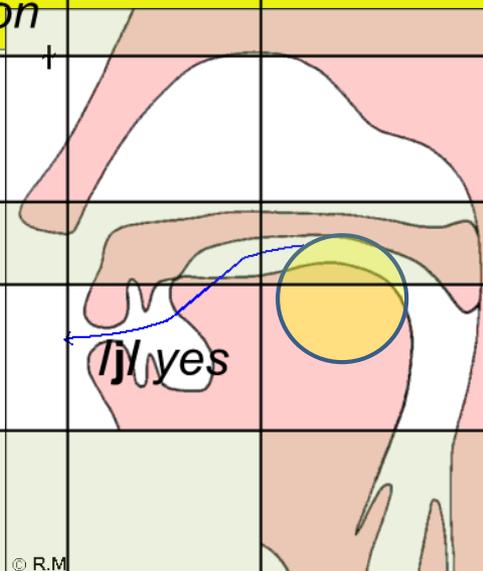
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<b>Stop</b> voiced	<i>/p/ pole</i>			<i>/t/ two</i>		<i>/k/ cat</i>	
voiceless	<i>/b/ bowl</i>			<i>/d/ dew</i>		<i>/g/ gas</i>	
<b>Nasal</b> voiced	<i>/m/ me</i>			<i>/n/ no</i>		<i>/ŋ/ ink</i>	
<b>Fricative</b> voiceless		<i>/f/ fun</i>	<i>/θ/ thick</i>	<i>/s/ see</i>	<i>/ʃ/ shoe</i>		<i>/h/ have</i>
voiced		<i>/v/ vote</i>	<i>/ð/ the</i>	<i>/z/ zoo</i>	<i>/ʒ/ vision</i>		
<b>Affricate</b> voiceless				<i>/tʃ/ watch</i>			
voiced				<i>/dʒ/ joy</i>			
<b>Glide</b> voiced	<i>/w/ why</i>						<i>/j/ yes</i>
<b>Liquid</b> voiced				<i>/l/ love</i> <i>/r/ rot</i>			

The liquid /l/ in English has two pronunciations: one “light” and one “dark.” The light version can be heard in words such as “light” and “laugh.” Notice the low position of the root of the tongue in the image below.



# MANNER of Articulation: LIQUIDS

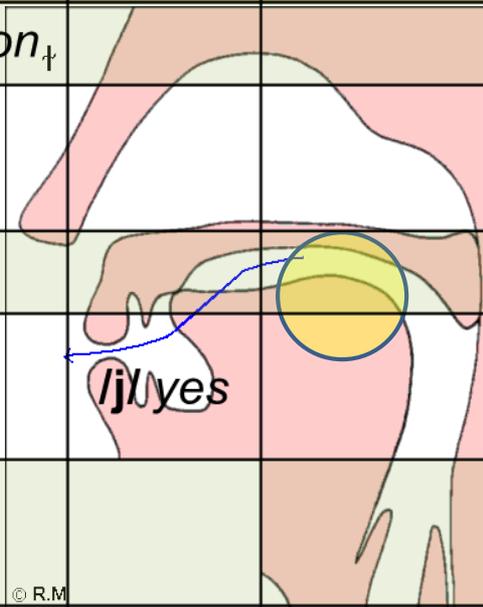
	Bilabial	Labio-dental	Inter-dental	Alveolar	Palatal	Velar	Glottal
<b>Stop</b> voiced	/p/ pole			Now say the word "full" /f/ two		Where is the root of the tongue? /k/ cat	
voiceless	/b/ bowl			tip of the tongue is in the same /d/ dew		place but the back of the /t/ gas	
<b>Nasal</b> voiced	/m/ me			tongue has risen almost to the /n/ no		velum. This is the dark // and is /ŋ/ ink	
<b>Fricative</b> voiceless		/f/ fun	/θ/ thick	written as /ɹ/. /s/ so	/ʃ/ shoe		/h/ have
voiced		/v/ vote	/ð/ the	/z/ zoo	/ʒ/ vision		
<b>Affricate</b> voiceless				/tʃ/ watch			
voiced				/dʒ/ joy			
<b>Glide</b> voiced	/w/ why						
<b>Liquid</b> voiced				/l/ love /r/ rot			



# MANNER of Articulation: LIQUIDS

	Bilabial	Labio-dental	Inter-dental	Alveolar	Palatal	Velar	Glottal
<b>Stop</b> voiced	<i>/p/ pole</i>			<i>/t/ two</i>		<i>/k/ cat</i>	
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<b>Affricate</b> voiceless				<i>/tʃ/ watch</i>			
voiced				<i>/dʒ/ joy</i>			
<b>Glide</b> voiced	<i>/w/ why</i>						<i>/j/ yes</i>
<b>Liquid</b> voiced				<i>/l/ love</i> <i>/r/ rot</i>			

The English /r/ is similar to the dark /l/ in that the root of the tongue rises to but does not touch the velum, and the tongue is flat and low.



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