Introduction

This desk reference was created for teachers at Miami Trace Middle and High Schools, and summarizes some of the current research-based literature on adolescent literacy practice.

Reference creation was prompted by a district action step that is part of its improvement plan based on the Ohio Improvement Process (OIP). The district plan was developed by the district leadership team during the 2008-2009 school year.

A publication produced by the National Institute for Literacy in conjunction with the U.S. Department of Education and the National Institute of Child Health and Human Development was used to create this reference. The publication is titled: What Content-Area Teachers Should Know About Adolescent Literacy. It may be read in its entirety by downloading it from http://www.edpubs.gov/document/ed002624p.pdf?ck=32.

A few tools for teaching some of the strategies mentioned in the reference follow the particular key element described. However, some tools included in the reference can be used for more than one key element. For example, the concept mastery tool that follows the vocabulary description might also be used as a comprehension tool. Please contact one of the development team members if you would like to share a tool you believe “fits” with one or more of the key elements. Other great tools can be found by visiting www.adlit.org.

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Key Literacy Components in Order of Presentation

Basic Reading Skills (Decoding, Morphology and Fluency)

Vocabulary

Text Comprehension

Reading Assessment

Writing

Motivation
Basic Reading Skills
Basic skills in literacy refer to decoding, understanding units of meaning in words (morphology) and reading accurately and smoothly (fluency). By adolescence, good readers automatically blend and segment sounds used in speech as they read and spell words. They decode quickly and accurately, syllable by syllable, when they encounter multi-syllabic words. They understand units of meaning in words, knowing almost unconsciously that the word “sociologists” contains 4 units of meaning (the root word “society” + “ology” meaning “the study of” + “ist” meaning “someone who does” + “s” signaling plurality). They read text effortlessly with speed, accuracy, intonation and expression.

What Challenges Do Some Adolescent Readers Face?
Researchers estimate that today, more than 10% of struggling adolescent readers have problems with basic decoding. At grade 5 and beyond, students encounter 10,000 or more new words a year in their content-area texts, and most of these words are multi-syllabic. Readers whose poor decoding skills prevent them from reading grade-level text independently cannot build their reading and content vocabularies at the same rate as their peers and of course, struggle with reading comprehension. Similarly, students who do not understand units of meaning (roots, affixes, etc.) or cannot read “effortlessly” are at a tremendous disadvantage with respect to content-area learning.

What Can Content-Area Teachers Do to Help Adolescents Who Struggle with Basic Reading Skills?
Remedial decoding, morphology and fluency instruction, in general, is most appropriately delivered by a reading or intervention specialist. But, content-area teachers can:

- Select words for students to decode/analyze that are both specialized (e.g. os/mo/sis, mei/o/sis, mi/to/sis) and non-specialized (e.g. select and selection or examine, explain, example);
- Introduce new content-area vocabulary by saying syllables slowly for students (e.g., e-co-sys-tem);
- Point out patterns in pronunciation and spelling of prefixes, suffixes and vowels in words (e.g., mono-the-ism; sex-ism; age-ism, etc.) and discuss derivations of content-specific words (Greek words tend to combine roots as in atmosphere, chromosome and physiology while Latin words mostly contain roots and affixes as in informing, conventional and disrupted);
- Point out similarities and differences among words that belong to “families” (e.g., define, definitely, definition);
- Model fluent reading for students by reading aloud from class texts frequently and integrate choral reading of specific key passages in text that are important for students to remember;
- Engage students in partner reading, modeling first, and then asking students to read the rest of texts aloud to each other.
The Importance of Vocabulary
When we present information, in no matter what area of curriculum, we as teachers must understand the importance of vocabulary to comprehension and expression. It may help us to understand that vocabulary can be divided into three types:

- **Oral vocabulary** refers to words that are recognized and used in speaking.
- **Aural vocabulary** refers to the collection of words a student understands when listening to teachers or peers speak.
- **Print vocabulary** refers to words used in reading and writing.

What Challenges Do Some Adolescent Readers Face?
Print vocabulary is more difficult for students to acquire because it depends upon quick, practiced, and automatic visual recognition of words. Struggling readers who see words in isolation will have difficulty with written vocabulary without some further aids or practice. They will need specific help to strengthen their skills for acquiring, comprehending, and using appropriate vocabulary in a successful way.

What Can Content-Area Teachers Do to Help Adolescents Who Struggle with Vocabulary?
Remember that if students do not have the basic tools (vocabulary) with which to assimilate the content of your lessons, they do not retain what we are teaching. “Programs” designed to teach vocabulary have often had surprisingly little effect on word learning. There are techniques research has shown to aid learning at a more consistent and successful pace.

Preteach Difficult Vocabulary Using Direct, Explicit, and Systematic Instruction
- **Consider** which words will help students talk about the content being presented to them
- **Discuss** the existence of multiple meanings of words (meter in music as opposed to meter in poetry or mathematics)
- **Consider** prior knowledge of words and concepts
- **Look at** ways to provide multiple opportunities for exposure to words and concepts
- **Examine** prefixes, suffixes and root words with students to promote comprehension of word meanings
- **Use new words** in sentences and ask questions using the words

Use Written Resources and Computer Technology to Help Teach New Vocabulary
- Use technology that allows for engaging formats
- Use hyperlinks
- Use online dictionaries as well as print dictionaries
- Use content-area related websites hosted by museums, libraries, and other reliable institutions
Concept Mastery Routine-Physical Science Example (Tool 1)

3. Key Words

- metal
- non-metal
- base metal

4. Always Present | Sometimes Present | Never Present

Combination of elements | More than two elements | 1 element

Combined for a practical reason | Stronger | Combined for no practical reason

Base metal | Non-metals | 2 or more non-metals

5. Examples | Nonexamples

Steel | Iron

Brass | Aluminum

Bronze | Nickel

6. White gold is an alloy because it has a base metal of gold that is mixed with nickel (metal element), or nickel and palladium (metal element). The white gold alloy contains no non-metal element, like phosphorous or carbon.

7. An alloy is a solution of 2 or more elements, one always being a base metal. Alloys are made for practical reasons, often because they are stronger or denser than the elements used to make them.
## Concept Mastery Routine-Teacher Tool

### Concept Diagram

<table>
<thead>
<tr>
<th>3. Key Words</th>
<th>1.</th>
<th>2.</th>
</tr>
</thead>
<tbody>
<tr>
<td>4. Always Present</td>
<td>Sometimes Present</td>
<td>Never Present</td>
</tr>
<tr>
<td>______________</td>
<td>______________</td>
<td>______________</td>
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<td>______________</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>5. Examples</th>
<th>Nonexamples</th>
</tr>
</thead>
<tbody>
<tr>
<td>______________</td>
<td>______________</td>
</tr>
<tr>
<td>______________</td>
<td>______________</td>
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<tr>
<td>______________</td>
<td>______________</td>
</tr>
</tbody>
</table>

| 6. |
| ______________ |
| ______________ |
| ______________ |

7. 

Steps: 1. Convey the concept/new word; 2. Offer overall concept; 3. Note key words; 4. Classify characteristics; 5. Explore examples; 6. Practice with a new example; 7. Tie down definition

**Vocabulary Tool # 1**
What Is Text Comprehension?
Text comprehension is the process of building meaning by blending new information with old information. Good readers match the purpose to the text while using their knowledge of vocabulary, language structures, and genre to understand text.

What Challenges Do Some Adolescent Readers Face?
Some adolescent readers lack fluency and background knowledge. Expository (informational) text is the most common in middle school and high school and students need strategies to help them comprehend what they read.

What Can Content-Area Teachers Do to Help Adolescents Who Struggle with Reading Comprehension?
There are several research-based strategies content-area teachers can employ to contribute to better reading comprehension in their students:

- **Integrate strategies** into instruction. As you read new material together, generate questions to process text and to monitor comprehension. As you read, stop and model questioning, predicting, summarizing, and rereading. Ask, “What does this paragraph mean?” “What is the most important idea?” Then allow students to practice the strategies.

- **Model how to summarize text** to determine what is important. Identify main ideas, connect main ideas, identify and delete redundancies, restate main ideas using different words.

- **Use text structure.** Use Marzano’s graphic organizers to help students use text structures to comprehend text in chronological order, cause and effect, and problem/solution formats. Identify signal words that clue the reader to the organization. For example, cause and effect signal words are because, since, consequently, and led to.

- **Use teacher questioning.** Use four types of questions to ensure solid comprehension. “Right there” questions generate explicit responses that can be easily found in the text. “Pulling it together” responses can be found in several places in the text. “Text and me” responses use implied information from text and their own experiences. “On my own” responses use prior knowledge to answer the question.

- **Use inquiry charts** to help students compile, compare, and analyze information from a variety of sources. Students plan a topic and a set of questions, identify several resources and record prior knowledge. Students complete inquiry charts while researching topic (see tool).
## Inquiry Chart Teacher Tool

**Concept:** _______________________________________________

<table>
<thead>
<tr>
<th>Question Area 1</th>
<th>Question Area 2</th>
<th>Question Area 3</th>
<th>Question Area 4</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**What I Think**

<table>
<thead>
<tr>
<th>Source # 1</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Source # 2</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Source # 3</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Summary**

Text Comprehension Tool # 1
### Concept Anchoring Routine-Social Studies Example (Tool 2)

#### Anchoring Table

<table>
<thead>
<tr>
<th>Known Information (Step 3)</th>
<th>Known Concept (Step 2)</th>
<th>New Concept (Step 1)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Decision-making in our school</td>
<td>Federalism in the United States</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Characteristics of Known Concept (Step 4)</th>
<th>Characteristics Shared (Step 6)</th>
<th>Characteristics of New Concept (Step 5)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Decisions are made by administrators and teachers</td>
<td>2 groups are involved</td>
</tr>
<tr>
<td>teachers</td>
<td>Rules that are written or understood tell how power is divided</td>
<td>Decisions are made by state and national governments</td>
</tr>
<tr>
<td>administrators</td>
<td>Rules tell how power is divided</td>
<td></td>
</tr>
<tr>
<td>rules</td>
<td>Rules, based on Constitution, tell how power is divided</td>
<td></td>
</tr>
<tr>
<td>penalties</td>
<td></td>
<td></td>
</tr>
<tr>
<td>not sure if powers are written down</td>
<td>Some powers belong to administrators (suspend)</td>
<td>Some powers belong to the national government (war, money)</td>
</tr>
<tr>
<td>teachers make assignments</td>
<td>Some powers belong to teachers (give assignments)</td>
<td>Some powers belong to the states (education, marriage, gambling)</td>
</tr>
<tr>
<td>administrators suspend</td>
<td>Some powers belong to both (make rules/set penalties)</td>
<td>Some powers belong to both (taxes, punish crimes)</td>
</tr>
</tbody>
</table>

#### Understanding of New Concept:

Federalism in the U.S.A. is a form of government in which decisions are made by both state and national governments. Rules to decide how power is divided are based on the Constitution. Some powers (e.g. make war) belong to the national government. Other powers (e.g. gambling) belong to the states. Some powers (e.g. taxation) belong to both.

Example adapted from Deshler, Schumaker, Bulgren, Lenz, Jantzen, Adams, Carnine, Grossen, Davis and Marquis (2001)

**Text Comprehension (Concept) Tool # 2 Example**
Concept Anchoring Routine - Teacher Tool

Anchoring Table

<table>
<thead>
<tr>
<th>Known Concept (Step 2)</th>
<th>New Concept (Step 1)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Characteristics of Known Concept (Step 4)</td>
<td>Characteristics Shared (Step 6)</td>
</tr>
</tbody>
</table>

Understanding of New Concept (Step 7):

Text Comprehension (Concept) Tool # 2
Selective Highlighting

Selective highlighting taught in content-area classes can be used by students to organize what they read by selecting what is important. It is a flexible strategy that can be tailored for different purposes (i.e. key vocabulary in study guides or texts; central themes or main ideas in text).

It can be used by content-area teachers to formatively assess students to determine if they are learning to an acceptable degree, a particular concept. The following are steps in the selective highlighting process.

Ask students to...

1. Read through a selection;
2. Reread and begin to highlight only the main ideas;
3. Use a different color to highlight only the details that support only the main ideas.

Or, ask students to...

Read through a selection, and highlight only facts in one color, reasoned judgment based on research findings in another color, and speculation in a third color (see common core standards).

Or, ask students to...

Highlight only the key vocabulary as they are reading a selection.

Text Comprehension/Vocabulary Tool #3
(Note that tool can be used to formatively assess)
**Reading Assessments**

**Summative**

Summative Purpose = Inform teachers whether classroom instruction has had desired impact. Summative Assessments DO NOT provide information on DAILY instructional decision-making or individual student progress.

**Formative**

Formative Purpose = Inform teachers of daily progress with students. Evidence is used to guide instruction. Formative Assessments include three approaches: 1) teacher observations; 2) classroom discussion; and 3) reading of students’ work.

One of the primary practices for teacher observation is the “Think Aloud” (see Think Aloud Assessment-Teacher Tool #1). Once students have this modeled, they can begin using it with partners or by themselves.

Comprehension checks do little to tell teachers about true reading skills. Therefore, to assess reading using the classroom discussion approach, it is important to know that questioning techniques should fall into three categories: 1) questions that focus on student learning; 2) questions that focus on use of reading skills; and 3) questions that model the kinds of questions students need to ask themselves while reading.

When teachers use students' work to assess reading, they should use rubrics and provide specific examples so that students know what is expected.

**Diagnostic**

Diagnostic Purpose = Provide precise information on students’ strengths and weaknesses. These assessments are usually performed, scored, and evaluated by reading specialists or school psychologists.
Think Aloud Assessment-Teacher Tool #1

“Think Aloud” assessment can help teachers determine whether students actually comprehend what they read from content-area materials. “Thinking aloud” must be taught first before it can be used to assess comprehension. To model “thinking aloud,” teachers should display a passage/text (like the one below) from content-area material(s) on the smart board.

Concrete is produced by mixing cement (a product of limestone rock), water, sand and gravel. Innovative building designs, however, need new materials. To help make the architect’s dream a reality, researchers have developed new versions of concrete that are flexible, colorful and translucent.

With new versions of concrete, architects can expand their design ideas, depending on new concrete formulas that result in new buildings and other structures that are curved, spiral, full of color or see-through.

- I’ve hit a paragraph I don’t completely understand.
- I think the reason I don’t understand is because I don’t know what the words innovative and translucent really mean.
- I’ll reread the sentences with those two words (teacher rereads)...I think innovative means “new” because it says the buildings need “new” materials. I still don’t really know what translucent means, exactly.
- I think I’ll read ahead to see if I can find clues (teacher reads ahead). Yes, I see here the words “see through,” so I’ll bet that translucent means “see through.”

Asking students from time to time to “think aloud” as they read, and listening to them do so, is a strategy used in a formative way, because teachers can uncover details about comprehension strengths and weaknesses within the context of content-area reading.

Assessment Tool #1
**What is Writing?**
Writing is the ability to compose text effectively for various purposes and audiences. Researchers have found that, much like reading, improving one’s writing skills improves capacity to learn. Learning to write well requires instruction. Many of the skills that are involved in writing reinforce and are reinforced by reading skills.

**What Challenges Do Some Adolescent Readers Face with Writing?**
Students who do not write well have limited opportunities to effectively communicate. Inability to write limits adolescent achievement and opportunities for future education/employment.

**What Can Content-Area Teachers Do to Promote Better Writing?**
Content-area teachers can contribute to the development of robust writing skills by:

- **Using direct, explicit, and systematic instruction**
  - Explain the skill and model how to apply it in writing
  - Provide corrective feedback
  - Provide time for independent practice
  - Repeat steps until students can use the writing skill independently

- **Teaching the importance of prewriting**
  - Brainstorm
  - Make lists
  - Develop outlines
  - Use graphic organizers

- **Providing instructional environment**
  - Make writing a regular activity in every class
  - Give time for students to engage in “extensive” writing
  - Ask leading questions that prompt students to plan next steps
  - Share your personal work or writing samples
  - Convey the ways writing is useful in the real world

- **Using rubrics to assess**
  - Use as assessment tools
  - Promote self-evaluation with them
  - Use them with student groups for collaboration about writing

- **Addressing the diverse needs of learners**
  - Allow students to write about topics of their choice
  - Write for purposes beyond the classroom
The Importance of Motivation
Motivated and successful students read more over time than those who are not motivated. The gap in knowledge gained between motivated and unmotivated readers becomes greater over time. Readers control their own motivation and there is little to no effect from extrinsic motivation.

What Do Motivated Readers Have?
*Self-determination:* Motivated students perceive they have control over their own reading even when the assignment is highly structured and teacher-driven. They understand they have choices.
*Self-regulation:* Motivated readers are able to direct their reading and writing performance toward goals.
*Engagement:* Motivated readers don’t always become engaged readers. They can lose their motivation due to poor skills or insufficient background knowledge of a topic. Once students are engaged, they take pleasure in and continue with the task.

What Challenges Do We as Educators Face With Unmotivated Students?
Educators today face the challenge of finding ways to integrate student interests into classroom instruction. Struggling readers and writers understand more fully that receiving lower grades and being grouped with peers of similar ability means they are perceived as less capable than others. Confidence and motivation decline.

How Can Content-Area Teachers Contribute to Increased Motivation in Students?
*Set Clear Goals and Expectations:* Teachers should be clear about why the reading is assigned and what students are expected to do as a result. Teachers should also provide examples of strategies students can use as they read (e.g. pay attention to specific reasons why an historical event occurred, and offer those reasons during discussion).
*Guide Students to Focus on their Own Improvement:* Even at upper levels, teachers must match text readability to students and determine skills still needed to improve individual reading.
*Provide Choice and Variety:* Allow students to select some of their own reading materials that pertain to the content they are learning.
*Provide Opportunities for Interaction:* Create opportunities for students to read different materials at different reading levels about a common topic and form small groups so that students can share what they’ve learned from the different texts.