

Name \_\_\_\_\_ Date \_\_\_\_\_

Word	Prefix(es) + Base + Suffix(es)
0. <i>informally</i>	<i>in+form+al+ly</i>
1.	_____
2.	_____
3.	_____
4.	_____
5.	_____
6.	_____
7.	_____
8.	_____
9.	_____
10.	_____

Word	Prefix(es) + Base + Suffix(es)
1. contradictions	contra+dict+ion+s
2. interchange	inter+change
3. abnormality	ab+norm+al+ity
4. decompression	de+com+press+ion
5. disrespectfully	dis+re+spect+ful+ly
6. transplanted	trans+plant+ed
7. unrelenting	un+re+lent+ing
8. waltzes	waltz+es
9. personality	person+al+ity
10. indestructibleness	in+de+struct+ible+ness

## 7 Procedures and Rules

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So far we've talked about how to analyze words into their elements. Now we are going to talk about how to combine elements into words. The way that elements combine into words is controlled by certain **procedures**. When you can write clear and reliable directions for a spelling procedure, you have a spelling **rule**. A **rule** is simply a clear and reliable set of directions to a procedure.

**Simple Addition.** So far all the elements you've worked with have combined into words without any changes in the spelling of the individual elements:

ad + ject + ive + s = adjectives  
book + keep + ing = bookkeeping

This is the most common procedure in English spelling. In fact, the first and most powerful spelling rule is that usually you don't make any changes when you combine elements into words. Unless you have a definite reason for changing the spelling of any elements when you combine them, don't make any changes; just add them together. This first rule of spelling is called the **Rule of Simple Addition**.

### The Rule of Simple Addition

Unless you know of another procedure at work, simply add the elements together.

In all of the words that combine via the Rule of Simple Addition, the spelling of the word is the sum of the spelling of its elements. If you can spell those little short elements, you can spell the word — no matter how long it might be. That is one reason why compound words are so easy to spell: Compound words regularly combine through simple addition.

**Teaching Note.** For more on simple addition see *AES*, pp. 10-12, "Unity, Variety, and Analogy."

**The Three Changes.** But unfortunately things are not always so simple. Often when you combine elements into words, the spelling of some of the elements changes.

Earlier we defined an element as a meaning-and-spelling unit with a consistent meaning and spelling from one written word to another. We say that a spelling is consistent if, even though it changes a few letters from word to word, it follows procedures so that we can predict and understand the changes.

There are three kinds of changes that can occur when elements combine into words:

- (i) an extra letter can be put in, or **inserted**;
- (ii) a letter can be taken out, or **deleted**;
- (iii) a letter can be **replaced** by another — which really means that one letter has been deleted, and another has been inserted in its place.

In Array 18 you are given some word elements on the left that combine into the words given on the right. Underline any place in the words where a change occurred. In the blank that follows each set, describe what change took place when the elements combined into their word. That is, tell whether a letter was inserted, deleted, or replaced.

### Array 18

tap + ing = tapping  
What change took place? A <p> was inserted

tape + ing = taping  
What change took place? An <e> was deleted

ad + pear = appear  
What change took place? A <p> replaced a <d>

picnic + ing = picnicking  
What change took place? A <k> was inserted

sin + er = sinner  
What change took place? An <n> was inserted

Array 19 sometimes gives you words to analyze into their elements; sometimes it gives you elements to combine into words, and sometimes it gives you both the elements and words. After you have done the analysis or the combining, describe any changes in the spelling when the elements combined. In the appropriate columns enter any letters that are inserted, any letters that are deleted, and any that are replaced by others. Sometimes there is more than one change. If you can't find any of these three changes

in a word, and the elements follow the Rule of Simple Addition, put an <X> in the "Simple Addition" column. The first two words have been done for you.

Remember:

A letter has been inserted when there is a letter in the word that isn't in the elements.

A letter has been deleted when there is a letter in the elements that isn't in the word.

A letter has been replaced when a letter in the elements has been deleted and another has been inserted in its place in the word.

### Array 19

		Changes			
Elements	Words	What's been inserted?	What's been deleted?	What's been replaced?	Simple Addition
ad+fix+ing	<i>affixing</i>			<d >by <f>	
ceil+ing	<i>ceiling</i>				X
<i>change+able</i>	changeable				X
<i>cool+ly</i>	coolly				X
de+cide+ion	decision		<e>	<d> by <s>	
<i>de+lete+ed</i>	deleted		<e>		
de+lete+ion	<i>deletion</i>		<e>		
dis+aster+ous	disastrous		<e>		
ex+ceed+ed	<i>exceeded</i>				X
<i>ex+cept+ion</i>	exception				X
<i>fat+head</i>	fathead				X
fore+head	<i>forehead</i>				X
in+sert+ion	<i>insertion</i>				X

Elements	Words	What's been inserted?	What's been deleted?	What's been replaced?	Simple Addition
inter+cede+s	<i>intercedes</i>				X
<i>like+ly</i>	likely				X
<i>mis+spell</i>	misspell				X
phys+ic+al	<i>physical</i>				X
picnic+ing	picnicking	<k>			
pro+fess+or	<i>professor</i>				X
pre+fer+ence	<i>preference</i>				X
re+al+ize	<i>realize</i>				X
<i>re+ceive</i>	receive				X
<i>re+place+ment</i>	replacement				X
re+sist+ance	<i>resistance</i>				X
<i>safe+ty</i>	safety				X
se+cret+ary	<i>secretary</i>				X
<i>severe+ly</i>	severely				X
<i>sky+es</i>	skies			<y> by <i>	
<i>spell+bind+er</i>	spellbinder				X
sub+fix	suffix			<b> by <f>	
<i>super+sede</i>	supersede				X
twin+ing	<i>twinning</i>	<n>			
<i>underworld</i>	underworld				X
verb+al+ize	<i>verbalize</i>				X
<i>wish+ful+ly</i>	wishfully				X
<i>your+self</i>	yourself				X

**Vowel and Consonant Letters.** Before we can talk much more about procedures, we must get straight what we mean by the words *vowel* and *consonant*. Sometimes we

mean vowel and consonant letters; sometimes we mean vowel and consonant sounds. When we are referring to letters, we will put them in arrowhead brackets. Thus, <c> is the letter you can see at the front of the written word *cat*. And [k] is the sound you can hear at the front of the spoken word [kat]. In this case the consonant letter <c> spells the consonant sound [k].

When we talk about letters, we refer to them by the same names you learned when you learned the alphabet. <c> is cee; <m> is em, and so on. When we talk about sounds, we refer to them by the sounds themselves. So [k] is referred to by the sound you hear at the beginning of [kat], though when most people refer to [k], they end up saying something that sounds more like "kuh."

We'll talk more about sounds later; right now we'll just be talking about letters. We will distinguish between vowel and consonant letters in a way perhaps a bit different from the way you are used to. We will distinguish three groups: (i) those letters that are always vowels, (ii) those that are sometimes vowels, sometimes consonants, and (iii) those that are always consonants.

The letters <a>, <e>, <i>, and <o> are always vowels.

The letters <y>, <u>, and <w> are sometimes vowels, sometimes consonants.

The other nineteen letters are always consonants.

The letter <y> is a consonant when it is pronounced [y] at the beginning of an element, as in words like *yes* and *barnyard*. Everywhere else it's a vowel, as in *type*, *gyp*, and *very*.

The letter <u> is a consonant when it is spelling the sound [w]. So <u> is a consonant in words like *penguin*, *language*, *suave*, and *pueblo*. It is always a consonant after the letter <q> whether or not it is pronounced [w] : *mosquito*, *quite*, *mosque*. Everywhere else it's a vowel: *up*, *tune*, *fun*.

The letter <w> is usually a consonant. It is a vowel only in the vowel digraphs <aw>, <ew>, and <ow>, as in *crawl*, *shrewd*, *brown*, and *bowl*.

**Teaching Note.** For more on vowel and consonant letters, see *AES*, pp. 207-12, especially pp. 210-12.

Generally, we treat a letter as a vowel when it spells or helps spell a vowel sound and as a consonant when it spells or helps spell a consonant sound. It is important to make the distinction as we do, also, because it helps make more rational some of the spelling rules. For instance, you will soon learn that when we add a suffix that starts with a vowel to a word that ends with a final single consonant letter preceded by a single vowel letter, the final consonant letter must be twinned: *hop* + *p* + *ing* = *hopping*. If we don't

recognize that, for instance, <u> and <w> can sometimes be consonants and sometimes vowels, then we have trouble with this twinning rule. For instance, if <w> is treated as always a consonant, then it should be twinned in a word like *towing*, which, of course, it is not. And if <u> is treated as always a vowel, then a stem like *quiz* wouldn't fill the requirements for the twinning rule (since it would have two vowel letters preceding the final <z>), and *quizzed* would be spelled \*<quized>

**Teaching Note.** Perhaps the handiest source for more information about how over the centuries some of our letters have come to serve double duty as both vowels and consonants is the series of entries in the *Oxford English Dictionary* at each letter.

In the words and sentence in Array 20 mark the vowel letters with a <v> and the consonant letters with a <c>. We've done the first word for you and started you in the sentence.

**Array 20**

cvc bad	cvccvc doctor	cvvcc rough	ccvcv whale	ccvvc knows
vcc egg	cvccv lucky	cvvc deer	cvccvc languid	cvvcv syzygy
ccvc quit	cvvc yawn	vvcv ease	vvccvcc outweigh	vcvccv icicle
cvv few	cvcccv persuade	ccvccvc written	cvcccv mosquito	ccvccv ghastly
cvc ccv ccvcc cvc cvc cvccvc vvcv ccv cvcv ccvvc cvcc cvcc Yes, the quick red fox jumped over the lazy brown dog's back.				

**Vowel Sounds.** We've talked some about vowel letters. Now we will say something about vowel sounds. In our discussion of procedures we need to distinguish between **short vowel sounds** and **long vowel sounds**. Here are the symbols we will use to show the distinction, with a sample of each sound. Remember that sound symbols are put into square brackets:

Short	Long
[a] as in <i>hat</i>	[ā] as in <i>hate</i>
[e] as in <i>met</i>	[ē] as in <i>meet</i>
[i] as in <i>bit</i>	[ī] as in <i>bite</i>

Short	Long
[o] as in <i>mop</i>	[ō] as in <i>mope</i>
[u] as in <i>buck</i> [û] as in <i>book</i>	[ū] as in <i>coot</i> [yū] as in <i>cute</i>

We will sometimes use the symbols above to refer to long vowels and sometimes just call them long, so "[ā]" and "long <a>" mean the same thing.

**Teaching Note.** The table above simplifies some complexities in the English vowel system. There is also at least one other low back sound similar to [o]. The sound in *father* is usually symbolized [ä]. For our purposes in this discussion, we don't need to complicate things with these sounds, which are not distinguished in all dialects. For more details see *AES*: For the [u] and [û] sounds, see chapters 16 and 17. For the two long <u>'s see chapters 22 and 23. For the complexities of the low back vowels like short <o> see pages 204-06 and chapter 15.

The other short and long vowels are discussed in *AES* as follows: short <a>, pp. 213-16; short <e>, pp. 217-21; short <i>, pp. 222-30; short <o>, pp. 231-40; short <u>, pp. 244-48; long <a>, pp. 249-57; long <e>, pp. 258-70; long <i>, pp. 271-79; long <o>, pp. 280-87; long <u>, pp. 288-96.

The following puzzle gives you a chance to work with the short and long vowel sounds and some of their spellings. Just fill the words into the meandering squares. You've been given a bit of a start:

**Three-letter words:** ads, but, did, doe, hut, led, lob, pat, red, tea, tip, vat

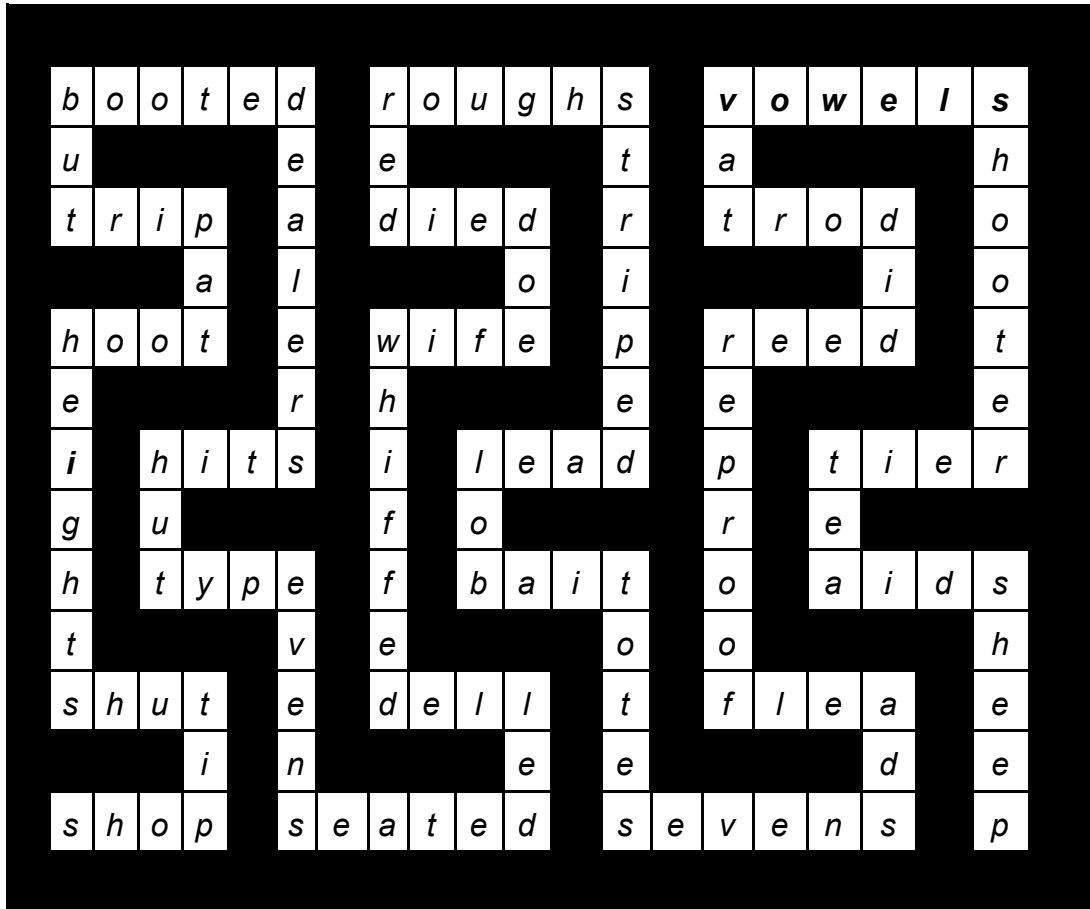
**Four-letter words:** aids, bait, dell, died, flea, hits, hoot, lead, reed, shop, shut, tier, trod, trip, type, wife

**Five-letter words:** sheep, evens, totes

**Six-letter words:** seated, vowels, booted, sevens, roughs

**Seven-letter words:** heights, dealers, reproof, striped, whiffed, shooter





To test your ear a bit and help you remember the short and long vowel sounds and symbols, pronounce each of the following words carefully. In the blank following each word write in the sound symbol of the vowel sound you hear in that word:

**Array 21a**

cap ___[a]___	pane ___[ā]___	dam ___[a]___	red ___[e]___
cape ___[ā]___	pain ___[ā]___	dame ___[ā]___	reed ___[ē]___
rip ___[i]___	met ___[e]___	dim ___[i]___	throw ___[ō]___
ripe ___[ī]___	meat ___[ē]___	dime ___[ī]___	boat ___[ō]___
hop ___[o]___	meet ___[ē]___	sin ___[i]___	head ___[e]___
hope ___[ō]___	cup ___[u]___	sign ___[ī]___	on ___[o]___
pan ___[a]___	dune ___[ū]___	moan ___[ō]___	two ___[ū]___

### Array 21b

Here are some that may be a bit harder:			
ton <u>[u]</u>	canned <u>[a]</u>	grief <u>[ē]</u>	piece <u>[ē]</u>
tone <u>[ō]</u>	caned <u>[ā]</u>	niece <u>[ē]</u>	twelfth <u>[e]</u>
quit <u>[i]</u>	through <u>[ū]</u>	nice <u>[ī]</u>	ninth <u>[ī]</u>
quite <u>[ī]</u>	aisle <u>[ī]</u>	height <u>[ī]</u>	tries <u>[ī]</u>
read <u>[e]</u> or <u>[ē]</u>	ghost <u>[ō]</u>	reign <u>[ā]</u>	try <u>[ī]</u>
seize <u>[ē]</u>	shriek <u>[ē]</u>	yolk <u>[ō]</u>	eighth <u>[ā]</u>

**Teaching Note.** This array sets up chapter 9's discussion of the use of silent final <e> to mark long vowels. It also introduces some of the many digraph spellings, especially the <ie> and <ei> spellings that will be discussed in chapter 13. For the [u] = <o> spelling in *ton* see AES, p. 246.

**Summing Up.** Be ready to discuss these questions:

1. In spelling what is a procedure?
2. In spelling what is a rule?
3. What is the first and most important spelling rule in English?
4. What three kinds of changes can occur in spelling?
5. What are the short vowels?
6. What are the long vowels?
7. What letters are always vowels?
8. What letters are sometimes vowels, sometimes consonants?
9. What letters are always consonants?

Name \_\_\_\_\_ Date \_\_\_\_\_

Word	Show how the sounds are spelled:
0. <i>consonants</i>	[k] = <c> [o] = <o>
1.	[ū] = _____ [l] = _____
2.	[s] = _____
3.	[u] = _____ [f] = _____
4.	[ē] = _____ [k] = _____
5.	[ē] = _____ [s] = _____
6.	[ē] = _____
7.	[ā] = _____
8.	[ū] = _____ [s] = _____ [s] = _____
9.	[j] = _____
10.	[ī] = _____ [s] = _____

Word	Show how the sounds are spelled:
1. <i>coolly</i>	[ū] = <oo> [l] = <ll>
2. <i>precept</i>	[s] = <c>
3. <i>roughness</i>	[u] = <ou> [f] = <gh>
4. <i>shriek</i>	[ē] = <ie> [k] = <k>
5. <i>receive</i>	[ē] = <ei> [s] = <c>
6. <i>mosquito</i>	[ē] = <i>
7. <i>outweighed</i>	[ā] = <ei>
8. <i>supersede</i>	[ū] = <u> [s] = <s> [s] = <s>
9. <i>changeable</i>	[j] = <g>
10. <i>heights</i>	[ī] = <ei> [s] = <s>

## 8 Twinning

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**What Twinning Is.** Earlier you saw that a word like *tapping* can be analyzed into the stem *tap* plus the suffix *-ing*, with a <p> inserted between the stem and suffix. We can symbolize this insertion this way:

tapping = tap + p + ing

You also saw that a word like *taping* can be analyzed as the stem *tape* plus the suffix *-ing*, with the <e> in *tape* deleted. We can symbolize this deletion this way:

taping = tapé + ing

Analyze the words in Array 22, using the symbolization just described. In each of the sets you will find two different stems. Enter the stems in the proper column. If you get stuck, use your dictionary. Be neat, because you will be referring back to this array for information needed in your later work. The first set is done for you. Don't worry yet about the underlinings and <v>'s and <c>'s. You'll deal with these later on:

**Array 22**

Words	Analysis	Stems
vccv sham <u>ming</u>	<i>sham+m+ing</i>	<i>sham</i>
vcv sham <u>ing</u>	<i>shamé+ing</i>	<i>shame</i>
shameful	<i>shame+ful</i>	
vccv scrap <u>ped</u>	<i>scrap+p+ed</i>	<i>scrap</i>
vcv scrap <u>ed</u>	<i>scrapé+ed</i>	<i>scrape</i>
scrapes	<i>scrape+s</i>	

<b>Words</b>	<b>Analysis</b>	<b>Stems</b>
vccv mat <u>ting</u>	<i>mat+t+ing</i>	<i>mat</i>
vcv mat <u>ing</u>	<i>maté+ing</i>	<i>mate</i>
mateless	<i>mate+less</i>	
vccv rid <u>dance</u>	<i>rid+d+ance</i>	<i>rid</i>
rids	<i>rid+s</i>	<i>ride</i>
vcv rid <u>able</u>	<i>ridé+able</i>	
vccv bid <u>der</u>	<i>bid+d+er</i>	<i>bid</i>
vccv bid <u>dable</u>	<i>bid+d+able</i>	<i>bide</i>
vcv bid <u>ing</u>	<i>bidé+ing</i>	
vccv spit <u>ter</u>	<i>spit+t+er</i>	<i>spit</i>
vcv spit <u>ed</u>	<i>spité+ed</i>	<i>spite</i>
spiteful	<i>spite+ful</i>	
vccv snip <u>py</u>	<i>snip+p+y</i>	<i>snip</i>
vcv snip <u>er</u>	<i>snipé+er</i>	<i>snipe</i>
snipes	<i>snipe+s</i>	

<b>Words</b>	<b>Analysis</b>	<b>Stems</b>
vccv gam <u>med</u>	<i>gam+m+ed</i>	<i>gam</i>
vcv gam <u>y</u>	<i>gamé+y</i>	<i>game</i>
gamester	<i>game+ster</i>	
vccv slim <u>mest</u>	<i>slim+m+est</i>	<i>slim</i>
slimly	<i>slim+ly</i>	<i>slime</i>
vcv slim <u>y</u>	<i>slimé+y</i>	
vccv grim <u>mer</u>	<i>grim+m+er</i>	<i>grim</i>
grimness	<i>grim+ness</i>	<i>grime</i>
vcv grim <u>y</u>	<i>grimé+y</i>	
vccv slop <u>py</u>	<i>slop+p+y</i>	<i>slop</i>
vcv slop <u>y</u>	<i>slopé+y</i>	<i>slope</i>
slopes	<i>slope+s</i>	
vccv spin <u>ner</u>	<i>spin+n+er</i>	<i>spin</i>
vcv spin <u>al</u>	<i>spiné+al</i>	<i>spine</i>
spineless	<i>spine+less</i>	

<b>Words</b>	<b>Analysis</b>	<b>Stems</b>
vccv cann <u>e</u> d	<i>can+n+ed</i>	<i>can</i>
vcv can <u>e</u> d	<i>cané+ed</i>	<i>cane</i>
vcv can <u>e</u> ng	<i>cané+ing</i>	
vcv plan <u>e</u> r	<i>plané+er</i>	<i>plane</i>
plane <u>f</u> ul	<i>plane+ful</i>	<i>plan</i>
plan <u>f</u> ul	<i>plan+ful</i>	
vccv winn <u>a</u> ble	<i>win+n+able</i>	<i>win</i>
vcv win <u>e</u> y	<i>winé+y</i>	<i>wine</i>
vcv win <u>e</u> ry	<i>winé+ery</i>	
hat <u>f</u> ul	<i>hat+ful</i>	<i>hat</i>
vcv hat <u>e</u> ng	<i>haté+ing</i>	<i>hate</i>
hat <u>e</u> ful	<i>hate+ful</i>	
glob <u>s</u>	<i>glob+s</i>	<i>glob</i>
vcv glob <u>e</u> ate	<i>globé+ate</i>	<i>globe</i>
vcv glob <u>e</u> ous	<i>globé+ous</i>	
vccv fatt <u>y</u>	<i>fat+t+y</i>	<i>fat</i>
vcv fatal	<i>faté+al</i>	<i>fate</i>
fate <u>f</u> ul	<i>fate+ful</i>	

Words	Analysis	Stems
vccv pin <u>n</u> ule	<i>pin+n+ule</i>	<i>pin</i>
pinless	<i>pin+less</i>	<i>pine</i>
vcv pin <u>y</u>	<i>piné+y</i>	
razzes	<i>razz+es</i>	<i>razz</i>
vcv raz <u>o</u> r	<i>razé+or</i>	<i>raze</i>
razes	<i>razé+es</i>	

Array 22 displays your data. The following instructions and questions can help you see the significance of this data.

Examine the words in which a letter is inserted. What is inserted in all of them? A twin to the stem's final consonant

The stems of the words in which insertion occurs all contain the same number of syllables. How many syllables is it? One

Underline the inserted letter in each word. Then in each of them mark with <v> or <c> the three letters preceding and the one letter following the inserted letter. For example:

cvc v  
shammming

A three-letter sequence regularly precedes the inserted letter in each word in Array 22 in which a letter is inserted. This sequence is cvc. What follows the inserted letter — v or c? v

**A Twinning Hypothesis.** You now have enough information, both data and observations on the data, to describe the insertions you've charted in Array 22. You can think of this description as your first try at answering this question: "When do you insert a consonant letter so as to form twin consonants between the stem and a suffix?"

A reliable answer to this question will be very valuable, because this twinning of final consonants is another of the most common and important of spelling procedures.



Your first try at answering the question about twin consonants will help you continue to work with the question. This kind of tentative answer that is used to help you keep working with a question is a **hypothesis**. Write your tentative answer to the question — that is, your hypothesis — below:

Twinning Hypothesis: You twin the stem's final consonant when you add a suffix that begins with a vowel to a stem that has one sounded vowel (or syllable) and that ends in the letter sequence vc.

**Teaching Note.** For more on the twinning rule, see *AES*, pp. 161-76.

**Two Important Patterns: VCCV and VCV.** Now examine the words in Array 22 in which a letter is deleted. In each of these words mark the first vowel letter with a <v> and then mark the next two letters either <v> or <c>. For example,

VCV  
shaming

As you look over the words in Array 22, you should notice that the vccv pattern in *shamming* occurs in all the words in which twinning occurs. You should also notice that the vcv pattern in *shaming* occurs in all the words in which a letter is deleted.

The vccv and vcv patterns underlie the twinning procedure in English spelling. The first vowel in a vccv string is regularly short, while the first vowel in a vcv string is regularly long. We twin in order to keep the preceding short vowel "looking" short.

VCCV
If we twin, we get <i>sham</i> + <i>m</i> + <i>ing</i> = <i>shamming</i> , with the short vowel sound, [a].
VCV
If we don't twin, we get <i>sham</i> + <i>ing</i> = <i>shaming</i> , with the long vowel sound, [ā], which is the wrong pronunciation.

You now have a twinning hypothesis that is accurate for stem words that are one syllable long (that is, contain only one vowel sound) and that end with a consonant letter preceded by a vowel letter. Now you can look at a wider variety of words in order to see what changes you may have to make in your original hypothesis.

As you've seen, the word *vowel* can refer either to a sound or a letter. The stems in Array 23 all contain a single vowel sound spelled with more than one vowel letter. Add the indicated suffixes to each of the stems to form longer words. If you are not sure of

the spelling of any word you form, check in your dictionary. Watch especially for any consonant twinning.

**Array 23**

<b>Stems</b>	<b>Suffixes</b>	<b>Longer Words</b>
dead	-er, -est, -en	<i>deader, deadeast, deaden</i>
cook	-able, -ery, -ed	<i>cookable, cookery, cooked</i>
deaf	-er, -est, -en	<i>deafar, deafest, deafen</i>
brawl	-ing, -ed, -y	<i>brawling, brawled, brawly</i>
fraud	-ulent	<i>fraudulent</i>
broad	-est, -en	<i>broadest, broaden</i>
daub	-er, -y, -ed	<i>dauber, dauby, daubed</i>
blood	-ed, -ing, -y	<i>blooded, blooding, bloody</i>
gawk	-ish, -y	<i>gawkish, gawky</i>
taut	-est, -en, -er	<i>tautest, tauten, tauter</i>

Use what you've found out from Array 23 to answer this question: Do you twin the consonant after two vowel letters? No

The words you've worked with so far have all ended with a single consonant letter that spelled a single consonant sound. All but two of the words in Array 24 end in one consonant sound that is spelled with two consonant letters. The other two words end in two consonant sounds that are spelled with one consonant letter. Add the indicated suffixes to the stems given below. Again, when in doubt, check your dictionary:

**Array 24**

<b>Stems</b>	<b>Suffixes</b>	<b>Longer Words</b>
calm	-ative, -est	<i>calmative, calmest</i>
bomb	-ed, -er, -ard	<i>bombed, bomber, bombard</i>
yacht	-ing, -ed	<i>yachting, yachted</i>
fix	-ate, -ity	<i>fixate, fixity</i>
graph	-ic, -ite	<i>graphic, graphite</i>

Stems	Suffixes	Longer Words
stick	-er, -y, -ier	<i>sticker, sticky, stickier</i>
talk	-ative, -y	<i>talkative, talky</i>
rock	-iest, -er, -y	<i>rockiest, rocker, rocky</i>
fox	-ed, -ing, -y	<i>foxed, foxing, foxy</i>
myth	-ical, -icize	<i>mythical, mythicize</i>
rich	-er, -est, -en	<i>richer, richest, richen</i>
flash	-ed, -ing, -y	<i>flashed, flashing, flashy</i>

Two stems in Array 24 end in a consonant letter that spells a combination of two sounds.

What are the stems? fix and fox What is the consonant letter? <x> And what is the combination of sounds it spells? [ks]

**Teaching Note.** Since we haven't talked about symbolizing consonant sounds, there may be some confusion over the previous question. If the question arises, you might point out to the students that most consonant sounds are usually symbolized by letters that we most readily associate with their spelling: [b], [d], [f], [g], [h], [j], [k], [l], [m], [n], [p], [r], [s], [t], [v], [w], [y], [z] — plus the palatal sounds [ch], [sh], [zh] (as in *azure*), and the dental sounds [th] (as in *thin*) and [th] (as in *this*). For more on English sounds and their symbolization, see *AES*, pp. 201-12.

Use what you've found out in Array 24 to answer this question: When adding a suffix that starts with a vowel, do you twin consonants that consist of two letters or two sounds? No

You might try twinning some of these — and see what funny-looking spellings you get: \*bombmbing, \*richcher, \*yachtchting. (The asterisk preceding a spelling indicates that it is incorrect or unacceptable or somehow anomalous.)

Revise your Twinning Hypothesis to take into account what you learned in working with the words in Arrays 23 and 24:

Twinning Hypothesis (1st Revision): You twin the stem's final consonant when you add a suffix that begins with a vowel to a stem that has one vowel sound (or syllable) and that ends in a single vowel sound and letter followed by a single consonant sound and letter.

**Primary Word Stress.** In words with two or more syllables some syllables are usually louder than others. For instance, in *alone* the second syllable, [lōn], is louder than the

first, [ə]: It's "a-LONE" not "A-lone." In *bacon* the situation is reversed: The first syllable [bā], is louder than the second, [kən]: "BA-con." These different degrees of loudness with which syllables are pronounced are **word stress**. The loudest sounded vowel in a word is said to bear **primary stress**. Primary stress is marked with an acute accent mark over the vowel: *alóne* and *bácon*.

**Teaching Note.** The sound symbolized [ə] is called *schwa*. It is an extremely common sound in English since most unstressed vowels tend to reduce down to [ə], a soft 'uh' sound. It sounds like an unstressed short <u>, [u]. The spelling of schwa has a chapter to itself, chapter 14.

Each word below contains two syllables. Pronounce each word, trying carefully to hear the primary stress. In each word mark with an acute accent mark the vowel letter or letters that represent the vowel sound that bears primary stress, as has been done with *bárrén*:

**Array 25**

bárrén	fóreign	compél	alíve
achíeve	hóping	réally	léisure
excéed	descént	décent	région
fíery	concéive	wríttén	relíeve
equíp	líkely	decíde	exíst

If you find it hard to hear primary stress, here is a hint that may help: Exaggerate the difference in stress between the syllables. For instance, in a word like *lovely*, sound the first syllable very loud and the second, very soft: "**LOVE**-ly!" Then try it with the first syllable very soft and the second very loud: "love-**LY**!" You should find that one version sounds less grotesque than the other. The less grotesque version is the one that will have the proper stress pattern.

And remember: The pronunciation your dictionary gives of your word includes the proper stress pattern. Where and how your dictionary shows word stress is important. Be sure you understand it.

Some words in English have one stress pattern when they are used as nouns and another pattern when they are used as verbs. The sentences that follow contain some examples. Pronounce each pair of sentences and mark the vowel bearing primary stress in each of the underlined words. The first pair is done for you:

## Array 26

- 1a. Doris and Bob's oldest son is a real rébel.
- 1b. He will rebél against most anything.
- 2a. There has been an íncrease in crime lately.
- 2b. Do you think it will incréase even more?
- 3a. He used to be a cónvict.
- 3b. When did they convíct him?
- 4a. That farm grows a lot of próduce.
- 4b. What do they prodúce besides cabbage?
- 5a. This present is an ínsult!
- 5b. Why did he insúlt her so?
- 6a. When did they présént you with the gold watch?
- 6b. That présent is an insult!

Where is the primary stress in the six underlined nouns? On the first vowel sound (or syllable) \_\_\_\_\_ Where is the primary stress in the six underlined verbs? On the second (or last) vowel sound (or syllable) \_\_\_\_\_

Being able to hear the primary stress in words with two syllables will help you test your Twinning Hypothesis. In Array 27 all of the words in the Stems column end with a single consonant letter that is spelling a single consonant sound and is preceded by a single vowel letter. All the stems are two syllables long. The derived and inflected words in the right-hand columns are formed by adding suffixes to the stems. Pronounce all the stem words in the array carefully, listening for primary stress. Mark the primary stress in all of the words. Then, among the derived and inflected words underline any consonants that were twinned when the suffixes were added. The first one has been done for you:

## Array 27

Stem Words	Derived and Inflected Words		
defér	defér <u>red</u>	déference	deférment
begín	begín <u>ning</u>	begín <u>ner</u>	begíns
contról	contról <u>led</u>	contról <u>ling</u>	contról <u>ler</u>
commít	commít <u>ted</u>	commít <u>tee</u>	commítment
fínal	finálity	finalist	finally
límit	límit <u>ed</u>	limitátion	límitless
móral	morálity	móralize	mórally
occúr	occúr <u>red</u>	occúr <u>rence</u>	occúr <u>ring</u>
prófit	prófit <u>ing</u>	profité <u>ring</u>	prófitable
propél	propé <u>ller</u>	propé <u>lling</u>	propé <u>llant</u>
rebél	rebé <u>lled</u>	rebé <u>llion</u>	rebé <u>llious</u>
refér	refér <u>red</u>	réference	referée
regrét	regré <u>tting</u>	regré <u>ttable</u>	regré <u>tful</u>
sólid	solídify	solí <u>idity</u>	solidá <u>ity</u>
sýmbol	symbó <u>lic</u>	sýmbolism	sýmbolize
sýstem	system <u>ic</u>	systemá <u>tic</u>	sýstemize
tímid	timí <u>idity</u>	tímidest	tímidly

**Teaching Note.** The stem word *rebel* could be ambiguous to some students as it is presented. Tell the students that it is meant to be the verb form of *rebel*, as the list of inflected and derived words suggests.

As you look over your data in Array 27, you should find that when you add suffixes to stems that are two syllables long, the final consonant sometimes should be twinned and sometimes not. This might at first seem to be a flaw in your Twinning Hypothesis — but actually all you need to do is revise your hypothesis slightly and it will account for each and every case of twinning and non-twinning in words like those in Array 27. The following questions will help you make the revision:

Look at the words in Array 27 in which twinning occurs. Where is the primary stress in these words before and after you add the suffixes? On the final vowel sound (or syllable) of the stem

Look at the words where twinning does not occur. Where is the primary stress in these words before and after you add the suffixes?

It is never on the final vowel sound of the stem both before and after you add the

suffix. Write a sentence that describes where the primary stress must be both before and after you add the suffix to stems with two syllables if you are to twin the final consonant of the stem when adding a suffix that starts with a vowel:

You twin the final consonant of a stem that has two sounded vowels (or syllables) if the primary stress is on the last vowel sound (or syllable) of the stem before and after you add the suffix.

Analyze the following words into their stems and suffixes, showing any cases of twinning. Explain why twinning does or does not occur in each word. You've been given a couple of models to follow:

**Array 28**

<b>Words</b>	<b>Analysis</b>	<b>Explanation</b>
acidic	<i>acid+ic</i>	<i>Doesn't twin: &lt;id&gt; had weak stress in acid.</i>
acidity	<i>acid+ity</i>	<i>Doesn't twin: &lt;id&gt; had weak stress in acid.</i>
conferee	<i>confer+ee</i>	<i>Doesn't twin: &lt;er&gt; not stressed in conferee.</i>
conference	<i>confer+ence</i>	<i>Doesn't twin: &lt;er&gt; not stressed in conference.</i>
conferrable	<i>confer+r+able</i>	<i>Does twin: &lt;er&gt; stressed in confer and conferrable.</i>
conferred	<i>confer+r+ed</i>	<i>Does twin: &lt;er&gt; stressed in confer and conferred.</i>
recurrence	<i>recur+r+ence</i>	<i>Does twin: &lt;ur&gt; stressed in recur and recurrence.</i>

Words	Analysis	Explanation
recurring	<i>recur+r+ing</i>	<i>Does twin: &lt;ur&gt; stressed in recur and recurring.</i>
recurs	<i>recur+s</i>	<i>Doesn't twin: suffix does not start with a vowel.</i>
repelled	<i>repel+l+ed</i>	<i>Does twin: &lt;el&gt; stressed in repel and repelled.</i>
repellent	<i>repel+l+ent</i>	<i>Does twin: &lt;el&gt; stressed in repel and repellent.</i>
repels	<i>repel+s</i>	<i>Doesn't twin: suffix does not start with a vowel.</i>

**Secondary Stress.** So far we've spoken in terms of only two levels of word stress: primary and weak. Most dictionaries show three levels of stress: **primary**, **secondary**, and **weak**. Primary is the heaviest; weak is the lightest, and secondary is the one in the middle. We will not mark vowels with weak stress, but we will mark secondary stress with <sup>^</sup>, a circumflex.

When you are marking both primary and secondary stress, you will probably find it easiest to mark the primary stress first, then identify the vowel bearing the weak stress, and finally mark the one in the middle, secondary stress.

Each word in Array 29, whether it contains two syllables or three, contains just one primary stress. Most contain one secondary stress. Don't be surprised if you have trouble at first hearing the difference between primary and secondary stresses. Remember the hint described earlier: Exaggerate the difference between syllables. **SHOUT** one, and whisper the others. Then reverse the order.

You can use this hint to contrast what you suspect is a secondary stress with what you suspect is a primary — or with what might be a weak stress. As you shift the position of primary and secondary stress in words, you often will detect a shift in meaning, somewhat as the meanings shifted in words like *rébel* and *rebél* in the sentences you did earlier. For instance, *ôverflôw* is a verb, but *óverflôw* is a noun.

Mark the primary and secondary stresses in all the words in the array. Remember that if



you can't make up your mind about a stress pattern, after giving it a good and honest try, check your dictionary. Then among the derived and inflected words underline any instances where a consonant was twinned when a suffix was added:

### Array 29

Stems	Derived and Inflected Forms		
circular	circularity	circularize	circularly
éavesdrôp	éavesdrôpped	éavesdrôpper	éavesdrôpping
hândicâp	hândicâpped	hândicâpper	hândicâpping
húmbûg	húmbûgged	húmbûggery	húmbûgging
inhérit	inhéried	inhéritance	inhériting
líberal	líberalism	líberality	líberalness
ôverláp (vb.)	ôverlâpped	ôverlâpping	ôverlâps
ôverrún (vb.)	ôverrúnner	ôverrúnning	ôverrúns
péttifôg	péttifôgged	péttifôgger	péttifôgging
prohíbit	prohíbiting	prôhibítion	prohíbitive
wáterlôg	wáterlôgged	wáterlôgging	wáterlôgs
zígzâg	zígzâgged	zígzâgger	zígzâgging

Look at the words in Array 29 in which twinning occurs. What kind of stress is on the final vowel sound in these words before and after you add the suffix? Either secondary or primary

Look at the words in which twinning does not occur. What kind of stress is on the final vowel sound in these words either before or after you add the suffix? Weak — that is, neither secondary nor primary

Write a sentence that describes when final consonants twin in words that contain both primary and secondary stress: You twin the final consonant of a stem that contains both primary and secondary stress if the last vowel (or syllable) of the stem bears at least secondary stress both before and after you add the suffix.

**Your Twinning Rule.** You have enough information now to write the last revision of

your Twinning Hypothesis. Earlier we said that a hypothesis was a tentative best answer that you use to continue examining a question. At some point you have looked at enough data and seen enough reliable patterns that your best answer is no longer just a hypothesis. It becomes a description of a procedure that so generally holds true that it can be called a rule.

Now you can write out the final, finished statement of your Twinning Rule. Remember to put in all the qualifications you observed while testing and revising your original hypothesis.

**Twining Rule:** *You twin the final consonant of stem if you are adding a suffix that starts with a vowel, and if the stem ends in a single vowel sound and letter followed by a single consonant sound and letter, and if there is at least secondary stress on the final vowel sound (or syllable) of the stem both before and after you add the suffix.*

**Twining and Variant Spellings.** Although it may come as a surprise, several words in English can be spelled correctly more than one way. For instance, dictionaries show two accepted variant spellings of some words — one with twinning, one without.

In Array 30 you are asked to examine pairs of variant spellings, both of which are correct according to at least some dictionaries. You should decide which spelling fits your Twining Rule and write it in the "Best fit" column. It stands to reason that if you have a good rule on one hand and choice of spellings on the other, you might as well choose the spelling that best fits the rule. In the "Reasons" column write out the reason that variant does seem to you to fit your Twining Rule.

If you check the words with variant spellings in the dictionary, you will find that some of the words also have variant pronunciations and stress patterns. So as you are deciding which spelling fits your Twining Rule, you will also be deciding which pronunciation and stress-patterning you prefer.

### Array 30

Variant Spellings	Best Fit	Reasons
benefited	<i>benefited</i>	<i>The &lt;i&gt; in benefit does not have secondary or primary stress.</i>
benefitted		
busing	<i>bussing</i>	<i>Fits all the criteria of the twinning rule for one-syllable stems.</i>
bussing		
diagramed	<i>diagrammed</i>	<i>Fits all the criteria of the twinning rule for two-syllable stems</i>
diagrammed		
kidnaper	<i>kidnapper</i>	<i>Fits all the criteria of the twinning rule for two-syllable stems</i>
kidnapper		
programer	<i>programmer</i>	<i>Fits all the criteria of the twinning rule for two-syllable stems</i>
programmer		
traveling	<i>traveling</i>	<i>The &lt;e&gt; in travel does not have secondary or primary stress.</i>
travelling		
worshiped	<i>worshipped</i>	<i>The &lt;i&gt; in worship does not have secondary or primary stress</i>
worshipped		

**Teaching Note.** Not all dictionaries agree on the acceptability of some variants. Notice that in the two-syllable stems that call for twinning, the final vowel of the stem is short. In those that do not, the final vowel tends to be reduced down to a schwa or a sound somewhere between schwa and short <i>. Twinning in stems with unstressed final syllables, like *traveller* and *cancelled*, tends to be more characteristic of British English spelling. In American English we tend to require stress on the final syllable of the stem. For more on twinning, see *AES*, pp. 161-76.

Now that you have made your choices, you can give yourself a no-pain spelling test. Without looking back at Array 30, decide which of the spellings in each of the following pairs of variant spellings fits your Twinning Rule and write it in the "Best fit" column:

**Array 31**

<b>Variant Spellings</b>	<b>Best Fit</b>
benefiting	<i>benefiting</i>
benefitting	
diagraming	<i>diagramming</i>
diagramming	
kidnaped	<i>kidnapper</i>
kidnapped	
programed	<i>programmed</i>
programmed	
traveler	<i>traveler</i>
traveller	
worshipping	<i>worshipping</i>
worshipping	

Now go back to Array 30 and check to see how consistent you were. If four or less of your answers here agree with your choices in Array 30, you should have a quiet talk with yourself. If you agreed on five or six answers, okay. If you agreed on all seven, you either are a very consistent person —or you peeked.

Remember: Given a choice, choose the spelling that fits the rule.

**Teaching Notes.** The injunction to choose the variant spelling that fits the rule is an example of the Principle of Preferred Regularity: “Faced with variants, a speller’s most sensible approach would seem to be to choose the most regular. . . . By adhering to this principle, we assist the spelling system in its systemic evolution toward greater regularity and simplicity” (*AES*, p. 25).

The puzzle below contains ten words that are all examples of twinning at work — and all ten of them show up on lists of Spelling Demons. As you find each word, circle it and analyze it in the Analysis column. Show its stem, suffix, and the twinning insertion as has been done with beginning:

p r e d e r r u c c o r  
 c c d e t t i s c o c r  
 p r e f e r r e d m c e  
 r b r a l w l l u m o d  
 e d r b e g i n n i n g  
 f f e y q u a c n t t o  
 e h f q u e e u d t r m  
 r r n u i t t s d e o i  
 r c o m p e l l e d l t  
 e g c m p e l e l d l t  
 d c k l e o r a z z e e  
 e m h e d c a n f e d d

<b>Demon List</b>	<b>Analysis</b>
beginning	<i>begin+n+ing</i>
committed	<i>commit+t+ed</i>
compelled	<i>compel+l+ed</i>
conferred	<i>confer+r+ed</i>
controlled	<i>control+l+ed</i>
equipped	<i>equip+p+ed</i>
occurred	<i>occur+r+ed</i>
omitted	<i>omit+t+ed</i>
preferred	<i>prefer+r+ed</i>
referred	<i>refer+r+ed</i>

Some people say that spelling rules are more trouble than they're worth because they have so many exceptions. One of the main reasons for the careful way you've been asked to develop your twinning rule in the preceding pages is that if spelling rules are written carefully enough, with enough detail, they have few if any exceptions. Your twinning rule has very, very few exceptions and holds for hundreds and hundreds of words. You can rely on it — after all that work.

**Summing Up.** This is a good time to look back over what you've studied and written about elements and procedures. Knowing what you know now, you may find that you can improve upon some of your earlier statements. So here are some key terms. Write clear and thorough definitions for them and include an example for each:

An element is the smallest meaning-unit in a written word, a string of letters with a consistent meaning and spelling from word to word. In meaning both mean and -ing are elements.

A free element is an element that can stand free as a word, like mean.

A bound element is an element that cannot stand free as a word, like -ing

The etymological meaning of a word is the meaning of a word in its language of origin. The etymological meaning of provoke is "to call forth."

A compound word is a word composed of two or more free stems, like paintbrush.

A base is the element that is the word's core of meaning and that can have prefixes and suffixes added to it; bases can be free or bound. In meaning the base is mean

A stem is a base or a base plus other elements to which prefixes, suffixes, or other bases can be fixed. Meaningful is the stem of meaningfully.

An inflectional suffix is a suffix that adds meanings that help answer such questions as Whose? How many? How much? or When? In meanings -s is an inflectional suffix

A derivational suffix is a suffix that changes a stem's part of speech or changes a noun of one kind into another kind. In meaningful -ful is a derivational suffix.

A prefix is a bound element fixed to the front of a stem, usually adding meanings such as position, direction, negation, or reversal. In unmeaning un- is a prefix.

The Rule of Simple Addition states that unless you know of some other process that is at work, just add the elements in a word together without making any changes in their spelling.

Name \_\_\_\_\_ Date \_\_\_\_\_

Word	Free Stem + Suffix(es)
0. <i>programmer</i>	<u>program+m+er</u>
1.	_____
2.	_____
3.	_____
4.	_____
5.	_____
6.	_____
7.	_____
8.	_____
9.	_____
10.	_____

Word	Free Stem + Suffix(es)
1. beginning	<u>begin+n+ing</u>
2. repelled	<u>repel+l+ed</u>
3. fraudulent	<u>fraud+ulent</u>
4. controller	<u>control+l+er</u>
5. inheritance	<u>inherit+ance</u>
6. reference	<u>refer+ence</u>
7. rebellion	<u>rebel+l+ion</u>
8. diagramming	<u>diagram+m+ing</u>
9. exhibitionistically	<u>exhibition+ist+ic+al+ly</u>
10. occurrences	<u>occur+r+ence+s</u>

## 9 Silent Final <e>

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Back in Array 22, as you were getting your first data for your Twinning Rule, you also worked with some words where the silent final <e> was deleted when you added a suffix that began with a vowel, as in a word like *taping*: *tapé* + *ing*. In this chapter and the next we will examine that process, working toward a clear and reliable statement of a Final <e> Deletion Rule. This chapter will discuss the different functions of silent final <e>. The next chapter will discuss how and when final <e> is deleted.

**Teaching Note.** For more on the functions of silent final <e>, see *AES*, pp. 145-54.

**Silent Final <e> as Vowel Marker.** A silent final <e> often affects the sound of the preceding vowel. Sort the twelve words in Array 32 according to the vowel sound each contains:

**Array 32**

cap	dude	met	note
cape	fine	mete	fin
dud	gyp	not	type
Short Vowel Sounds		Long Vowel Sounds	
[a] _____	<i>cap</i>	[ā] _____	<i>cape</i>
[e] _____	<i>met</i>	[ē] _____	<i>mete</i>
[i] _____	<i>gyp</i>	[ī] _____	<i>fine</i>
_____	<i>fin</i>	_____	<i>type</i>
[o] _____	<i>not</i>	[ō] _____	<i>note</i>
[u] _____	<i>dud</i>	[ū] _____	<i>dude</i>

Write a sentence describing how silent final <e> affects the sound of the preceding vowel in these twelve words: *In a stem one syllable long silent final <e> will mark a preceding vowel as long.*



In order to test and expand the description you just wrote, sort the words in Array 33 into the appropriate blanks:

**Array 33**

sum	shad	blue	pop	scrap	sue	shade
club	pope	scrape	let	flee	gym	rat
see	lie	glue	con	rate	sit	mat
rod	cone	rob	site	mate	rode	scheme
flute	tie	glut	tree	toe	dye	style
<b>Vowel Sounds</b>						
<b>Vowel Spellings</b>	<b>Short Vowels</b>		<b>Long Vowels</b>			
<b>&lt;a&gt;</b>	<b>[a]</b>		<b>[ā]</b>			
	<i>scrap</i>		<i>mate</i>			
	<i>shad</i>		<i>scrape</i>			
	<i>rat</i>		<i>rate</i>			
	<i>mat</i>		<i>shade</i>			
<b>&lt;e&gt;</b>	<b>[e]</b>		<b>[ē]</b>			
	<i>let</i>		<i>see</i>			
			<i>tree</i>			
			<i>flee</i>			
			<i>scheme</i>			
<b>&lt;i&gt;</b>	<b>[i]</b>		<b>[ī]</b>			
	<i>sit</i>		<i>lie</i>			
			<i>tie</i>			
<b>&lt;y&gt;</b>			<i>site</i>			
	<i>gym</i>		<i>dye</i>			
			<i>style</i>			

Vowel Spellings	Short Vowels	Long Vowels
<o>	[o]	[ō]
	<i>rod</i>	<i>pope</i>
	<i>rob</i>	<i>cone</i>
	<i>pop</i>	<i>toe</i>
	<i>con</i>	<i>rode</i>
<u>	[u]	[ū]
	<i>sum</i>	<i>flute</i>
	<i>club</i>	<i>blue</i>
	<i>glut</i>	<i>glue</i>
		<i>sue</i>

So far you've seen that a silent final <e> will mark the vowel in front of it as long, if the <e> and the vowel come right together (as in *flee*, *tie*, *toe*, *glue*, or *dye*) or if there is only one consonant letter between them (as in *mate*, *site*, *rode*, *flute*, or *style*). Sort the words in Array 34 into the appropriate blanks:

#### Array 34

<i>price</i>	<i>lodge</i>	<i>niche</i>	<i>trice</i>	<i>mettle</i>
<i>prince</i>	<i>lode</i>	<i>nice</i>	<i>trickle</i>	<i>mete</i>
<i>valve</i>	<i>dunce</i>	<i>twinge</i>	<i>ape</i>	<i>solve</i>
<i>vale</i>	<i>dune</i>	<i>twine</i>	<i>apse</i>	<i>sole</i>
<i>cage</i>	<i>wince</i>	<i>scene</i>	<i>bridge</i>	<i>lace</i>
<i>cadge</i>	<i>wine</i>	<i>sense</i>	<i>bride</i>	<i>lance</i>
Words with a Short Vowel		Words with a Long Vowel		
<i>prince</i>	<i>sense</i>	<i>price</i>	<i>scene</i>	
<i>valve</i>	<i>trickle</i>	<i>vale</i>	<i>trice</i>	
<i>cadge</i>	<i>apse</i>	<i>cage</i>	<i>ape</i>	
<i>lodge</i>	<i>bridge</i>	<i>lode</i>	<i>bride</i>	
<i>dunce</i>	<i>mettle</i>	<i>dune</i>	<i>mete</i>	
<i>wince</i>	<i>solve</i>	<i>wine</i>	<i>sole</i>	

Words with a Short Vowel		Words with a Long Vowel	
<i>niche</i>	<i>lance</i>	<i>nice</i>	<i>lace</i>
<i>twinge</i>		<i>twine</i>	

Now write a sentence that summarizes what you learned in Array 34 about how many consonants can come between a vowel and a silent final <e> when the final <e> marks the vowel as long: A silent final <e> marks a preceding vowel as long if no more than one consonant comes between the vowel and the <e>.

So far you've seen that a silent final <e> will mark the vowel in front of it as long, if the <e> and the vowel come right together or if there is only one consonant letter between them. There are three groups of words that complicate that conclusion a bit. Look at and pronounce the words in Array 35. Then sort them into the appropriate blanks:

### Array 35

<i>hast</i>	<i>past</i>	<i>strange</i>
<i>haste</i>	<i>chang</i>	<i>rang</i>
<i>change</i>	<i>baste</i>	<i>range</i>
<i>paste</i>	<i>waste</i>	<i>taste</i>
<i>scythe</i>	<i>bathe</i>	<i>tithe</i>

Words with a Short Vowel	Words with a Long Vowel	
<i>hast</i>	<i>haste</i>	<i>waste</i>
<i>past</i>	<i>change</i>	<i>strange</i>
<i>chang</i>	<i>paste</i>	<i>range</i>
<i>rang</i>	<i>baste</i>	<i>taste</i>
<i>scythe</i>	<i>bathe</i>	<i>tithe</i>

**Teaching Note.** Students may be somewhat mystified by *chang*. *Webster's Third Unabridged* actually has three entries for it: (1) (Brit. dial.) a loud noise, uproar; (2) a Tibetan beer; (3) (usu. cap.) a Naga people of the India-Burma frontier. Quite an array of meanings!

Write a sentence in which you describe how the effect of silent final <e> is unusual in the words that end in the spellings <ange>, <aste>, and <the>.

In words that end in <ange>, <aste>, and <the> the silent final <e> will mark the

preceding vowel as long even though there are two consonants between the vowel and the <e>.

**Teaching Notes.** There are two notable holdouts to this conclusion: *flange* and *caste*, both of which have short rather than long vowels. *Flange*, which is a form of an earlier word *flanch*, did not appear in our language until the 19<sup>th</sup> century. Apparently the need to mark the soft <g> was more pressing than the expectation of a long vowel before <nge>. *Caste* was usually spelled <cast> before the 19<sup>th</sup> century. It is not clear why the final <e> was added, though there may be a clue in the fact that *caste* and *chaste* are related. Concerning words like *bathe* and *tithe*: The digraph <th> often behaves like a single letter. Notice that though two letters, it spells a single sound. Other examples: *scathe*, *swathe*, *blithe*, *lithe*, *writhe*, *clothe*.

Look at and pronounce the words in Array 36. Then sort them into the appropriate blanks:

**Array 36**

addle	rubble	pebble	cobble
apple	ruble	staple	ogle
noble	rifle	goggle	quadruple
ladle	riffle	cable	
Words with a Short First Vowel		Words with a Long First Vowel	
<i>addle</i>	<i>pebble</i>	<i>noble</i>	<i>staple</i>
<i>apple</i>	<i>goggle</i>	<i>ladle</i>	<i>cable</i>
<i>rubble</i>	<i>cobble</i>	<i>ruble</i>	<i>ogle</i>
<i>riffle</i>		<i>rifle</i>	<i>quadruple</i>

Write a sentence that describes the effect of silent final <e> on the preceding vowels in words that end <le>: *In words that end <le> the silent final <e> will mark the preceding vowel as long if there is only one consonant between the vowel and the <le> but not if there are two consonants.*

Now write a sentence that summarizes all that you have learned so far about the effect of silent final <e> on the length of a preceding vowel: *In words that end <le> a silent final <e> will mark a preceding vowel as long if there is only one consonant between the vowel and the <le> and will mark the <a> long in words ending <aste> and <ange>, but normally it will only mark a vowel as long if no or only one consonant comes between the vowel and the <e>.*

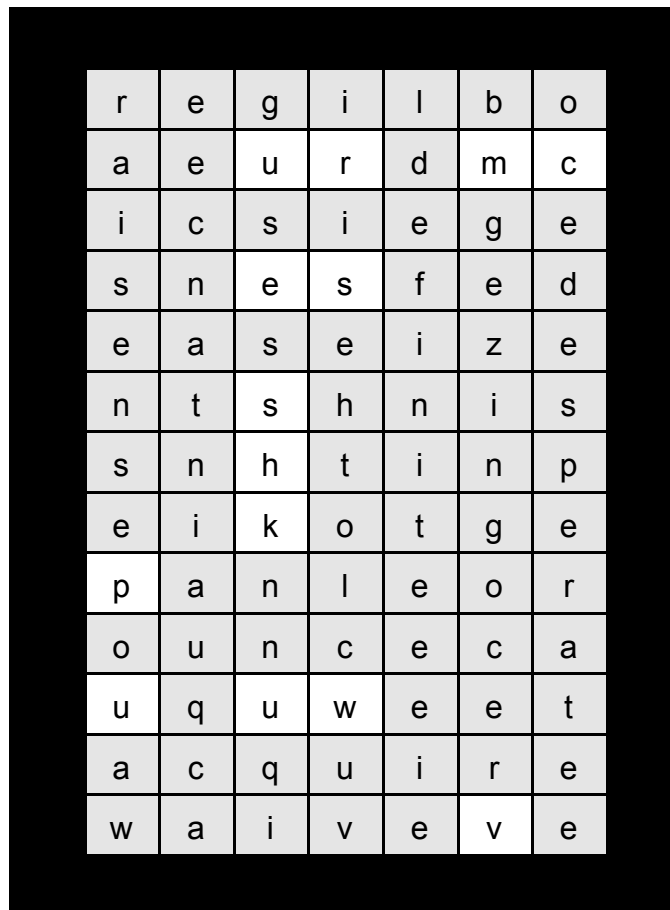
The following puzzle contains the following sixteen words, all with a silent final <e>. But be careful: The words are tightly interwoven and often overlap.

ounce  
recognize  
acquire  
definite

raise  
seize  
desperate  
hie

sense  
sincere  
ease  
oblige

siege  
waive  
acquaintance  
clothe



**Teaching Note.** I fear that the words are so overlapped in this puzzle that the “solution” above is not of much use. Warn the students that the words run left and right, up and down, and diagonally. There are a number of other words in the puzzle with final <e> that are not listed in the 16: *use, rise, rue, roe, ace, eve*, for instance.

The pattern you just described for silent final <e> as a long vowel marker is a very widespread and powerful pattern in English spelling. It is one of the first patterns you learned, probably, when you started to learn to read.

There is one small complication to the description that we might as well look at. Pronounce these words:

cut	fun	rum
cute	fuse	fume
mutt	us	cub
mute	use	cube

As you read through those twelve words, you should have noticed that although they all behaved exactly as your description of silent final <e> predicts, something else was going on, too. In *cute*, for instance, you should have heard the expected long <u>, but you should also have heard a [y] sound creeping in there. (The sound [y] is the first sound in *you*.) The [y] creeps in before the long <u>: [kyüt]. You can hear it clearly if you compare *cute* with *coot*. Or *mute* with *moot*.

That extra [y] (which is called a glide) is no big problem. We can simply treat the vowel sounds in *cute* and *coot* as two different forms of long <u>. Just remember that although several words have that [y] glide in them, there is no letter <y> spelling it.

**Silent Final <e> as a Consonant Marker.** Sometimes silent final <e> does not affect the preceding vowel, but does affect the preceding consonant. The sound a consonant spells is often marked by the vowel that follows it.

For instance, the consonant letter <c> spells the sound [s] when it is followed by the vowel letters <i>, <y>, or <e> — including silent final <e>: *chancing, chancy, chance; mysticism, choice, farce*. A <c> that spells [s] before <e>, <i>, or <y> is called **soft <c>**.

The consonant letter <c> spells the sound [k] everywhere else, including the end of the word: *career, discuss, nucleus, critic, arc*. A <c> that spells [k] is called **hard <c>**.

The letter <g> can also be soft or hard, depending on the letter that follows it. Usually, the letter <g> spells the sound [j] when it is followed by the vowels <i>, <y>, or <e>, including silent final <e>: *gin, gyp, general, lounge, siege*. When <g> spells [j], it is called **soft <g>**. Otherwise, <g> spells [g]— as in *gun, gap, fig*— and is called **hard <g>**.

**Teaching Note.** In Old English <c> regularly spelled the sound [k], except when it was followed by <e>, <i>, or <y>, in which case it spelled [ch]. But during the Middle English period the Norman French scribes used <c> to spell the French sound [ts] before <e>, <i>, or <y> and to spell [k] elsewhere. In time the [ts] eased to [s]. So, although the value of what we now call soft <c> has changed, our distinction between hard and soft <c> comes from both the Germanic side of the language family tree (via Old English) and the Romance side (via Norman French). This distinction arose from the influence of the vowel following the <c> upon the pronunciation of the consonant sound spelled by the <c>. You can experience some of the pressure leading to the distinction if you compare the way you pronounce the [k] sounds in *kit* and *cot*: In *kit* you should feel the [k] being pronounced further forward in your mouth, in *cot* further back. The difference arises because while pronouncing the [k], your mouth gets itself set to pronounce the

upcoming vowel: in *kit* that vowel is [i], which is pronounced toward the front of your mouth, so your tongue moves forward while pronouncing [k]. In *cot* the vowel [o] is pronounced towards the back of your mouth, so your tongue moves back while pronouncing the [k]. Over the centuries this modest difference in pronunciation of the [k] increased to our current distinction between hard and soft <c>.

The distinction between hard and soft <g> is a perfect historical parallel to that between hard and soft <c>: The distinction between hard and soft <g> arose from the influence of the following vowel on the pronunciation of the consonant sound being spelled by the <g>. Front vowels, usually spelled <e>, <i>, or <y>, tended to urge the pronunciation of the preceding consonant more towards the front of the mouth, so that [g] developed into [j].

This explanation is particularly true of words that came to English from or through Latin and French (exs: *gelatin, gender, general, genesis, genius, gentle, genuine, geography, germ, gesture, giant, gigantic, ginger, giraffe, gist, gymnasium, gypsum*). In native English words (exs: *geese, gild, girl, girdle*) and in words from German and Scandinavian (exs: *get, geyser, gift, gill, girth, give, gear*), hard <g> is common before <e>, <i>, or <y>. The soft <g>, [j], by and large echoes developments in late Latin, when the consonant spelled <g> came to be pronounced [j] before front vowels, which were usually spelled with <e>, <i>, or <y>. Those developments did not take place in Old English, German, and Scandinavian.

Sort the words in Array 37 into the four groups described:

**Array 37**

arc	disc	hinge	singe
big	fence	Icelandic	swig
bulge	fierce	lunge	tic
change	flange	ounce	tinge
choice	fleece	peace	voice
cringe	garlic	prince	voyage
dance	hag	rug	zinc
<b>Group 1: Words Ending in &lt;c&gt;</b>	<b>Group 2: Words Ending in &lt;ce&gt;</b>	<b>Group 3: Words Ending in &lt;g&gt;</b>	<b>Group 4: Words Ending in &lt;ge&gt;</b>
<i>arc</i>	<i>choice</i>	<i>big</i>	<i>bulge</i>
<i>disc</i>	<i>dance</i>	<i>hag</i>	<i>change</i>
<i>garlic</i>	<i>fence</i>	<i>rug</i>	<i>cringe</i>
<i>Icelandic</i>	<i>fierce</i>	<i>swig</i>	<i>flange</i>
<i>tic</i>	<i>fleece</i>		<i>hinge</i>
<i>zinc</i>	<i>ounce</i>		<i>lunge</i>
	<i>peace</i>		<i>singe</i>
	<i>prince</i>		<i>tinge</i>

Group 1: Words Ending in <c>	Group 2: Words Ending in <ce>	Group 3: Words Ending in <g>	Group 4: Words Ending in <ge>
	voice		voyage

In Group 1 in Array 37 <c> spells what sound? [k] Why? Because there is no <e>, <i>, or <y> after it

In Group 2 <c> spells what sound? [j] Why? Because there is an <e> after it

In Group 3 <g> spells what sound? [g] Why? Because there is no <e>, <i>, or <y> after it

In Group 4 <g> spells what sound? [j] Why? Because there is an <e> after it

Write a sentence that describes how silent final <e> affects a preceding <c> or <g>:

Silent final <e> marks a preceding <c> or <g> as soft — that is, is pronounced [s] or [j].  
respectively.

The spelling <th> is also affected by a silent final <e> following it. The spelling <th> is a **digraph** — that is, two letters working together to spell a single sound and behaving in many ways like a single letter. Notice, for instance, that in the contrast between *bath* and *bathe*, the final <e> marks the long <a> just as if <th> were a single letter. But you should also hear a difference in the sounds <th> spells in *bath* and *bathe*. The difference is the same as the difference between the <th> in *thin* and the <th> in *this*. When they write out these sounds in their pronunciations of words, most dictionaries usually represent the sound in *bath* and *thin* with <th> and the sound in *bathe* and *then* with <th> in italics or underlined. We will use [th] to represent the sound in *bath* and *thin* and [th] to represent the sound in *bathe* and *then*.

The [th] in *bath* is **voiceless**. The [th] in *bathe* is **voiced**. In **voiced sounds** the vocal cords vibrate; in **voiceless sounds** they do not. Sometimes, even if you have trouble hearing the difference between these voiceless and voiced sounds, you can feel the difference. Put your fingers lightly on your throat just up under your chin and say *bath*. You should feel nothing as you pronounce the [th]. Then say *bathe*. You should feel some vibration in your throat as you pronounce the [th]. The vibrations are caused by your vocal cords.

A silent final <e> will mark a preceding <th> as voiced, pronounced [th]. Sort the words in Array 38 into two groups, depending on the sound <th> spells in them. If you're not sure of the sound in a word, check in your dictionary.



**Array 38**

clothe	sheath	teeth	wreathe	scythe
loath	sheathe	teethe	wreath	seethe
loathe	wrath	length	moth	myth
Words in which <th> = [th]		Words in which <th> = [tʰ]		
<i>loath</i>		<i>clothe</i>		
<i>sheath</i>		<i>loathe</i>		
<i>wrath</i>		<i>sheathe</i>		
<i>teeth</i>		<i>teethe</i>		
<i>length</i>		<i>wreathe</i>		
<i>wreath</i>		<i>scythe</i>		
<i>moth</i>		<i>seethe</i>		
<i>myth</i>				

Write a sentence that describes the effect of silent final <e> on a preceding <th>: A  
 silent final <e> marks a preceding <th> as voiced, pronounced [tʰ].

**Silent Final <e> as an Insulator.** Silent final <e> serves other purposes than marking the sounds of preceding vowels and consonants. Sometimes it is used to keep certain letters from coming at the end of the word. Sort the words in Array 39 into the three groups indicated.

**Array 39**

booze	curve	hoarse	plaque	teas
bronze	dens	laps	pleas	tease
brows	dense	lapse	please	tens
browse	give	moos	shelve	tense
cease	groove	moose	spars	thieve
curs	have	pars	sparse	tongue
curse	hoars	parse	statuesque	wheeze
Group 1: Words Ending in <s>	Group 2: Words Ending in <se>		Group 3: Words Ending in Other Letters	
<i>brows</i>	<i>browse</i>		<i>booze</i>	

Group 1: Words Ending in <s>	Group 2: Words Ending in <se>	Group 3: Words Ending in Other Letters
<i>curs</i>	<i>cease</i>	<i>bronze</i>
<i>dens</i>	<i>curse</i>	<i>curve</i>
<i>hoars</i>	<i>dense</i>	<i>give</i>
<i>laps</i>	<i>hoarse</i>	<i>groove</i>
<i>moos</i>	<i>lapse</i>	<i>have</i>
<i>pars</i>	<i>moose</i>	<i>plaque</i>
<i>pleas</i>	<i>parse</i>	<i>shelve</i>
<i>spars</i>	<i>please</i>	<i>statuesque</i>
<i>teas</i>	<i>sparse</i>	<i>thieve</i>
<i>tens</i>	<i>tease</i>	<i>tongue</i>
	<i>tense</i>	<i>wheeze</i>

Only sometimes do words ending in <s> have a final consonant sound different from words ending in <se>, as when *tens*, for instance, is [tenz] while *tense* is [tens]. But the difference in sound is not always there. *Laps* and *lapse*, for instance, both end with a [s] sound. Silent final <e> is important to <s> in a different way.

Look closely at the <s> words in Group 1 in Array 39. What does the <s> mean in these words? Is it part of the base, or is it a suffix? You may find these questions easier to handle if you make up sentences for the words:

- (a) This eighteen holes Frank shot six pars.
- (b) He pars the third hole every time he plays it.

What does the <s> in pars mean in (a)? "More than one, plural"

What does the <s> in pars mean in (b)? "Third person singular, present"

The <s> in the words in Group 1 of Array 39 is an inflectional suffix adding either the meaning "more than one, plural" to nouns or the meaning "third person singular present tense" to verbs. However, the <s> in the words in Group 2 is not a suffix; it is part of the base. This leads us to the third use for silent final <e> in English spelling: It is sometimes used to keep a word from ending with a single <s> that is not in a suffix.

If the <s> has a short vowel right in front of it, usually another <s> will be added rather than an <e>: *mass, mess, miss, moss, muss*. Be ready to answer this question: Why do we use a second <s> here rather than an <e>?

**Teaching Note.** The reason we are after here is that if we were to add a final <e> instead of a second <s>, we would end up with a *vcv* pattern, which would make it look as if the preceding vowel were long rather than short.

So a base that comes at the end of a word and otherwise would end in a single <s> preceded by a consonant or a long vowel will usually have a silent final <e> added, to **insulate** the single <s> from coming at the end of the word. The same pattern holds for the letter <z>. The letter <z> is fairly rare in English, and the sound [z] is most often spelled <s>. As with <s>, we tend to avoid ending a word with a single <z>. If there is a short vowel preceding the <z>, we add a second <z>, as in *fuzz, fizz, and jazz*, but if there is a consonant or a long vowel preceding the <z>, we add a silent final <e>, as in *bronze, wheeze, and booze*.

**Teaching Note.** For more on the use of final <e> to insulate otherwise-final <s> and <z>, see *AES*, pp.82-84, 148.

Back in Array 39, six of the words in Group 3 have a <v> before the silent final <e>. The final <e> does not affect the sound of the preceding <v>. For reasons that go hundreds of years back into the history of our language, we avoid ending words with <v>. Long ago <v> and <u> were actually different forms of the same letter. So the pattern for <v> extends to <u> today as well. We use silent final <e> to insulate an otherwise word-final <v>, and except for a few recent foreign borrowings — like *gnu, bayou, and tabu* — we also use it to insulate an otherwise word-final <u>, as in *plaque, tongue, league, statuesque*.

**Teaching Note.** For more on the use of silent final <e> to insulate otherwise-final <u> and <v>, see *AES*, p. 147 and 207-08.

**Fossil Final <e>.** The silent final <e>'s that mark or insulate consonants and vowels make up most of the silent final <e>'s you'll meet in English — most, but not all.

Look at the spelling of the fifteen words in Array 40a. Pronounce each of them. If you're not sure of a pronunciation, check your dictionary. Then sort them into the two groups described. You should find four words in which final <e> is marking or insulating vowels or consonants. They go into Group 1. In the other eleven words the final <e> does not mark or insulate a vowel or consonant. These eleven go into Group 2.

If you can't make up your mind about a word, try writing it without the final <e> and deciding how it would be pronounced if it were spelled that way. If the pronunciation doesn't seem to change, then the final <e> does not mark a consonant or vowel sound. If the word minus the final <e> doesn't end with a <u>, <v>, or a single <s> or <z>, the

final <e> is not insulating anything either — and the word belongs in Group 2.

**Array 40a**

alive	bizarre	brochure	comrade	demitasse
avalanche	brassiere	cigarette	crevasse	derange
belle	breeze	clientele	debutante	explode
<b>Group 1: Words in which Final &lt;e&gt; Marks or Insulates</b>		<b>Group 2: Words in which Final &lt;e&gt; Does Not Mark or Insulate</b>		
<i>alive</i>	<i>avalanche</i>	<i>clientele</i>		
<i>breeze</i>	<i>belle</i>	<i>comrade</i>		
<i>derange</i>	<i>bizarre</i>	<i>crevasse</i>		
<i>explode</i>	<i>brassiere</i>	<i>debutante</i>		
	<i>brochure</i>	<i>demitasse</i>		
	<i>cigarette</i>			

The eleven words in Group 2 of Array 40a came from French, where final <e> has some functions quite different from its functions in English. For example, in French final <e> marks feminine words: *Un voisin*, "a neighbor," is masculine, but *une voisine*, "a neighbor," is feminine. Since French does not pronounce most final consonants, the final <e> will often affect the pronunciation. Thus, *absent*, "away," (masculine) is pronounced [opsóŋ] (more or less), with stress on the second vowel and the <t> silent. But *absente*, "away," (feminine) is pronounced [opsónt] (again more or less), still with stress on the second vowel, but now with a final [t] sound. Many French words borrowed into English retain their French spellings even though the final <e> does not retain its French function and very often does not serve any normal English function. These borrowed words, with their fossilized final <e>'s might be called words with "French Fossil <e>'s."

In the "English" column below fill in the eleven words from Group 2 in Array 40, and then in the "French" column fill in the French spelling for each word. You will find the French spellings in the words' etymologies. If your dictionary says "French" and doesn't give you any French word, you can assume that the French word was spelled like the English:

**Array 40b**

English	French
<i>avalanche</i>	<i>avalanche</i>
<i>belle</i>	<i>belle</i>
<i>bizarre</i>	<i>bizarre</i>
<i>brassiere</i>	<i>brassière</i>
<i>brochure</i>	<i>brochure</i>
<i>cigarette</i>	<i>cigarette</i>
<i>clientele</i>	<i>clientèle</i>
<i>comrade</i>	<i>camarade</i>
<i>crevasse</i>	<i>crevasse</i>
<i>debutante</i>	<i>débutante</i>
<i>demitasse</i>	<i>demitasse</i>

Array 41 gives you a chance to work with some more words with French fossil <e>'s. Sort the words into the two groups described:

**Array 41**

feminine	judge	medicine	pipette	route
gazelle	kitchenette	millionaire	plague	statuette
gazette	layette	morale	questionnaire	submerge
grille	love	nocturne	race	tongue
have	lucerne	oblige	romaine	troupe
imbecile	madame	palette	rosette	vaudeville
impasse	marriage	peace roulette	zygote	

Words in which Final <e> Marks or Insulates	Words in which Final <e> Does Not Mark or Insulate	
<i>have</i>	<i>feminine</i>	<i>morale</i>
<i>judge</i>	<i>gazelle</i>	<i>nocturne</i>
<i>love</i>	<i>gazette</i>	<i>palette</i>
<i>marriage</i>	<i>grille</i>	<i>pipette</i>

Words in which Final <e> Marks or Insulates	Words in which Final <e> Does Not Mark or Insulate	
<i>oblige</i>	<i>imbecile</i>	<i>questionnaire</i>
<i>peace</i>	<i>impasse</i>	<i>romaine</i>
<i>plague</i>	<i>kitchenette</i>	<i>rosette</i>
<i>race</i>	<i>layette</i>	<i>roulette</i>
<i>submerge</i>	<i>lucerne</i>	<i>route</i>
<i>tongue</i>	<i>madame</i>	<i>statuette</i>
<i>zygote</i>	<i>medicine</i>	<i>troupe</i>
	<i>millionaire</i>	<i>vaudeville</i>

**The Short Word Rule.** For centuries there has been a tendency in English spelling to keep the two-letter words -- such as *be*, *is*, *to*, and *an* -- to a small, select group. That's one reason we have otherwise unnecessary final double-consonants — such as in *egg*, *ebb*, *add*, and *err*. Also some silent final <e>s appear at the ends of words to keep them longer than two letters, so we have, for instance, *gee* rather than <ge>. This tendency to double consonants in words like *egg* or add otherwise unnecessary final <e>s to words like *gee* is due to the Short Word Rule. Sort the words in Array 42 into the two groups described.

#### Array 42

<i>fee</i>	<i>come</i>	<i>eye</i>	<i>none</i>	<i>shoe</i>
<i>awe</i>	<i>done</i>	<i>forbade</i>	<i>one</i>	<i>some</i>
<i>bade</i>	<i>dye</i>	<i>gone</i>	<i>rye</i>	<i>tee</i>
<i>bye</i>	<i>ewe</i>	<i>lye</i>	<i>see</i>	<i>woe</i>
Group 1: Words with Final <e> Due to the Short Word Rule		Group 2: Words with Final <e> Due to Other Reasons		
<i>awe</i>	<i>one</i>	<i>bade</i>	<i>gone</i>	
<i>bye</i>	<i>rye</i>	<i>forbade</i>	<i>none</i>	

Group 1: Words with Final <e> Due to the Short Word Rule		Group 2: Words with Final <e> Due to Other Reasons	
<i>dye</i>	<i>see</i>	<i>come</i>	<i>shoe</i>
<i>ewe</i>	<i>tee</i>	<i>done</i>	<i>some</i>
<i>eye</i>	<i>woe</i>		
<i>lye</i>	<i>fee</i>		

Back in Middle English times (from about the 12th through the 15th centuries) final <e> was not silent. It was pronounced as a separate weak syllable. Over the years the final <e> fell silent though it tended to stay in the spelling. (In general, spelling does not change as fast as speech.) So we have a number of words with fossil final <e>'s that were once but are no longer pronounced. Of those words, the eight you put into Group 2 in Array 42 are perhaps the most important.

**Final <e> after Unstressed Vowels.** Silent final <e> only marks a preceding vowel as long if that vowel has either primary or secondary stress. It does not mark as long a preceding vowel with weak stress. Pronounce the following sentences carefully and notice the sound and stress pattern of the underlined words:

- 1(a) She wore an elaborate headdress.  
 1(b) He would not elaborate on his earlier comment to the press.
- 2(a) They had a very intimate conversation.  
 2(b) She did not intimate what they discussed.
- 3(a) They baked the duck in a moderate oven.  
 3(b) The group asked the committee to moderate its demands.

All of the underlined words in the six sentences contain the derivational suffix *-ate*, which forms verbs and adjectives. In the three (a) sentences the underlined words are used as adjectives; in the (b) sentences, as verbs. As the words are used differently, the stress shifts, and thus the pronunciation of *-ate* changes.

In Array 43 mark the primary and secondary stresses and the pronunciation of *-ate* in *intimate* and the other five words as they have been marked for *elaborate*. Try at first on your own. Then check your ear against the stress patterns and pronunciations in your dictionary.

The list below contains a number of other words with the *-ate* suffix. Find six other words in the list that can function as both adjectives and verbs, and add them to the

appropriate columns in the array. Mark their stress patterns and the pronunciation of *-ate*:

accurate	considerate	immediate	pomegranate
affectionate	consummate	inaccurate	predicate
apropriate	deliberate	indiscriminate	private
approximate	delicate	inordinate	proportionate
climate	desolate	intricate	proximate
collegiate	desperate	literate	regenerate
commensurate	effeminate	mediate	senate
confederate	electorate	obstinate	separate
conglomerate	fortunate	passionate	temperate

**Array 43**

Adjectives		Verbs	
Stress Pattern	Sound of <i>-ate</i>	Stress Pattern	Sound of <i>-ate</i>
<i>eláborate</i>	[it]	<i>eláborâte</i>	[āt]
<i>íntimate</i>	[it]	<i>íntimâte</i>	[āt]
<i>móderate</i>	[it]	<i>móderâte</i>	[āt]
See Note below			

**Teaching Note.** The students should get any six of the fourteen words above with verb senses with *-ate* pronounced [āt]: *appropriate, approximate, confederate, conglomerate, consummate, deliberate, desolate, effeminate, mediate, predicate, proportionate, proximate, regenerate, separate*. All of the words in the list have adjective (or noun) senses with *-ate* pronounced [it].

If it is "normal" for final <e> to mark a long vowel, does the adjective or the verb have the "normal" pronunciation of *-ate*? the verb

The cases where *-ate* is pronounced [it] can be explained by stress-shifting. In the adjective forms the vowel in *-ate* is weakly stressed. And the silent final <e> only marks a preceding vowel as long if that vowel has either primary or secondary stress, as it always does in the verbs with the suffix *-ate*. Strange as it may seem, the letter <a> in a weakly stressed syllable often spells [i], especially in the suffixes *-ate, -age, and -ace*, as in words like *adequate, manage, and furnace*.

Find six words in the list in Array 43 that can function as nouns and write them into Array 44:



### Array 44

Nouns with the Suffix <i>-ate</i>		
See Note below.		

**Teaching Note.** The students should get any six of the following: *climate, confederate, conglomerate, electorate, fortunate, literate, pomegranate, predicate, private, senate, separate.*

Are nouns that end with the suffix *-ate* usually pronounced like the adjectives or like the verbs? the adjectives

The words in Array 45 all contain the suffix *-ite*. Sort them into the four groups indicated. The words that go into Group 4 are words that can function as either adjectives or nouns.

### Array 45

composite	exquisite	incondite	requisite
definite	favorite	infinite	unite
expedite	graphite	perquisite	sulphite
<b>Group 1: Verbs</b>	<b>Group 2: Adjectives</b>	<b>Group 3: Nouns</b>	<b>Group 4: Adjectives / Nouns</b>
<i>expedite</i>	<i>definite</i>	<i>graphite</i>	<i>composite</i>
<i>unite</i>	<i>incondite</i>	<i>perquisite</i>	<i>exquisite</i>
		<i>sulphite</i>	<i>favorite</i>
			<i>infinite</i>
			<i>requisite</i>

**Teaching Note.** Differences in treatment by different dictionaries could lead to disagreements with the answers offered above for Array 45. Some dictionaries show a verb sense for *composite*; most don't. Some show an obsolete adjective sense for *expedite*, some an archaic noun sense for *exquisite*. This little array illustrates the way in which language is constantly changing and how hard it is to get a truly definitive description of certain aspects of it. A certain flexibility is called for. Some dictionaries show *sulfite* rather than *sulphite*; *Webster's Third Unabridged* lists both. Questions about some of the nouns in Group 3 as apparent adjectives—for instance, in phrases like “graphite pencil” and “sulphite process” *graphite* and *sulphite* could be taken as adjectives, and thus belong in Group 4. There are two ways to talk about such phrases: (i) *Graphite* and *sulphite* are **attributive nouns**—that is, nouns used as if they were adjectives. We use a lot of nouns attributively in English, and we can tell that they are not actually adjectives because we can't intensify or compare them. That is, we can't say things like *\*very graphite* or *\*graphitest*. (ii) They are **open compound words**, compounds with a blank space between the two noun stems.

The pronunciation of the words in Array 45 is affected by stress shifting, like the *-ate* words.

How is the *-ite* pronounced in the two verbs? [*ɪt*] Where is the primary stress in them? on the final syllable How is the *-ite* pronounced in the seven words that are either adjectives or adjectives/nouns? [*ɪt*] What level of stress is on the *-ite* in these seven words? weak

A number of words ending in <ine> have what seem to be fossil <e>s. Some of these are the fossils of Middle English verb endings; some are the fossils of Latin noun and adjective endings. Check the etymologies of the words in Array 46 and sort them into the four groups described

:

#### Array 46

bowline	doctrine	genuine	medicine
caffeine	engine	heroine	trampoline
crystalline	examine	imagine	turbine
destine	famine	intestine	urine
<b>Words from Middle English Verbs Ending in <i>-inen</i></b>	<b>Words from Latin Nouns Ending in <i>-ina</i></b>	<b>Words from Latin Adjectives Ending in <i>-inus</i></b>	<b>Words from Other Sources</b>
<i>destine</i>	<i>doctrine</i>	<i>crystalline</i>	<i>bowline</i>
<i>examine</i>	<i>famine</i>	<i>genuine</i>	<i>caffeine</i>
<i>imagine</i>	<i>heroine</i>	<i>intestine</i>	<i>engine</i>
	<i>medicine</i>		<i>trampoline</i>
	<i>urine</i>		<i>turbine</i>

**Teaching Note.** Several of the words in Array 46 have variant, often dialectal, pronunciations with stress on the final syllable, leading to [ɪ] or sometimes [ē]: *crystalline*, *genuine*, *intestine*, *bowline*, *trampoline*, *turbine*. Array 46 assumes the pronunciation with unstressed <i>.

It may be wise, here at the end of this long chapter, to look again at words in which silent final <e> serves a function — or in many cases, more than one function. Study the words in Array 47. Look at their spelling. Pronounce them to yourself. Consider how they would be pronounced if you were to leave off the final <e>. Put a check in the "Marking vowel" column if the final <e> is marking a long vowel in that word. Put a check in the "Marking consonant" column if the final <e> is marking a soft <c> or <g> or

a voiced <th> in that word. Put a check in the "Insulating" column if it is keeping a <v> or <u> or a single <s> or <z> from coming at the end of the word. Notice that in some words final <e> is doing more than one thing at a time.

**Array 47**

<b>Words</b>	<b>Marking Vowels</b>	<b>Marking Consonants</b>	<b>Insulating</b>
adze			X
bathe	X	X	
clothe	X	X	
copse			X
deluge	X	X	
dense			X
drive	X		X
engage	X	X	
freeze			X
grave	X		X
hive	X		X
huge	X	X	
lace	X	X	
lapse			X
lathe	X	X	
louse			X
moose			X
pace	X	X	
plague	X		X
prize	X		X
rampage	X	X	
range	X	X	

Words	Marking Vowels	Marking Consonants	Insulating
rogue	X		X
sage	X	X	
slave	X		X
stage	X	X	
tense			X
trace	X	X	
vague	X		X
wage	X	X	

**Summing Up.** Write a sentence or two (or three) summarizing the functions of final <e> you've dealt with in this chapter. Make it clear that sometimes final <e> can be doing more than one thing at a time. Also be sure to mention the fossils and the role of silent final <e> after weakly stressed vowels.

*Some final <e>s are fossils with no function, but most final <e>s mark or insulate vowels or consonants. Final <e>'s mark preceding <c>'s or <g>'s as soft and preceding <th>'s as voiced. They insulate otherwise word-final <u>'s, <v>'s, or single <z>'s, or single <s>'s that are not in a suffix. They mark a preceding stressed vowel as long in words that end <aste>, <ange>, or <the>. They mark a preceding vowel as long in words that end <le> if only one consonant comes between the vowel and the final <le>. They mark other stressed vowels as long if no or one consonant comes between the vowel and final <e>.*

Name \_\_\_\_\_ Date \_\_\_\_\_

<b>Word</b>	<b>What Is the function of the final &lt;e&gt;?</b>
0. <i>zygote</i>	<i>Marking a long vowel</i>
1.	
2.	
3.	
4.	
5.	
6.	
7.	
8.	
9.	
10.	

<b>Word</b>	<b>What Is the function of the final &lt;e&gt;?</b>
1. sparse	Insulating a final <s>
2. bridge	Marking a soft <g>
3. deluge	Marking a soft <g> and a long vowel
4. fierce	Marking a soft <c>
5. wreathe	Marking a voiced <th>
6. recognize	Marking a long vowel and insulating a <z>
7. caffeine	A fossil
8. statuesque	Insulating a final <u>
9. quadruple	Marking a long vowel
10. acquaintance	Marking a soft <c>

## 10 Deleting Silent Final <e>

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In order to help you arrive at a good and reliable rule for deleting final <e>, we'll look one by one at the different kinds of final <e> discussed in the previous chapter — those that mark long vowels, those that mark soft <c> and <g>, those that mark voiced <th>, those that insulate <u>, <v>, <s>, and <z>, and those that are fossils.

**Teaching Note.** For more on the deletion of final <e> see *AES*, pp. 154-60.

**Deleting the <e> that Marks Long Vowels.** In the previous chapter you saw that a silent final <e> regularly marks a preceding vowel as long if (i) there is no or only one consonant letter between the vowel and the <e> (*due* and *dune*), or (ii) if <st> or <ng> fall between an <a> and the final <e> (*chaste*, *change*), or if <th> falls between the vowel and the final <e> (*bathe*, *clothe*), or (iii) if the word ends in <le> and there is a single consonant between the <l> and the vowel (*able* and *bugle*).

Turn back to Array 22. Examine the words where deletion occurs.

What is deleted in all of them? the final <e> in the stem What two-letter sequence always precedes the deleted letter — vc? cv? vv? or cc? vc What always follows the deleted letter, a vowel or a consonant? a vowel Is the vowel sound that precedes the deleted letter long or short? long

The stems of the words in Array 48 all contain final <e>'s that mark preceding long vowels. Analyze the words into their free stems and suffixes. Show any cases of deletion, as has been done with *baker*. If you get stuck, use your dictionary.

**Array 48**

Words	Analysis into Stem and Suffix
baker	<i>baké+er</i>
bribed	<i>bribé+ed</i>
compensatory	<i>compensaté+ory</i>
consumable	<i>consumé+able</i>
creation	<i>creaté+ion</i>

<b>Words</b>	<b>Analysis into Stem and Suffix</b>
dividable	<i>divid<del>e</del>+able</i>
famous	<i>fam<del>e</del>+ous</i>
graceful	<i>grace+ful</i>
graded	<i>grad<del>e</del>+ed</i>
granulose	<i>granul<del>e</del>+ose</i>
hasten	<i>hast<del>e</del>+en</i>
inscribable	<i>inscrib<del>e</del>+able</i>
lifeless	<i>life+less</i>
likable	<i>lik<del>e</del>+able</i>
mated	<i>mat<del>e</del>+ed</i>
mistakable	<i>mistak<del>e</del>+able</i>
notable	<i>not<del>e</del>+able</i>
ogled	<i>ogl<del>e</del>+ed</i>
polar	<i>pol<del>e</del>+ar</i>
quaked	<i>quak<del>e</del>+ed</i>
rifling	<i>rifl<del>e</del>+ing</i>
ripen	<i>rip<del>e</del>+en</i>
ruler	<i>rul<del>e</del>+er</i>
shaking	<i>shak<del>e</del>+ing</i>
smoking	<i>smok<del>e</del>+ing</i>
staples	<i>staple+s</i>
wasting	<i>wast<del>e</del>+ing</i>

Now you have enough data and observations for a first try at describing the final <e> deletions with which you've been working. Just as was the case with your written statements about the twinning of final consonants, this first try at a best answer will be your hypothesis. Write the best answer you can to the following question: "In the words in Arrays 22 and 48 when do you delete the silent final <e> that marks a preceding long vowel?"

**Final <e> Hypothesis:** You delete a silent final <e> that marks a long vowel whenever you add a suffix that starts with a vowel.

The puzzle below is just a reminder of twinning. You are given the bases and suffixes to form 15 words. Combine the bases and suffixes to form the 15 words. Watch especially for cases where the final consonant of the base twins. When you have the words, fit them into the puzzle.

5-letter words:

ray + ed = rayed

sew + er = sewer

tow + ed = towed

toy + ed = toyed

6-letter words:

dip + er = dipper

dot + ed = dotted

red + er = redder

suit + ed = suited

8-letter words:

dog + ed + ly = doggedly

drab + est = drabest

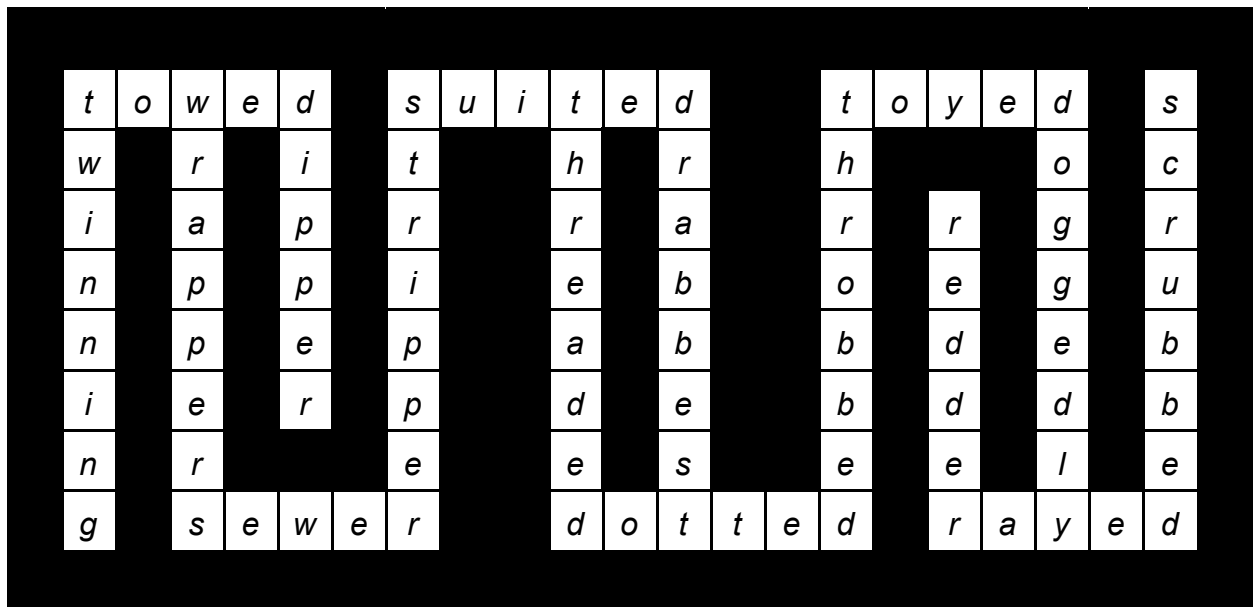
scrub + ed = scrubbed

strip + er = stripper

thread + ed = threaded

throb + ed = throbbled

wrap + er + s = wrappers



**VCCV and VCV Again.** Before, when you were just beginning to write your Twinning Rule, you found the following pattern:



vccv shamming	vs.	vcv shaming
vccv scrapped	vs.	vcv scraped
vccv bidding	vs.	vcv biding

The vccv words all have short first vowels; the vcv words all have long first vowels. You saw that a final consonant is twinned in order to end up with a vccv pattern rather than vcv, thus keeping the first vowel looking short.

In words like *shame*, *scrape*, and *bide* the silent final <e> fills out the vcv pattern, making the first vowel look long. When we add a suffix that starts with a vowel to such a word, we can and do delete the final <e> that marks the long vowel because the vowel in the suffix fills out the vcv pattern so that the final <e> is no longer needed.

Write a sentence that explains why the silent final <e> that marks a long vowel can and does delete when it does: When you add a suffix that begins with a vowel to a stem that ends with a final <e> that marks a long vowel, the final <e> can be deleted because it is no longer needed to fill out the vcv pattern.

**Teaching Note.** Notice that the preceding conclusion implies a principle of efficiency or economy operating in our spelling system: If you don't need something, get rid of it. Although this principle operates unevenly and we still have many evolutionary fossils in our system, rather like the human appendix, still the demand for efficiency does operate. For more on this and similar demands made on English spelling, see *AES*, pp. 3-31, 461.

**Deleting the <e> that Marks Consonants.** You now have a hypothesis that describes when to delete the final <e> that marks long vowels. But, as we've seen, final <e> can do a number of things other than mark long vowels. And some kinds of final <e>s are deleted in slightly different ways — for instance, the final <e> that marks soft <c> or soft <g>.

Analyze the words in Array 49 into free stem and suffix, showing any final <e> deletions:

### Array 49

Words	Analysis	Words	Analysis
chancy	<i>chancé+y</i>	knowledgeable	<i>knowledge+able</i>
coercible	<i>coercé+ible</i>	princedom	<i>prince+dom</i>
dancer	<i>dancé+er</i>	fierceness	<i>fierce+ness</i>
peaceful	<i>peace+ful</i>	cringing	<i>cringé+ing</i>
pierced	<i>piercé+ed</i>	manageable	<i>manage+able</i>
princess	<i>princé+ess</i>	voyager	<i>voyagé+er</i>
voiceless	<i>voice+less</i>	hinges	<i>hinge+s</i>
fencing	<i>fencé+ing</i>	bulgy	<i>bulgé+y</i>
voicecast	<i>voice+cast</i>	embraceable	<i>embrace+able</i>
chancewise	<i>chance+wise</i>	lungeous	<i>lunge+ous</i>

**Teaching Note.** For parallels to the final <e> deletion in *cringing*, see the discussion of *singeing*, *hinging*, and *ting(e)ing* in AES, p. 156.

The final <e> that marks soft <c> or <g> deletes before what three letters? <e>, <i>, and <y>.

Be ready to discuss this question: Why does the final <e> that marks soft <c> or <g> delete only before these three letters and no others?

**Teaching Note.** The answer here is that if <c> or <g> is followed by anything other than one of these three letters, they do not spell their soft versions.

As you found earlier, final <e> also marks the voiced <th>. Analyze the words in Array 50 into free stem and suffix, marking any final <e> deletions.

### Array 50

Words	Analysis	Words	Analysis
bather	<i>bathé+er</i>	teething	<i>teethé+ing</i>
blithesome	<i>blithe+some</i>	tithable	<i>blithé+able</i>
loathed	<i>loathé+ed</i>	wreathed	<i>wreathé+ed</i>
clothing	<i>clothé+ing</i>	scatheful	<i>scathe+ful</i>

Words	Analysis	Words	Analysis
seething	<i>seethé+ing</i>	scythes	<i>scythe+s</i>
sheather	<i>sheathé+er</i>	breather	<i>breathé+er</i>

The final <e> that marks voiced <th> deletes before what letters? <a>, <e>, and <i>

**Teaching Note.** We could almost surely say that the final <e> that marks voiced <th> deletes before any vowel, but we have not so far found any stems ending in <the> that take any suffixes starting with vowel letters other than <a>, <e>, and <i>.

Write the shortest, clearest sentence you can describing when to delete the final <e> that marks soft <c> or <g> or voiced <th>: A silent final <e> that marks soft <c> or <g> deletes before the letters <e>, <i>, and <y>, and one that marks voiced <th> deletes before <a>, <e>, and <i>.

**Deleting the <e> that Insulates.** The final <e> that keeps <u> or <v> or single <z> or single <s> in a base from coming at the end of a word deletes like the final <e> that marks long vowels. Analyze the words in Array 51 into free stems plus suffix, marking any cases of deletion.

### Array 51

Words	Analysis	Words	Analysis
breezy	<i>breezé+y</i>	responsive	<i>responsé+ive</i>
brusquely	<i>brusque+ly</i>	reverses	<i>reverse+s</i>
caves	<i>cave+s</i>	sneezed	<i>sneezé+ed</i>
curvaceous	<i>curvé+aceous</i>	sneezeless	<i>sneeze+less</i>
defensible	<i>defensé+ible</i>	sparsely	<i>sparsé+ly</i>
freezable	<i>freezé+able</i>	teaser	<i>teasé+er</i>
gauzelike	<i>gauze+like</i>	tension	<i>tensé+ion</i>
groovy	<i>groové+y</i>	tensor	<i>tensé+or</i>
hoarseness	<i>hoarse+ness</i>	tonguing	<i>tongué+ing</i>
lapsus	<i>lapsé+us</i>	unbelievable	<i>unbelievé+able</i>
leagued	<i>leagué+ed</i>	valvule	<i>valvé+ule</i>

Words	Analysis	Words	Analysis
leaguer	<i>leagué+er</i>	waiver	<i>waivé+er</i>
loving	<i>lové+ing</i>	wheezes	<i>wheezé+s</i>
oozing	<i>oozé+ing</i>	wheezing	<i>wheezé+ing</i>

The final <e> that insulates <u>, <v>, <s>, or <z> deletes before what letters? any vowel letter

Write the shortest, clearest sentence you can that describes when to delete the final <e> that insulates <u>, <v>, <s>, or <z>: A silent final <e> that insulates <u>, <v>, <s>, or <z> is deleted when adding a suffix that starts with any vowel letter.

**Deleting the Fossil <e>.** Array 52 will help you see that there are no real surprises in the way the fossil <e> deletes. When you are given a word in the "Words" column, analyze it into free stem and suffix in the "Elements and procedures" column, showing any deletions. When you are given elements in the "Elements and Procedures" column, combine them into a word, again showing any deletions, and write it in the "Words" column. For each one, answer the question asked in the right-hand column. The first one has been done for you.

#### Array 52

Words	Elements and Procedures	Was the <e> deleted?
adventurous	<i>adventuré+ous</i>	Yes
avalanched	<i>avalanché+ed</i>	Yes
awesome	<i>awe+some</i>	No
<i>destiny</i>	<i>destiné+y</i>	Yes
hygienic	<i>hygiené+ic</i>	Yes
<i>routine</i>	<i>routé+ine</i>	Yes
medicinal	<i>mediciné+ine</i>	Yes
fragileness	<i>fragile+ness</i>	No
masculinely	<i>masculine+ly</i>	No
<i>juvenility</i>	<i>juvenilé+ity</i>	Yes

Words	Elements and Procedures	Was the <e> deleted?
<i>imaginary</i>	imaginé+ary	Yes
<i>eyed</i>	eyé+ed	Yes
<i>eyeful</i>	eye+ful	No
<i>examination</i>	examiné+ation	Yes
<i>engineer</i>	enginé+eer	Yes
<i>torturous</i>	torturé+ous	Yes
<i>infinity</i>	infinité+y	Yes

Fossil final <e> is deleted before what letters? any vowel letter

Sometimes a silent final <e> can serve two functions at once — marking a long vowel and either insulating or marking another letter. Analyze the words below into free stem and suffix and examine the behavior of the final <e> that serves two functions at the same time:

### Array 53

Words	Analysis	Words	Analysis
basement	<i>base+ment</i>	pacemaker	<i>pacé+er</i>
bather	<i>bathé+er</i>	pavement	<i>pave+ment</i>
bathing	<i>bathé+ing</i>	placement	<i>place+ment</i>
changeable	<i>change+able</i>	plaguing	<i>plagué+ing</i>
closeness	<i>close+ness</i>	priceless	<i>price+less</i>
clothing	<i>clothé+ing</i>	racer	<i>racé+er</i>
courageous	<i>courage+ous</i>	rampageous	<i>rampage+ous</i>
diffusible	<i>diffusé+ible</i>	rampages	<i>rampage+s</i>
easement	<i>ease+ment</i>	rangy	<i>rangé+y</i>
engaging	<i>engagé+ing</i>	riser	<i>risé+er</i>
forgery	<i>forgé+er</i>	rover	<i>rové+er</i>
fusion	<i>fusé+ion</i>	sage	<i>sage+ly</i>

Words	Analysis	Words	Analysis
gracious	<i>gracé+ious</i>	slavishly	<i>slavé+ish+ly</i>
lacy	<i>lacé+y</i>	spacing	<i>spacé+ing</i>
outrageous	<i>outrage+ous</i>	vaguest	<i>vagué+est</i>

Is a final <e> that is serving two functions at once deleted any differently from a final <e> that is serving only one function? No

**Teaching Note.** It may be worth pointing out to the students that complicating that “No” answer a bit is the fact that the constraint on deleting final <e> after soft <c> and <g> preempts the more general rule to delete final <e> before a suffix that starts with any vowel. That preemption is a characteristic of rules of any kind: More local, specific ones tend to preempt wider, more general ones.

**Your Silent Final <e> Deletion Rule.** Taking into account all that you've learned about final <e>'s, including those that mark or insulate vowels or consonants, and those that are fossils of one kind or another, write out a last version of your final <e> hypothesis, which now quite properly can be called a rule.

One hint: You may have noticed that the fossil <e> and the final <e> that insulates letters seemed to be deleted before only certain vowels, not all of them. We have not been able to find words that have those kinds of final <e> and that take suffixes starting with all the vowels. We can assume that if and when such words are found, these final <e>'s will be deleted before all vowels, just like the final <e> that marks long vowels. So it is safe to simplify in these cases and just say that these final <e>'s are deleted when suffixes are added that start with any vowels.

The one kind of final <e> that is not deleted before all vowels is the one that marks soft <c> and <g>. Watch for it when you write your rule.

Silent Final <e> Deletion Rule: *You delete a silent final <e> that is marking a soft <c> or <g> whenever you add a suffix that starts with <e>, <i>, or <y>; you delete any other silent final <e> when you add a suffix that starts with any vowel letter.*

**Teaching Note.** This rule is a very solid and good one, but there are a few minor complications that we did not go into. For instance, some cases of final silent <e> preceded immediately by a vowel do not delete as expected: *toe+ing* is *toeing*, without <e> deletion, rather than \**toing*, with it. See AES, pp. 157-58. AES lists the less than dozen other holdouts to the rule (pp. 156-57, 158-59). Even without such further complications, this version of the final <e> deletion rule is reliable in the huge majority of cases.

Name \_\_\_\_\_ Date \_\_\_\_\_

<b>Word</b>	<b>Prefix(es) + Free Stem + Suffix(es) (Show any procedures.)</b>
0. <i>bathers</i>	bathé+er+s
1.	
2.	
3.	
4.	
5.	
6.	
7.	
8.	
9.	
10.	

<b>Word</b>	<b>Prefix(es) + Free Stem + Suffix(es) (Show any procedures.)</b>
1. awesome	awe+some
2. desperation	desperaté+ion
3. eyeful	eye+ful
4. vaguest	vagué+est
5. imaginary	imaginé+ary
6. unbelievable	un+believ é+able
7. courageous	courag é+ous
8. brusquely	brusque+ly
9. examination	examiné+at é+ion or examin é+ation
10. gauzelike	gauze+like

## 11 Assimilated Prefixes

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The Twinning Rule explains why there are double consonants toward the end of many words. The following discussion of prefixes will explain why many words have double consonants toward the front.

**Assimilation.** English borrowed dozens of Latin words containing the prefix *com-*, which means (in general) "with, together, jointly." But because of changes in pronunciation, and often in spelling, it is sometimes hard to hear the *com-* prefix in the spoken word, or to see it in the written word. Very often *com-* does combine with a stem through simple addition, with no changes taking place at all. Thus, for instance, *com + pound = compound*.

But usually there are changes: Sometimes the <m> in *com-* is deleted: *com + erce = coerce*. And often the <m> is replaced with an <n>: *com + n + demn = condemn*.

These changes in spelling reflect earlier changes in pronunciation. People tend to make pronunciation as easy as possible. And thus languages do, too. Notice what a mouthful we would have if the <m> and [m] did not delete and we ended up with <comgnition>! By the same token, although <condemn> can be pronounced, getting from the [m] sound to the [d] is a bit hard. It is much easier if we replace the [m] with an [n], as in *condemn*, for the mouth is in the same position for both the [n] and the [d]. Since the mouth is in much different positions for [m] and [d] but in about the same position for [n] and [d], we can say that [n] is more like [d] than [m] is.

Linguists have a name for the way a sound changes so as to be more like a sound close to it. They call it **assimilation**. Assimilation causes the [m] in *com-* to become an [n] in words like *condemn*. And sometimes this change in pronunciation is reflected in a change in spelling — as, once again, in *condemn*.

Actually, the change of [m] for [n] is only a **partial assimilation**. A **full assimilation** occurs when a sound changes so as to be exactly like another. This happens quite often. For instance, the word *collide* actually contains a fully assimilated form of the prefix *com-*: *com + l + lide*. Also *corrode* contains the prefix *com-*: *com + r + rode*. In these two cases the assimilation is full: We hear only a single [l] sound in *collide*, a single [r] sound in *corrode*. The sounds merge into one, but we still keep the two letters, to help us identify the elements that form the word. It is because of full assimilation that



there are double consonants toward the front of many words.

Sometimes, in order to ease pronunciation, a sound will simply drop out. That is what happens to the [m] in *com-* in words like *coerce*. The [m] is deleted in the pronunciation — and in this case the <m> is deleted in the spelling, too.

Assimilation, then, is the process by which, in pronunciation, one sound is changed to make it more similar to another, and, in spelling, one letter is either deleted or replaced to reflect the change in pronunciation.

**The Prefix Com-.** Array 54 will give you some work with the things that happen when *com-* is added to stems beginning with different sounds and letters. All of the words in the array contain some form of the prefix *com-*. Analyze each word in the "Analysis" column into its prefix or prefixes plus stem. In the "Before" column put the first letter of the stem to which the prefix is being added. If the *com-* simply adds to the stem with no changes in spelling, put a check in the "Simple Addition" column. If the [m] assimilates fully so that it and the letter <m> in *com-* are replaced by the first sound and letter of the stem — thus making a double consonant, as in *collide* and *corrode* — put a check in the "Full Assimilation" column. If the assimilation is only partial and the <m> is replaced with an <n>, put a check in the "Partial Assimilation" column. And if the <m> in *com-* deletes and nothing replaces it, put a check in the "<m>-Deletion" column. The first three have been done for you.

**Array 54**

1. coagulate	9. congeal	17. compel
2. combat	10. incoherent	18. compound
3. concord	11. coincide	19. conquer
4. concern	12. conjugal	20. correction
5. conduct	13. collection	21. conscience
6. coerce	14. commit	22. preconscious
7. confident	15. misconnect	23. contemptible
8. incongruous	16. cooperate	24. inconvenience

Analysis: Prefix (es) + Stem	Before	Simple Addition	Full Assimilation	Partial Assimilation	<m> Deletion
1. <i>com</i> + <i>agulate</i>	<a>				X
2. <i>com</i> + <i>bat</i>	<b>	X			
3. <i>com</i> + <i>n</i> + <i>cord</i>	<c>			X	
4. <i>com</i> + <i>n</i> + <i>cern</i>	<c>			X	
5. <i>com</i> + <i>n</i> + <i>duct</i>	<d>			X	

Analysis: Prefix (es) + Stem	Before	Simple Addition	Full Assimilation	Partial Assimilation	<m> Deletion
6. <i>corh+er</i> ce	<e>				X
7. <i>corh+n++fident</i>	<f>			X	
8. <i>in+corh+n+gruous</i>	<g>			X	
9. <i>corh+n+geal</i>	<g>			X	
10. <i>in+corh+herent</i>	<h>				X
11. <i>corh+in+cide</i>	<i>				X
12. <i>corh+n+jugal</i>	<j>			X	
13. <i>corh+l+lection</i>	<l>		X		
14. <i>com+mit</i>	<m>	X			
15. <i>mis+corh+n+nect</i>	<n>		X		
16. <i>corh+operate</i>	<o>				X
17. <i>com+pel</i>	<p>	X			
18. <i>com+pound</i>	<p>	X			
19. <i>corh+n+quer</i>	<q>			X	
20. <i>corh+r+rection</i>	<r>		X		
21. <i>corh+n+science</i>	<s>			X	
22. <i>pre+corh+n+scious</i>	<s>			X	
23. <i>corh+n+temptible</i>	<t>			X	
24. <i>in+corh+n+venience</i>	<v>			X	

The <m> in com- remains <m> before the letters <b>, <m>, and <p>. It deletes before <a>, <e>, <i>, <o>, and <h>— or before vowels and <h>. It assimilates fully before the letters <l> and <r>. It assimilates partially and becomes <n> before <c>, <d>, <f>, <g>, <j>, <n>, <q>, <s>, <t>, and <v> (it could be said to assimilate fully before <n>).

Try simplifying your description. Don't feel that you must memorize all of those special cases. Just see the pattern that is at work. To help you see the pattern, one useful

strategy is to start with the short and easy-to-remember statements, saving the most general till last. For instance, once you have stated where <m> remains <m> or deletes or assimilates fully, you can then simply say that <m> becomes <n> everywhere else. Work over your statements and try for the clearest, shortest, simplest description you can write of what happens when the prefix *com-* is added to stems:

The <m> in *com-* assimilates fully before <l> and <r> (and <n>); it remains <m> before <b>, <m>, and <p>; it deletes before <h> and vowels; and it assimilates partially to <n> everywhere else.

Notice that when the <m> in *com-* deletes, you get *co-*, a very common and still-active prefix. "Still-active" means that we still make up new words with *co-*. And these words do not follow the description you wrote for *com-*. *Co-* is always *co-*, pronounced with a long <o>: *cobelligerent*, *coconscious*, *codefendant*, *colinear*, *coreligionist*.

The words in English that follow the patterns you found are all "old" words. They were words long before they came to English. The assimilations took place way back in Roman times. Words we make now usually do not follow the old patterns of assimilation. Words with the prefix *co-* that don't seem to follow the normal patterns are relatively new words, coined in the last few centuries.

**Teaching Note.** For more on the assimilation of *com-* see *AES*, pp. 177-81.

**The Prefix Ad-** Another common prefix that does some interesting things is *ad-*, which like *com-* we borrowed from the Latin, and which means "to, toward." Sometimes it simply adds to its stem with no changes: *ad* + *just* = *adjust*. But often there are changes: Sometimes the <d> is deleted: *achieve* = *ad* + *chieve*. And very often the [d] assimilates fully so that the letter <d> is replaced by a letter identical to the first consonant in the stem: *affect* = *ad* + *f* + *fect*.

Actually the word *assimilation* contains an example of itself: *ad* + *s* + *similation*. The base *simil* in *assimilation* is also in the word *similar*. It means "like."

Array 55 will help you discover how *ad-* behaves when it is added to stems starting with different letters and sounds. The procedure here is pretty much what it was in your work with *com-*. We've done *achieved* for you — and filled in a couple of places where you need to take into account the next two letters after the <d> rather than just the one you normally have to.

**Array 55**

1. adaptable	8. unaffected	15. admiringly	22. ascending
2. abetted	9. aggression	16. announcer	23. aspersion
3. accommodate	10. agnomen	17. adolescent	24. astringent
4. unacceptable	11. adhere	18. disappear	25. attendance
5. achieved	12. adit	19. acquittal	26. adult
6. address	13. maladjustment	20. rearrangement	27. adverb
7. adeptly	14. allowance	21. assimilated	28. awaiting

Analysis	Before	Simple Addition	Full Assimilation	<d> Deletion	Other
1. <i>ad+aptable</i>	<a>	X			
2. <i>ad+betted</i>	<b>			X	
3. <i>ad+c+com+modate</i>	<c>		X		
4. <i>un+ad+c+ceptable</i>	<c>		X		
5. <i>ad+chieved</i>	<ch>			X	
6. <i>ad+dress</i>	<d>	X			
7. <i>ad+eptly</i>	<e>	X			
8. <i>un+ad+f+fected</i>	<f>		X		
9. <i>ad+g+gression</i>	<g>		X		
10. <i>ad+gnomen</i>	<gn>			X	
11. <i>ad+here</i>	<h>	X			
12. <i>ad+it</i>	<i>	X			
13. <i>mal+ad+j+justment</i>	<j>	X			
14. <i>ad+l+lowance</i>	<l>		X		
15. <i>ad+m+miringly</i>	<m>	X			
16. <i>ad+n+n+ouncer</i>	<n>		X		
17. <i>ad+o+olescent</i>	<o>	X			
18. <i>dis+ad+p+pear</i>	<p>		X		
19. <i>ad+c+quittal</i>	<q>				X
20. <i>re+ad+r+r+angement</i>	<r>		X		

Analysis	Before	Simple Addition	Full Assimilation	<d> Deletion	Other
21. <i>ad+s+similated</i>	<s>		X		
22. <i>ad+scending</i>	<sc>			X	
23. <i>ad+spersion</i>	<sp>			X	
24. <i>ad+stringent</i>	<st>			X	
25. <i>ad+t+tendance</i>	<t>		X		
26. <i>ad+ult</i>	<u>	X			
27. <i>ad+verb</i>	<v>	X			
28. <i>ad+waiting</i>	<w>			X	

**Teaching Note.** In #5 <ch> rather than <c> goes into the "Before" column because in English spelling <ch> behaves and is treated as a single letter. In #10 we put <gn> in the "Before" column even though the historical stem is *nomen* "name," the <g> having been inserted in Latin because the Romans apparently took the word to be related to *agnōscere*, "to recognize." In #19 the replacement of <d> with <c> is phonologically a case of full assimilation since both the <c> and the <q> spell the sound [k]. We put it in the "Other" column simply because there is no double letter involved. One could legitimately argue that <cq> is the equivalent of double <q> just as <ck> is the equivalent of double <k> and <g> equals double <j>, in which case #19 would be a case of full assimilation. The <d> deletions in #22-#24 are apparently due to a weak constraint in English against clusters of three or more consonants that contain a doublet: The normal assimilations would lead to the clusters <ssc>, <ssp>, and <sst>, all of which are constrained against. See AES, pp. 77-80.

Now use the data displayed in Array 55 to fill in these statements: The <d> in *ad-* remains <d> before <a, e, i, o, u, h, d, j, m, v>. It deletes before <b, ch, gn, sc, sp, st, w>. It becomes <c> before <q>. It assimilates fully before <c, f, g, l, n, p, r, s, t>.

The assimilation pattern for *ad-* is hard to summarize much beyond your four statements, and again unless you have a remarkable memory, it is probably not worthwhile to try to memorize all those special cases. But knowing the general pattern can help. It helps, too, to try to get some good, short example words in your mind, so you know the general patterns to watch for.

Knowing the general pattern can also help you pinpoint some trouble spots. For instance, words where *ad-* is added by simple addition should normally not pose any special problems since you can hear the [d] sound. The only problems would arise if the stem starts either with <d> or <j>:

Watch for <dd> words formed by adding *ad-* to stems starting with a <d>:

*address addition addict*

Watch for the <dj> in words formed by adding *ad-* to stems starting with <j>:

*adjective adjudge adjourn*

Usually cases where the <d> deletes should not be real problems. You won't hear any [d] sound to confuse you. And if you tried to assimilate the <d>, you would get some double consonants that don't occur in English and ought to look strange to you: <await>, <aggnomen>, or <asstringent>, and so on.

Stems that start with <b> could pose some problems. For instance, there is no particular reason why *abetted* could not be spelled <abbetted>, unless it is to avoid confusion with another fairly common prefix, *ab-*. And the word *abbreviate* is a little unusual. Some dictionaries say that it has the prefix *ad-*, some say it has the prefix *ab-*, and some stand squarely in the middle, giving you a choice. The much respected *Oxford English Dictionary* mentions both, but seems to give the nod to *ab-*, so that is what we will settle on here. If you chose *ad-* for *abbreviate*, you would have to explain that pesky replacement of <d> with <b>. But if you choose *ab-*, it is simple addition.

Choosing *ab-*, then, fits what can be called the **Rule of Preferred Regularity**, which says that given a choice between two options, one which fits a pattern and one which does not, choose the one that fits the pattern. That is, prefer the one that is more regular.

The other real problem with *ad-* is the change of <d> to <c> before <q> in words like *acquittal*, *acquaint*, *acquiesce*, *acquire*, and *acquisition*. Notice, first of all, that it is a kind of assimilation: The <c> there is pronounced [k], just like the <q>, so in a way <cq> is a kind of double <q>. Since in English <q> has to be followed by <u>, we cannot double <q> in a word, so <aquittal> wouldn't do. The other choice would be <aququittal>, which would make the word hard to pronounce. So the <c> makes sense.

**The Prefix Ex-**. Array 56 contains a number of words that all contain the prefix *ex-*. Analyze each word into prefix and stem and in the "Description" describe what happens to the <x> in each case. The first one is done for you.

**Array 56**

<b>Words</b>	<b>Analysis</b>	<b>Description</b>
exaggerate	<i>ex+aggerate</i>	<i>Simple Addition</i>
ebullient	<i>ex+bullient</i>	<i>&lt;x&gt; is deleted</i>
exceed	<i>ex+ceed</i>	<i>Simple Addition</i>
inescapable	<i>in+ex+s+capable</i>	<i>&lt;x&gt; is replaced with &lt;s&gt;</i>
excavate	<i>ex+cavate</i>	<i>Simple Addition</i>
exchange	<i>ex+change</i>	<i>Simple Addition</i>
edict	<i>ex+dict</i>	<i>&lt;x&gt; is deleted</i>
exercise	<i>ex+ercise</i>	<i>Simple Addition</i>
ineffectual	<i>in+ex+f+fectual</i>	<i>&lt;x&gt; is replaced with &lt;f&gt;</i>
egress	<i>ex+gress</i>	<i>&lt;x&gt; is deleted</i>
exhaustion	<i>ex+haustion</i>	<i>Simple Addition</i>
exited	<i>ex+ited</i>	<i>Simple Addition</i>
ejection	<i>ex+jection</i>	<i>&lt;x&gt; is deleted</i>
reelect	<i>re+ex+lected</i>	<i>&lt;x&gt; is deleted</i>
emerge	<i>ex+merge</i>	<i>&lt;x&gt; is deleted</i>
enormously	<i>ex+normously</i>	<i>&lt;x&gt; is deleted</i>
exodus	<i>ex+odus</i>	<i>Simple Addition</i>
expose	<i>ex+pose</i>	<i>Simple Addition</i>
exquisite	<i>ex+quisite</i>	<i>Simple Addition</i>
eraser	<i>ex+raser</i>	<i>&lt;x&gt; is deleted</i>
exsanguinate	<i>ex+sanguinate</i>	<i>Simple Addition</i>
excind	<i>ex+scind</i>	<i>Simple Addition</i>
exstipulate	<i>ex+stipulate</i>	<i>Simple Addition</i>
external	<i>ex+ternal</i>	<i>Simple Addition</i>
exude	<i>ex+ude</i>	<i>Simple Addition</i>

Words	Analysis	Description
evaporation	<i>ex+vaporation</i>	<x> is deleted

You may have noticed a wrinkle in the behavior of <x> before stems that start with the letter <c>. Get a piece of paper. List all the words in your dictionary that start <esc> and that, according to the etymology, contain the prefix *ex-*. Do the same for words starting <exc>.

Is <x> or <s> the more common before <c>? <x>

**Teaching Note.** For more on the assimilation of *ex-* see *AES*, pp. 181-83; for more on *ex-* before <c> see especially p. 182.

Write a description of the behavior of <x> when adding *ex-* to stems that start with different letters. As you did for *com-*, you may want to write several sentences here and then condense them in the final lines. Remember the wrinkle with the letter <c>:

<x> deletes before <b, d, g, j, l, m, n, r, v>

<x> assimilates fully before <f>

<x> is replaced with <s> before <c> and <ch> sometimes (in *escape*, *escort*, *escheat*)

<x> remains <x> before <a, c> (usually), <ch> (in *exchange*), <e, h, i, o, p, q, s, t, u>

Condensed Version: The <x> in *ex-* assimilates fully before <f>, and it sometimes becomes <s> before <c> and <ch>; it is deleted before <b, d, g, j, l, m, n, r, v>, and it combines by Simple Addition everywhere else.

There is an important feature of the way *ex-* assimilates: Before stems that start with many different consonant letters, it simply deletes the <x>, leaving a single consonant, the first consonant in the stem, where other prefixes would have two consonant letters, often a double consonant. For instance, in the word *egress* (*ex* + *gress*) the <x> has been deleted and there is a single <g>, but in *aggress* (*ad* + *g* + *gress*), the <d> in *ad-* has assimilated fully to a <g> so that there is a double <gg> and in *Congress* the <m> has assimilated partially to <n>, giving the <ng> consonant cluster. By the same token we get *elapse* with a single <l> (*ex* + *lapse*) but *collapse* with a double <ll> (*corh* + *l* + *lapse*), and *erect* but *correct*, *emotion* but *commotion*. Later when you work with the prefix *in-*, you'll see the same contrast: *eminence* (*ex* + *minence*) but *imminence* (*in* + *m* + *minence*), and *emigrate* but *immigrate*. Just remember that at the border between *ex-* and a stem, if you can't hear the [ks] or [gz] sounds spelled by the <x> (and except, of course, for stems that start with <f>, as in *effect* and *efficient*) there will most often be only a single consonant.



**The Prefix Sub-**. The prefix *sub-* is in some ways the most interesting of all in its behavior. As you will see from the words in Array 57, it can combine with any consonant or vowel by simple addition — but then it can also undergo some changes. This array will test your analytical and descriptive skills.

**Array 57**

<b>Words</b>	<b>Analysis</b>	<b>Description</b>
subatomic	sub+atomic	<i>Simple Addition</i>
subbasement	sub+basement	<i>Simple Addition</i>
susceptible	sub+s+ceptible	<b> is replaced by <s>
subconscious	sub+conscious	<i>Simple Addition</i>
succeed	sub+c+ceed	<b> is replaced by <c>
subdue	sub+due	<i>Simple Addition</i>
subequatorial	sub+equatorial	<i>Simple Addition</i>
subfamily	sub+family	<i>Simple Addition</i>
suffering	sub+f+fering	<b> is replaced by <f>
subgroup	sub+group	<i>Simple Addition</i>
suggest	sub+g+gest	<b> is replaced by <g>
subhuman	sub+human	<i>Simple Addition</i>
subirrigation	sub+irrigation	<i>Simple Addition</i>
subjunctive	sub+junctive	<i>Simple Addition</i>
subkingdom	sub+kingdom	<i>Simple Addition</i>
sublime	sub+lime	<i>Simple Addition</i>
submission	sub+mission	<i>Simple Addition</i>
summon	sub+m+mon	<b> is replaced by <m>
subnormal	sub+normal	<i>Simple Addition</i>
subordinate	sub+ordinate	<i>Simple Addition</i>
subpoena	sub+poena	<i>Simple Addition</i>

Words	Analysis	Description
supply	<i>sub+p+ply</i>	<i>&lt;b&gt; is replaced by &lt;p&gt;</i>
subregion	<i>sub+region</i>	<i>Simple Addition</i>
surrogate	<i>sub+r+rogate</i>	<i>&lt;b&gt; is replaced by &lt;r&gt;</i>
subsequent	<i>sub+sequent</i>	<i>Simple Addition</i>
subscription	<i>sub+scription</i>	<i>Simple Addition</i>
substance	<i>sub+stance</i>	<i>Simple Addition</i>
suspect	<i>sub+spect</i>	<i>&lt;b&gt; is deleted</i>
subtract	<i>sub+tract</i>	<i>Simple Addition</i>
sustain	<i>sub+s+tain</i>	<i>&lt;b&gt; is replaced by &lt;s&gt;</i>
suburban	<i>sub+urban</i>	<i>Simple Addition</i>
subvert	<i>sub+vert</i>	<i>Simple Addition</i>
subway	<i>sub+way</i>	<i>Simple Addition</i>

After you have analyzed the words, organize your data. Find the patterns. Write your descriptive statements. Then try for the shortest, clearest, and most complete description you can write of what happens when *sub-* is added to stems that start with different letters:

*The prefix sub- can combine by simple addition to a stem beginning with any letter, but it sometimes assimilates fully before <c, f, g, m, p, r>. The <b> assimilates partially to <s> in sustain and susceptible, and is sometimes deleted before <sp>.*

In spite of its apparent complexity, the prefix *sub-* shouldn't cause you any great difficulty in your spelling — though the following cases are worth noticing: In a word like *subplot* you can hear both the [b] and the [p], but in *subpoena* you can hear only the [p]. Don't get fooled into spelling *subpoena* <suppoena>.

**Teaching Note.** For the <bp> spelling of [p] in subpoena, see AES, pp. 334-35. For more on *sub-* see AES, pp. 183-86.

Also watch for the cases where the <b> has assimilated to <c>: *succeed, succinct, succor, succumb*. Remember that before <e>, <i>, and <y> the letter <c> is pronounced [s], but elsewhere it is [k]. So <cc> will sound like [ks] in front of <e>, <i>, or <y>, which is easy enough. But in other cases the <cc> will just sound like [k], which

could cause you to forget to double the <c>.

And finally, watch that shift from <b> to <s> in *susceptible*, because the <sc> is pronounced just plain [s]. Even this change makes sense when you think about it: If the <b> assimilated to the <c>, you'd get <succeptible>, with a [ks], which is the wrong pronunciation. Just as <cq> in words like *acquittal* is a kind of double <q>, you can think of <sc> as a kind of double soft <c>. So <c> has three double forms, with four different pronunciations:

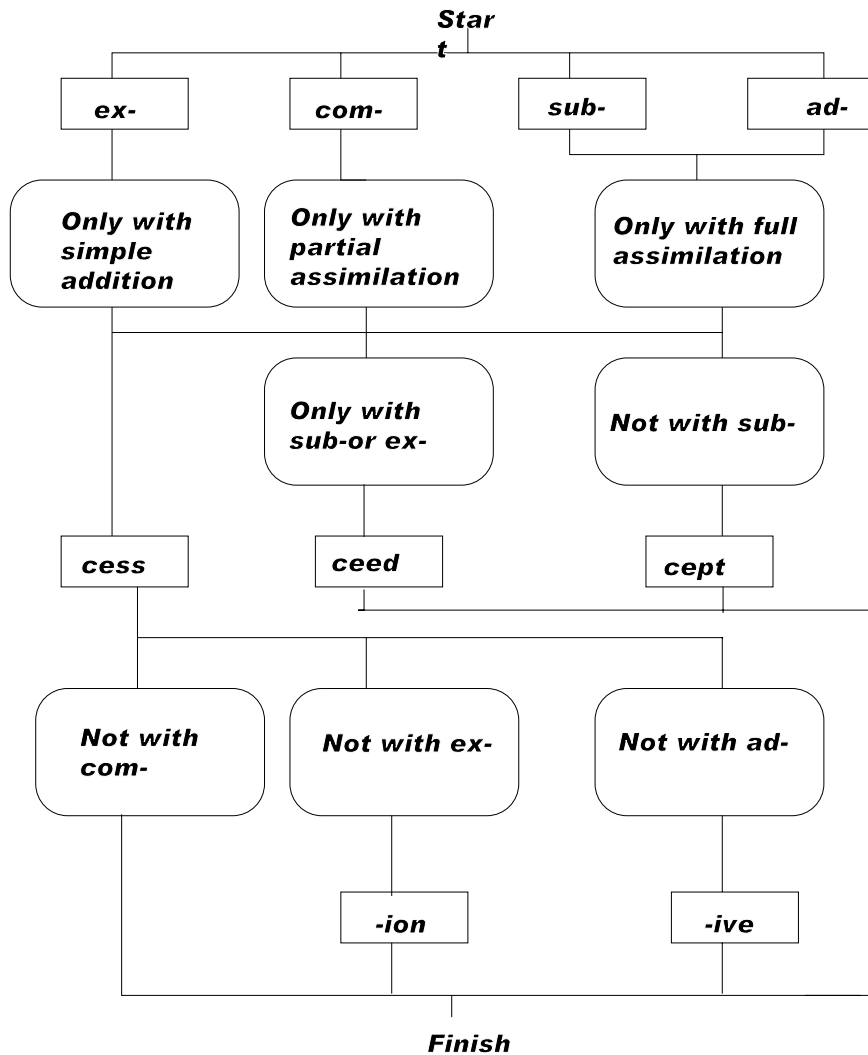
Double forms of <c> and their pronunciations:

1. <ck> = [k]
2. <sc> = [s]
3. <cc> = [ks] before <e>, <i>, and <y>
4. <cc> = [k] everywhere else

The flow chart on the next page gives you a chance to work more with four prefixes that undergo assimilation. You should be able to trace fourteen passes through the chart, forming fourteen words — seven with full assimilation, three with partial assimilation, and four with simple addition. The blanks below tell you how many words can be formed with each of the prefixes.

**Array 58**

<b>Words with <i>ad-</i></b>	<b>Words with <i>sub-</i></b>	<b>Words with <i>com-</i></b>	<b>Words with <i>ex-</i></b>
<i>accept</i>	<i>succeed</i>	<i>concept</i>	<i>excess</i>
<i>access</i>	<i>success</i>	<i>concessive</i>	<i>excessive</i>
<i>accession</i>	<i>succession</i>	<i>concession</i>	<i>exceed</i>
	<i>successive</i>		<i>except</i>



**Other Prefixes that Assimilate.** There are seven other English prefixes that assimilate in various ways. We'll speak briefly of just four of them — *syn-*, *dis-*, and the two prefixes spelled <in>. (The other three are *ab-*, *ob-*, and *en-*, a French form of *in-*.)

**Syn-** is a Greek suffix, most common in technical words and meaning "with, together," somewhat like the Latin *com-*. Its assimilation pattern is also a bit like *com-*. Analyze the *syn-* words in Array 58 into prefix and stem.

**Array 59**

Words	Analysis	Description
syndicate	<i>syn+dicate</i>	<i>Simple Addition</i>

Words	Analysis	Description
symbol	<i>syn+m+bol</i>	<n> is replaced with <m>
syllable	<i>syn+l+lable</i>	<n> is replaced with <l>
synchronize	<i>syn+chronize</i>	Simple Addition
synthesis	<i>syn+thesis</i>	Simple Addition
symptom	<i>syn+m+ptom</i>	<n> is replaced with <m>
symphony	<i>syn+m+phony</i>	<n> is replaced with <m>
symmetry	<i>syn+m+metry</i>	<n> is replaced with <m>
syllogism	<i>syn+l+logism</i>	<n> is replaced with <l>
symbiotic	<i>syn+m+biotic</i>	<n> is replaced with <m>
synopsis	<i>syn+opsis</i>	Simple Addition
synapse	<i>syn+apse</i>	Simple Addition

On the basis of this sample, write a brief description of *syn*-'s two assimilated forms:

The <n> in *syn*- assimilates fully before <l> and <m>, and it assimilates partially to <m> before <b, p, ph>.

**Teaching Note.** For more on the assimilation of *syn*- see AES, pp. 197-98.

There are two suffixes spelled <in>. ***In*<sup>-1</sup>** means "no, not," as in *invisible*. ***In*<sup>-2</sup>** means "in," as in *inhabit*. They have the same assimilation pattern. Sort the words in Array 59 into the two groups, those with *in*<sup>-1</sup> and those with *in*<sup>-2</sup>. (Remember that the words' etymologies and definitions can help you see what their prefixes mean.) Then analyze each word into its prefix and stem. You should find a pattern even more like that for *com*- than was the pattern for *syn*-.

## Array 60

inarticulate	infamous	initial	
implication	inference	irrelevant	
immortal	immediately	illogical	
imbecile	imbibe	imminent	
inoperable	illumination	implausible	
inoculate	irradiate	impotent	
induction	irregular	intend	
illiterate	indecent	invent	
irrigate	incapable	inaugurate	
Words with <i>in</i> <sup>-1</sup> , "not"	Analysis	Words with <i>in</i> <sup>-2</sup> , "in"	Analysis
<i>inarticulate</i>	<i>in+articulate</i>	<i>implication</i>	<i>iŋ+m+plication</i>
<i>immortal</i>	<i>iŋ+m+mortal</i>	<i>inoculate</i>	<i>in+oculate</i>
<i>imbecile</i>	<i>iŋ+m+becile</i>	<i>induction</i>	<i>in+duction</i>
<i>inoperable</i>	<i>in+operable</i>	<i>irrigate</i>	<i>iŋ+r+rigate</i>
<i>illiterate</i>	<i>iŋ+l+literate</i>	<i>inference</i>	<i>in+ference</i>
<i>infamous</i>	<i>in+famous</i>	<i>imbibe</i>	<i>iŋ+m+bibe</i>
<i>immediately</i>	<i>iŋ+m+mediately</i>	<i>illumination</i>	<i>iŋ+l+lumination</i>
<i>irregular</i>	<i>iŋ+r+rregular</i>	<i>irradiate</i>	<i>iŋ+r+radiate</i>
<i>indecent</i>	<i>in+decent</i>	<i>initial</i>	<i>in+itial</i>
<i>incapable</i>	<i>in+capable</i>	<i>imminent</i>	<i>iŋ+m+minent</i>
<i>irrelevant</i>	<i>iŋ+r+rrelevant</i>	<i>intend</i>	<i>in+tend</i>
<i>illogical</i>	<i>iŋ+l+llogical</i>	<i>invent</i>	<i>in+vent</i>
<i>implausible</i>	<i>iŋ+m+plausible</i>	<i>inaugurate</i>	<i>in+augurate</i>
<i>impotent</i>	<i>iŋ+potent</i>		

On the basis of this sample, write a brief description of the three assimilated forms *in*<sup>-1</sup> and *in*<sup>-2</sup> assume: The two prefixes in- assimilate to il- before <l>, to ir- before <r>, and to im- before <b, m, p>.

The prefix **dis-** usually adds a negative or reversive meaning, as in *dishonor* or *disunite*. It has an assimilation pattern surprisingly like that for *ex-*. Analyze each of the following

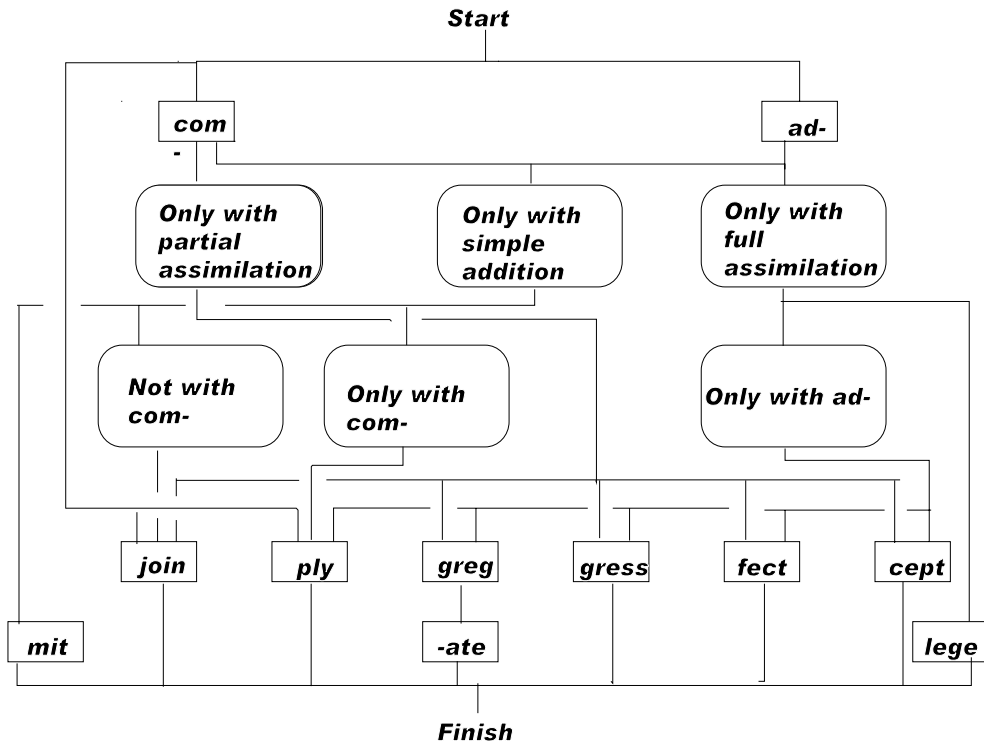
dis- words into prefix and stem.

**Array 61**

<b>Words</b>	<b>Analysis</b>	<b>Description</b>
disarray	<i>dis+array</i>	<i>Simple Addition</i>
disease	<i>dis+ease</i>	<i>Simple Addition</i>
differ	<i>dis+f+fer</i>	<i>&lt;s&gt; is replaced with &lt;f&gt;</i>
digestion	<i>dis+gestion</i>	<i>&lt;s&gt; is deleted</i>
disobey	<i>dis+obey</i>	<i>Simple Addition</i>
difficult	<i>dis+f+fer</i>	<i>&lt;s&gt; is replaced with &lt;f&gt;</i>
diminish	<i>dis+minish</i>	<i>&lt;s&gt; is deleted</i>
dilapidated	<i>dis+lapidated</i>	<i>&lt;s&gt; is deleted</i>
disgrace	<i>dis+grace</i>	<i>Simple Addition</i>
dismay	<i>dis+may</i>	<i>Simple Addition</i>
distort	<i>dis+tort</i>	<i>Simple Addition</i>
direct	<i>dis+rect</i>	<i>&lt;s&gt; is deleted</i>
divide	<i>dis+vide</i>	<i>&lt;s&gt; is deleted</i>
diffraction	<i>dis+f+fraction</i>	<i>&lt;s&gt; is replaced with &lt;f&gt;</i>
diffuse	<i>dis+f+fuse</i>	<i>&lt;s&gt; is replaced with &lt;f&gt;</i>
disjunction	<i>dis+junction</i>	<i>Simple Addition</i>
disquieting	<i>dis+quieting</i>	<i>Simple Addition</i>
disdain	<i>dis+dain</i>	<i>Simple Addition</i>

On the basis of this sample, write a description of the two assimilated forms the prefix *dis-* assumes: The prefix *dis-* usually combines via Simple Addition, but it assimilates fully before <f> and sometimes assimilates partially via <s>-deletion before <g, l, m, r, v>.

The flow chart on the next page gives you more experience with assimilation. Follow the right paths and you'll trace out eighteen words, sixteen of which contain some form of the prefixes *ad-* and *com-*. Note: In this flow chart broken lines represent underpasses. At an underpass you can pass straight on through, but you cannot turn.



<i>Words with com-:</i>		<i>Words with ad-:</i>		<i>Words with no prefix</i>
<i>conjoin</i>	<i>concept</i>	<i>admit</i>	<i>aggress</i>	
<i>congregate</i>	<i>comply</i>	<i>adjoin</i>	<i>affect</i>	
<i>congress</i>	<i>commit</i>	<i>apply</i>	<i>accept</i>	
<i>confect</i>	<i>college</i>	<i>aggregate</i>	<i>allege</i>	<i>ply</i>
				<i>join</i>



Name \_\_\_\_\_ Date \_\_\_\_\_

Word	Prefix + Stem (Show any assimilation.)
0. <i>syllable</i>	<i>syn+l+lable</i>
1.	
2.	
3.	
4.	
5.	
6.	
7.	
8.	
9.	
10.	

Word	Prefix + Stem (Show any assimilation.)
1. irregular	<i>in+r+regular</i>
2. conscience	<i>con+n+science</i>
3. digestion	<i>dis+gestion</i>
4. ejection	<i>ex+jection</i>
5. imbecile	<i>in+m+becile</i>
6. inaugurate	<i>in+augurate</i>
7. affected	<i>ad+f+fected</i>
8. adolescent	<i>ad+olescent</i>
9. corrections	<i>cor+r+rections</i>
10. aggressively	<i>ad+g+gressively</i>