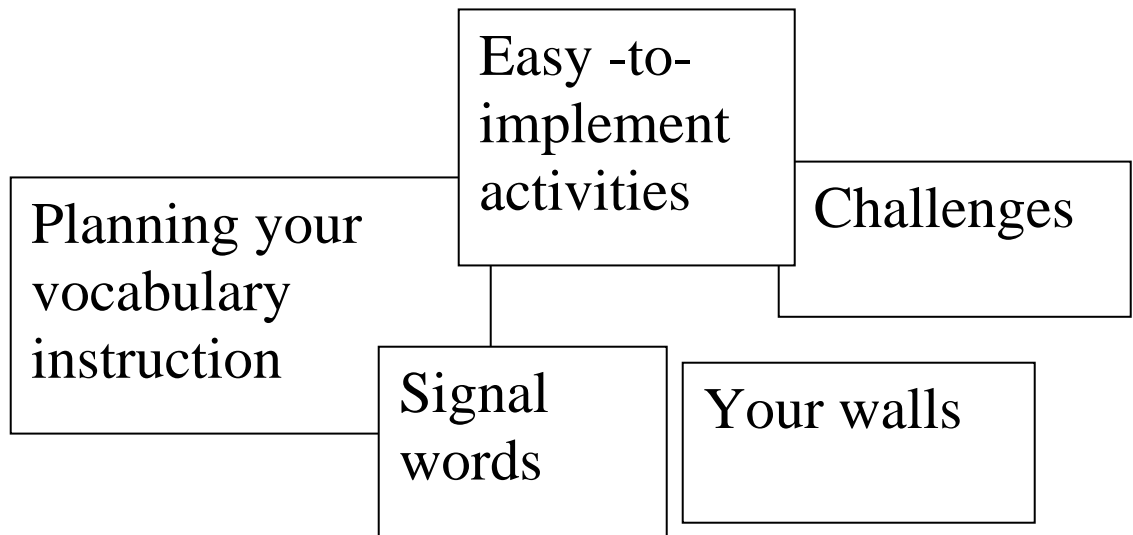


Academic Vocabulary:

*tips for teaching the
language of math*



Kathleen Kenfield, Ed.D.

Education Consultant/Trainer

P.O. Box 408

Murphys, CA 95247

209.728.9745

kkenfield@earthlink.net

kathleenkenfield.com

Academic Vocabulary: The biggest challenge, the greatest need

Success in school depends largely on the acquisition of academic English. Giving our English Learners a solid repertoire of social language is not the challenge. The challenge is to do a better job of giving them the powerful language of learning. For those ELs who have had the good fortune to have acquired academic vocabulary in the primary language, the acquisition of said vocabulary in English is not such a daunting task. But for our ELs who have not been lucky enough to have that rich academic background, it becomes our responsibility to deliberately, conscientiously, and clearly provide access to the language of school.

Just what constitutes “academic vocabulary?” Of course, academic vocabulary is the language of the content area—isosceles, null set, subtrahend—and it is also the language of academic functions such as estimate, solve for, balance. Academic English includes signal words and phrases that can be particularly challenging: hence, thus, given that, in contrast, however, furthermore, if and only if.

Most of a student’s day may be spent in non-academic exchange of language. The classroom, therefore, must become the rich lode of the language of the content areas. How can we help our English Learners acquire this essential academic English?

- Reading, reading, reading: abundant reading in the content areas, especially from understandable text at the students’ appropriate level of challenge
- Examination of English morphemes (e.g. Latin and Greek roots, as well as common prefixes and suffixes)
- Activities that ask students to actively manipulate vocabulary in an understandable context (see pages that follow for a selection)
- Posted vocabulary, word walls, labeled centers and posters, all designed to convey that yours is a classroom where the acquisition of academic vocabulary is expected and is facilitated by your excellent teaching

Academic Vocabulary: *continued*

Vocabulary: Choosing the words (The teacher chooses!)

- ❑ Choose terms that are so essential to the unit under study that without them, the essence of the unit cannot be understood. Note: the teacher should choose the words to be studied. To ask the students to choose words is ill-advised unless you can be sure that they will choose the words that are most useful.
- ❑ Choose terms that will be useful later in the students' academic life.
- ❑ Useful vocabulary does not merely consist of the content words ("constant," "axis," "parabola"), but also the function words of the content areas (for example, terms such as "state," "reduce," "illustrate") and the discourse markers or signal words and phrases ("subsequently," "for instance," "finally").

Vocabulary: Avoid these practices

- ❑ Avoiding choosing words just because they are in bold face in the textbook. You might decide that some of those highlighted words are not as important as the authors may deem them to be.
- ❑ Avoid the classic assignment of "look up all these words in the dictionary and write down the definitions." It's clear that this may be a meaningless activity for the English Learners. You and I could successfully copy down definitions in Russian, and most of us would not have a clue as to what the words meant.
- ❑ Avoid having students write the words in sentences without any clear indicator of student understanding. For example, "I like photosynthesis," or "Photosynthesis is a science word" are not clear indications of student mastery. Likewise, "Photosynthesis is a complex process that converts energy in sunlight to chemical forms of energy that can be used by biological systems" might not indicate anything other than the student's ability to cut and paste from science sources without any deep understanding. However, asking the student to create a "My Own Sentence" such as "Photosynthesis is happening all around me on a sunny day in the park" wherein s/he relates the word, even in a silly way, to his or her own lives might be a much better approach.

Planning your vocabulary practice

Choose the words

The teacher is the one who can best decide which words are (1) essential to the topic and (2) which words will be useful over the years.

Use the words

1) The teacher should use the vocabulary items "accidentally-on-purpose." For example, I heard a teacher say this during a science lesson, "Last night I observed lightning, and I hypothesized that thunder would follow."

2) The students should be encouraged to use the words as often as possible as they interact as well as in their writing, and should be praised when they do so.

Show the words

Word wall practice: the teacher can do a walk 'n' talk with the words on the wall everyday. Pick a handful of words, explain them, show visuals that clarify them, put them in sentences, and then invite the students to explain them and to create visuals that clarify them (extra credit.) Students can make visuals on 5x7 index cards to be posted next to the words.

Play with the words (practice)

What kind of activities help your students internalize the vocabulary? Here are some: creating visuals, filling in graphic organizers, playing "Lingo Bingo," modified Frayer model, making flash cards.

Don't forget that reading itself plays a central role in vocabulary development.

Teaching math to English Learners

The research tells us that...

1. Teachers must relate their math instruction to the out-of-school life of their English Learners.

➤ How do you relate your content to the students' lives?

2. Teachers must present new and difficult material in highly visual-- rather than solely verbal --ways.

➤ What kinds of visual support do you use to help your students understand?

3. Teachers of math need to help their English Learners develop the academic language necessary for success.

Math language:

Math language challenges for ELs:

1) Math is filled with expressions in what we call the **passive voice** -- which is likely to be confusing for English Learners:

"x is defined to be equal to zero"

"When 15 is added to x"

"8 is divided by two"

2) Math's use of **syntax** can also be confusing, as in the following example:

An English Learner might read *"a is five less than b"*
and represent this as *"a=5-b"* or *"a-5=b"*

3) Math **connectors** (signal words) can present other difficulties: *if...then, that is, for example, such that, consequently, either...or*. These connectors

need to be taught to the students. Until they learn their meanings, the teacher can help by rephrasing a problem. Note this example:

Original: *If Frank can travel one-half mile in five minutes, how much time will it take him to travel 3 miles?*

Rephrasing: *Frank travels one-half mile in five minutes.
How much time will it take him to travel 3 miles?*

4) **Words that have other meanings** in other contexts:

square, power. odd, even. irrational. factor

5) **Synonyms** are abundant in math language. Consider the many ways to say the following:

equals: becomes, is, yields, makes, are, results

add: increased by, greater, raised by, plus

subtract: decreased by, reduce, less than, minus

multiply: product, times, doubled, tripled, by

divide: per, goes into, contained in, quotient

6) **Homophones** or near homophones: your English Learners may be confused by "sum" and "some," by "whole" and "hole," by "fourteen" and "forty," by "fourths" and "fours."

7) **Prepositions** present a major stumbling block:

divided **into**

divided **by**

8) Finally, the heavy-duty **math academic vocabulary** is a challenge to all students: monomial, addend, additive inverse, denominator.

Vocabulary Challenges: words that have multiple meanings

Homonyms are words that have multiple unrelated meanings (e.g. bank of the river and Bank of America), while "polysemous" words are words that have multiple related meanings (e.g. bed of the river or bed for sleeping.) Either type of word can present a challenge for students acquiring English. Take a look at these words. How do their meanings change from content area to content area?

irrational

identity

state

power

cell

reciprocal

field

factor

set

acute

capital

mode

table

degree

solution

mean

base

plane

compound

factor

evaluate

expression

plot

Lingo Bingo!

Give the fancy definition first, then scaffold the definition again and again until they can't help but know the answer and can't help but learn the meaning of the word.

My favorite vocabulary building activity—it doesn't test vocabulary, it teaches it!

Be sure to completely overdo the hints that you give!

The best way to teach vocabulary! Lingo Bingo is, hands down, my favorite vocabulary-building strategy. Your students will think they are playing a game, whereas you'll know that they are learning the key vocabulary.

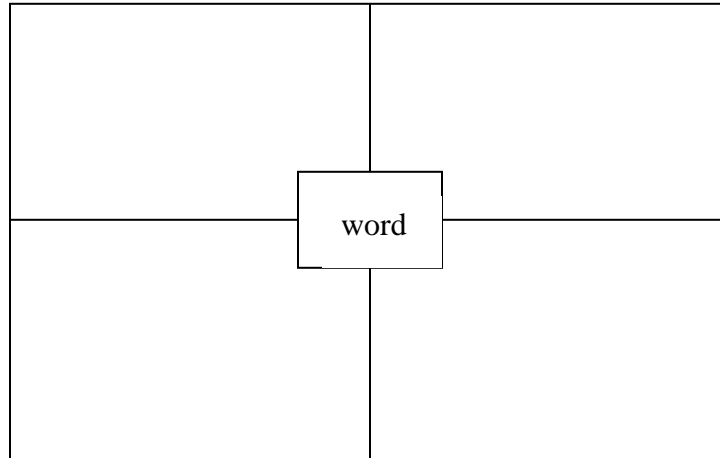
Students write down the key words at random in the boxes. You give the definitions, and students mark the word. Why is this appropriate for English Learners? Because of the many layers of support that are built in. What distinguishes my version of vocabulary bingo from others that I've seen is the degree of scaffolding of the definitions. For each word, first give the dictionary definition. Then define the word again but scaffold that definition to make it easier to identify. If necessary, scaffold the definition yet again. Your goal is to ensure that everyone gets it. Your goal is NOT to let only the quick and fluent succeed. In fact, those students may indeed complain, "You're giving them the answers!" At which point, you proudly state, "My job is to teach vocabulary to everyone." All students will love the "game." Whether or not you give prizes is up to you. I tend to shy away from too many rewards. Students will happily play Lingo Bingo again and again, even without prizes. I also allow whispered help from tablemates after I've given all the definitions for a particular word.

No-prep idea: Have students fold a piece of paper in half four times. What results is a four-by-four Bingo grid, ready to be filled in with the key words.

Hint: Are you tired of using beans and little pieces of paper as Bingo markers? Each Bingo grid can be used for up to four games if students color-code their responses, e.g. a blue dot for Game One, a red dot for Game Two. They can also use a particular symbol for each game, or color in a corner of the square for Game One, etc.

--an excellent way to help students manipulate and master the vocabulary of the content.

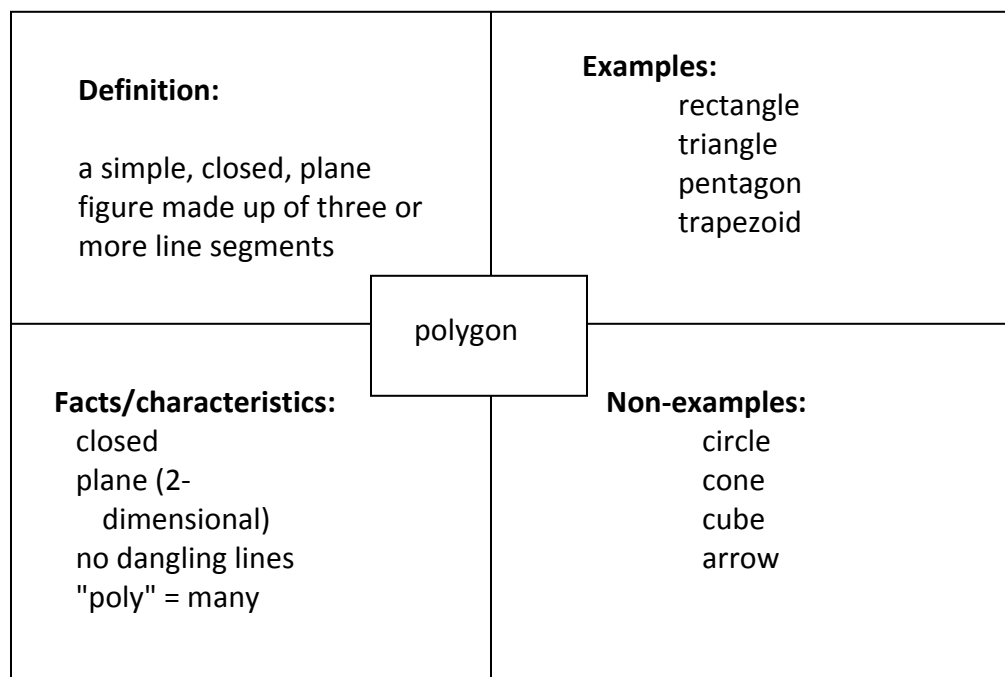
Vocabulary Quadrants: my variation on the Frayer Model



This can be done with a piece of paper folded in fourths; fold the point (which will end up as the center) into a triangular tab. When open, this will give you a model much like the one to the left.

Options for the quadrants:

- Illustration of word
- Dictionary definition
- Words related through root words or other Latin or Greek morphemes (e.g. cent/century)
- Is/Isn't: the classic Frayer model component
- Examples/Non-Examples
- Characteristics/Non-characteristics



Visuals can be required.

A	B	C	D
E	F	G	H
I	J	K	L
M	Alphabet Brainstorm		N
O	P	Q	R
S	T	U	V
W	X	Y	Z

Students brainstorm --individually, with partners, groups, or even whole class--words related to the topic that begin with the letters indicated.

K. Kenfield, 2008

by	divisor	makes	double
together	minus	yields	less
is	into	becomes	take away
plus	compute	are	twice
find	sum	decrease	determine
deduct	and	times	quotient
increase	gives	becomes	gain
figure out	evaluate	product	is to

Students can cut these out and paste them onto the "blades" of the pinwheel.

Vocabulary Building - Greek and Latin Roots

Prefixes

Everyday words in Spanish that are based on the Latin or Greek morpheme are indicated in italics and parentheses in the first column.

a, ab	away, from, away from	aversion, abnormal, abdicate
<i>a, an</i>	not, without	asymmetrical, amoral, anarchy
<i>ad</i>	to, toward	adjoining, adhere, advance
<i>circum</i>	around, round, surrounding	circumnavigate, circumference, circle, circa
<i>de</i>	down from, away from, reverse	descend, depart, depopulate
<i>dia</i>	through	diagonal, diameter
<i>in</i>	in, into, within	insert, incision
<i>in-</i>	not	inert, ineligible, incorrect
<i>inter-</i> (<i>entre</i>)	between, among	intervene, intercept, interstate
<i>intra, intro</i>	within	intrastate, introspection
<i>mis</i>	wrong(ly), incorrect(ly)	misspell, miscalculate, misunderstand
<i>multi-</i> (<i>muchos</i>)	many	multiply, multitude
<i>non-</i>	not	nonsense, nonresident, nonpartisan
<i>per-</i>	through, throughout, over, large, high	perforate, permeate, perceptive
<i>per-i</i>	around	perimeter, periosteum, periscope
<i>poly-</i>	many	polygon, polyglot, polysyllabic
<i>pre-</i>	pre	premeditated, preface
<i>prim-</i> (<i>primero</i>)	first	primary, primitive
<i>re-</i>	back, again	respond, repeat, regress, redo

<i>retro-</i>	back, backward	retrorocket, retrospective
<i>sub-</i>	under, below	subordinate, submarine
<i>super, ultra (sobre)</i>	over, above, beyond, excessively	supervisor, ultraviolet
<i>sym-, syn-</i>	together, with	synchronize, symbiosis, symmetry
<i>trans-</i>	across, over	transcontinental, transportation

Roots

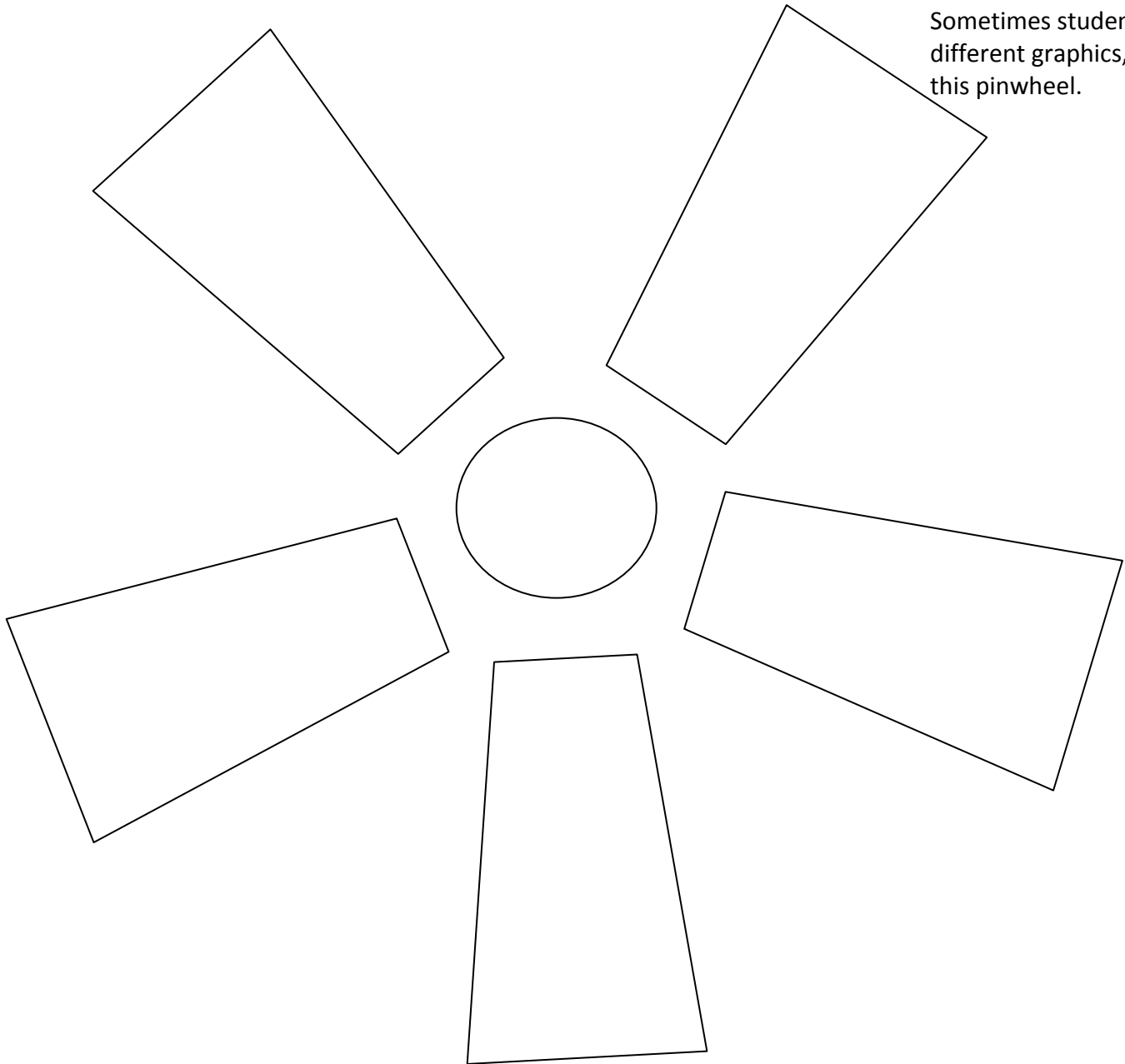
<i>capit, capt (cabeza)</i>	head, chief, leader	cap, captain, per capita, decapitate
<i>chron-</i>	time	chronicles, chronological, synchronize
<i>duc(t)</i>	lead	induce, introduce, deduction, conduct
<i>dyna-</i>	power	dynamic, dynamite, dynasty
<i>equ- (igual:the same)</i>	equal	equable, equitable, equivalent
<i>fac- (hacer)</i>	make, do	factory, manufacture
<i>fer</i>	bear, carry	transfer, refer, aquifer
<i>fract-</i>	break	fracture, fraction, infraction
<i>gress</i>	go	egress, progress, regress
<i>junct- (juntar)</i>	join	junction, juncture, adjunct
<i>lat- (lado)</i>	side	quadrilateral, equilateral, unilateral
<i>log, logy</i>	speech, word, study of	biology, psychology, logic
<i>man, manu (mano)</i>	hand	maneuver, manipulate, manual
<i>meter, metr (medir)</i>	measure	meter, thermometer, symmetry
<i>mute</i>	change	mutation, immutable

<i>nym</i>	name	anonymous, pseudonym, acronym, homonym
<i>ortho</i>	straight, right, correct	orthodontist, orthodox, orthographic
<i>pend, pen</i>	hang	dependent, impending, pendulum, suspend, pendant
<i>pli, plic, plex</i>	fold, bend	pliable, complex, multiplication, accomplice
<i>pon, pos</i> (<i>poner: put</i>)	place, put	postpone, position, responsible
<i>popul-</i> (<i>pueblo</i>)	people	populate, populous
<i>prec-i</i> (<i>precio</i>)	price	appreciate, depreciate, precious
<i>prim-</i> (<i>primero: first; primavera: spring</i>)	first, early	primary, primitive
<i>scrib, script</i> (<i>escribir</i>)	write	scribble, inscription, script
<i>sequ, secut</i> (<i>seguir</i>)	follow	sequence, sequel, consecutive, consequence
<i>solv, solut</i>	loosen	solution, solvent, dissolve
<i>stru, struct-</i>	build	construct, structure
<i>tang, tact, tig</i>	touch	contact, tangible, tactile, contiguous, tangent
<i>tend, tens</i> (<i>tener: have</i>)	hold	tension, tentative, tenacious, tendency
<i>vert, vers</i>	turn	revert, reverse, versatile, invert
<i>vid, vis</i> (<i>ver: see, vista:view</i>)	see	video, television, supervise, visible
<i>Latin and Greek Numbers</i>		

<i>One</i>	<i>(uno)</i>	uni	united, uniform, unicellular
		mono	monotone, monopoly, monologue
<i>Two</i>	<i>(dos)</i>	du(o)	duet, duplicate, duplex
		bi	bicycle, biped, bilingual
<i>Three</i>	<i>(tres)</i>	tri	triplicate, triple, triangle
<i>Four</i>	<i>(cuatro)</i>	quad(ri)	quadruple, quadrilateral
		tetra	tetrameter, tetrachloride
<i>Five</i>	<i>(cinco)</i>	quin(que)	quintet
		pent(a)	pentagon
<i>Six</i>	<i>(seis)</i>	sex	sextuplets, sextet
		hex(a)	hexagon
<i>Seven</i>	<i>(siete)</i>	sept	septet
		hept(a)	heptagon
<i>Eight</i>	<i>(ocho)</i>	octo	octogenarian, octave, octagon
<i>Nine</i>	<i>(nueve)</i>	non	nonagon
<i>Ten</i>	<i>(diez)</i>	dec	decade, decimal, decimate
<i>One hundred</i> <i>(cien)</i>		cent	century, centennial, percentage
<i>One thousand</i> <i>(mil)</i>		mil-, milli-	millennium, milliliter

Vocabulary Pinwheel

There are lots of ways to sort vocabulary. Simple columns work well. Sometimes students enjoy different graphics, such as this pinwheel.



Each blade of the pinwheel represents a category. Students jot down words inside the blades.

This can be used with a passage of prose from a textbook or from fiction, with poetry, and with subject-specific sets of vocabulary such as math function words.

Sample categories for literature: people, actions, feelings, places, problems, goals, conflicts.

Sample categories for social studies: people, conflicts, actions, events, places, goals, motivations.

Sample categories for poetry: the five senses.

Sample categories for math: words that signal "equals," "add," "subtract," "multiply," "divide."

Additional Resources:

[A Maths Dictionary for Kids 2008 by Jenny Eather](#)

Interactive, animated maths dictionary for kids with over 600 common math terms

explained in simple language. Math glossary with math definitions, examples, ...
www.teachers.ash.org.au/jeather/maths/dictionary.html

Highly interactive and visual

[Harcourt Math Glossary](#)

Animated and illustrated definitions of math terms for elementary school students.

Organized by grade level and alphabetically. [Requires Flash]
www.hbschool.com/glossary/math2/index_temp.html

Academic Vocabulary Builders

These key words are very important in building academic vocabulary.

Description/Listing/

for example
such as
to illustrate
for instance
in addition
and
again
moreover
also, too
furthermore
another

Sequence

first, second,
third
in the first
place
first of all
then
before
after
last
meanwhile
now

Comparison/Contrast

however
but
as well as
on the other
hand
while
although
different from
less than;
fewer than
also, too
like

Cause and Effect

because
since
therefore
consequently
as a
consequence
in order that
so that
as a result
then
if...then

Problem/Solution

How to teach these words-

These words are very difficult to define and to teach when they are out of context. Whenever you engage students in one of the cognitive tasks listed at the top of each column above, follow up with a practice session and use the corresponding signal words. Students can create sentences--or you can first-- using the signal words in which they indicate the interrelationships among the concepts and topics that

From breakout at TATESOL 2009 Megan Drury megand@wcs.edu
Williamson Co.

Phonological Awareness:

an individual's awareness of the sound structure, or phonological structure, of a spoken word. It includes the ability to auditorily distinguish units of speech, such as a word's syllables and a syllable's individual phonemes. The ability to segment and blend phonemes is critical for the development of decoding skills, reading fluency, and spelling.

The student's awareness of phonemes has been shown through extensive research to hold singular predictive power, accounting for as much as 50% of the difference in their reading proficiency at the end of first grade.

Juel, 1988; NICHD, 2000; Snow, Burns & Griffin, 1998; Stanovich, 1986; Wagner, Torgesen, & Rashotte, 1994.

Hot Seat

Prerequisite: student understanding of concept of beginning, middle, and end

Materials: words selected from text, 3 chairs or hoola-hoops, 3 cards or signs (one with B written on it, one with M, and one with End)

Procedure:

1. Begin by selecting words to work on either from a story or text that you have been or will be using in class or other vocabulary words.
2. Next, place the cards/signs in order B, M, E (beginning, middle, and end). This may be done by taping the sign to the back of the chair or by simply placing the sign inside the hoola-hoop.
3. Choose one child
4. Using the word cat for example: Say, "The word is cat." "Where do you hear the k sound?" Do not say, Where do you hear the letter C, or the sound that a K makes, make the actual sound.
5. The student then goes to sit or stand in the appropriate area. In this case it would be near the B because the k sound is at the beginning of the word.
6. This procedure can be repeated as many times as desired, using beginning, middle and end sounds.

Draw It

Materials: words either from a story or text that you have been or will be using in class or other vocabulary words, paper with a picture on it, blank paper, pencil or crayons for students

Procedure:

1. Say the word shown in the picture in syllables or phonemes.
2. The student draws the picture on his paper.
3. For more advanced students, you may simply say the word without showing the picture and have students draw the object.

Finger Push

Materials: words either from a story or text that you have been or will be using in class or other vocabulary words, Optional: objects for counters such as beans, paper clips, etc. Optional boxes

Procedure:

1. Demonstrate the activity for students by saying the chosen word aloud. Cat,
2. Then say it again slowly in phonemes, c-a-t. As you say each phoneme, lift a finger on your hand as you would if you were counting.
3. Now it is the students turn to try. You may want to have the student begin with the same word that you used then move on to another word.
4. This may be repeated as many times, with as many words, and as many students as you wish.
5. This activity also works with older students who are learning the concept of syllables.
6. Option 1: Draw boxes on the chalk board. One box for each phoneme in the chosen word. As you say the word in phonemes, put your finger in the appropriate box.
7. Option 2: Have one box (empty Kleenex box, for example) for each phoneme in the chosen word. Write the phoneme on the box. Place an object in the appropriate box as you say the word.

Silly Segmenting

Materials: words, Play-Dough

Procedure:

1. Give each child a ball of Play-Dough.
2. Guide them as they roll the dough into a snake.
3. Say aloud a word and have the students tear the snake into the correct number of pieces for the number of phonemes in the word. For example, as you say c-a-t, the snake is torn into three pieces.
4. Have students out the snake back together and use a new word.
5. This can also be done with those students learning syllables or more complex words.

Phonics: Connecting the sounds of spoken English with letters or groups of letters (e.g., that the sound /k/ can be represented by *c*, *k*, *ck* or *ch* spellings) and teaching students to blend the sounds of letters together to produce approximate pronunciations of unknown words.

Instruction is most effective when planned, equential, explicit, and systematic. Is best taught using a variety of techniques rather than just one phonics approach. Teachers should select the best types of experiences for the children they teach and determine which strategy best supports the insturctional purpose for a specific lesson.

Get Physical

Materials: words either from a story or text that you have been or will be using in class or other vocabulary words, plastic plates (one per child), string, erasable markers, baby wipe or other cloth for cleaning plates, string

Preparation:

Prepare a plate “necklace” for each child. Put two holes in each plate. Attach one end of a length of string to one hole in the plate and the other end of the string to the other hole.

Procedure:

1. Select a word to work with, bug, for example.
2. Write a “b” on one student’s plate, a “u” on another student’s plate, and a “g” on yet another student’s plate.
3. Have student stand side by side in order so that the word is spelled correctly.
4. Have the student with the first letter of the word, in this case “b”, make the “b” sound.
5. Have the next student make the sound of the letter on his plate.
6. Have the final student make the sound of the letter on his plate.
7. Then the student pronounce the word, bug, all together – not said in phonemes, but the entire word. “bug.”
8. Wipe the plates clean and play again.
9. This will also work with teaching blends. For example, put s and h together on a plate for “sh”
10. This activity may also be done by simply make a sign for each letter and having the students each hold his letter sign.

Stretch It

Materials: words either from a story or text that you have been or will be using in class or other vocabulary words, laminated index cards, elastic strips, stapler, erasable marker.

Preparation: Write individual letters on the laminated index cards. Staple the cards fairly close together onto the elastic strip so that they spell the chosen word.

Procedure:

1. Hold the elastic strip with letters attached so that the students can see it.
2. Stretch it slightly as us say the phonemes. The letters should be apart as you say the b-u-g.
3. Let the elastic relax as the letters come together and you say the word, bug.
4. Let the students try with this and other words you have prepared. You may also let the students create their own words for this activity.

Word Detectives

Materials: words from a poem or text that you have been or will be using in class, highlighter tape.

Preparation: Write the poem on chart sized paper and laminate the poem. Select a sound that you are working on, be sure the students know what sound you are working with.

Procedure:

1. Read the poem aloud to the students and put the tape over the word with the sound you are working on. The tape will peel off.

2. You may wish to demonstrate by choosing just the first word in the poem where the sound appears and allow students to find subsequent occurrences of the sound.
3. This activity may be repeated to look for additional sounds.
4. Tip – If you can not attach things to the wall where you are teaching, you can still hang the poem by attaching a hanger to the back of the laminated poem and hanging it to something in the room.

Message in a Bottle

You can purchase games similar to this in teacher stores or make your own.

This game may be played individually or in pairs.

There are many variations of this game. The object is for students to find all the different items you put in the bottle. You may put vocabulary words, B words, T words etc., blends, entire alphabet.

Materials: grade level appropriate words, index cards, water bottle, craft sand (could also use uncooked rice), paper

Preparation: Fill the bottle about half full of sand or rice. Place whatever language elements you have chosen to work with (letters, words, phrases, etc.) on index cards cut into strips and put the strips in the bottle. Create a list of elements in the bottle.

Procedure:

1. Provide each student or pair of students with a list of the elements they are looking for in the bottle.
2. Allow students to shake the bottle three times.
3. Each time they shake the bottle, they will reveal pieces of paper.
4. Have students mark off items from the list as they finds them.
5. You may choose to make this a contest to see who can find the most.
6. For more advanced students, you could also make this a sort of scrabble game and have the students find as many letters as they can in the three shakes, record the letters and then see how many words they are able to make with the letters.

Vocabulary: The set of words that is familiar within a language.

“If students do not understand the meaning of the words they read, the reading process merely becomes meaningless decoding.” Pinnell & Fountas, 1998

Do you understand these words? Que vous etes diligente! You may be able to pronounce them without understanding the meaning.

Cloze

Materials: text from a big book or text that has been printed on chart paper for display (a big book works well here), sticky notes

Prerequisite: introduction of the sounds of the word that you choose to cover up.

Procedure:

1. Cover a word in the text to be displayed with sticky note(s).
2. Display chosen text with word covered in large enough format for all to see.

3. Have students guess what word is covered. You may want to ask, "What word makes sense here?"

Alphaboxes

Materials: text, chart paper, marker

Procedure:

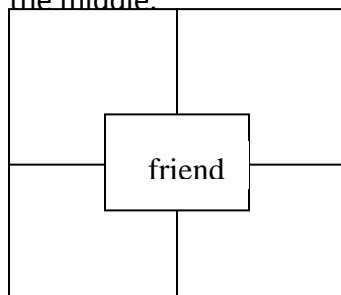
1. Prepare chart paper by dividing it into boxes, each representing an alphabet letter. It may take multiple chart papers to complete this task. You could also write one alphabet letter on each of 26 pieces of paper and mount them on the wall.
2. This activity should take place after a read aloud with the group has taken place so that they all have the same literary frame of reference for the activity.
3. Ask students to think of a word that begins with each of the letters that can be written in each box.
4. Options: allow the students to point to an object in the story book if they can't find the word they are thinking of. For example, pointing to a picture of a wing for W.

Four Corners

Materials: text, paper, pencils or markers, magazine pictures (optional), scissors (optional)

Procedure:

1. Prepare paper for each student that is divided into four boxes with one added to the middle.



2. Write a vocabulary word in the middle box.
3. Each of the other four boxes represents a different relationship to the word. One box is for opposite, one box is for example, one box is connection to self, and one is to illustrate the meaning of the word. You may choose to write title for each box within the box. It would be best in any case to do one practice word together as a group.
4. Students are to complete information in the remaining boxes. The illustration box should be a picture. Other boxes may be picture or word depending on student needs.
5. Allow time for sharing out.
6. Option: Begin by doing one word together as a large group; then have students work in twos or threes; finally, have students complete one alone.

Museum Walk

Materials: vocabulary word (s) or other text, Play Dough (could also use modeling clay)

Prerequisite: introduction of chosen vocabulary term and subsequent discussion

Procedure:

1. Provide each student with a small amount of Play Dough.
2. Ask the students to create something that means the same as the vocabulary word. For example, for the word "protection," the student may make a helmet, seat belt, super hero, etc.
3. Walk around the room and allow each person to explain what the object is that they have created and in what way it exemplifies the vocabulary word.

Fluency: The smoothness or flow with which sounds, syllables, words and phrases are joined together when speaking

Fluency is the ability to read

- Accurately with freedom from word recognition problems,
- With automaticity, easily, effortlessly, and quickly with good pacing and phrasing, and
- Smoothly with meaningful expression (intonation) and good comprehension

Beam Reading

Material: text such as short poem that is large enough for all to see (could be on chart paper or overhead projector), laser pen or flashlight

Procedure:

1. Post or otherwise prepare text so that all students can see it.
2. Shine a light on the words as you read the poem aloud to the group.
3. Have the students read the poem aloud as you move the light across the words.

Totally Tonality

Materials: texts, index cards, chart paper (optional)

Preparation: Prepare two sets of index cards. One set will have emotions listed, one per card, such as "happy," "sad," etc. Each card in the second set will have a phrase written on it such as "Come over here."

Procedure:

1. Select one card from each set to read aloud.
2. The student must read the phrase with the emotion that is written on the card.
3. Option: Have a short poem on chart paper and ask the student to read the entire poem with the particular emotion to see how silly it sounds.

Fluency Phones

Materials: texts, PVC elbow pipe

Procedure:

1. Using chosen text, the student will read aloud and be able to listen to him/herself for fluency
2. Have the student hold the elbow pipe such that one end is to their mouth for speaking and the other end is to their ear for listening.
3. If you plan to have students share the pipes, have sanitizing wipes available to cleanse the pipe between student uses.

Pausing with Punctuation

Materials: texts; sentences on chart paper, overhead projector, or sentence strips

Procedure:

1. Write the word "hello" on the board or otherwise share it via overhead, chart paper, etc.
2. Place different punctuation marks by the word and have students say the word aloud. For example, "Hello." "Hello?" and "Hello!"
3. Any phrase or sentence may be used for this activity.
4. Option: You can even just use the alphabet have students read the chain of letters as if it were a sentence or phrase. For example "AB." "AB?" and "AB!"

Comprehension: the understanding of a passage of text

Proficient readers identify difficulties they have in comprehending at the word, sentence, and whole text level. They are flexible in their use of tactics to solve different types of comprehension problems. They monitor, evaluate, and make revisions to their evolving interpretation; of the text while reading.

Predicting Present

Materials: any book, paper to cover front of book (newspaper, gift wrap, bulletin board paper, etc.)

Preparation: Cover the front cover of the book so that none of it is visible.

Procedure:

1. Tear a small piece of the cover paper off from the book to reveal a small amount of the cover.
2. Have the students guess what the book is about.
3. Continue tearing small, randomly placed, pieces of paper from the cover of the book.
4. After each piece of paper is removed, have students guess the subject of the book.
5. Option: Could also cover the entire cover of the book with sticky notes and remove them one at a time. This method helps in controlling the amount of paper that is removed each time, but it may be possible for student to "peek" under the notes to see additional hints.

Pinwheel Retell

Materials: texts, pinwheel, marker

Prerequisite: reading of a story in class

Preparation: On each of the "fan blades" write a story element: Include character, setting, main event, problem, solution. You may choose to also add "go again" or "lose a turn." In the center of the pinwheel, place a black dot near the edge of the center to that when the pinwheel stops moving, the student will know which element they are to supply.

Procedure:

1. Ask the student to spin the pinwheel by gently blowing on it.
2. When the pinwheel stops moving, help the student determine which story element they must share about the story they have read.
3. Pass the pinwheel to the next student and repeat.

Popsicle Puppet

Materials: texts, paper, Popsicle or craft sticks

Preparation: Photocopy pictures and attach them to the Popsicle sticks. Pictures may be of persons and places.

Procedure:

1. this activity may be used to demonstrate comprehension of story read.
2. Ask the student(s) to retell the story (summarize) the story that was read by using the stick pictures.

Somebody/Wanted/But/So

Materials: There are many ways to conduct this activity. Depending on the method chosen, you may need paper, Hula-Hoops(4), or paper to create a flipbook.

Procedure Options:

Hula-Hoops

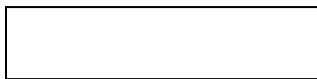
1. Place the Hula-Hoops in a row. Put a paper on or otherwise label each of the hoops "somebody," "wanted," "but," and "so." Hoops should be in the order listed here.
2. Have the student stand in the first Hula-Hoop (somebody)
3. Ask the student to tell you the name of the main character in the story. Who is the story about? Remember in young children's books, the main character may be an animal.
4. The student should proceed through the remaining hoops to complete a summary of the story. For example, (somebody) Mr. Garza, (wanted) to bake a pie, (but) he did not have the money to buy apples, (so) he worked at the apple orchard and was given the apples he needed to bake his pie.

Four Square – This option may be done on chart paper together or as an individual assignment as the student completes reading a story.

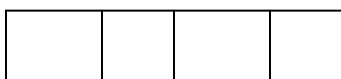
1. The student should be provided a piece of paper divided into four squares with each square labeled.
2. Each square represents one of the elements (somebody, wanted, but, so).
3. Ask the student to write or draw the elements in the box.

Hot Dog Flip Book

1. Fold a piece of paper hot dog style (lengthwise as shown) Construction paper works well.



2. Divide the cover flap into four sections and label each section beginning on the left with somebody, wanted, but, so.



3. Cut the top paper to divide the cover into four flaps. One for somebody, one for wanted, one for but, and one for so
4. Have the student write the information for each flap under the flap so that the story can then be retold in summary by lifting each flap in order to reveal information. Again, with younger students, you may want to have them draw rather than write.

Lingo Bingo!

Give the fancy definition first, then scaffold the definition again and again until they can't help but know the answer and can't help but learn the meaning of the word.

My favorite vocabulary building activity—it doesn't test vocabulary, it teaches it!

Be sure to completely overdo the hints that you give!

The best way to teach vocabulary! Lingo Bingo is, hands down, a favorite vocabulary-building strategy. Your students will think they are playing a game, whereas you'll know that they are learning the key vocabulary.

Students write down the key words at random in the boxes. You give the definitions, and students mark the word. Why is this appropriate for English Learners? Because of the many layers of support that are built in. What distinguishes my version of vocabulary bingo from others that I've seen is the degree of scaffolding of the definitions. For each word, first give the dictionary definition. Then define the word again but scaffold that definition to make it easier to identify. If necessary, scaffold the definition yet again. Your goal is to ensure that everyone gets it. Your goal is NOT to let only the quick and fluent succeed. In fact, those students may indeed complain, "You're giving them the answers!" At which point, you proudly state, "My job is to teach vocabulary to everyone." All students will love the "game." Whether or not you give prizes is up to you. I tend to shy away from too many rewards. Students will happily play Lingo Bingo again and again, even without prizes. I also allow whispered help from tablemates after I've given all the definitions for a particular word.

No-prep idea: Have students fold a piece of paper in half four times. What results is a four-by-four Bingo grid, ready to be filled in with the key words.

Hint: Are you tired of using beans and little pieces of paper as Bingo markers? Each Bingo grid can be used for up to four games if students color-code their responses, e.g. a blue dot for Game One, a red dot for Game Two. They can also use a particular symbol for each game, or color in a corner of the square for Game One, etc

Reading and writing and the English Learner: Revisiting the classic bits of good teaching

Our students become better readers and writers....

- by hearing good models of reading through teacher read-alouds. Let the best reader in the room transport them, entertain them, instruct them.
- by having ample opportunities for independent reading—these are jewel-like moments.
- by the teacher’s scaffolding of challenging print and modeling the strategies that good readers use.
- by learning about the details of print *as needed* (sound-letter correspondences, features of genres, conventions of print).
- by writing every day for a variety of purposes in a variety of genres.
- by learning how to self-edit and revise (it’s not a final draft until the teacher says it’s done!).
- by taking written pieces as far as each student is able.

Good ideas we’ve always known about:

- Teacher read-alouds with strategy modeling
- Language Experience Approach for beginning ELs
- Readers’ workshop/Lit circles/and an occasional core piece, scaffolded for everyone
- Sustained Silent Reading on a regular basis

Let children pick their own books: what else is our job other than to turn our students over to self-chosen authors?

Some hints to strengthen this valuable free reading time:

- 1) Of course, you must resist all temptation to do anything except read during this time. Your modeling of the act of interacting with print is among the most powerful things that you do. Your savoring a delicious moment with your choice of print is contagious. Free reading time is not a time to clean out a desk, chat with a student, or correct papers. Your students are nearly twice as likely to read if you read, too.
- 2) Add some sort of a share at the end of your free reading time. Teachers tell me that this suggestion can improve the degree of seriousness with which the students view the time. Also: time spent with a self-chosen author can bubble up in us like a percolator (does anyone still remember a percolator?) and needs an

outlet. So how about a quick pair-share about some interesting part of the reading? How about a very brief one or two-line reading reflection to be turned in to the teacher? (Keep it very brief—this is just a quick payoff, a tiny bit of accountability at the end of the free reading session.)

Why should you read aloud to your students?

You are the best model of good reading in the classroom.

You can take them to print that's beyond their present level of understanding. You can immerse your students in a model of standard language, with all the rhythms and intonations that constitute good reading. You can build their vocabulary. You can pause to overtly model reading strategies. You can show them that reading is meant to be joyful, interesting, and not just a struggle.

Some ideas for your read-aloud sessions:

- Read aloud from various genres: fiction, nonfiction, poetry, informational text.
- At times, choose texts that are generally more difficult than those the students could read on their own.
- Read-aloud sessions should be kept to 20 minutes or less, unless they are highly interactive, punctuated with questions, quickwrite prompts, other extension activities.
- Pre-read or scan the piece before beginning the read-aloud in order to plan for pauses, questions, and vocabulary work.
- Don't read the whole piece. You can skip passages, even entire chapters, and still maintain the integrity of the piece.

Strategies that good readers use and that teachers should model as they read aloud to their students:

1) Good readers monitor their comprehension. Good readers constantly check to see if they understand what they are reading.

Underprepared readers may not even notice that comprehension isn't happening; they may be too zealous in their laborious decoding of the print.

It's really something to celebrate when an underprepared reader notices that things don't make sense!

Some hints for better monitoring of comprehension:

Pause to think about what you have read.

Reflect in writing about what you have read.
Visualize. Make a mental picture of what's presented in the text.
Retell what you have read.
Reread.

2) Good readers use prior knowledge (schema) to make sense of text.

Our existing mental constructions can give us hooks upon which to hang new information. Schema can include knowledge about the topic, setting, and situations. Schema can include prior understanding of the genre or the text structure, or of the author.

Ask students to think about what they know about the topic/theme.

Invite them to think about their personal experiences, about other books they have read. Ask, "What does this piece remind you of?" Many teachers use a T-chart to facilitate this as students practice the process: on one side, "Passage that reminded me of something," on the other side, "What it reminded me of."

3) Good readers ask questions about the text.

This strategy relates directly to monitoring comprehension.

Good readers ask questions before they begin to read ("I wonder what this is about? Hmm...I'll look at the title...I'll skim the table of contents...I'll think back to my teacher's introduction.")

They ask questions while they read. ("I wonder what will happen next? Hmm...Did the butler do it?...Will the author come right out and tell me or will I have to guess?")

They ask questions when they're done reading. ("I wonder what the characters will do next? Hmm...I wonder what the author expects me to take away from this?")

4) Good readers create sensory images.

Good readers project images on an internal screen. These images change, intensify, and are clarified throughout the reading. All senses can be involved.

Many of our students seem to lack this internal screen—perhaps as a result of visual input always having an external source in their lives (TV, video games).

The teacher can invite students to describe their internal pictures—this sharing can help others with the process.

5) Good readers notice what is important.

Good readers can spot words, sentences, and paragraphs or passages that are essential to meaning and can weed out words, sentences, and paragraphs or passages

that don't deserve or require too much attention. Good readers can spot important themes, symbols, and recurring elements that signal an important message from the author.

Many underprepared readers think that their job is to read every single word.

6) Good readers use “reading repair strategies” when comprehension stalls.

Sometimes called a “fix-up strategy,” *reading repair* includes any strategy used by a reader to help get clear when the text becomes confusing.

Some repair strategies include: skipping ahead; re-reading; drawing from context (“What would make sense here?”); sounding out challenging words; looking for familiar morphemes within challenging words; seeking help from other readers, from the teachers, and even from reference materials.

The Language Experience Approach was developed over 40 years ago by Roach Van Allen and has enjoyed a wide popularity in mainstream language arts, particularly with emergent readers. We're seeing a renaissance of this method in the field of ESL due to its many advantages for the language minority student. The Language Experience Approach (LEA) can take students beyond the base of oral language that they have developed into the realm of literacy.

The steps of the Language Experience Approach:

Teaching literature in the diverse classroom:

If I were back in my classroom, I would use:

On occasion, Literature Study Circles: book clubs at their best

- Students choose books from teacher-chosen selections.
- By their choice of a common book, students form groups of 5 or 6.
- Students read book (predetermined portions), keep literature log or other form of notes.
- Students meet in group (often with teacher in attendance) for discussion.
- Each discussion generates a written product from each student.

...but most especially: Readers' Workshop: individualized reading for individual success; teachers guides students' individual reading through whole-class minilessons, discussions, small group and paired shares, and extension activities.

- Students choose books to read individually. Teacher can decree a genre (e.g. biography, historical fiction, poetry book, how-to book, science-related book, etc.)
- Students keep literature logs.
- Teacher gives mini lessons on elements of literature.
- Students share about the element as it appears in the piece they're reading.

- Teacher meets with students for very brief reading conferences.

...always accompanied by teacher-led mini lessons

...but when you feel you must use a core piece, how can you help students understand it when it's too hard for them to read independently?

Scaffolding Your Core Lit:

1. Pre-reading activities: brainstorm (map/web); visual; text tour; advanced organizer (hints to tantalize); visualization; key vocabulary preview; anticipation guide, people hunt, video snippet, etc. Do your students lack understanding of a key concept or of a geographical or historical setting that is key to understanding the piece? We sometimes need to provide prior knowledge, not just tap it.

2. Teacher read-alouds: you are the best source of comprehensible print and the most adept model of good reading strategies. Helpful: be metacognitive as you read aloud. Model the strategies that good readers bring to challenging prose, e.g. prediction, good guesses about tough words. Think aloud as you read aloud.

3. Partner reading: student-student; teacher-individual student; aide-student; shoulder to shoulder; help offered only when requested; modified Reciprocal Teaching: partners or triads read, question, seek clarification, summarize, and predict.

4. Audiovisual support: video version, shown in segments, not all at once; audiotape or CD for listening center (caveat: often the published recorded books are read too speedily for our ELs. Can you or a volunteer re-record some of the piece at a more deliberate pace?)

5. Do we need to read the whole thing? Probably not.

- Choose the most essential, pivotal, memorable sections for students to read and/or for you to read aloud.
- If the piece has a good film version, notice that the story held up in its transfer to film, even though much was omitted. Perhaps the passages that you and your students read could correspond to the filmmaker's choices.
- Perhaps you might choose passages that lend themselves to meeting an English Language Arts Standard.
- How might/do you share the plot with your students without having them read the whole piece? Discussion, predictions, video, your own excellent story-telling skills.

6. Use all the great sheltered (SDAIE) techniques that you would use for any piece: graphic organizers, other visual representations of content, and collaborative structures.

Some thoughts on working with diverse populations:

1. Students live up or down to the expectations that are set for them.

2. We need to help students build resilience, the human capacity and ability to face, overcome, be strengthened by, and even be transformed by experiences of adversity. (See Bonnie Benard's work on resilience)

The three components essential in strengthening young people's resilience are:

caring relationships

high expectations

opportunities for participation and contribution

You could make the difference: people who have been successful in the face of challenges frequently cite a "turnaround" factor — a family member, a teacher, or an experience — that helped them overcome those obstacles.

3. Learning proceeds from whole to part. The brain likes the details, but it wants them later; it needs the big picture first.

4. The good news about teaching is that everything you do is contagious, and the bad news about teaching is that everything you do is contagious. Make your teaching irresistible through your enthusiasm and commitment