

ELEMENTS

AND

PROCEDURES:

A BASIC SPELLER

Teachers Edition

by D.W. Cummings

Preface: To the Teacher

Many of the problems students have with spelling arise from their feeling that our spelling system should be more "phonetic" than it is. They are disappointed and frustrated by the lack of a simple relationship between the way words sound and the way they are spelled. But our spelling system must do more than spell sounds. It must also spell meanings. The units of spelled meaning are called **elements**, the smallest parts of a written word that add meaning to the word and are spelled consistently from word to word.

For example, the element *sign* occurs in the words *signs*, *signal*, *design*, *designation*. In each of the four words the element spelled <sign>¹ is pronounced differently: Sometimes it is all in one syllable; sometimes it straddles two. Sometimes you can hear the <g>, sometimes not. Sometimes the <s> spells a [s] sound, sometimes a [z]. Sometimes the <i> spells a long sound, sometimes a short one. If all we worried about were the sounds, we, like dictionaries, would have to resort to four different phonetic spellings, which would obscure the underlying unity and pattern among the four words.

But once we recognize that all four contain the element *sign*, plus a few other common and short elements, combined through predictable procedures, then spelling the four words is easy, systematic, and not at all "irregular." Recognizing word elements and how they go together are the main concerns of *Elements and Procedures*. Students work with elements and with the procedures that take place when elements combine to spell words: simple addition, twinning of final consonants, final silent <e> deletion, assimilation of prefixes, and palatalization.

Throughout, *Elements and Procedures* works on the assumption that English spelling is not whimsical and unreasonable, that it can be understood and taught and learned — if gone at carefully, thoroughly, reasonably. English spelling is much more regular and rational than we may have been led to believe. In order to convey this regularity to the students *Elements and Procedures* leads them through an active process of analysis and induction: A certain problem is posed — such as, "When do you twin the final consonant in a word?" The students are given carefully controlled word lists. They work with these words — sometimes analyzing them into their elements, sometimes combining elements into words, and sometimes noticing sound-to-spelling relationships. Then they are given questions that help them organize and display the results of their analysis. More questions lead them to write descriptive summaries of what they have discovered. Thus they go —

¹Letters and spellings are enclosed in arrow head brackets, sounds in square brackets.

analyzing and synthesizing, organizing and displaying data, observing the data, describing what they see and hear, setting up hypotheses and testing them. And finally they have written a description of a spelling procedure that is reliable and powerful enough to be rightfully thought of as a spelling rule.

The approach is active, analytical, and inductive. Over the years at the Academic Skills Center at Central Washington University, we found that with this analytical and inductive approach, students can learn descriptions — or spelling rules — that are detailed and thorough enough to be reliable and useful. One of the main problems with the traditional "spelling rules," with their notorious exceptions, was that they were taught deductively and thus had to be overly simplified, in order to make them short enough to be memorized. Oversimplified rules always let too many exceptions leak through. However, when they are taught inductively and analytically, rules can be detailed enough not to be burdened with all those exceptions. We have found, too, that with this approach students can learn something about doing work with their minds — analyzing, observing, patterning, setting and testing hypotheses, writing descriptive summaries.

Although students who like to memorize things certainly may and do memorize a certain part of what they learn through these inductive techniques, *Elements and Procedures* does not normally require, or even particularly encourage, self-conscious memorizing. By going through the process, slowly and carefully, doing the thinking and writing asked of them, the students learn English spelling and become more sensitive to the pattern and order in English words, without resorting to uninformed memorizing.

Spelling students usually have very little sense of the structure of words. Words exist for them as rather undifferentiated blurs of sounds or letters. They aren't able to hear or see as much in the word as they might — and thus they have trouble remembering its shape, especially when it comes time to try to spell it. *Elements and Procedures* works on the theory that the more you know about the word, especially about its structure, the more you can hear and see in it, and thus the more you have to remember it by.

For more on the structure and systematicity of English spelling, see my *American English Spelling* (Baltimore: Johns Hopkins UP, 1988).

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1 Elements and Analysis

Analysis. If you are going to learn how to spell words, it helps to understand how words work — what their important parts are and how those parts work together. When you take something apart, or just think about it in terms of its parts, so that you can begin to understand it better, you **analyze** it. Words can be analyzed, or taken apart, in many different ways. For instance, when you think about it as something spoken, the word *sixteenth* can be analyzed into eight sounds:

[s]+ [i]+ [k]+ [s]+ [t]+ [ē]+ [n]+ [th]

Or it can be analyzed into two larger sound units that each contain one vowel sound and are called **syllables**:

[siks]+ [tēnth]

But when you think about *sixteenth* as something written, it can be analyzed into nine **letters**:

<s> + <i> + <x> + <t> + <e> + <e> + <n> + <t> + <h>

Teaching Note. Be sure that the students see that we put sounds and larger units of sound like syllables inside square brackets, but we put letters and longer spellings into arrow head brackets. We italicize elements and words. It is important that the students understand and follow these conventions. Otherwise, sounds, spellings, and elements can get confused in their minds. When you refer aloud to a specific sound, it is best to call it by the sound itself. Thus [s] would be called “sss,” [i] would be called something like “ih,” and [k] would be called something like “kuh.” Sounds are called by their sounds. Letters, on the other hand, are called by their alphabet names: *ess*, *kay*, *en*, and so on. Elements and words are called by their normal pronunciations. AES, pp. 32-66, “The Explication of Written Words,” contains details concerning the material of chapters 1-5.

Elements. Or the written word *sixteenth* can be analyzed into three **elements** — that is, written parts that have a consistent spelling and meaning in different words:

six + teen + th

Elements are the shortest parts of written words that add meaning to their word. The elements of a word show up in other written words with a meaning and a spelling that

remain consistent. For instance, *six* shows up in *sixty* and *sixes*, *-teen* in *eighteen* and *teenybopper*, *-th* in *seventh* and *hundredth* — and even in a newer word like *nth*.

Very often elements are exactly one syllable long — as with *six* and *teen*, so elements and syllables often share the same boundaries. Because many elements are exactly one syllable long, and elements and syllables do so often share boundaries in a word, it is tempting to assume that an analysis into elements is the same as an analysis into syllables. But the two analyses are not the same: Syllables are parts of spoken words while elements are parts of written words. And when we analyze a word into syllables, we do not worry about analyzing its meaning. But we do worry about the word's meaning when we analyze it into elements.

Not all elements are exactly one syllable long. For instance, an element like *-th* in *sixteenth* does not contain a vowel sound, so it is less than a syllable. On the other hand, some elements, like *mother*, *father*, *brother*, and *sister*, are more than one syllable long:

fatherhood	= father + hood
brotherhood	= brother + hood
sisterhood	= sister + hood
motherhood	= mother + hood
motherly	= mother + ly
motherless	= mother + less
mothers	= mother + s

Look up the definitions of *fatherhood*, *brotherhood*, *sisterhood*, and *motherhood* in your dictionary. Write the definitions here:

fatherhood: "the condition of being a father; paternity"

motherhood: "the state or condition of being a mother; the feelings or qualities characteristic of a mother"

brotherhood: "the state or relationship of being a brother or brothers; the quality of being brotherly; fellowship"

sisterhood: "the state or relationship of being a sister or sisters; the quality of being sisterly"

Compare the definitions. What meaning would you say the element *-hood* has in these four words? "the state or relationship or quality of being . . ."

Now look up the element *-hood* in your dictionary to see how well you did. It will be spelled <-hood> and will probably be right in between the words *hood* and *hooded*.

In Array 1 you are given 25 elements. Most of them are also words. You are to sort them into the four groups described in the array. If you do it correctly, all of the unshaded blanks should be filled.

Array 1

mattress	course	grief	ghost	column
seize	yolk	aisle	magazine	clique
less	cinnamon	height	picnic	rhythm
nickel	niece	-s	shriek	glimpse
eight	queue	tomato	yoke	reign
Elements with three syllables	Elements with two syllables	Elements with one syllable		
<i>cinnamon</i>	<i>mattress</i>	<i>seize</i>	<i>queue</i>	<i>shriek</i>
<i>tomato</i>	<i>nickel</i>	<i>less</i>	<i>grief</i>	<i>yoke</i>
<i>magazine</i>	<i>picnic</i>	<i>eight</i>	<i>aisle</i>	<i>clique</i>
	<i>column</i>	<i>course</i>	<i>height</i>	<i>glimpse</i>
	<i>rhythm</i>	<i>yolk</i>	<i>ghost</i>	<i>reign</i>
		<i>niece</i>		
The element with less than one syllable is <u>-s</u> .				

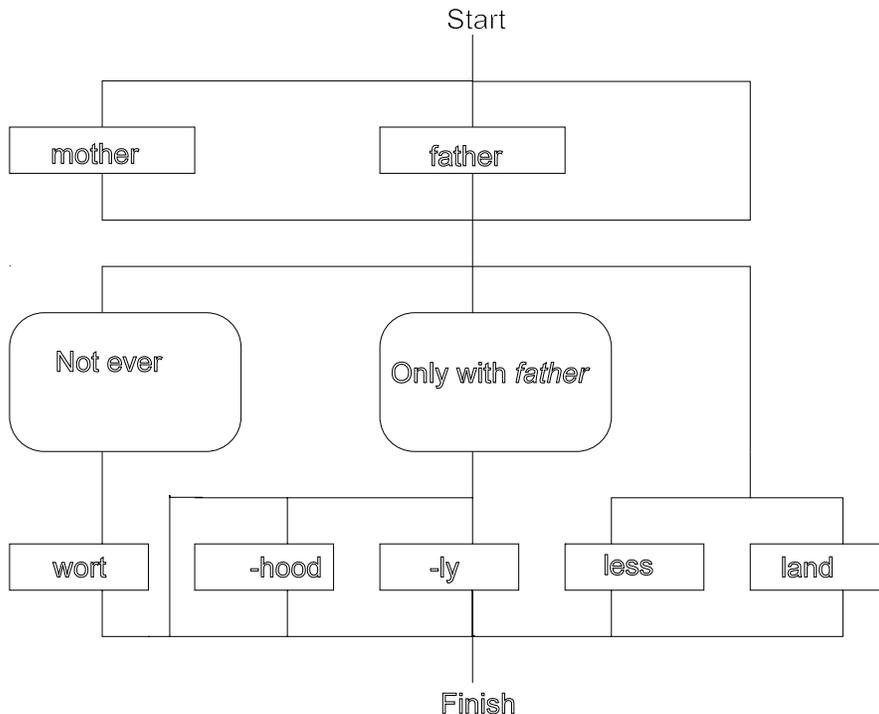
Teaching Note: Observant students may ask why *rhythm* goes into the two-syllable group, since it has only one vowel letter, the <y>. The answer is that when it follows a consonant and comes at the end of a word, the letter <m> sometimes functions like a vowel. Other instances are *chasm*, *algorithm*, *organism* — and all the other words with the suffix *-ism*. A consonant like the <m> in *rhythm* that constitutes a syllable on its own is called a **syllabic consonant**. Other letters that can spell syllabic consonant sounds are <n>, <l>, and <r>. Notice that in *button*, *brittle*, and *butter*, you do not hear any vowel sounds in the final syllables, just the consonant sounds [n], [l], and [r]. This is part of the larger linguistic problem of trying to define what is meant by the term *syllable* in English. A syllable always contains one and only one peak of sound. In the huge majority of cases those peaks are vowel sounds spelled by vowel letters, but occasionally consonants like [m], [n], [l], and [r] can provide the peak without a vowel sound, nearly always at the end of words.

Queue [kyū] has become common lately with the spread of computers and their queues. It is a French reshaping of the Latin *cauda*, *cōda* “tail.” It has the homophonic variant *cue*, as in “pool cue.”

The puzzle on the next page is a flow chart. Each time you pass through it from top to bottom, you combine elements to form a word. With this particular chart you should be able to make thirteen passes down through it to form thirteen different words. The elements are contained in the boxes with square corners. The boxes with rounded corners contain logical conditions that you must satisfy if you are to move ahead. For instance, in this chart the conditioner labeled "Only with *father*" means that you can only continue down that branch if on this pass you have already been through one of the boxes containing either *father* or *mother*. The conditioner labeled "Not ever with *father*" means that you cannot continue down that branch if you have already been through the *father* box.

The general rule is that you can move left or right or down, but you can never move up the page. As you complete your passes, write the words you have formed in the blanks below the chart:

Teaching Note. Flow charts are used here to help the students see how elements combine to build up words and how the same element can occur in different words with sometimes quite different but still consistent meanings from one word to another. They also are used to give the students work with the left-to-right movement of words in English and with a simple, but powerful *and/or* logic.



1. <i>mother</i>	6. <i>motherland</i>	11. <i>fatherland</i>
2. <i>motherwort</i>	7. <i>father</i>	12. <i>wort</i>
3. <i>motherhood</i>	8. <i>fatherhood</i>	13. <i>less</i>
4. <i>motherly</i>	9. <i>fatherly</i>	14. <i>land</i>
5. <i>motherless</i>	10. <i>fatherless</i>	

Elements are strings of letters that have a consistent meaning or spelling from word to word. Look at the boldfaced strings of letters in these sentences:

Maybe Mrs. O'Riley will **cook** her famous stew Wednesday night. She **cooks** it at least once every week. She **cooked** it when I stayed with them two years ago. She has been **cooking** it for over forty years. She is what I'd call "a classy stew **cooker**."

The repeated spelling <cook> shows up in five words: *cook*, *cooks*, *cooked*, *cooking*, and *cooker*. And in all of these words the <cook> spelling has a consistent meaning. It has a consistent meaning and a consistent spelling, and it cannot be analyzed into shorter meaning-parts, so *cook* is an element.

Cook is a single element because it cannot be analyzed into shorter elements. It cannot be divided into elements that go together to spell and mean what the word *cook* means the way that *motherhood* can be divided into the elements *mother* and *-hood* that go together to spell and mean what the word *motherhood* means.

Of course, the string of letters that spells the element *cook* can be taken apart in various ways. For instance, it could be taken apart into <co> plus <ok>. Or into <coo> plus <k>, or even into <c> plus <ook>. And these six spellings all are defined in *Webster's Third Unabridged Dictionary*:

c: "the 3rd letter of the alphabet"; a common abbreviation

co-: "with, together, joint, jointly, shared, mutually"

coo: "to make the low soft cry of a dove or pigeon"

k: "the 11th letter of the alphabet"; a common abbreviation

ok: "all right, yes"

ook: (Scottish) "week" (also *ouk*)

Although all six of these spellings can be found in the word *cook*, none of them is an element in it. Although each of the six spellings has a meaning, no combination of these six meanings can go together to mean anything even close to the meaning of the word *cook*.

So to take *cook* apart into any of these six parts would not help us understand it better. It would not be an analysis of the word. Since it cannot be analyzed any further into shorter elements, the word *cook* is a single element. It is both a word and an element. (And it is one syllable long.)

Look up the following elements in your dictionary: *moth*, *broth*, *-er*. Then be ready to discuss this question: We can divide the word *mother* into the spellings <moth> and <er>, and we can divide *brother* into <broth> and <er>. Both *moth* and *broth* are words, and *-er* is a suffix, so all three are elements. But are the spellings <moth>, <broth>, and <er> elements of the words *mother* and *brother*? How do you know?

Teaching Note. The point here is that <moth>, <broth>, and <er> are not elements in *mother* and *brother* because you cannot form the meaning of *mother* or *brother* by combining the meanings of the words *moth* or *broth* with the suffix *-er*. In short, mothers do not moth, nor are brothers more broth. The larger point is that in defining elements in words we must pay careful attention not just to sound and spelling but also to meaning.

Summing Up. Write good clear definitions for each of the following terms, based on what you have learned so far. Include an example in each of your definitions:

Teaching Note. Obviously answers will vary considerably here. What is given below is meant to exemplify what could be taken to be good answers.

analysis: Analysis is taking something apart or thinking about its parts so as to understand it better, as in analyzing a word into its elements.

element: An element is the smallest part of a written word that adds meaning to the word and is spelled consistently from one word to another. Six and teen are elements of the word sixteen.

syllable: A syllable is a part of a spoken word that contains one and only one sounded vowel and perhaps one or more consonant sounds. The syllables in sixteen are [siks] and [tēn].

2 Bases

Free Bases. *Cook* is that kind of element we call a **base**. The base is a word's core of meaning. It is the element that can have other elements fixed onto it, both in front and in back, so it is where we start when we begin analyzing a word's meaning.

Some bases can stand free and be used as independent words, and some bases cannot. Those that can be used as words are called **free bases**. An example of a free base would be *cook*, for it can and does stand alone as an independent word.

All of the words in Array 2 consist of two or more elements, one of which is a free base. The three words in any one set all have the same free base. Find the free base in each set, as has been done with the first one:

Array 2

Sets of Words	Free Bases
1. clearly, unclear, clearance	<i>clear</i>
2. repaint, painter, painted	<i>paint</i>
3. worded, forewords, wordy	<i>word</i>
4. rhythmical, rhythms, unrhythmic	<i>rhythm</i>
5. changeable, interchange, changes	<i>change</i>
6. spelling, misspell, spellers	<i>spell</i>
7. undoubtedly, doubts, doubtful	<i>doubt</i>
8. abuse, uselessly, useful	<i>use</i>
9. performance, information, reformed	<i>form</i>
10. peaceful, peaceable, peacemaker	<i>peace</i>

Bound Bases. Not all bases are free. Those that cannot stand alone as independent words are called **bound bases**. Look at these words, for instance:

evoke	= e + voke
invoke	= in + voke
revoke	= re + voke
provoke	= pro + voke

The repeated element *voke* is the base of these four words. This *voke* can combine with other elements to form words, but by itself it cannot stand free as a word. You can evoke something, invoke it, revoke or provoke it, but you can't simply "voke" it. If you were to check for an entry spelled <voke> in your dictionary, there should be none there. Dictionaries do not list most bound bases.

Teaching Note. The preceding sentence says "most" because dictionaries do routinely list bound forms they usually call **combining forms**. Combining forms combine with other forms — bases, suffixes, prefixes, or other combining forms — to make words. Examples are *tele+* and *electr+*. Combining forms are particularly common in the scientific and technical registers. So far I have not found any compelling reason to treat combining forms as anything different from bases, usually bound. The fact remains, though, that dictionaries seldom list the kind of bound bases with which we are dealing here.

The sets of words in Array 3 are like those in Array 2, except that the bases in the words in each set are bound. Find the bound base in each set:

Array 3

Sets of Words	Bound Bases
1. invade, pervade, evades	<i>vade</i>
2. effective, defective, affected	<i>fect</i>
3. dominate, condominium, domineer	<i>domin</i>
4. insistence, resisted, persists	<i>sist</i>
5. exceedingly, succeeded, proceeds	<i>ceed</i>
6. exceptionally, interception, accept	<i>cept</i>
7. commission, dismissed, missile	<i>miss</i>
8. commit, admits, permit	<i>mit</i>
9. referee, conference, prefers	<i>fer</i>
10. counterfeit, forfeited, surfeit	<i>feit</i>

Teaching Note. Students may wonder why *miss* is a bound base here, when we have two words spelled <miss>, as in "We all miss Miss Smith." The *miss* in Array 3 is not the same as either of the words spelled <miss>. The *miss* that means "to regret the absence of" is a

Germanic word; it does not come from Latin. The *miss* that refers to a woman is simply a shortened form of *mistress*, which comes from Old French. The bound base *miss* in Array 3 comes from a Latin word that meant "send, throw." So the two free bases and one bound base spelled <miss> are not related to one another at all, except in their spelling and pronunciation.

It can be hard to see the consistency of meaning a bound base has in different words. Sometimes you can figure it out by comparing the definitions of the words in your dictionary. For instance, the definitions of *dominate* and *domineer* both include the notion of "rule, control." The definition of *condominium* includes the notion of "joint sovereignty," consistent with the notion of "control." In a condominium apartment, the residents own their own homes and thus have sovereignty or control over them.

But the best help for figuring out the meaning of bound bases comes from elsewhere in your dictionary. Look at this entry for the word *provoke* from the *American Heritage Dictionary*:

pro·voke (prə·vōk') *tr.v.* **pro·voked, pro·vok·ing, pro·vokes.** **1.** To incite to anger or resentment. **2.** To stir to action or feeling. **3.** To give rise to; evoke: *provoke laughter.* **4.** To bring about deliberately; induce: *provoke a fight.* [Middle English *provoken*, from Old French *provoquer*, from Latin *prōvocāre*, to challenge : *prō-*, forth; see *PRO*-¹ + *vocāre*, to call . . .] —**pro·vok'ing·ly** *adv.*

Towards the end of the entry in square brackets you can find the word's **etymology**, which describes the history of the word, working back to its original form in Latin. From the etymology you can see that *provoke* comes from the Latin verb *prōvocāre*, which meant "to call forth." The meaning "to call forth", which we find in the etymology of the word, is its etymological meaning.

We can also see that *prōvocāre* was formed from two Latin parts—the first, *prō-*, meant "forth," and the second part, *vocāre*, was a verb meaning "to call." The bound base *voke* comes from that Latin verb, so we can say that the etymological meaning of *voke* is "call."

There has been some change in meaning over the centuries, but it is not hard to see how the etymological meaning "to call forth" could develop into the current meaning of *provoke*. When you provoke someone to fight, you can be said "to call him forth" or "to call him out," just like the showdown in the cowboy movie. Nor is it hard to see the etymological meaning "call" in other words that contain the bound base *voke*: *evoke*, *invoke*, *revoke*. For instance, the element *re-* in *revoke* means "back," and when the police revoke your drivers license, they do in a sense call it back.

Different dictionaries locate and organize their etymologies in different ways. Before you do the next exercise, read the section dealing with etymologies in the introduction to your dictionary to be sure you understand where to find them and how they are organized.

Teaching Note. You may have to put a little pressure on students to get them to read the introductory material in their dictionaries, important and useful though it may be. Most people never read the front matter in their dictionaries, and many of them feel it odd to do so.

Use the etymological information in your dictionary to determine the etymological meaning of the bound bases you found in the ten sets back in Array 3:

Array 4

Bound Base	Language of Origin	Etymological Meaning
1. vade	<i>Latin</i>	"go"
2. fect	<i>Latin</i>	"do"
3. domin	<i>Latin</i>	"be lord and master, rule"
4. sist	<i>Latin</i>	"cause to stand, stand"
5. ceed	<i>Latin</i>	"go"
6. cept	<i>Latin</i>	"take"
7. miss	<i>Latin</i>	"let go, send"
8. mit	<i>Latin</i>	"send, put"
9. fer	<i>Latin</i>	"bring, bear"
10. feit	<i>Latin</i>	"make"

Teaching Note. It is no aberration that all of the words in Array 4 come from Latin. Although English is a Germanic language, and Latin and French are not, English has borrowed thousands of words from Latin, either directly or by way of its descendant French. Nearly all of the bound bases in our language come from Latin or French. Many other bound bases come from Greek, especially among technical and scientific words. Surprisingly few bound bases come from Old English, or, more generally, the Germanic side of our language family tree.

Each of the forty words in Array 5 contains one of eight bound bases. Read the words carefully and sort them into the groups described in the array:

Array 5

abscess accept dictator accessed digestion susceptible spectator gestation affect contradict	consistent deception assistant addicted successful conjecture suggest defective circumspect verdict	perspective congested perceptive spectacle subject inspector adjective effect necessary projectile	prediction resistant persist excessive gesture trajectory intercepted insisted perfection infected
Words with cess:	Words with cept:	Words with dict:	Words with fect:
<i>abscess</i>	<i>accept</i>	<i>contradict</i>	<i>affect</i>
<i>excessive</i>	<i>deception</i>	<i>dictator</i>	<i>defective</i>
<i>accessed</i>	<i>intercepted</i>	<i>verdict</i>	<i>effect</i>
<i>necessary</i>	<i>susceptible</i>	<i>addicted</i>	<i>perfection</i>
<i>successful</i>	<i>perceptive</i>	<i>prediction</i>	<i>infected</i>
Words with gest:	Words with ject:	Words with sist:	Words with spect:
<i>suggest</i>	<i>subject</i>	<i>persist</i>	<i>inspector</i>
<i>gesture</i>	<i>adjective</i>	<i>consistent</i>	<i>circumspect</i>
<i>digestion</i>	<i>projectile</i>	<i>assistant</i>	<i>perspective</i>
<i>congested</i>	<i>conjecture</i>	<i>insisted</i>	<i>spectator</i>
<i>gestation</i>	<i>trajectory</i>	<i>resistant</i>	<i>spectacle</i>

Teaching Note. If your schedule allows, it would be worthwhile to have the students track down the etymological meanings for the bases in Array 5 that they have not already tracked down. Trying to reconstruct the connection between the etymological meaning of the base and the current meaning of its word can be a useful for both spelling and vocabulary building.

Summing Up. Define each of the following terms in one or more complete sentences. Include an example in each of your definitions.

element: An element is the shortest meaning-and-spelling part of a word. Elements have consistent spelling and meaning from word to word. Example: The base gest in digest.

base: A base is an element that can have other elements added before and after it, a word's core of meaning. Example: mean in the word meaning.

bound base: A bound base is a base that cannot stand alone as a word. Example: cept in the words accept and conception.

etymological meaning: A word's etymological meaning is the meaning of its older source word or original form. Example: "Call forth" is the etymological meaning of provoke.

Name _____ Date _____

Word	How many syllables? What is the base?
0. <i>sixteen</i>	Syllables: <u> 2 </u> Base: <u> <i>six</i> </u>
1.	Syllables: <u> </u> Base: <u> </u>
2.	Syllables: <u> </u> Base: <u> </u>
3.	Syllables: <u> </u> Base: <u> </u>
4.	Syllables: <u> </u> Base: <u> </u>
5.	Syllables: <u> </u> Base: <u> </u>
6.	Syllables: <u> </u> Base: <u> </u>
7.	Syllables: <u> </u> Base: <u> </u>
8.	Syllables: <u> </u> Base: <u> </u>
9.	Syllables: <u> </u> Base: <u> </u>
10.	Syllables: <u> </u> Base: <u> </u>

Word	How many syllables? What is the base?
1. motherly	Syllables: <u> 3 </u> Base: <u> <i>mother</i> </u>
2. clearance	Syllables: <u> 2 </u> Base: <u> <i>clear</i> </u>
3. abuses	Syllables: <u> 3 </u> Base: <u> <i>use</i> </u>
4. addiction	Syllables: <u> 3 </u> Base: <u> <i>dict</i> </u>
5. picnic	Syllables: <u> 2 </u> Base: <u> <i>picnic</i> </u>
6. effective	Syllables: <u> 3 </u> Base: <u> <i>fect</i> </u>
7. excessive	Syllables: <u> 3 </u> Base: <u> <i>cess</i> </u>
8. mattress	Syllables: <u> 2 </u> Base: <u> <i>mattress</i> </u>
9. undoubtedly	Syllables: <u> 4 </u> Base: <u> <i>doubt</i> </u>
10. rhythmic	Syllables: <u> 2 </u> Base: <u> <i>rhythm</i> </u>

3 Stems and Compounds

There are three kinds of elements: **bases**, **prefixes**, and **suffixes**. **Prefixes** are bound elements that go at the front of bases. In the word *repainted paint* is the base, a free base; *re-* is a prefix. **Suffixes** are bound elements that go at the end of bases. In *repainted -ed* is a suffix.

Stems. From now on we will be looking at what happens when elements are added to or subtracted from the front or the back of other elements. Sometimes we will be working with single bases. Sometimes we will be working with bases that have one or two prefixes in front of them, sometimes with bases that have one or two suffixes behind them, sometimes with bases that have prefixes in front and suffixes behind. It would be helpful to be able to refer to all of these combinations with one short word.

There already is such a word: **stem**. A **stem** is any element or string of elements to which we are going to add or from which we are going to subtract other elements. Every stem must contain at least one base, but it can have any number of prefixes or suffixes, including no prefixes or suffixes at all. Stems, like bases, can be either bound or free.

So all of the following combinations are stems—in this case, free stems:

Combinations	Example Stems
Free Base	paint
Prefix + Free Base	repaint
Free Base + Suffix	painted
Prefix + Free Base + Suffix	repainted

And we can go on adding elements, especially prefixes and suffixes, as in free stems like *unrepainted*, which has two prefixes.

Stems can also contain bound bases, as in the following examples, with the bound base *spect*::

Combinations	Example Stems
Prefix + Bound Base	respect
Prefix + Bound Base + Suffix	respectful
Prefix + Prefix + Bound Base + Suffix	disrespectful
Prefix + Prefix + Bound Base + Suffix + Suffix	disrespectfully

Stems can also be bound, as in stems like *spect*, *spectful* and *spectfully*, none of which is a word. Sometimes even a stem with a free base can be bound. For instance, In the word *unblinkingly*, *unblinking* is a free stem because it's also a word, but *unblink* is bound, since we do not have the word *unblink*.

Remember the word *stem* because we will be using it often.

Setting Bound Elements Free. Sometimes a bound element is used as if it were free. For instance, the prefix *un-* is bound in words like *unmotherly* or *unclear*, in which it means "not." The prefix *un-* is a bound element that cannot stand free as a word. However, a soft drink company can refer to its product as the "Uncola," and then refer to it as "The Un" — thus using *un* as a free element. The English language allows this kind of playful use. In fact, such uses sometimes become standard, and what was once a bound element is set free.

For instance, the word *stereo* started out as a bound stem in the word *stereophonic*. That word was too long to be handy, so it was clipped to *stereo*, thus setting a bound element free. A similar thing happened with *automobile*: The bound stem *auto* was set free and became a word. For our purposes we can say that when an element that was once bound is commonly used as a word --like *stereo* or *auto* — or even *un*, maybe! — we can call it free.

All of the following words started out as bound elements in longer words. Try to figure out what the longer word was for each. Write down your answer in the blank. Then double-check in your dictionary. Sometimes your dictionary will help you by defining the newer short word with the original longer one. Sometimes it will help you by giving you the original longer word in the etymology of the shorter word.

Array 6

pro: <i>professional</i>	ad: 1. <i>advertisement</i> , 2. <i>advantage</i>
phone: <i>telephone</i>	photo: <i>photograph</i>
flu <i>influenza</i>	: burger: <i>hamburger</i>

bike: <i>bicycle</i>	ism: <i>ism</i> and <i>-ism</i> words
bra: <i>brassiere</i>	radio: <i>radiotelegraphy</i>

Teaching Note. The *advantage* that has been clipped to *ad* is a term familiar to tennis players. It is likely that *ism* was abstracted from various words ending in *-ism* rather than from the suffix itself, especially words like *communism*, *socialism*, and *capitalism*.

Compound Words. We can add a prefix to the beginning of a stem base: *re* + *paint* = *repaint*. Then we can add a suffix to the end of that stem: *repaint* + *ed* = *repainted*. And we can go on, adding a prefix to that stem: *un* + *repainted* = *unrepainted*. But we can also add free stems to the front or back of free stems to make **compound words**. A **compound word** is a word that contains two or more free stems. For instance, we can add the free stem *paint* to the free stem *brush* to form the compound word *paintbrush*. Some similar examples:

sunrise	=	sun + rise
homework	=	home + work
snowflake	=	snow + flake
paperback	=	paper + back

Each of the words in Array 7 is a compound that consists of two free stems. Analyze each word into its two stems, as we did with the four words above:

Array 7

Compound Words	Analysis into Free Stems
rattlesnake	<i>rattle</i> + <i>snake</i>
searchlight	<i>search</i> + <i>light</i>
windmill	<i>wind</i> + <i>mill</i>
handkerchief	<i>hand</i> + <i>kerchief</i>
bloodstain	<i>blood</i> + <i>stain</i>
doorknob	<i>door</i> + <i>knob</i>
darkroom	<i>dark</i> + <i>room</i>
underline	<i>under</i> + <i>line</i>
kettledrum	<i>kettle</i> + <i>drum</i>
fingernail	<i>finger</i> + <i>nail</i>

Compound Words	Analysis into Free Stems
congressman	<i>congress + man</i>
bookkeeping	<i>book + keeping</i>

Summing Up. Define each of the following terms in one or more full sentences. Give an example with each of your definitions:

stem: A stem is an element or string of elements to which we are going to add or from which we are going to subtract elements. Each stem must contain at least one base.

Example: congress in congressman.

free stem: A free stem is a stem that can stand alone as a word. Examples are predict in prediction and keeping in bookkeeping.

compound word: A compound word is a word that contains at least two free stems.

Example: rattlesnake.

Name _____ Date _____

Word	How Many Syllables? Base(s)?
0. <i>searchlight</i>	Syllables: <u>2</u> Base(s): <u>search, light</u>
1.	Syllables: <u> </u> Base(s): <u> </u>
2.	Syllables: <u> </u> Base(s): <u> </u>
3.	Syllables: <u> </u> Base(s): <u> </u>
4.	Syllables: <u> </u> Base(s): <u> </u>
5.	Syllables: <u> </u> Base(s): <u> </u>
6.	Syllables: <u> </u> Base(s): <u> </u>
7.	Syllables: <u> </u> Base(s): <u> </u>
8.	Syllables: <u> </u> Base(s): <u> </u>
9.	Syllables: <u> </u> Base(s): <u> </u>
10.	Syllables: <u> </u> Base(s): <u> </u>

Word	How Many Syllables? Base(s)?
1. <i>compound</i>	Syllables: <u>2</u> Base(s): <u>pound</u>
2. <i>telephone</i>	Syllables: <u>3</u> Base(s): <u>tele, phone</u>
3. <i>congressman</i>	Syllables: <u>3</u> Base(s): <u>gress, man</u>
4. <i>bookkeeper</i>	Syllables: <u>3</u> Base(s): <u>book, keep</u>
5. <i>defective</i>	Syllables: <u>3</u> Base(s): <u>fect</u>
6. <i>successful</i>	Syllables: <u>3</u> Base(s): <u>cess</u>
7. <i>accepted</i>	Syllables: <u>3</u> Base(s): <u>cept</u>
8. <i>advertisement</i>	Syllables: <u>4</u> Base(s): <u>vert</u>
9. <i>susceptible</i>	Syllables: <u>4</u> Base(s): <u>cept</u>
10. <i>professionally</i>	Syllables: <u>5</u> Base(s): <u>fess</u>

4 Suffixes

Though there are many compound words in which free stems are added at the end of other free stems, the elements that are most often added at the end of stems are **suffixes**. **Suffixes** are elements that cannot stand alone as words. They are always bound. Examples of some suffixes are the *-s*, *-ed*, and *-ing* in *cooks*, *cooked*, and *cooking*.

Inflectional Suffixes. One type of suffix adds meanings to the stem that help answer questions like "One or more than one?" "Whose?" "How much?" and "When?" This type is called **inflectional suffixes**.

For instance, the inflectional suffix *-s* regularly adds meanings to the stem that help answer the question "One or more than one?" In the sentence "George only brought one, but we really needed two pizzas," the *-s* on *pizzas* adds the meaning "More than one" to the noun *pizza*. It is called a **noun plural suffix**.

You have probably learned that a noun is a word used to refer to a person, place, thing, quality, or act — which is an accurate enough and useful definition. Another way to define the word *noun* is to say that a noun is any word that fits into the following blank, and makes sense: "The _____ seemed okay."

Look at the underlined words in the "Plural noun" column in Array 8 on the next page. Try each one in the blank: "The taxes seemed okay," "The guesses seemed okay." They should all make understandable sentences — though sometimes you may have to think a bit to come up with an occasion on which you would use such a sentence.

There are two common noun plural suffixes: one is spelled *-s*, one *-es*. In Array 8 you are given ten plural nouns that are formed by adding either *-s* or *-es* to a singular noun. Divide each plural noun into its singular noun plus suffix:

Array 8

Plural Noun	=	Singular Noun	+ Suffix
taxes	=	<i>tax</i>	+ <i>es</i>
guesses	=	<i>guess</i>	+ <i>es</i>
buzzes	=	<i>buzz</i>	+ <i>es</i>
periods	=	<i>period</i>	+ <i>s</i>
waltzes	=	<i>waltz</i>	+ <i>es</i>
columns	=	<i>column</i>	+ <i>s</i>
acres	=	<i>acre</i>	+ <i>s</i>
strengths	=	<i>strength</i>	+ <i>s</i>
searches	=	<i>search</i>	+ <i>es</i>
brushes	=	<i>brush</i>	+ <i>es</i>
squares	=	<i>square</i>	+ <i>s</i>

You should find that you add the *-es* plural suffix to singular nouns that end with one of four sounds. For instance, *tax* takes *-es* to form the plural *taxes*. In *tax* the <x> spells the combination sound [ks], so *tax* ends with the sound [s].

What are the other three sounds at the end of singular nouns that take *-es* to form their plural? [z], [ch], and [sh].

Singular nouns that end with the sounds [s], [z], [ch], and [sh] take the noun plural suffix *-es*.

Teaching Note. The distinction between the use of *-es* and *-s* is a rational and understandable one. The sounds [s], [z], [sh], and [ch] are all hissing, or sibilant, sounds. (The sound [ch] is really a combination of two sounds: It starts with [t] and ends with the sibilant [sh].) If we were to add *-s* to singular nouns that end in these sibilant sounds, it would be difficult to distinguish between spoken singular and plural nouns. For instance, the plural of *box* would be <boxs>, [bokss], which would quickly simplify to [boks], making the spoken singular and plural forms indistinguishable. The plural of *guess* would be <guesss>, which would violate a constraint in English against triplet letters (see *AES*, p. 77), and the spoken singular and plural forms would be indistinguishable. So *-es*, pronounced [iz], is used in place of *-s*, making the distinction between the spoken singulars and plurals quite clear: [boks] vs. ['boksiz] and [ges] vs. ['gesiz]. Notice that *waltz* contains one of the very few instances in English in which <z> spells [s].

The *-es* form is also used in two other places. First, in singular nouns that end in a <y> preceded by a consonant, when the plural suffix is added, the <y> changes to <i> and

the -es form is used: For instance, the plural of *city* is *cities* — that is, *city* + *i* + *es*. Remember the little ditty, "Change the <y> to <i> and add <es>".

Second, singular nouns that end with an <o> preceded by a consonant vary quite a bit. Most of them take the regular form, -s: *pianos*, *altos*, *twos*, *egos*. Many take either -s or -es: *banjos*, *banjoes*; *zeros*, *zeroes*; *mottos*, *mottoes*; *innuendos*, *innuendoes*. With either of these kinds of words it's always safe to use -s.

But a few nouns that end with <o> preceded by a consonant take only -es, the most common being *echo*, *embargo*, *go*, *hero*, *Negro*, *potato*, *tomato*, and *veto*. With these eight the plural should be formed with -es.

Teaching Note. One way of helping students remember the eight common nouns ending in <o> that take -es is to ask them to imagine a scene, the description of which requires using the eight nouns in either their singular or plural forms. Then ask them to draw the scene and write out a sentence that describes it and contains the eight words. The strategy is explained in more detail in chapter 13 in the discussion of holdouts to the <i> before <e> rule.

In general, with nouns ending in <o>, it's a good idea to check your dictionary if you have any questions at all about the spelling of the plural.

Write three sentences describing as clearly as you can the three places where you use the -es noun plural suffix. Be sure to include examples:

1. You use -es to form the plurals of nouns that end with the sounds [s], [z], [ch], or [sh]. Examples are foxes, buzzes, churches, and wishes.
2. You use -es to form the plural of nouns that end with <y> preceded by a consonant. You must change the <y> to <i> and use the <es> suffix. Examples are cities and flies.
3. You use -es to form the plural of a few nouns that end with <o> preceded by a consonant. The most important instances are echoes, embargoes, goes, heroes, Negroes, potatoes, tomatoes, and vetoes.

Write the correct plurals of each of the following singular nouns, showing any <y> to <i> changes:

Array 9

Singular Noun	+ Suffix	= Plural Noun
city + <i>i</i>	+ es	= <i>cities</i>
ego	+ s	= <i>egos</i>
anxiety + <i>i</i>	+ es	= <i>anxieties</i>

Singular Noun	+ Suffix	= Plural Noun
auxiliary + <i>i</i>	+ <i>es</i>	= <i>auxliaries</i>
tomato	+ <i>es</i>	= <i>tomatoes</i>
library + <i>i</i>	+ <i>es</i>	= <i>libraries</i>
calendar	+ <i>s</i>	= <i>calendars</i>
try + <i>i</i>	+ <i>es</i>	= <i>tries</i>
toy	+ <i>s</i>	= <i>toys</i>
piano	+ <i>s</i>	= <i>pianos</i>
hero	+ <i>es</i>	= <i>heroes</i>
quantity + <i>i</i>	+ <i>es</i>	= <i>quantities</i>

Teaching Note. When *hero* is used in the compound *hero sandwich*, its plural is sometimes spelled *heros*.

The most common noun inflectional suffix is the plural suffix, sometimes spelled <es> but usually just <s>. The other noun inflectional suffix helps answer the question "Whose?" In the sentence "That is the trumpeter's notebook" the '-s' adds the meaning "possession" to the noun *trumpeter*. This possessive noun suffix is usually spelled <'s>, but when you form the possessive of plural nouns that are spelled with <s> or <es>, you spell the possessive suffix with a plain apostrophe: "the four girls' suitcases" and "the two new taxes' impact."

<p>Two ways to define verb:</p> <p>1. "That part of speech that expresses existence, action, or occurrence." -- <i>The American Heritage Dictionary</i></p> <p>2. A word that changes its form to distinguish between something in the past and something not in the past, or fits into this blank:</p> <p style="text-align: center;">"It _____ them."</p>

We also add inflectional suffixes to verbs. Nearly all verbs change their form to distinguish between action in the past and action that is not in the past. For instance, if we change the time talked about in a sentence like "He enjoys dancing" by adding

Yesterday to the front, we must change the form of *enjoys* to show that we are now talking about action in the past: "Yesterday he enjoyed dancing." We use the inflectional suffix *-ed* to help answer the question "When?" by adding the meaning "in the past."

Teaching Note. The sentence "He enjoys dancing" can be used to help students see the limits of the notion of verbs as action words: *Dancing* appears to be much more of an action word than does *enjoys*, but still *enjoys* is the verb while *dancing* functions as a noun, the direct object of the verb. Nouns like *dancing* are **gerunds**, nouns that were derived from the present participle form of verbs.

In most cases we use just four different inflectional suffixes with verbs. The suffix *-ed*, as we've seen, adds the meaning "in the past," as in the difference between *enjoyed* and *enjoys*.

The verb suffix *-s* is more complex. Look at this set of present tense verbs:

	Singular	Plural
1st Person	I sing	We sing.
2nd Person	You sing	You sing.
3rd Person	He sings She sings It sings	They sing

The *-s* in *sings* adds the complex meaning "3rd person, singular, present tense." This suffix is spelled *-es* with verbs that end with the sounds [s], [z], [sh], and [ch] and in some verbs that end in <o>, and after a <y> preceded by a consonant that has changed to <i> — just like the noun plural suffix *-es*.

The verb suffix *-ing* and another one spelled <ed> help describe an action as either not completed or completed: "The meat was **cooking**" means that the meat was not yet done; its cooking was not completed. But "The meat was **cooked**" means that the meat was done; its cooking was completed. So in phrases like "is cooking" and "will be cooking" the *-ing* (which is called the **present participle** suffix) means "going on and not completed," while in phrases like "is cooked" and "will be cooked" the *-ed* (the **past participle** suffix) means "completed."

Teaching Note. The word *participle* originally had the now obsolete sense "A person, animal, or thing that partakes of the nature of two or more different classes" (*OED*). Participles are called participles because they partake of the nature of both verb and adjective. The two inflectional suffixes *-er* and *-est* are used with some modifying words — short adjectives and some adverbs — to add the meaning "more" and "most", as in the series

calm, calmer, calmest and fast, faster, fastest.

Two ways to define *adjective*:

1. "A word used "to modify a noun . . . by limiting, qualifying, or specifying."

-- *The American Heritage Dictionary*

2. Any word that does not end in -'s but will fit into this blank:

"The _____ thing seemed okay."

A definition of *adverb*:

A word used to modify a verb, adjective, or other adverb.

Fill in the blanks:

1. The two forms of the noun plural inflectional suffix are -s and -es.
2. The two forms of the possessive noun suffix are -'s and -'.
3. The verb suffix that adds the meaning "in the past" is -ed.
4. The two forms of the verb suffix that adds the meaning "3rd person, singular, present tense" are -s and -es.
5. The verb suffix that adds the meaning "not completed" is -ing.
6. The verb suffix that adds the meaning "completed" is -ed.
7. The adjective and adverb suffixes that add the meaning "more" and "most" are -er and -est.

The following paragraph contains twelve words that contain inflectional suffixes. Underline the words, and in Array 10 list the suffixes and the meaning that each one adds to its stem word. The first one is done for you. Some suffixes and words occur more than once:

Sharon and I record folk ballads. I sing tenor and she sings alto and plays the guitar. Her voice may not be as clear as Janet's but Sharon plays a much

sweeter guitar and may be the mellowest singer I know. Last year she played nothing but hymns, but this year she will also be playing folk songs and even some of the guys' home-made rock.

Array 10

Suffix	Meaning	Suffix	Meaning
1. -s	"more than one"	7. -est	"most"
2. -s	"3rd person, singular, present tense"	8. -ed	"past tense"
3. -s	"3rd person, singular, present tense"	9. -s	"more than one"
4. -'s	"possession"	10. -ing	"not completed"
5. -s	"3rd person, singular, present tense"	11. -s	"more than one"
6. -er	"more"	12. -s'	"more than one" and "possession"

Teaching Note. Notice that there are 13 inflectional suffixes in this selection: In *guys'* there are two suffixes: the plural -s and the possessive -'.

Derivational Suffixes. Inflectional suffixes add layers of meaning to the words to which they are fixed. But some suffixes change the entire function of their word — that is, change its part of speech. These suffixes add meanings like "This is an adjective" or "This is an adverb" and are called **derivational suffixes**.

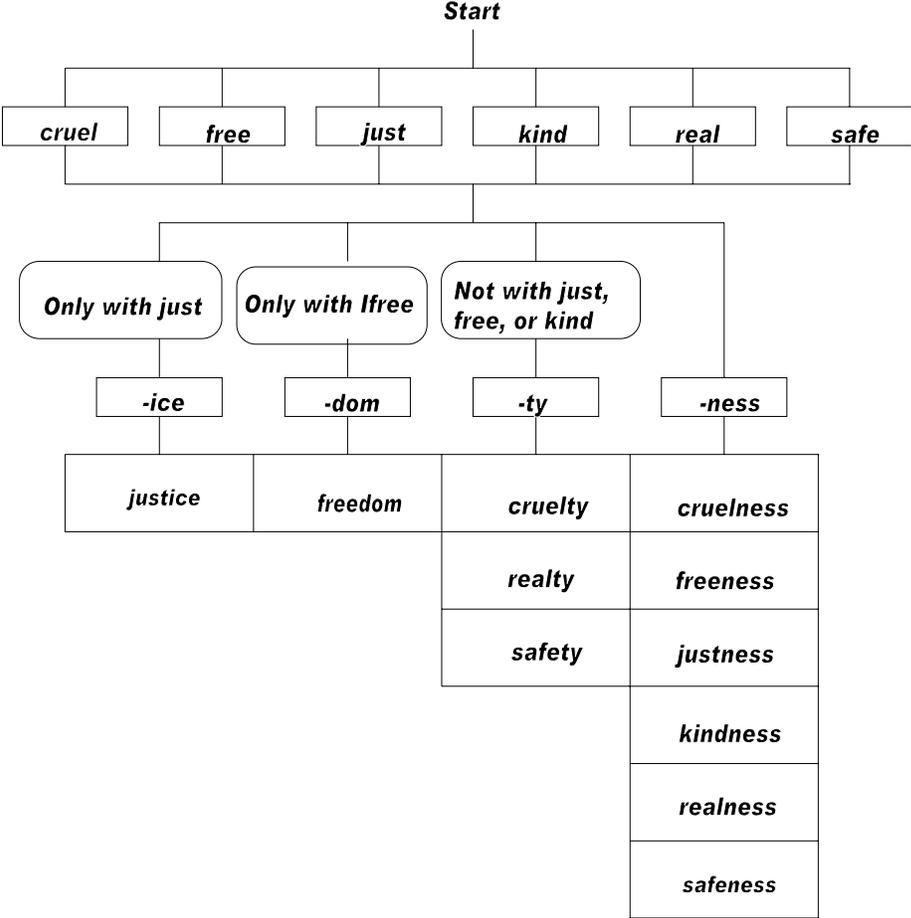
In "She sang that lyric with a style that was more than just lyrical" the derivational suffix *-al* in *lyrical* changes the noun *lyric* into an adjective. Remember the sentences with blanks: "The lyric seemed okay" is an understandable sentence, and so is "The lyrical thing seemed okay" (though it's maybe a bit unusual). So we know that *lyric* is a noun, and *lyrical* is an adjective.

In "She gave him a stern look and then answered him very, very calmly" the suffix *-ly* in *calmly* changes the adjective *calm* into an adverb. Again, "The calm thing seemed okay" makes sense, and we know that *calmly* is an adverb because it is modifying the verb *answered*, telling how she answered him.

In "That fellow over there in the yellow cap is the coach's assistant" the *-ant* changes the verb *assist* into a noun.

Derivational Suffixes			
calm	+ ly	=	calmly
(an adjective)			(an adverb)
lyric	+ al	=	lyrical
(a noun)			(an adjective)
assist	+ ant	=	assistant
(a verb)			(a noun)

The four derivational suffixes in the flow chart below turn adjectives into nouns. These four can turn the six adjectives into eleven nouns (according to some dictionaries). Trace your way down from each adjective to the appropriate suffix or suffixes to form the eleven nouns. Then write out the nouns in the blanks.



Three suffixes that turn verbs into nouns are *-ance*, *-ion*, and *-ment*. Select the proper

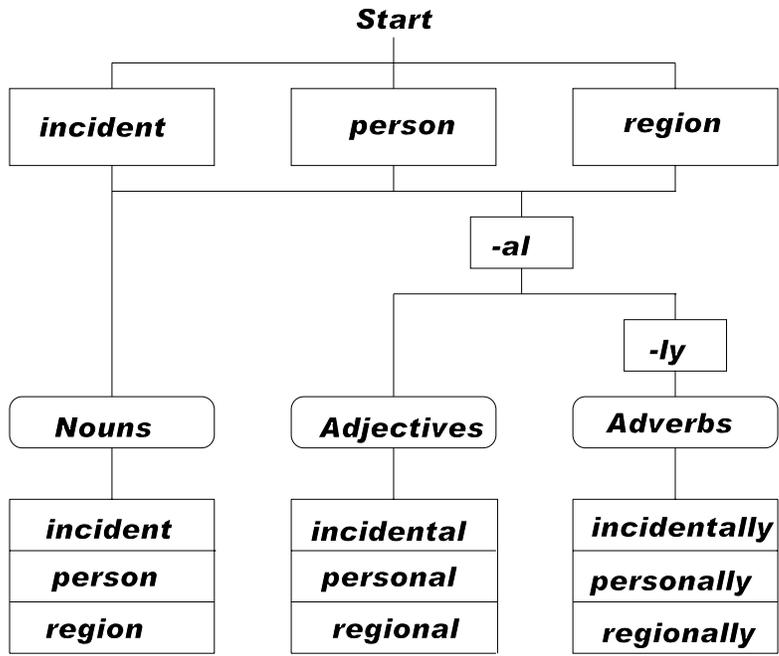
one of these three for each verb in Array 11 and write it in the "Suffix" column. In the "Noun" column write out the noun the verb plus suffix spells. Copy carefully. Watch your spelling!

Array 11

Verb	+ Suffix	= Noun
amend	+ <i>ment</i>	= <i>amendment</i>
appear	+ <i>ance</i>	= <i>appearance</i>
arrange	+ <i>ment</i>	= <i>arrangement</i>
attend	+ <i>ance</i>	= <i>attendance</i>
environ	+ <i>ment</i>	= <i>environment</i>
equip	+ <i>ment</i>	= <i>equipment</i>
exhaust	+ <i>ion</i>	= <i>exhaustion</i>
govern	+ <i>ment</i>	= <i>government</i>
perform	+ <i>ance</i>	= <i>performnce</i>
possess	+ <i>ion</i>	= <i>possession</i>
resist	+ <i>ance</i>	= <i>resistance</i>

The following flow chart gives you a chance to work with *-al* and with *-ly* — from nouns to adjectives to adverbs:

Teaching Note. Be sure the students catch the double <l>'s in the adverbs.



The five suffixes *-al*, *-ful*, *-ish*, *-ous*, and *-less* turn nouns into adjectives, which then can take *-ly* to form adverbs. For each noun in Array 12, pick out the appropriate suffix or suffixes and write out the adjectives formed. Then write out the adverbs.

Array 12

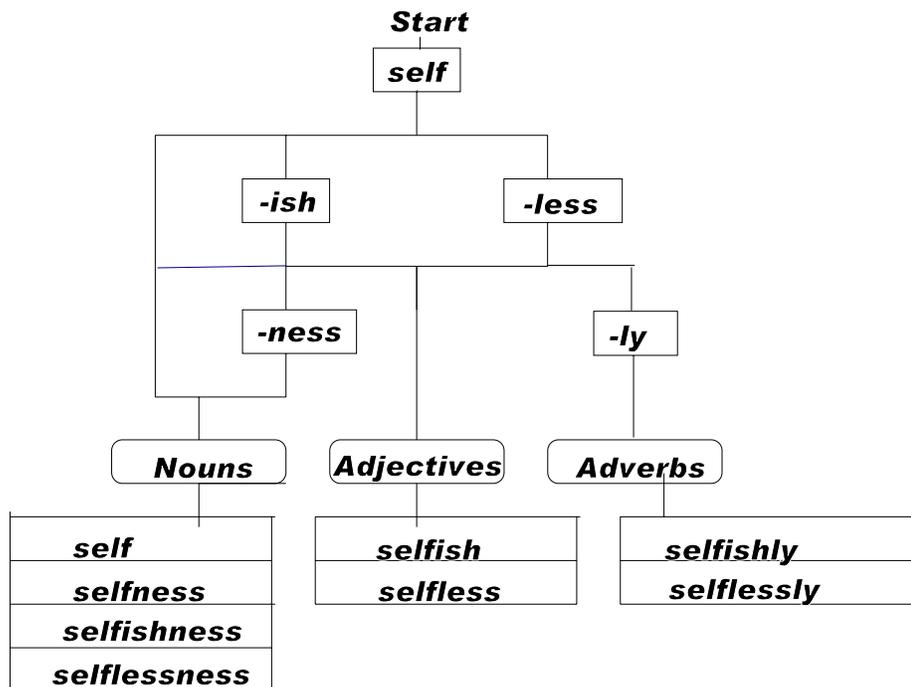
Nouns	+	<i>-al</i>, or <i>-ful</i>, or <i>-ish</i>, or <i>-ous</i>, or <i>-less</i>	=	Adjectives	+	<i>-ly</i>	=	Adverbs
accident	+	<i>al</i>	=	<i>accidental</i>	+	<i>ly</i>	=	<i>accidentally</i>
critic	+	<i>al</i>	=	<i>critical</i>	+	<i>ly</i>	=	<i>critically</i>
devil	+	<i>ish</i>	=	<i>devilish</i>	+	<i>ly</i>	=	<i>devilishly</i>
doubt	+	<i>ful</i> or <i>less</i>	=	<i>doubtful</i> , <i>doubtless</i>	+	<i>ly</i>	=	<i>doubtfully</i> , <i>doubtlessly</i>
fear	+	<i>ful</i> or <i>less</i>	=	<i>fearful</i> , <i>fearless</i>	+	<i>ly</i>	=	<i>fearfully</i> , <i>fearlessly</i>
fiend	+	<i>ish</i>	=	<i>fiendish</i>	+	<i>ly</i>	=	<i>fiendishly</i>

Nouns	+	-al, or -ful, or -ish, or -ous, or -less	=	Adjectives	+	-ly	=	Adverbs
fool	+	<i>ish</i>	=	<i>foolish</i>	+	<i>ly</i>	=	<i>foolishly</i>
force	+	<i>ful or less</i>	=	<i>forceful, forceless</i>	+	<i>ly</i>	=	<i>forcefully, forcelessly</i>
form	+	<i>al or less or ful</i>	=	<i>formal, formless, formful</i>	+	<i>ly</i>	=	<i>formally, formlessly, formfully</i>
hope	+	<i>ful or less</i>	=	<i>hopeful, hopeless</i>	+	<i>ly</i>	=	<i>hopefully, hopelessly</i>
moment	+	<i>ous</i>	=	<i>momentous</i>	+	<i>ly</i>	=	<i>momentously</i>
outrage	+	<i>ous</i>	=	<i>outrageous</i>	+	<i>ly</i>	=	<i>outrageously</i>
peace	+	<i>ful or less</i>	=	<i>peaceful, peaceless</i>	+	<i>ly</i>	=	<i>peacefully, peacelessly</i>
thank	+	<i>ful or less</i>	=	<i>thankful, thankless</i>	+	<i>ly</i>	=	<i>thankfully, thanklessly</i>
thought	+	<i>ful or less</i>	=	<i>thoughtful, thoughtless</i>	+	<i>ly</i>	=	<i>thoughtfully, thoughtlessly</i>
use	+	<i>ful or less</i>	=	<i>useful, useless</i>	+	<i>ly</i>	=	<i>usefully, uselessly</i>

Nine of the sixteen nouns in Array 12 can take more than one suffix to form adjectives. For instance, the noun *hope* can take *-ful* and *-less* to form two different adjectives — *hopeful* and *hopeless*. Write down the other eight nouns that can take more than one suffix:

<i>doubt</i>	<i>fear</i>	<i>force</i>	<i>form</i>
<i>peace</i>	<i>thank</i>	<i>thought</i>	<i>use</i>

The flow chart below gives you a chance to work with the suffixes *-ish* and *-less*, which form adjectives from nouns, with *-ness*, which forms abstract nouns from adjectives, and with *-ly*, which forms adverbs from adjectives:



A Different Kind of Derivational Suffix. Derivational suffixes change their stem's part of speech. That is, they change a word so that it can be used in a different way. The noun *lyric* can be used in certain ways, the adjective *lyrical* in others, the adverb *lyrically* in still others. But some derivational suffixes change a word just enough to allow us to use it in different ways though not enough to change its part of speech.

Some derivational suffixes change one kind of noun into a different kind of noun. For instance, *gang* is noun that refers to a certain kind of group of people. *Gangster* (that is, *gang* plus the suffix *-ster*) is also a noun, but it refers to an individual who belongs to such a group. *Team* is a noun that refers to a group of work animals; *teamster* is a noun that refers to a person who drives those work animals. (Nowadays, since engines have taken over the work of animals, a truck driver is called a teamster.)

In Array 13 there are five sets of nouns. Use the space in the "Analysis" column to analyze each of these nouns into its stem plus suffix — as has been done with *eye/et*. All the nouns in a set have the same suffix. In the "Definition of suffix" column define the common suffix in each set.

Array 13

Sets of Nouns	Analysis into Stem + Suffix	Definition of Suffix
eyelet	<i>eye + let</i>	<i>“small, little”</i>
piglet	<i>pig + let</i>	
booklet	<i>book + let</i>	
ringlet	<i>ring + let</i>	
heiress	<i>heir + ess</i>	<i>“female, feminine”</i>
hostess	<i>host + ess</i>	
countess	<i>count + ess</i>	
priestess	<i>priest + ess</i>	
childhood	<i>child + hood</i>	<i>“the state, condition, or quality of being”</i>
godhood	<i>god + hood</i>	
sainthood	<i>saint + hood</i>	
handful	<i>hand + ful</i>	<i>“the amount or number that will fill”</i>
eyeful	<i>eye + ful</i>	
mouthful	<i>mouth + ful</i>	
armful	<i>arm + ful</i>	
spoonful	<i>spoon + ful</i>	
lapful	<i>lap + ful</i>	
humorist	<i>humor + ist</i>	<i>“one who does, makes, operates, plays, or sells a specified thing”</i>
terrorist	<i>terror + ist</i>	
motorist	<i>motor + ist</i>	
tourist	<i>tour + ist</i>	
organist	<i>organ + ist</i>	
journalist	<i>journal + ist</i>	
violinist	<i>violin + ist</i>	

After you've given the job of defining these five suffixes a good go, look them up in your dictionary to see how well you did.

Summing Up. Earlier you wrote definitions of the terms *element*, *free element*, *bound element*, *base*, *free base*, *bound base*, and *compound word*. Since then you've read about some other terms, and now is a good time to set down some more definitions. Include an example in each of your definitions:

A **suffix** is *an element that is fixed to the end of bases and cannot stand free as a word.*

Example: -s in the word dogs.

An **inflectional suffix** is *a suffix that helps answer such questions as When? Whose? One or more than one? How much? Example: -er in the word calmer.*

A **derivational suffix** is *a suffix that changes and indicates a word's part of speech.*

Example: -al in derivational, which changes the stem noun derivation into an adjective.

A **stem** is *an element or string of elements to which we are going to add or from which we are going to subtract one or more elements. A stem must contain at least one base.*

Example: journal in the word journalist.

Name _____ Date _____

Word	Shortest Free Stems + Suffixes
0. <i>fearlessly</i>	<i>fear+less+ly</i>
1.	_____
2.	_____
3.	_____
4.	_____
5.	_____
6.	_____
7.	_____
8.	_____
9.	_____
10.	_____

Word	Shortest Free Stems + Suffixes
1. justice	justice+ice
2. selfishness	self+ish+ness
3. realest	real+est
4. thoughtfulness	thought+ful+ness
5. terrorist	terror+ist
6. possessively	possess+ive+ly
7. tomatoes	tomato+es
8. environment	environ+ment
9. accidentally	accident+al+ly
10. exhaustion	exhaust+ion

5 Prefixes

What Prefixes Are. Stems can have elements fixed onto the front of them, too. Compare the pairs of words in the box below:

heat	preheat
judge	prejudge
school	preschool
view	preview
set	preset
fix	prefix

Elements like *pre-* that come before the stem and that cannot stand by themselves as words are **prefixes**.

Looking at the differences in meaning between the pairs of words in the box above, what would you say *pre-* means? “Before, ahead of time”

After you've had a go at defining *pre-*, check it in your dictionary to see how well you did. Prefixes are listed in the main part of the dictionary just like regular words, except that they are always printed with a hyphen following them. For instance, <pre->.

A word that consists of a prefix and a free base is different from a compound that consists of two free bases. Consider these two words:

sunset	=	sun + set
preset	=	pre + set

The word *sunset* consists of two free bases *sun* and *set*. But *preset* consists of just one free base, *set*, plus a bound element, *pre-*. The *pre-* is a prefix, a bound element that comes before the base. Now analyze these two words:

Word	= Analysis
bicycle	= <i>bi</i> + <i>cycle</i>
motorcycle	= <i>motor</i> + <i>cycle</i>

Which word contains a prefix? bicycle .

What is the prefix? bi- .

Which word is a compound? motorcycle .

How do you know it is a compound? Both motor and cycle are free stems.

Each of the words in Array 14 consists of two elements. In the "Analysis" column analyze each word into its elements. Put any prefixes you find in the "Prefixes" column. Put any free bases you find in the "Bases" column. If you cannot decide whether an element is a prefix or a free base, look it up in your dictionary. The first two have been done for you.

Array 14

Word	= Analysis	Prefixes	Bases
multistage	= <i>multi</i> + <i>stage</i>	<i>multi-</i>	<i>stage</i>
backstage	= <i>back</i> + <i>stage</i>		<i>back, stage</i>
semihard	= <i>semi</i> + <i>hard</i>	<i>semi-</i>	<i>hard</i>
diehard	= <i>die</i> + <i>hard</i>		<i>die, hard</i>
brainwash	= <i>brain</i> + <i>wash</i>		<i>brain, wash</i>
rewash	= <i>re</i> + <i>wash</i>	<i>re-</i>	<i>wash</i>
miscall	= <i>mis</i> + <i>call</i>	<i>mis-</i>	<i>call</i>
catcall	= <i>cat</i> + <i>call</i>		<i>cat, call</i>
shortchange	= <i>short</i> + <i>change</i>		<i>short, change</i>
interchange	= <i>inter</i> + <i>change</i>	<i>inter-</i>	<i>change</i>
transplant	= <i>trans</i> + <i>plant</i>	<i>trans-</i>	<i>plant</i>
houseplant	= <i>house</i> + <i>plant</i>		<i>house, plant</i>
triplane	= <i>tri</i> + <i>plane</i>	<i>tri-</i>	<i>plane</i>
seaplane	= <i>sea</i> + <i>plane</i>		<i>sea, plane</i>
unborn	= <i>un</i> + <i>born</i>	<i>un-</i>	<i>born</i>
stillborn	= <i>still</i> + <i>born</i>		<i>still, born</i>
monotone	= <i>mono</i> + <i>tone</i>	<i>mono-</i>	<i>tone</i>
halftone	= <i>half</i> + <i>tone</i>		<i>half, tone</i>

Word	= Analysis	Prefixes	Bases
typewrite	= <i>type</i> + <i>write</i>		<i>type, write</i>
rewrite	= <i>re</i> + <i>write</i>	<i>re-</i>	<i>write</i>

What Prefixes Mean. Prefixes practically never change the part of speech of words to which they are fixed: *heat* and *preheat* are both verbs, *school* and *preschool* are both nouns. Nor do they add meanings like "in the past" or "possession." So prefixes differ from derivational and inflectional suffixes not only by coming at the front of the stem rather than the back, but also by adding a different kind of meaning.

Teaching Note. As is said above, prefixes practically never change the part of speech of their words. However, there are a few **conversion prefixes** that do effect such a change. For instance, *a-* can convert verbs into adjectives, as in *asleep, awash, astride, aglow, atremble*; *be-* can work with the suffix *-ed* to convert nouns into adjectives (*bespectacled, bewigged, bedewed*), and it can convert nouns into verbs (*bewitch, befriend, bedevil*); *en-* also can convert nouns into verbs (*endanger, entrain, enmesh*).

Prefixes add meanings like "to," "toward," "with," "against" — and very often "not" or "no."

How many ways are there to say "no" or "not"?	
true	untrue
complete	incomplete
sense	nonsense
moral	amoral
normal	abnormal
rational	irrational
social	antisocial
thing	nothing
behaving	misbehaving
logical	illogical

How many prefixes can you think of that mean "yes"?

Teaching Note. Our many negative prefixes do not indicate any inherent negativity in our language. Quite the contrary, most stems are inherently positive, so we have much more need to make positive stems negative than we have to make negative stems positive. Consider our problems with a word to describe the opposite of *decaffeinated*, which is a negative stem. *Caffeinated* doesn't sound quite right since it seems to treat a natural and passive condition (containing caffeine) as the result of an overt action. *Undecaffeinated*, though accurate, seems odd, with its double negative. So we settle for *regular*.

All of the words in Array 15 consist of two elements, a prefix and a base. Your first job is to identify the prefix in each word. Some of them you may recognize right away. Your dictionary should help you with the harder ones. If you have trouble identifying the prefix in a word, go back through the word's etymology until it analyzes the original form of the word into its parts.

For instance, if you check the etymology of *abound* in the *American Heritage Dictionary*, you find the Latin word that was its original: "*abundare*, to overflow: *ab-*, from + *undare*, to flow." From the etymology you know that the prefix for *abound* is *ab-*. So <ab-> goes beside *abound* in the "Prefix" column. Since you know that all the words in the array consist of a prefix and a base and nothing more, you know that the base will be what is left over after you subtract the prefix from the word. So <ound> goes in the "Base" column.

After you have entered a word's prefix and base in the proper columns, look at the definition of the word's original elements in the etymology. As you can see, the original elements of *abound* were the Latin prefix *ab-* meaning "from," and the base *undare* meaning "to flow." If you add these original meanings together, you get the word's **etymological meaning**: "to flow from." If you can't find the meaning of the prefix in the etymology, try looking up the prefix in your dictionary's main word list. Enter the etymological meaning of each word in the right-hand column.

Array 15

Word	Prefix	Base	Etymological Meaning
abound	<i>ab-</i>	<i>ound</i>	"to flow from"
adopt	<i>ad-</i>	<i>opt</i>	"to choose or desire to"
advert	<i>ad-</i>	<i>vert</i>	"to turn toward"
compile	<i>com-</i>	<i>pile</i>	"to plunder, to pile up (booty) together"
contradict	<i>contra-</i>	<i>dict</i>	"to speak against"
debunk	<i>de-</i>	<i>bunk</i>	"to remove twaddle"
design	<i>de-</i>	<i>sign</i>	"to mark out"
express	<i>ex-</i>	<i>press</i>	"to press out"
microphone	<i>micro-</i>	<i>phone</i>	"small voice or sound"
mishap	<i>mis-</i>	<i>hap</i>	"wrong luck or chance"
nonsense	<i>non-</i>	<i>sense</i>	"not perceived by the senses, not felt"
oblong	<i>ob-</i>	<i>long</i>	"very long"

Word	Prefix	Base	Etymological Meaning
pronoun	<i>pro-</i>	<i>noun</i>	<i>"in place of the name"</i>
remark	<i>re-</i>	<i>mark</i>	<i>"to note or mark again"</i>
subway	<i>sub-</i>	<i>way</i>	<i>"a road or path that is under or beneath"</i>
transplant	<i>trans-</i>	<i>plant</i>	<i>"to plant across"</i>

In the following puzzle, fit the words you are given into the squares. All of the words contain prefixes. Be sure to start with words that you are certain about:

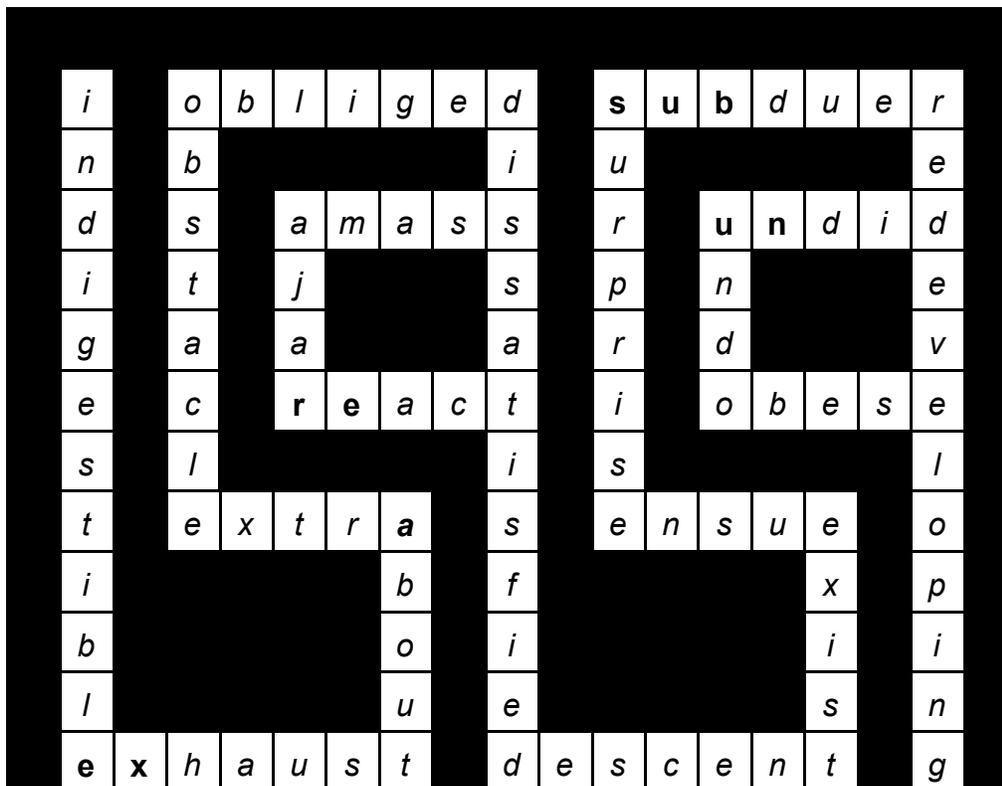
Four-letter words: undo, ajar

Five-letter words: about, extra, amass, obese, ensue, react, exist, undid

Seven-letter words: descent, exhaust, obliged, subduer

Eight-letter words: obstacle, surprise

Twelve-letter words: dissatisfied, indigestible, redeveloping



6 Analysis and Your Dictionary

How to Find Words in Your Dictionary. Dictionaries list words in three different ways — and places. Most often, the word you look up is listed in alphabetical order and is printed in boldface at the beginning of the entry. A word listed this way is the **main entry word**.

But in order to save space, dictionaries don't treat all of the words they list as main entry words. Earlier you saw how inflectional suffixes can be added to words. (You might want to look back at the summary of the inflectional suffixes usually added to nouns, verbs, adjectives, and adverbs.) Words formed with these suffixes are **inflected forms**. Dictionaries often list inflected forms right before the definitions of the main entry word. Sometimes, especially if the spelling is unusual, the dictionary will write out the inflected form in full. But usually it will simply write out part of it— perhaps the last few letters of the stem plus the inflectional suffix. Look at the entry for *provoke* back on page 10: In the first line, before the definitions begin, you are told that the inflected forms for the verb *provoke* are *provoked*, *provoking*, and *provokes*.

The inflected verb forms are given before the verb definitions, the inflected noun forms before the noun definitions, and so on.

Sometimes, if the spelling of an inflected form is regular and the meaning seems obvious, the dictionary may not list the inflected form at all. This is often the case with noun plurals.

So if you are trying to find a word that looks as if it might contain an inflectional suffix and you do not find it listed as a main entry word, look for it as an inflected form listed either at the beginning or within the entry for its stem word.

In addition to the main entry word and the inflected forms, dictionaries often list a third kind of word — at the bottom of an entry. These are words formed by adding derivational suffixes to the main entry word. They are **derived forms**. In the entry for *provoke* the only derived form shown is the adverb *provokingly*, which is the inflected form *provoking* plus the derivational suffix *-ly*.

So if you are trying to find a word that looks as if it could contain a derivational suffix and you do not find it listed as a main entry word, look for it as a derived form listed towards the bottom of the entry for its stem word.

If you still have problems finding words, look at the explanation or guide at the front of your dictionary. It will tell you more about main entry words, inflected forms, and derived forms — though sometimes it may call derived forms by different names, like "undefined forms" or "run-on entries."

Look up the words in Array 16 in your dictionary and write any inflected or derived forms listed in the entry for each:

Array 16

Entry Word	Inflected Forms	Derived Forms
achieve	<i>achieved, -ing, -s</i>	<i>achievable, achiever</i>
religious	<i>(n. plural) religious</i>	<i>religiously, religiousness</i>
deceive	<i>deceives, -ved, -ving</i>	<i>deceiver, deceptively</i>
sacrifice	<i>sacrifices, -ced, -cing</i>	<i>sacrificer</i>
peaceable	-----	<i>peaceableness, peaceably</i>
radio	<i>radios, -oed, -oing; -os</i>	-----
intentional	-----	<i>intentionally</i>
exhaust	<i>exhausts, -ted, -ting</i>	<i>exhauster, exhaustible, exhaustibility</i>
extreme	-----	<i>extremely, extremeness</i>
accomplish	<i>accomplishes, -ed, -ing</i>	<i>accomplishable, accomplisher</i>
go	<i>went, gone, going, goes</i>	-----
child	<i>children</i>	<i>childless, childlessness</i>

Teaching Note. You should expect some disagreement here in the students' responses. Different dictionaries will list different forms as part of the main entry, especially different derived forms. Some dictionaries will list as main entries words that other dictionaries list as inflected or derived forms within a the entry for the stem word.

More Analysis. Each of the words in Array 17 consists of three elements: a prefix, a bound base, and a suffix. Analyze the words one by one and enter the elements in the proper columns. This process should be pretty easy because nine of the sixteen words all share a common bound base, and the other seven all share another.

Look for the strings of letters that show up in several words. Whenever you are trying to

understand patterns and structures, look first for things that repeat. In this controlled group of words, you can assume that the longest repeated string of letters spells the same base. What's left over at the front will be a prefix, and what's left over at the back will be a suffix.

If you cannot find a word listed as a main entry word, check for it as an inflected or derived form.

Enter the word's part of speech in the right-hand column. If you don't know a word's part of speech, look back at the definitions [on pages 20-24](#). If you're still uncertain, check your dictionary. Look up the prefixes and suffixes in your dictionary and write out their meanings in the appropriate columns. Most prefixes and suffixes have more than one meaning. Some even have more than one entry. For instance, your dictionary should show two different *-ly* suffixes — one that forms adjectives out of nouns (*mother*, *motherly*) and the more common one that forms adverbs out of adjectives (*calm*, *calmly*). Be sure you have the correct entry and the meaning that seems to you to fit best.

Array 17

abjectly	disjunction	contraceptive	projectile
adjective	excepting	objectify	receptor
deceptive	inception	perceptible	rejects
dejection	injector	precepts	subjected
Analysis into Prefix+Base+Suffix	Prefix's Modern Meaning	Suffix's Modern Meaning	Part of Speech
<i>ab + ject + ly</i>	<i>"Away from"</i>	<i>"In a specified manner"</i>	<i>Adv.</i>
<i>ad + ject + ive</i>	<i>"Tending or to, toward"</i>	<i>"Inclining to"</i>	<i>Noun, Adj.</i>
<i>de + cept + ive</i>	<i>"Disparagement"</i>	<i>"Inclining to"</i>	<i>Adj.</i>
<i>de + ject + ion</i>	<i>"Down"</i>	<i>"State of being"</i>	<i>Noun</i>
<i>dis + ject + ion</i>	<i>"Apart"</i>	<i>"Act or state of being"</i>	<i>Noun</i>
<i>ex + cept + ing</i>	<i>"Removal out or from"</i>	<i>"Uncompleted action"</i>	<i>Verb, prep.</i>
<i>in + cept + ion</i>	<i>"In, into"</i>	<i>"Act or state of being"</i>	<i>Noun</i>

Analysis into Prefix+Base+Suffix	Prefix's Modern Meaning	Suffix's Modern Meaning	Part of Speech
in + ject + or	<i>"In, into"</i>	<i>"One that does"</i>	<i>Noun</i>
contra + cept + ive	<i>"Against, opposite"</i>	<i>"Inclining to"</i>	<i>Noun, Adj.</i>
ob + ject + ify	<i>"Inverse, inversely"</i>	<i>"Cause to become, make"</i>	<i>Verb</i>
per + cept + ible	<i>"Thoroughly, completely"</i>	<i>"Susceptible to, capable of"</i>	<i>Adj.</i>
pre + cept + s	<i>"Earlier, before, preliminary"</i>	<i>"Plural"</i>	<i>Noun</i>
pro + ject + ile	<i>"Priority in space or time"</i>	<i>"Of, capable of"</i>	<i>Noun, adj.</i>
re + cept + or	<i>"Again, back"</i>	<i>"One that does"</i>	<i>Noun</i>
re + ject + s	<i>"Again, back"</i>	<i>"Plural; 3rd per. sing.pres."</i>	<i>Noun, Verb</i>
sub + ject + ed	<i>"Below, nearly"</i>	<i>"Past tense"</i>	<i>Verb</i>

Now here are some questions. Base your answers on the data you displayed in Array 17.

1. How many different prefixes appear in these words? 13
2. Which prefixes have meanings that show direction or position? ab-, ad-, contra-, de-, dis-, ex-, in-, ob-, pre-, pro-, re-, and sub-
3. How many different suffixes appear here? 11 (if you treat rejects as a verb. If you treat it as a noun, there are only 10 different suffixes in the array).
4. Which of them are inflectional suffixes, marking plural nouns or verb tenses? -s, -ed, -ing, and -s (noun plural).
5. Which of these suffixes forms adverbs? -ly
6. Which of these suffixes form words that can be either nouns or adjectives? -ive and -ile.
7. Which forms just adjectives? -ible.

8. Which form just nouns? -ion and -or.

Teaching Note. Notice that the *-s* in *precepts* is not a derivational suffix that forms a noun; it is an inflectional suffix that merely inflects a stem that is already a noun.

9. Which forms verbs? -ify.

Teaching Note. Notice that the *-ed* in *subjected* is not a derivational suffix that forms a verb; it is an inflectional suffix that merely inflects a stem that is already a verb.

Words can sometimes have more than one prefix and more than one suffix. The next activity asks you to analyze some long words into their elements. This might be a bit harder than the earlier analyses, but fear not. Remember what you've found out so far. Start with the easy things, the things you already know. Look over the previous pages and get the prefixes and suffixes mentioned there in your mind. Watch for them. Try the analysis on your own at first, using a pencil so you can change your mind. Make your decisions fearlessly — and then check them in the dictionary. Don't be afraid to make mistakes — nor ashamed to learn from them. Remember how useful etymologies can be for identifying prefixes.

Two special ground rules: The first one will help keep things orderly and simple; the second will help you better see how a word is formed. First, cut off only one suffix or prefix at a time, until you end up with the base. Second, try as often as possible to cut so that the stem you uncover is free — that is, could be used as a word.

For example, let's analyze *unintentional*: Probably you recognize *un-* as a prefix you've seen before, and if you cut it off, you are left with the free stem *intentional*: *unintentional* = *un* + *intentional*.

You might recognize the *in-* as a prefix, too, but if you cut it off now, you get <tentional>, which is not a free stem, not a word. However, if you cut off the *-al* suffix from *intentional*, you get the free stem *intention*: *intentional* = *intention* + *al*.

If you now cut off the *in-* from *intention*, you get *<tention>, which sounds like a free stem, but isn't. However, if you cut off *-ion*, you are left with *intent*, which is a free stem, and which has a common meaning with the other free stems *intention*, *intentional*, and *unintentional* — *intention* = *intent* + *ion*. These first three cuts look like this:

unintentional		
un	intentional	
	intention	al
	intent	ion

Now all you have left is the prefix *in-* and the base *tent*.

Teaching Note. If students should ask, this base *tent* is closely related to the base *tent* that refers to a temporary cloth shelter. They descend from the same Latin verb that means “to stretch or extend.” It would be legitimate to say that actually there is just one free base *tent*, though it is quite polysemous—that is, has widely different meanings.

Filling out the following analyses can help you see how a word is built upon its base, element by element:

inexact		
<i>in</i>	<i>exact</i>	
	<i>ex</i>	<i>act</i>

unrewarding		
<i>un</i>	<i>rewarding</i>	
	<i>reward</i>	<i>ing</i>
	<i>re</i>	<i>ward</i>

represents		
	<i>represent</i>	<i>s</i>
<i>re</i>	<i>present</i>	
	<i>pre</i>	<i>sent</i>

compressibleness		
compressible		ness
compress	ible	
com	press	

abnormality		
abnormal		ity
ab	normal	
	norm	al

decompression		
de	compression	
	compress	ion
	com	press

amorality		
amoral		ity
a	moral	
	mor	al

unrelentingly		
unrelenting		ly
un	relenting	
	relent	ing
	re	lent

reinvestments			
<i>reinvestment</i>			s
<i>reinvest</i>		<i>ment</i>	
<i>re</i>	<i>invest</i>		
	<i>in</i>	<i>vest</i>	

undoubtedly		
<i>undoubted</i>		<i>ly</i>
<i>un</i>	<i>doubted</i>	
	<i>doubt</i>	<i>ed</i>

indestructibility			
<i>indestructible</i>			<i>ness</i>
<i>in</i>	<i>destructible</i>		
	<i>destruct</i>		<i>ible</i>
	<i>de</i>	<i>struct</i>	

disrespectfully			
<i>disrespectful</i>			<i>ly</i>
<i>dis</i>	<i>respectful</i>		
	<i>respect</i>		<i>ful</i>
	<i>re</i>	<i>spect</i>	

1. List the different bases you found in these twelve words:

1. <i>act</i>	4. <i>press</i>	7. <i>lent</i>	10. <i>struct</i>
2. <i>ward</i>	5. <i>norm</i>	8. <i>vest</i>	11. <i>spect</i>
3. <i>sent</i>	6. <i>mor</i>	9. <i>doubt</i>	

2. Which of these bases are free? *act*, *ward*, *press*, *doubt*, and *norm*.

Teaching Note. The bound base *sent* in *represent* is not the same as *sent*, the past tense of *send*. The bound base *sent* comes from Latin; the verb *sent* comes from Germanic.

3. Which suffixes make nouns? *-ness*, *-ity*, *-ion*, and *-ment*.
 adjectives? *-ing*, *-ible*, *-al*, *-ed*, and *-ful*.
 adverbs? *-ly*.
 plurals? *-s and -es*.

The following are taken to be "hard" words, the kind that show up on lists of Spelling Demons. You are asked to analyze each one into its elements. They all come apart neatly. Then try to think of other words that contain each element. All you have to do is figure out what the elements are, enter them in the proper blanks, and then (in all cases except one) think of three more words that contain each element. In that one exceptional case you need find only two more words. You have been given a start on the first one.

Remember to keep the same spelling and a consistent meaning for the elements in your three words.

intentionally				
<i>in</i>	<i>tent</i>	<i>ion</i>	<i>al</i>	<i>ly</i>
<i>inspire</i>	<i>content</i>	<i>nation</i>	<i>national</i>	<i>quickly</i>
<i>insist</i>	<i>attentive</i>	<i>inspiration</i>	<i>normal</i>	<i>calmly</i>
<i>intonation</i>	<i>detention</i>	<i>contention</i>	<i>original</i>	<i>slowly</i>

Teaching Note. Obviously answers will vary here. The only rule is that whatever word a student puts down, it must contain the element proper to that column. The dictionary, especially the etymology, is the ultimate resource here. In cases where the evidence is not clear, I'd be inclined to give the students the benefit of the doubt. But they must watch out for homographs: There are, for instance, two homographic prefixes spelled <in>; one means "in", the other means "not." The *in-* called for in the table above is the one that means "in." Also, there are the two suffixes spelled <ly>. Again, a good dictionary is the ultimate resource.

exceeding		
<i>ex</i>	<i>ceed</i>	<i>ing</i>
<i>exact</i>	<i>succeed</i>	<i>singing</i>
<i>except</i>	<i>proceed</i>	<i>going</i>
<i>exercise</i>		<i>saying</i>

deception		
<i>de</i>	<i>cept</i>	<i>ion</i>
<i>deceive</i>	<i>accept</i>	<i>invasion</i>
<i>destruction</i>	<i>concept</i>	<i>decision</i>
<i>delay</i>	<i>intercept</i>	<i>incision</i>

persistence		
<i>per</i>	<i>sist</i>	<i>ence</i>
<i>perplex</i>	<i>resist</i>	<i>independence</i>
<i>perceive</i>	<i>insist</i>	<i>occurrence</i>
<i>perfect</i>	<i>consistent</i>	<i>reference</i>