

# Grapheme\* Cards

Teaching Resource



\* A grapheme is symbol, such as a letter, used to represent a sound. Often multiple letters, such as “igh”, are used to represent a sound.



**Introduction**

**Alphabet Cards**

**Consonant Graphemes**

**Vowel Graphemes**

**Further Resources**

- a) Phoneme-Grapheme Map
- b) Grapheme Map



# Introduction



{To prepare for literacy} spoken words had to be treated as consisting of component parts, which could then be represented by a much smaller number of **graphical symbols**. (Seidenberg, 2017, p. 63)

We take it as obvious that speech consists of units such as words, syllables, and phonemes, but these units are phonological abstractions that had to be discovered. Writing in the phonological way of thinking [with **sounds linked to graphemes**] coevolved over a long period. (Seidenberg, 2017, p. 49)

Seidenberg, M. (2017). Language at the speed of sight: how we read, why so many can't, and what can be done about it. New York: Basic Books.



*Tick if the child knows this letter's name*

*Tick if the child knows one or more sounds for this letter*

*4*

*The number of sounds associated with this letter*

*Tick if the child can identify words that have this letter in them*

*Tick if the child can write this letter*

*The number of sounds associated with this letter*

*1*

*Sounds make by this letter*

*Other graphemes featuring this letter*

*Any exceptions to the rule*



# Alphabet Map

<sup>1</sup> H h	<sup>1</sup> P p	<sup>2</sup> X x <small>"x" makes /z/ sound in "xylophone"</small>	
<sup>2</sup> G g	<sup>5</sup> O o	<sup>1</sup> W w	<sup>1</sup> Th th <small>"th" makes the /θ/ sound in "thyme"</small>
<sup>1</sup> F f <small>"f" makes the /f/ sound in "of"</small>	<sup>1</sup> N n	<sup>1</sup> V v	<sup>3</sup> Wh wh
<sup>3</sup> E e	<sup>1</sup> M m	<sup>5</sup> U u	<sup>1</sup> Sh sh
<sup>1</sup> D d	<sup>1</sup> L l	<sup>1</sup> T t <small>"t" makes the /t/ sound in "tute"</small>	<sup>3</sup> Ch ch <small>"ch" makes the /tʃ/ sound in "church" "ch" makes the /ʃ/ sound in "chair"</small>
<sup>2</sup> C c	<sup>1</sup> K k	<sup>3</sup> S s <small>"s" makes the /s/ sound in "sun" "s" makes the /z/ sound in "is"</small>	
<sup>1</sup> B b	<sup>1</sup> J j	<sup>1</sup> R r	<sup>1</sup> Z z
<sup>4</sup> A a	<sup>4</sup> I i	<sup>1</sup> Q q <small>"q" appears as "qu" in words</small>	<sup>1:3</sup> Y y <small>"y" = 1 consonant &amp; 3 vowel sounds</small>









## The Alphabetic Code

the interface between oral and print language

<https://youtu.be/dA4nt3rxTYM>

<http://bit.ly/2-Sounds-Letters>

## Sound-Letter Correspondences

Exploring phoneme-to-grapheme relationships



## Analysing Spoken Words

An activity that helps learners develop their awareness of the sound patterns within familiar words (a.k.a. phonological awareness) ... and which uses this awareness as one of the foundations for understanding the logic of the alphabetic principle.

<https://youtu.be/8DVPbK0HSyY>





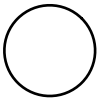
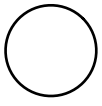
# Alphabet Cards

(with consonant digraphs - ch, sh, th and ng)

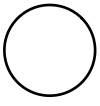
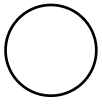


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A

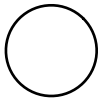
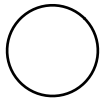


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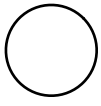
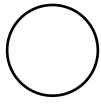


1

B

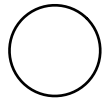
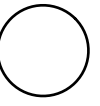


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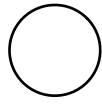
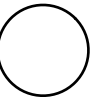


2

C

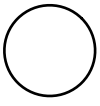
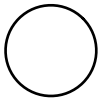


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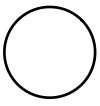
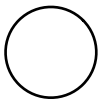


1

D

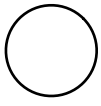
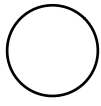


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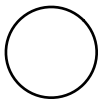
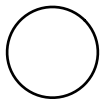


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E

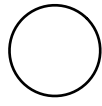
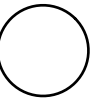


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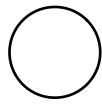
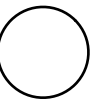


1\*

F



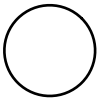
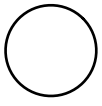
f



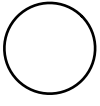
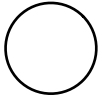
"f" makes the /v/ sound "of"

2

G

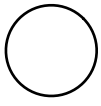
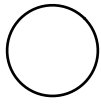


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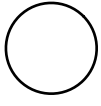
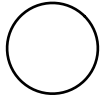


1\*

H

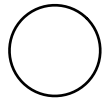
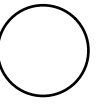


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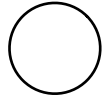
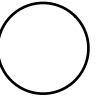


4

I



i



J

1

j

K

1

k

L

1

l

M

1

m

N

1

n

O

5

o

P

1

p

Q U

1

qu

R

1

r

3

S

S

"s" makes the /sh/ sound in "sure"  
"s" makes the /z/ sound in "is"

1\*

T

t

"t" makes the /ch/ sound in  
"future"

5

U

U

1

V

V

1

W

W

2

X

X

makes /z/ sound in "xylophone"

1:3

Y

y

1 consonant & 3 vowel sounds

1

Z

Z

○ ○ 3

Ch

○ ch ○

makes the /k/ sound in "chord"  
makes the /sh/ sound in "chef"

○ ○ 1

Sh

○ sh ○

○ ○ 1\*

Th

○ th ○

makes the /t/ sound in "thyme"

○ ○ 3\*

Wh

○ wh ○

○ ○ 1

ng

○ ng ○

Blank card with four corner circles

Blank card with four corner circles

Blank card with four corner circles

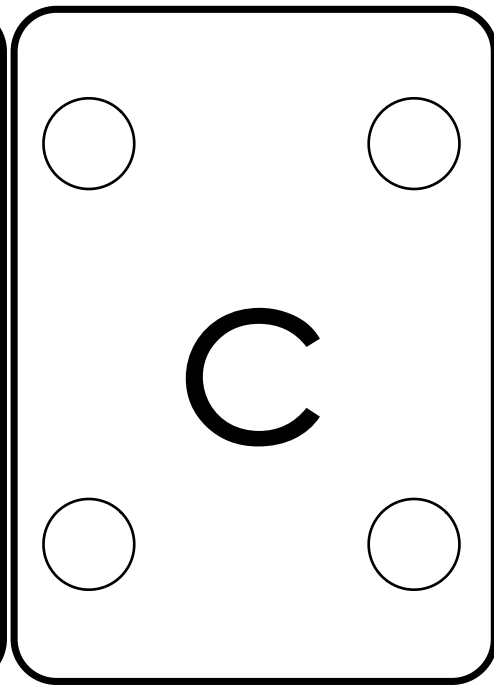
Blank card with four corner circles



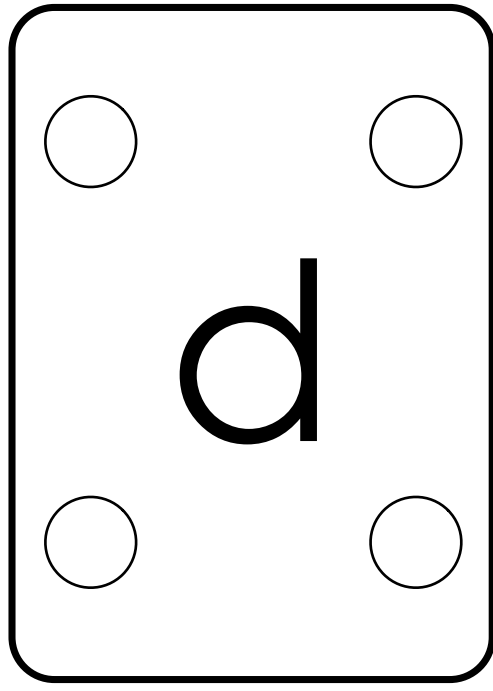
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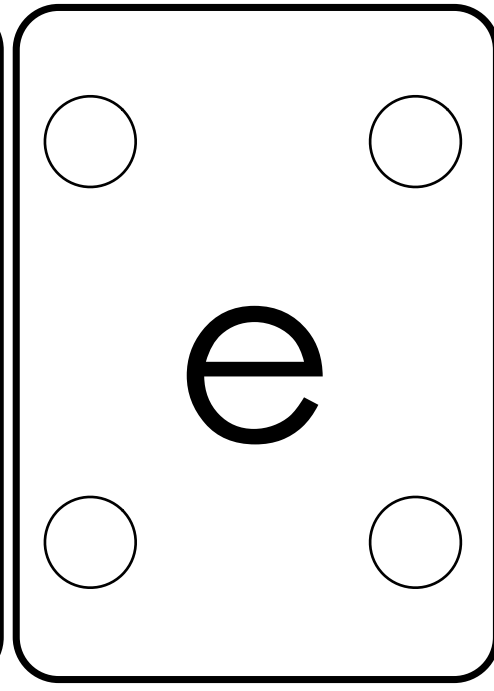
b



c



d



e



f



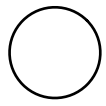
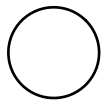
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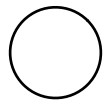
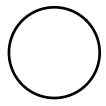
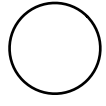
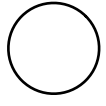
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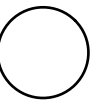
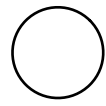
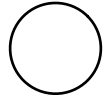
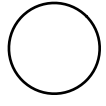
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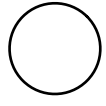
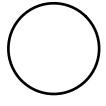
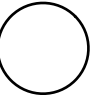
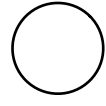
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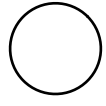
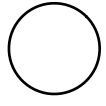
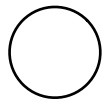
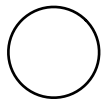
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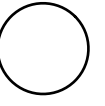
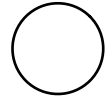
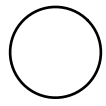
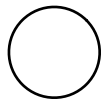
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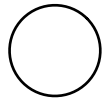
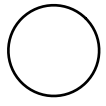
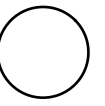
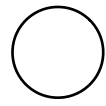
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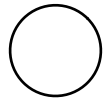
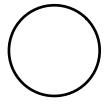
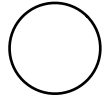
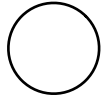
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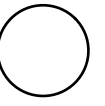
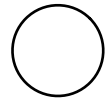
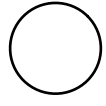
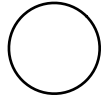
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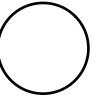
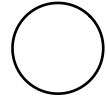
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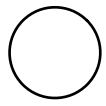
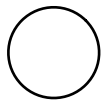


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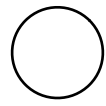
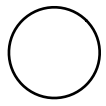
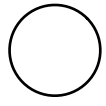
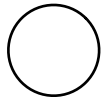


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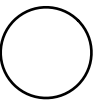
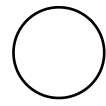
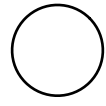
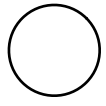




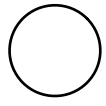
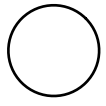
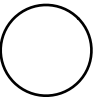
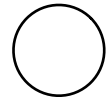
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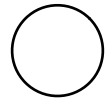
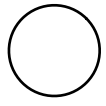
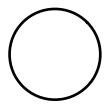
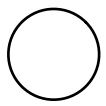
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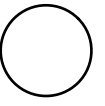
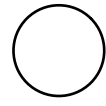
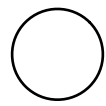
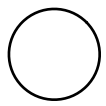
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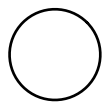
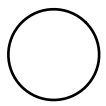
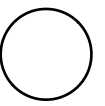
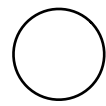
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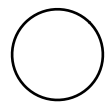
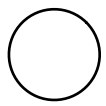
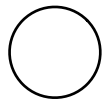
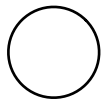
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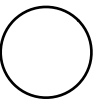
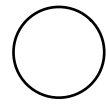
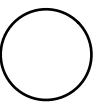
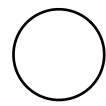
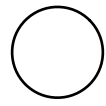
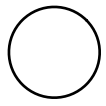
x



y



z





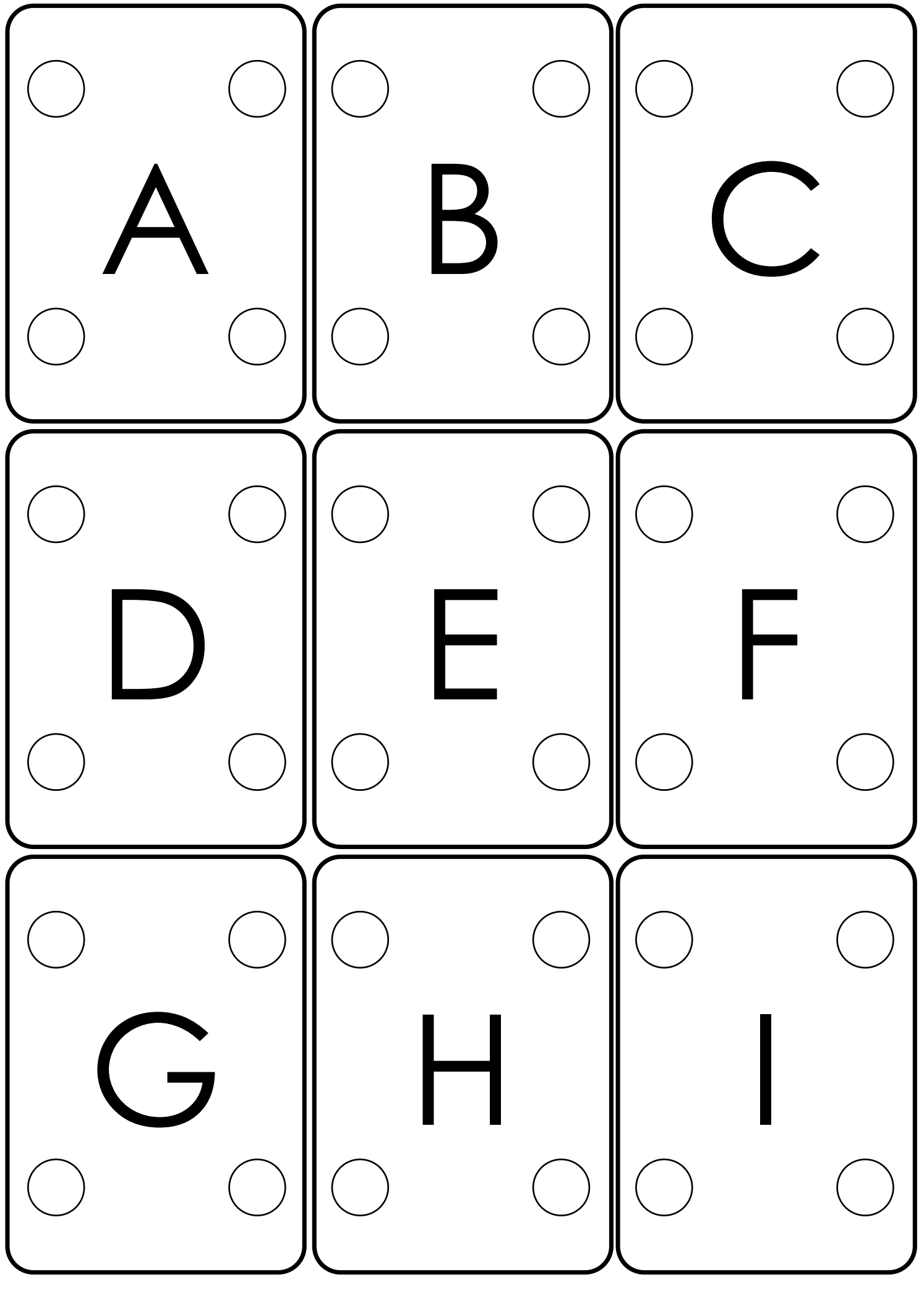
ch

sh

th

wh

ng



A

B

C

D

E

F

G

H

I

J

K

L

M

N

O

P

QU

R



S

T

U

V

W

X

Y

Z

Ch

Sh

Th

Wh

# Consonant Graphemes



# Letter Tiles: Consonants (1 of 2)

b<sup>1</sup>

c<sup>3</sup>

d<sup>1</sup>

f<sup>2</sup>

g<sup>2</sup>

h<sup>1\*</sup>

j<sup>1</sup>

k<sup>1\*</sup>

l<sup>1</sup>

m<sup>1</sup>

n<sup>2</sup>

p<sup>1\*</sup>

qu<sup>1</sup>

r<sup>1</sup>

s<sup>4</sup>

t<sup>3</sup>

v<sup>1</sup>

w<sup>1\*</sup>

x<sup>3\*\*</sup>

y<sup>1\*\*</sup>  
as a  
consonant

z<sup>2</sup>

ch<sup>3</sup>

sh<sup>1</sup>

th<sup>2\*</sup>

wh<sup>3</sup>

-ng<sup>1</sup>

bb<sup>1</sup>

dd<sup>1</sup>

ff<sup>1</sup>

gg<sup>1</sup>

ll<sup>1</sup>

mm<sup>1</sup>

nn<sup>1</sup>

pp<sup>1</sup>

rr<sup>1</sup>

ss<sup>2</sup>

tt<sup>1</sup>

zz<sup>1</sup>

-ck<sup>1</sup>

-tch<sup>1</sup>

-ed<sup>2</sup>

ph<sup>1</sup>



# Letter Tiles: Consonants (2 of 2)

-lf <sup>1</sup>	gh <sup>2</sup>	gu- <sup>1</sup>	-ge <sup>1*</sup>	-dge <sup>1</sup>	pn <sup>1</sup>
------------------	-----------------	------------------	-------------------	-------------------	-----------------

-le <sup>1</sup>	kn- <sup>1</sup>	-que <sup>1</sup>	mn <sup>2</sup>	mb <sup>1</sup>	gn <sup>1</sup>
------------------	------------------	-------------------	-----------------	-----------------	-----------------

rh <sup>1</sup>	wr <sup>1</sup>	sc <sup>3</sup>	si- <sup>3</sup>	ssi <sup>1</sup>	sci <sup>1</sup>
-----------------	-----------------	-----------------	------------------	------------------	------------------

ci- <sup>2*</sup>	-ce <sup>1</sup>	ps- <sup>1</sup>	sch <sup>1</sup>	shi <sup>1</sup>	ti- <sup>3</sup>
-------------------	------------------	------------------	------------------	------------------	------------------

-bt <sup>1</sup>	-ve <sup>1</sup>	i <sup>1**</sup> as a consonant	-se <sup>2</sup>	-ze <sup>1</sup>	
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1

# b

**b** is /b/ as in **bed baby**  
**bb** is /b/ as in **bubbly**

**bh** is /b/ as in **Bhutan**  
(uncommon)

**bt** is /t/ in **doubt**  
**mb** is /m/ in **thumb**

1

# -bb

**bb** is /b/ as in **bubbly**  
**b** is /b/ as in **bed baby**

*the double b (bb) occurs  
after the short form of the  
vowel (e.g. bubble) and not  
the long form (baby)*

1

# bh

**bh** is /b/ as in **Bhutan**  
(uncommon)

**b** is /b/ as in **bed baby**  
**bb** is /b/ as in **bubbly**

**bt** is /t/ in **doubt**  
**mb** is /m/ in **thumb**

3

# c

**c** is /k/ in **cat**  
**c** is /s/ in **circle** or **bicycle**  
**c** is /sh/ in **appreciate**

C softens to /s/ when  
followed by E, I or Y.  
Otherwise, C  
says /k/

**sc** is /s/ in **scant**  
**sc** is /s/ + /k/ in **scare**

3

# ch-

**ch** is /ch/ in **cheese**  
**ch** is /k/ in **chord**  
**ch** is /sh/ in **chef**

**t** is /ch/ in **future**  
**tch** is /ch/ in **catch**  
**-tch** is only used after a single  
vowel that does NOT say its  
name

1

# -tch

**-tch** is /ch/ in **catch**  
**-tch** is only used after a single  
vowel that does NOT say its  
name

**ch** is /ch/ in **cheese**  
**t** is /ch/ in **future**  
**ch** is /k/ in **chord**  
**ch** is /sh/ in **chef**

1

# d

**d** is /d/ as in **dog**  
**dd** is /d/ as in **daddy**

**-ed** is /d/ as in **moved**  
**-ed** is /t/ as in **jumped**

1

# dd

**d** is /d/ as in **dog**  
**dd** is /d/ as in **daddy**

*the double d (dd) occurs  
after the short form of the  
vowel (e.g. daddy).*

2

# -ed

**-ed** is /d/ as in **moved**  
**-ed** is /t/ as in **jumped**

**d** is /d/ as in **dog**  
**dd** is /d/ as in **daddy**

# f

2\*\*

**f** is /f/ as in **fun**  
**f** is /v/ in **of**  
(this is irregular)

**ff** is /f/ as in **stuffy**  
**lf** is /f/ as in **calf**

**ph** is /f/ as in **phone**  
**-gh** is /f/ as in **laugh**

# -ff

1

**ff** is /f/ as in **stuffy**  
**f** is /f/ as in **fun**  
**lf** is /f/ as in **calf**

*the double f (ff) occurs after  
the short form of the vowel  
(e.g. stuffy).*

# ph-

1

**ph** is /f/ as in **phone**  
**f** is /f/ as in **fun**  
**ff** is /f/ as in **stuffy**  
**lf** is /f/ as in **calf**

**-gh** is /f/ as in **laugh**

the "p" is silent in "pt", "ps"  
and "pn"

# -lf

1

**lf** is /f/ as in **calf**  
**f** is /f/ as in **fun**  
**ff** is /f/ as in **stuffy**

**ph** is /f/ as in **phone**  
**-gh** is /f/ as in **laugh**

# gh

2

**-gh** is /f/ as in **laugh**  
**f** is /f/ as in **fun**  
**ff** is /f/ as in **stuffy**  
**ph** is /f/ as in **phone**

whereas **gh-** is /g/ as in **ghost**  
**-gh** is often silent in the  
following vowel constructs:  
augh, eigh, ough, but not in a  
word like **tough**

# g

2\*

**g** is /g/ as in **game**  
**g** is /j/ as in **gem**  
**g** is /zh/ in **regime** (rare)  
**gg** is /g/ as in **jiggle**  
**gh-** is /g/ as in **ghost**  
**gu-** is /g/ as in **guide**

G softens to /j/ when  
followed by E, I or Y.  
Otherwise, G says /g/

# gg

1

**gg** is /g/ as in **giggle**  
**g** is /g/ as in **game**

*the double g (gg) occurs  
after the short form of the  
vowel (e.g. giggle).*

# gh

2

**gh-** is /g/ as in **ghost**

whereas, **-gh** is /f/ as in **laugh**  
**lf** is /f/ as in **calf**  
**f** is /f/ as in **fun**  
**ff** is /f/ as in **stuffy**  
**ph** is /f/ as in **phone**

# gu-

1

**gu-** is /g/ as in **guide**

**g** is /g/ as in **game**  
**gg** is /g/ as in **giggle**  
**gh-** is /g/ as in **ghost**

# h

1\*

**h** is /h/ in **hole**  
**wh** are /h/ in **whole**

**h** is often combined in a number of consonant sounds, either as a silent letter - as in **ghost** - or to represent a digraph sound - as in **phone** or **laugh**

# wh-

3

**wh** are /h/ in **whole**  
**wh** is /w/ in **whale**  
**wh** is /hw/ in **while**

# j

1\*

**j** is /j/ as in **jar**  
**j** is /zh/ in **deja-vu** (rare)

yet **g -ge & -dge** can also make the /j/ sound

G softens to /j/ when followed by E, I or Y. Otherwise, G says /g/. English words don't end in J

# -ge

1\*

**-ge** is /j/ as in **cage**  
**-ge** is /zh/ in **beige** (rare)

G softens to /j/ when followed by E, I or Y. Otherwise, G says /g/

# -dge

1

**dge** is only /j/ as in **judge**

yet **g -ge & j** can also make the /j/ sound

**-dge** is used only after a single vowel which says its short sound. Otherwise **-ge** is used as in **cage**.

# k

1\*

**k** is /k/ in **kite**  
**-ck** is /k/ in **back**

**k** is silent in **know**, **knight**, and **knot**

**c ch & -que** can also make the /k/ sound

# -ck

1

**-ck** is /k/ in **back**

**-ck** is used only after a single vowel that says its short sound (e.g. **back** as opposed to **steak**)

# -que

1

**-que** is /k/ as in **cheque**

whereas, **qu-** is /kw/ as in **quick**

**c ch, k & ck** can also make the /k/ sound.

In American spelling, **cheque** is **check**

l

1

l is /l/ in **little**  
ll is /l/ in **silly**  
**-le** is /l/ in **simple**

**lf** is /f/ in **calf** and in **half**  
**al** is /aw/ in **walk**  
**oul** is /short oo/ in **would**

ll

1

ll is /l/ in **silly**  
l is /l/ in **little**  
**-le** is /l/ in **simple**

*the double l (ll) occurs after  
the short form of the vowel  
(e.g. full or fall or ball).*

-le

1

**-le** is /l/ in **simple**  
ll is /l/ in **silly**  
l is /l/ in **little**

**lf** is /f/ in **calf** and in **half**  
**al** is /aw/ in **walk**  
**oul** is /short oo/ in **would**

m

1

m is /m/ in **milk**  
mm is /m/ in **summer**  
mb is /m/ in **thumb**  
- mn is /m/ in **autumn**

**m** is always /m/, except in the  
rare **mn-** is /n/ in **mnemonic**

mm

1

mm is /m/ in **summer**  
m is /m/ in **milk**  
mb is /m/ in **thumb**  
- mn is /m/ in **autumn**

*the double m (mm) occurs  
after the short form of the  
vowel (e.g. mummy or  
hammer).*

-mn

1

- mn is /m/ in **autumn**  
m is /m/ in **milk**  
mm is /m/ in **summer**  
mb is /m/ in **thumb**

**m** is always /m/, except in the  
rare **mn-** is /n/ in **mnemonic**

-mb

1

mb is /m/ in **thumb**  
m is /m/ in **milk**  
mm is /m/ in **summer**  
- mn is /m/ in **autumn**

**m** is always /m/, except in the  
rare **mn-** is /n/ in **mnemonic**

mn-

1\*\*

**m** is always /m/, except in the  
rare **mn-** is /n/ in **mnemonic**

- mn is /m/ in **autumn**  
m is /m/ in **milk**  
mm is /m/ in **summer**  
mb is /m/ in **thumb**

2

# n

**n** is /n/ in **now**  
**n** is /ng/ in **think**  
**nn** is /n/ in **sunny**  
**kn** is /n/ in **know**  
**gn** is /n/ in **gnat**  
**pn** is /n/ in **pneumonia**

**-mn** is /m/ in **autumn**  
**-ng** is /ng/ in **sing**

1

# kn-

**kn** is /n/ in **know**  
**n** is /n/ in **now**  
**nn** is /n/ in **sunny**  
**gn** is /n/ in **gnat**  
**pn** is /n/ in **pneumonia**

**mn** is /m/ in **autumn**  
**ng** is /ng/ in **sing**

1

# -nn

**nn** is /n/ in **sunny**  
**n** is /n/ in **now**  
**kn** is /n/ in **know**  
**gn** is /n/ in **gnat**

*the double n (nn) occurs after the short form of the vowel (e.g. funny). A word does not end with nn*

1

# gn-

**gn** is /n/ in **gnat**  
**n** is /n/ in **now**  
**nn** is /n/ in **sunny**  
**kn** is /n/ in **know**  
**pn** is /n/ in **pneumonia**

**mn** is /m/ in **autumn**  
**ng** is /ng/ in **sing**

1

# pn-

**pn** is /n/ in **pneumonia**  
**n** is /n/ in **now**  
**nn** is /n/ in **sunny**  
**kn** is /n/ in **know**  
**gn** is /n/ in **gnat**

**mn** is /m/ in **autumn**  
**ng** is /ng/ in **sing**

1

# -ng

**ng** is always /ng/ as in **sing** and in **singing**

**n** is also /ng/ in **think**

1\*

# p

**p** is /p/ in **pie**  
**pp** is /p/ in **puppy**

**ph** is /f/ in **phone**  
**p** is silent in **pn-** and **pt-** and **ps-**

1

# pp

**pp** is /p/ in **puppy**  
**p** is /p/ in **pie**

*the double p (pp) occurs after the short form of the vowel (e.g. puppy). A word does not end with pp*

1\*  
**qu-**

**qu-** is /kw/ as in **quick**

whereas, **-que** is /k/ as in **cheque**

**q** is always accompanied by the "u" and so "u" is not considered a vowel in this case.

1  
**r**

**r** is /r/ in **rain**  
**rr** is /r/ in **hurry**  
**wr** is /r/ in **write**  
**rh** is /r/ in **rhyme**

**r** is always /r/ and **r** appears in controlled-r vowels as in **far**

1  
**rr**

**rr** is /r/ in **hurry**  
**r** is /r/ in **rain**  
**wr** is /r/ in **write**

*the double r (rr) occurs after the short form of the vowel and does not create a controlled-r vowel (e.g. hurry). A word does not end with rr*

1  
**rh**

**rh** is /r/ in **rhyme**  
**r** is /r/ in **rain**  
**rr** is /r/ in **hurry**  
**wr** is /r/ in **write**

**r** is always /r/ and **r** appears in controlled-r vowels as in **far**

1  
**wr**

**wr** is /r/ in **write**  
**r** is /r/ in **rain**  
**rr** is /r/ in **hurry**  
**rh** is /r/ in **rhyme**

**r** is always /r/ and **r** appears in controlled-r vowels as in **far**

4  
**s**

**s** is /s/ in **snake**  
**s** is /sh/ in **sure**  
**s** is /zh/ in **casual**  
**s** is /z/ in **is**  
**sc** is /s/ in **scent**  
**-se** is /s/ in **mouse**  
**ss** is /s/ in **messy**  
**ps** is /s/ in **psychiatry**  
**ss** is /sh/ in **pressure**  
**-se** is /z/ in **choose**  
**c -ce** are /s/ in **cease & peace**

1  
**ps-**

**ps** is /s/ in **psychiatry** or **psychiatrist**

**p** is silent in **pn-** and **pt-** and **ps-**

1  
**-ce**

**-ce** are /s/ in **peace & pace**

C softens to /s/ when followed by E, I or Y. Otherwise, C says /k/

# sh

1

**sh-** is /sh/ in **ship**, **share**,

**s** is /sh/ in **sugar**

**ss** is /sh/ in **pressure**

**ssi** is /sh/ in **mission**

**sci-** is /sh/ in **conscience**

**ti-** is /sh/ in **nation**

**si-** is /sh/ in **confusion**

**ci-** is /sh/ in **physician**

**ch** is /sh/ in **chef**

# sch

1

**sch-** is /sh/ in  
**schnitzel** (rare)

# shi

1

**shi-** is /sh/ in  
**fashion**

# sc

3

**sc** is /s/ in **scent** or **scenery**

**sc** is /sh/ in **fascism**

**sc** is /s/ + /k/ in **scare**

C softens to /s/ when  
followed by E, I or Y.  
Otherwise, C says /k/

# sci

2

**sci-** is /s/ + long i in **science**

**sci-** is /sh/ in **conscience**

# ss

2

**ss** is /s/ in **messy**

**ss** is /sh/ in **pressure**

**s** is /s/ in **snake**

**s** is /sh/ in **sugar**

# ssi

1

**ssi** is /sh/ in **mission**

**ti-** is /sh/ in **nation**

**si-** is /sh/ in **confusion**

**ci-** is /sh/ in **physician**

# si

3

**si-** is /s/ + V in **single** /**sing**

**si** is /sh/ in **pension**

**si** is /zh/ in **confusion**

**ti-** is /sh/ in **nation**

**si-** is /sh/ in **confusion**

**ci-** is /sh/ in **physician**

# ci-

2\*

**ci** is /s/+V in **citation** or **circle**

**ci** is /sh/ in **clinician**

**ti-** is /sh/ in **nation**

**si-** is /sh/ in **confusion**

**ci-** is /sh/ in **physician**

†

3

† is /t/ in **talk**  
† is /ch/ in **future**  
† is /sh/ in **initiate**  
**-bt** is /t/ in **doubt**

†† is /t/ in **little**  
**ti-** is /sh/ in **nation**  
**ti-** is /t/ + /long i/ in **title**  
**pt** is /t/ in **pterodactyl**

-††

1

†† is /t/ in **little**  
† is /t/ in **talk**  
† is /ch/ in **future**

*the double t (††) occurs after  
the short form of the vowel  
(e.g. little).*

ti-

3

**ti-** is /sh/ in **nation**  
**ti-** is /zh/ in **equation**  
**ti-** is /t/ + /long i/ in **title**

† is /t/ in **talk**  
†† is /t/ in **little**  
**si-** is /sh/ in **confusion**  
**ci-** is /sh/ in **physician**

pt-

1

**pt** is /t/ in **pterodactyl**  
†† is /t/ in **little**  
† is /t/ in **talk**  
† is /ch/ in **future**  
**-bt** is /t/ in **doubt**

**ti-** is /sh/ in **nation**  
**ti-** is /t/ + /long i/ in **title**

-bt

1

**-bt** is /t/ in **doubt**  
†† is /t/ in **little**  
† is /t/ in **talk**  
† is /ch/ in **future**  
**pt** is /t/ in **pterodactyl**

**ti-** is /sh/ in **nation**  
**ti-** is /t/ + /long i/ in **title**

th

2\*

**th** is /th/ in **this, that, the**  
**th** is always /th/, except in the  
rare **th** is /t/ in **thyme**  
there are voiced/unvoiced  
forms  
of /th/

v

1

v is /v/ in **van**  
**-ve** is /v/ in **have**

f is /v/ in **of**  
(this is irregular)

English words do not end in  
"v", which is why there is the  
"ve" form

-ve

1

v is /v/ in **van**  
**-ve** is /v/ in **have**

f is /v/ in **of**  
(this is irregular)

English words do not end in  
"v", which is why there is the  
"ve" form

w

1\*

w is /w/ in **water**

**wh** are /w/ in **whale**  
**wh** is /hw/ in **while**  
**wh** is /h/ in **whole**  
**wr** is /r/ in **write**



1\*

# WO

**wo** is /w/+schwa in **won**  
o is /w+schwa/ in **one**

**w** is /w/ in **water**

**wh** are /w/ in **whale**

**wh** is /hw/ in **while**

**wh** is /h/ in **whole**

**wr** is /r/ in **write**

3\*\*

# X

**x** is /ks/ in **fox** or **ox**

yet

**x** is /z/ in **xylophone**  
(this is irregular)

and

**x** is /ks/+sh/ in **luxury**

1\*

# xi

**xi** is /ks/+sh/ in **anxious**  
**x** is /ks/+sh/ in **luxury**

**x** is /ks/ in **fox** or **ox**

yet

**x** is /z/ in **xylophone**  
(this is irregular)

1\*\*

# y

(as a consonant)

**y** is /y/ as in **yellow** when a  
consonant

**y** often appears in vowel  
sounds, which is presented in  
a separate card

1\*\*

# i

(as a consonant)

**i** is /y/ as in **onion**, when a  
consonant

**i** is primarily a vowel, and  
infrequently makes the /y/  
sound

2

# Z

**z** is /z/ in **zoo**  
**zz** is /z/ in **fuzzy**  
**-ze** is /z/ in **snooze**  
**z** is /zh/ in **seizure**

**x** is /z/ in **xylophone**  
**s** is /z/ in **is**  
**-se** is /z/ in **choose**

1

# -ZZ

**zz** is /z/ in **fuzzy**  
**z** is /z/ in **zoo**  
**-ze** is /z/ in **snooze**

*the double z (zz) occurs after  
the short form of the vowel  
(e.g. buzz) as opposed to the  
long vowel (e.g. faze)*

1

# -ze

**z** is /z/ in **zoo**  
**zz** is /z/ in **fuzzy**  
**-ze** is /z/ in **snooze**

**x** is /z/ in **xylophone**  
**s** is /z/ in **is**  
**-se** is /z/ in **choose**

2

# -se

**-se** is /s/ in **moose** or **mouse**

**-se** is /z/ in **chose** or **choose** or  
**nose**

# Vowel Graphemes



# Letter Tiles: Vowels (1 of 2)

a <sup>4</sup>	e <sup>3</sup>	i <sup>4</sup> as a vowel	o <sup>7</sup>	u <sup>5</sup>	y <sup>3</sup> as a vowel
----------------	----------------	------------------------------	----------------	----------------	------------------------------

a_e <sup>3</sup>	e_e <sup>1</sup>	i_e <sup>2</sup>	o_e <sup>1</sup>	u_e <sup>2</sup>	-y <sup>1</sup>
------------------	------------------	------------------	------------------	------------------	-----------------

ai <sup>3</sup>	ay <sup>1</sup>	aw <sup>1</sup>	au <sup>1</sup>	al <sup>1</sup>	aigh <sup>1</sup>
-----------------	-----------------	-----------------	-----------------	-----------------	-------------------

augh <sup>3**</sup>	ar <sup>3</sup>	are <sup>1</sup>	air <sup>1</sup>	ee <sup>1</sup>	ea <sup>3</sup>
---------------------	-----------------	------------------	------------------	-----------------	-----------------

ei <sup>2</sup>	ey <sup>2</sup>	eigh <sup>2</sup>	ew <sup>2**</sup>	er <sup>1</sup>	ear <sup>4</sup>
-----------------	-----------------	-------------------	-------------------	-----------------	------------------

eer <sup>1</sup>	ie <sup>3</sup>	igh <sup>1</sup>	ir <sup>1</sup>	ier <sup>1</sup>	oa <sup>1</sup>
------------------	-----------------	------------------	-----------------	------------------	-----------------

oe <sup>1</sup>	oo <sup>2</sup>	ou <sup>4</sup>	oul <sup>1</sup>	ough <sup>5**</sup>	ow <sup>2</sup>
-----------------	-----------------	-----------------	------------------	---------------------	-----------------



# Letter Tiles: Vowels (2 of 2)

oy<sup>1</sup>

oi<sup>1</sup>

or<sup>2</sup>

ore<sup>1</sup>

oor<sup>1</sup>

oar<sup>1</sup>

our<sup>2</sup>

ue<sup>1</sup>

ui<sup>1</sup>

-uy<sup>1</sup>

ur<sup>2</sup>

-ure<sup>1</sup>



4

# a

**a** is /short a/ in **cat**  
**a** is /long a/ in **a\_e** in **mate**  
**a** is /long a/ in **paper**  
**a** is /aw/ in **father**  
**a** is schwa in **alone**

a vowel says its name (long form) at the end of a syllable as in **paper**.

1

# ae

**ae** is /short a/ in **aesthetic**

**nb: are** is /air/ as in **aerial** or **aeroplane**

# aer

**are** is /air/ as in **aerial** or **aeroplane**

**ae** is /short a/ in **aesthetic**

3\*\*

# a\_e

**a\_e** is /long a/ in **mate**  
**a\_e** is /short a/ in **have**  
**a\_e** is /air/ in **care**

3\*\*

# ai

**ai** is commonly /long a/ in **rain**

irregular cases  
**ai** is /short a/ in **plaid**  
**ai** is /short e/ in **said**

1

# aigh

**aigh** is commonly /long a/ in **straight**

1

# ay

**ay** is commonly /long a/ in **day**

**ay** usually makes the /long a/ sound at the end of a base words as in the compound word **payday**

1

# aw

**aw** is /aw/ in **law**

**a** is /aw/ in **father**  
**au** is /aw/ in **fraud**  
**al** is /aw/ in **walk**  
**ough** is /aw/ in **ought**  
**augh** is /aw/ in **taught**

1

# al

**al** is /aw/ in **walk**

**a** is /aw/ in **father**  
**au** is /aw/ in **fraud**  
**aw** is /aw/ in **law**  
**ough** is /aw/ in **ought**  
**augh** is /aw/ in **taught**

1

au

**au** is /aw/ in **fraud**

**a** is /aw/ in **father**  
**al** is /aw/ in **walk**  
**aw** is /aw/ in **law**  
**ough** is /aw/ in **ought**  
**ough** is /aw/ in **taught**

3\*\*

augh

**augh** is /aw/ in **taught**

**augh** is /short a/ + /f/ in **laugh**

**augh** is /aw/ + /f/ in **laugh**

3\*\*

ar

**ar** is /ar/ in **car**  
**ar** is /er/ in **dollar**  
**ar** is /air/ in **area**

1

air

**air** is /air/ as in **chair**

whereas, **ai** is commonly  
 /long a/ in **rain**

irregular cases  
**ai** is /short a/ in **plaid**  
**ai** is /short e/ in **said**

2

are

**are** is /air/ in **care**  
**are** is /ar/ in **are**

**air** is /air/ in **chair**  
**are** is /air/ in **pare**  
**eir** is /air/ in **heir**  
**err** is /air/ in **error**

3

e

**e** is /short e/ in **bed**  
**e** is /long e/ in **she**  
**e** is /schwa/ in **jacket**

a vowel says its name (long  
 form) at the end of a syllable  
 as in **she**.

1

ee

**ee** is /long e/ in **meet**

**e** is /long e/ in **she**  
**e\_e** is /long e/ in **eve**  
**ea** is /long e/ in **each**  
**ei** is /long e/ in **receive**  
**ie** is /long e/ in **believe**  
**i\_e** is /long e/ in **petite**

3

ea

**ea** is /long a/ in **steak**  
**ea** is /short e/ in **bread**  
**ea** is /long e/ in **seat**

1  
e\_e

**e-e** is /long e/ in **eve**

**e** is /long e/ in **she**  
**ea** is /long e/ in **each**  
**ei** is /long e/ in **receive**  
**ie** is /long e/ in **believe**  
**i\_e** is /long e/ in **petite**

2  
ei

**ei** is /long a/ in **vein**  
**ei** /long e/ in **receive**

2  
ey

**ey** is /long e/ in **key**  
**ey** is /long a/ in **they**

2  
eigh

**eigh** is /long a/ in **eight**  
**eigh** is /long i/ in **height**

2  
eau

**eau** is /long u/ in **beauty**  
**eau** /long o/ in **bureau**

2\*\*  
ew

**ew** is /long u/ in **few**  
**ew** is /long oo/ in **new**

the two sounds - /long u/ &  
/long oo/ - sound near  
identical if not exactly the  
same

1  
er

**er** is /er/ in **father**

**ar** is /er/ in **dollar**  
**ur** is /er/ in **blur**  
**ir** is /er/ in **girl**  
**or** is /er/ in **work**  
**ear** is /er/ in **learn**  
**yr** is /er/ in **syrup**

4  
ear

**ear** is /ear/ in **fear**  
**ear** is /air/ in **tear**  
**ear** is /ar/ in **heart**  
**ear** is /er/ in **learn**

1  
eir

**eir** is /air/ in **heir**

**are** is /air/ in **care**  
**air** is /air/ in **chair**  
**are** is /air/ in **pare**  
**err** is /air/ in **error**

1  
eer

eer is /ear/ in peer

ear is /ear/ in fear  
ier is /ear/ in tier

1  
err

err is /air/ in error

are is /air/ in care  
air is /air/ in chair  
are is /air/ in pare  
eir is /air/ in heir

4  
i

i is /y/ in onion

i is /short i/ in fin  
i is /long i/ in find  
i is /long i/ in bicycle  
i is /long e/ in variation  
i is /schwa/ in pencil

2\*\*  
i\_e

i\_e is /long i/ in bite  
i\_e is /long e/ in petite

i is /long i/ in bicycle  
ie is /long i/ in fiesty  
igh is /long i/ in high  
eigh /long i/ in height  
y is /long i/ in my  
uy is /long i/ in buy

3  
ie

ie is /short e/ in friend  
ie /long e/ in believe  
ie /long i/ in pie

1  
igh

igh is /long i/ in high

i\_e is /long i/ in bite  
i is /long i/ in bicycle  
ie is /long i/ in fiesty  
eigh /long i/ in height  
y is /long i/ in my  
uy is /long i/ in buy

1  
ir

ir is /er/ in girl

er is /er/ in father  
ar is /er/ in dollar  
ur is /er/ in blur  
or is /er/ in work  
ear is /er/ in learn  
yr is /er/ in syrup

1  
ier

ier is /ear/ in tier

ear is /ear/ in fear  
eer is /ear/ in peer



o

7

o is /short o/ in dog  
o is /long o/ in veto  
o is /short oo/ in woman  
o is /long oo/ in do  
o is /aw/ in on  
o is **schwa** in gallop  
o is /w+schwa/ in one  
/short o/ and /aw/ are similar

vowel says its name (long form) at the end of a syllable as in **veto**.

o\_e

1

**o-e** is /long o/ in **note**

o is /long o/ in **most** & **veto**  
**oa** is /long o/ in **boat**  
**oe** is /long o/ in **toe**  
**ou** is /long o/ in **soul**  
**ow** is /long o/ in **bow**  
**ough** /long O/ **though**

oa

1

**oa** is /long o/ in **boat**

**oar** is /or/ in **soar**

o is /long o/ in **most** & **veto**  
**o-e** is /long o/ in **note**  
**oe** is /long o/ in **toe**  
**ou** is /long o/ in **soul**  
**ow** is /long o/ in **bow**

oe

1

**oe** is /long o/ in **toe**

o is /long o/ in **most** & **veto**  
**o-e** is /long o/ in **note**  
**oa** is /long o/ in **boat**  
**ou** is /long o/ in **soul**  
**ow** is /long o/ in **bow**  
**ough** /long O/ **though**

oo

2

**oo** /short oo/ in **cook**

**oo** /long oo/ in **boot**

oul

1

**oul** is /short oo/ in **would**

**ou** is /long o/ in **soul**  
**ou** is /long oo/ in **soup**  
**ou** is /short u/ in **touch**  
**ou** is /ow/ in **out**

ough

5

**ough** /long o/ **though**  
**ough** /long oo/ **through**  
**ough** is /aw/ in **fought**  
**ough** /ow/ in **drought**

**ough** is /short u/ + /f/ in **tough**

ow

2

**ow** is /long o/ in **grow**

**ow** is /ow/ in **cow**

ou

4

**ou** is /long o/ in **soul**  
**ou** is /long oo/ in **soup**  
**ou** is /short u/ in **touch**  
**ou** is /ow/ in **out**

**oul** /short oo/ **would**

oy

1

**oy** is /oi/ in **boy**

**oi** is /oi/ in **soil**

oi

1

**oi** is /oi/ in **soil**

**oy** is /oi/ in **boy**

oor

1

**oor** is /or/ in **door**

**or** is /or/ in **for**  
**our** is /or/ in **four**  
**oar** is /or/ in **soar**  
**ore** is /or/ in **more**  
**for** is /or/ in **door**

or

2

**or** is /or/ in **for**  
**or** is /er/ in **work**

**our** is /or/ in **four**  
**oar** is /or/ in **soar**  
**ore** is /or/ in **more**  
**for** is /or/ in **door**

ore

1

**ore** is /or/ in **more**

**or** is /or/ in **for**  
**our** is /or/ in **four**  
**oar** is /or/ in **soar**

oar

1

**oar** is /or/ in **soar**

**or** is /or/ in **for**  
**our** is /or/ in **four**  
**ore** is /or/ in **core**

our

2

**our** is /or/ in **four**  
**our** is /ow/ + r in **hour**

**our** is /or/ in **four**  
**oar** is /or/ in **soar**  
**ore** is /or/ in **more**

5

u

u is /short u/ in **tub**  
 u is /long u/ in **pupil**  
 u is /short oo/ in **put**  
 u is /long oo/ in **super**  
 u is /schwa/ in **circus**

2

u\_e

u-e is /long u/ in **mule**

u-e /short oo/ in **flute**

1

ue

ue is /long oo/ in **blue**

the two sounds - /long u/ &  
 /long oo/ - sound near  
 identical if not exactly the  
 same

1

ui

ui is /long u/ or  
 /long oo/ in **suit** and **fruit**

the two sounds - /long u/ &  
 /long oo/ - sound near  
 identical if not exactly the  
 same

1

-uy

-uy is /long i/ in **buy**

y is also /long i/ in **my**  
 -ye is also /long i/ in **bye** or **rye**

2

ur

ur is /er/ in **turn**  
 ur is /yur/ in **Uranus**

er is /er/ in **father**  
 ar is /er/ in **dollar**  
 ur is /er/ in **blur**  
 ir is /er/ in **girl**  
 or is /er/ in **work**  
 ear is /er/ in **learn**  
 yr is /er/ in **syrup**

1

-ure

-ure is /yur/ in **pure**, **sure**  
 and **cure**

The phoneme could be /long  
 u/ + /r/, but there seems to  
 be a unique /y/ and  
 controlled-r blend

# y

4

**y** is /y/ in **yellow**

**y** is /long e/ in **funny**

**y** is /short i/ in **myth**

**y** is /long i/ in **my**

**-uy** is /long i/ in **buy**

**-ye** is also /long i/ in **bye** or **rye**

# -ye

1

**-ye** is /long i/ in **bye** or **rye**

**y** is also /long i/ in **my**

# yr

1

**yr** is /er/ in **syrup**

**er** is /er/ in **father**

**ar** is /er/ in **dollar**

**ir** is /er/ in **girl**

**ur** is /er/ in **blur**

**or** is /er/ in **work**

**ear** is /er/ in **learn**

# your

1

**your** is /yur/ in **your**  
and **you're**

The phoneme could be /long  
u/ + /r/, but there seems to  
be a unique /y/ and  
controlled-r blend

# Further Resources





# Blank Tiles

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