Knowledge of morphemes facilitates decoding and provides a springboard for vocabulary development and spelling (Adams, 1990) and bridges the gap between alphabetic reading and comprehension (Foorman \& Schatschneider, 1997). Fill in the missing information.

| Morpheme | Origin | Meaning | Derivatives |
| :---: | :---: | :---: | :---: |
| ang | Latin | bend |  |
| astro | Greek | star |  |
| auto | Greek | self, unaided |  |
| bio | Greek |  | biology, biodegradable, biography |
| chron |  | time | chronicle, chronometer, synchronize |
| cogn | Latin |  | recognize, cognitive, metacognition |
| cred | Latin |  | creed, incredible, credulous |
| duct |  | lead |  |
| fer | Latin | bear |  |
| geo | Greek | earth |  |
| logy | Greek |  |  |
| manu | Latin | hand |  |
| pop | Latin | people |  |
| rupt |  | break |  |
| trans | Latin | across |  |
| vac | Latin | empty |  |
| vert, vers | Latin | turn |  |
| vis | Latin |  | vision, visible, invisible |

Generate derivatives for each of the roots or combining forms.

graph (to write, record)
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$

## syn, sym (same)

$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
nom (to name)
nominate
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$

form (shape)
formation
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
greg (to gather, group)
$\qquad$ congregate
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$

ology (study of)
bioloay

$\qquad$

cur (to go, flow)
current
$\qquad$

$\qquad$
$\qquad$

voc (to call)
vocation
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
(continued on next page)

A derivative web (Carreker, 2004) is used for words with recognizable, recurring word parts. Students write the new vocabulary word (e.g., inject) on the line at the top to the left and the part of speech on the top line at the right. In the center circle, students write the origin, the word parts that make up the word and their meanings, and the definition of the word. In each of the three upper circles, students write a derivative that contains one word part (e.g., three derivatives with prefix in-meaning in or into). In the other three circles, students write three derivatives that contain the other word part (e.g., three derivatives with the root ject, meaning to throw). Finally, students write a sentence with the word on the line at the bottom of the web. This web is intended to show how learning word parts economizes the learning of new vocabulary and how words with common word parts share a sense of the same meanings.

Web the word inject.
inject


## ACTIVITY 77-MORPHEMES, ORIGINS, MEANINGS, AND DERIVATIVES

The example derivatives do not represent a complete list.

| Morpheme | Origin | Meaning | Derivatives |
| :---: | :---: | :---: | :---: |
| ang | Latin | bend | angle, angular, triangle |
| astro | Greek | star | astronomy, astrology, astronaut |
| auto | Greek | self, unaided | autonomy, automatic, autograph |
| bio | Greek | life | biology, biodegradable, biography |
| chron | Greek | time | chronicle, chronometer, synchronize |
| $\operatorname{cog} n$ | Latin | know | recognize, cognitive, metacognition |
| cred | Latin | believe | creed, incredible, credulous |
| duct | Latin | lead | conduct, induction, deductive |
| fer | Latin | bear | suffer, infer, refer, confer |
| geo | Greek | earth | geology, geometry, geodesic |
| logy | Greek | study of | phonology, morphology, theology |
| manu | Latin | hand | manual, manuscript, manipulate |
| pop | Latin | people | population, populace, popular |
| rupt | Latin | break | interrupt, erupt, irrupt |
| trans | Latin | across | transport, transfer, transportation |
| vac | Latin | empty | vacuum, vacate, vacation |
| vert, vers | Latin | turn | invert, revert, reversible |
| vis | Latin | see | vision, visible, invisible |

## ACTIVITY 78-ROOTS AND COMBINING FORMS

(The example derivatives do not represent a complete list.)
ject (to throw): reject, object, abject, project, eject, subject
ped (foot): pedal, pedestal, pedestrian
spect (to watch): inspect, respect, spectator, spectacular, speculate
graph (to write, record): autograph, photograph, phonograph
bio (life): biology, autobiography, biosphere
ology (study of): geology, theology, phonology
syn, sym (same): synchronize, synagogue, sympathy, symphony
form (shape): uniform, formation, transform
cur (to go, flow): current, curriculum, concur
nom (to name): nominee, nomination, nominal
greg (to gather, group): congregate, segregate, integrate, aggregate
voc (to call): vocal, vocation, vocabulary, invocation
nym (to name): synonym, antonym, pseudonym
pod (foot): tripod, podium, podiatrist
cycl (circle): bicycle, tricycle, cycle
struct (to build): construction, instruction, destruction
vis (to see): vision, visible, visor, supervisor
meter (measure): thermometer, kilometer, odometer, barometer

## ACTIVITY 79-SYLLABLES AND MORPHEMES

instructor $(3,3)$; autograph $(3,2)$; destruction $(3,3)$; salamander $(4,1)$; unleaded $(3,3)$; waits $(1,2)$; interjection; $(4,3)$; bookkeeper $(3,3)$; conjunction $(3,3)$; photographic $(4,3)$; rattlesnake $(3,2)$; marker $(2,2)$; cucumber $(3,1)$; barbecue $(3,1)$; manuscript $(3,2)$; outstanding $(3,3)$; handshake $(2,2)$; bluebonnet $(3,2)$

## ACTIVITY 80-SYLLABLES AND MORPHEMES

population (4, 2); combination (4, 2); mustang (2, 1); summertime (3, 2); thermostat $(3,2)$; bumblebee $(3,2)$; protection $(3,3)$; wheelbarrow $(3,2)$; ambulance $(3,2)$; river $(2,1)$; watermelon $(4,2)$; canine $(2,1)$; dressmaker $(3,3)$; mercury ( 3 , $1)$; countryside $(3,2)$; computing $(3,3)$; kangaroo $(3,1)$; vegetables $(3,2)$

## ACTIVITY 81-SEMANTIC WORD WEBS

Answers will vary; one possibility is shown here.


Often politicians skillifully prevaricate about their pasts.
Sentence

## ACTIVITY 82-DERIVATIVE WEBS

Answers will vary; one possibility is shown here.


The doctor will inject the vaccine through a syringe.
Sentence

### 1.9 Concept of a Suffix

Introduction: [Read.]
Watch carefully as I write some words on the board. [Write these derivatives on the board: tips, pits, nips.] What do you see in the final position of these words? [Students respond.] Yes, all these words have an $s$ in the final position. If the $s$ is taken off, there is still a base word. [Cover up the $s$ in each derivative and look at the base word.] A base word is a plain word with nothing added to it.

The letter $s$ at the end of these words is called a suffix. A suffix is a letter or a group of letters added to the end of a base word. A suffix is coded with a box. [Box-the $s$ in all the derivatives.]

A base word plus a suffix is called a derivative.
Word Part Deck: [Prepare each of the following definitions on a 4 " $\times 6$ " yellow index card. The information on the left is written on the front of the card. The information on the right is written on the back of the card. Review this deck three times a week after the IRD.]
b.w.


A base word is a plain word with nothing added to it.

A suffix is a letter or a group of letters added to the end of a base word. A suffix is coded with a box.

A derivative is a base word plus a suffix.

Reading Practice: 1. Reading Practice $4-i, t, p, n, s$

You used your information about dividing words with the VCCCV pattern and it did not work. You changed the accent and it still did not make a familiar word. What else could we do? [Change the division.]

Let's change the division to after the second consonant and move the accent back to the first syllable. [Erase the division after the first consonant and move it to after the second consonant. Accent the first syllable.] Let's read the word now: pump' kin. Is that a familiar word? Yes. Pumpkin pie is my favorite pie.

## Concept Card:



Words with the VCCCV pattern usually divide after the first consonant. The accent usually falls on the first syllable, but it may fall on the second syllable. A second choice for division is after the second consonant, accenting the first syllable.

Application Words: [Write on the board.] translate, partner, antler
Reading Practice: 1. Reading Practice 59 - Syllable Division

### 3.146 Latin Roots

Introduction: [Introduce through Auditory/Visual Discovery.]
Discovery Words: tractor, attract, extract, traction, subtraction
Discussion: All the discovery words have tract. These letters are called a root. A root is a group of letters that carries meaning. Root tract is not a complete word, but it carries meaning. A prefix, a suffix or both will be added to a root. Look at the discovery words and see if you can discover the meaning. [Lead the students to discover the meaning of tract.] A tractor pulls things. Extract is pulled from something. When magnets attract, they are pulled toward one another. Tell me what tract means. Tract means to pull. Words with this root are of Latin origin.

## Word Part Card:



Root tract
To pull
(Students generate derivatives.)

