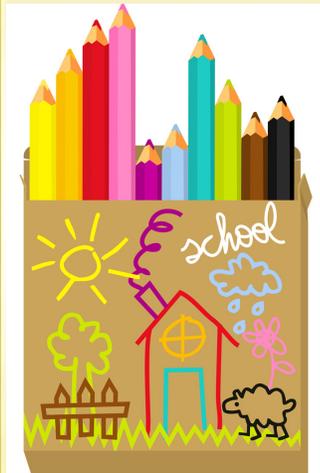


# Teachers at Work:



# Beginning with Some **Low Prep** Examples

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## Begin Slowly – Just Begin!

### Low-Prep Differentiation

Choices of books  
Homework options  
Use of reading buddies  
Varied journal Prompts  
Orbitals  
Varied pacing with anchor options  
Student-teaching goal setting  
Work alone / together  
Whole-to-part and part-to-whole explorations  
Flexible seating  
Varied computer programs  
Design-A-Day  
Varied Supplementary materials  
Options for varied modes of expression  
Varying scaffolding on same organizer  
Let's Make a Deal projects  
Computer mentors  
Think-Pair-Share by readiness, interest, learning profile  
Use of collaboration, independence, and cooperation  
Open-ended activities  
Mini-workshops to reteach or extend skills  
Jigsaw  
Negotiated Criteria  
Explorations by interests  
Games to practice mastery of information  
Multiple levels of questions



### High-Prep Differentiation

Tiered activities and labs  
Tiered products  
Independent studies  
Multiple texts  
Alternative assessments  
Learning contracts  
4-MAT  
Multiple-intelligence options  
Compacting  
Spelling by readiness  
Entry Points  
Varying organizers  
Lectures coupled with graphic organizers  
Community mentorships  
Interest groups  
Tiered centers  
Interest centers  
Personal agendas  
Literature Circles  
Stations  
Complex Instruction  
Group Investigation  
Tape-recorded materials  
Teams, Games, and Tournaments  
Choice Boards  
Think-Tac-Toe  
Simulations  
Problem-Based Learning  
Graduated Rubrics  
Flexible reading formats  
Student-centered writing formats



## Low-Prep Examples

- Working with others sitting near you, review the examples assigned to you making sure that everyone understands how the strategy might address learner needs and also be easily accomplished by the teacher.
- Each group will be asked to briefly share their list highlighting impressions and/or experiences concerning the strategies.
- Be sure to note any concerns or issues you think might be of interest to others.



## Low-Prep Differentiation



1. Choices of books
2. Homework options
3. Use of reading buddies
4. Varied journal Prompts
5. Orbitals
6. Varied pacing with anchor options
7. Student-teacher goal setting
8. Work alone / together
9. Whole-to-part and part-to-whole explorations
10. Flexible seating
11. Varied computer programs
12. Design-A-Day
13. Varied Supplementary materials
14. Options for varied modes of expression
15. Varying scaffolding on same organizer
16. Let's Make a Deal projects
17. Computer mentors
18. Think-Pair-Share by readiness, interest, learning profile
19. Use of collaboration, independence, and cooperation
20. Open-ended activities
21. Mini-workshops to reteach or extend skills
22. Jigsaw
23. Negotiated Criteria
24. Explorations by interests
25. Games to practice master information
26. Multiple levels of questions



## There are Many Low Prep Ways...

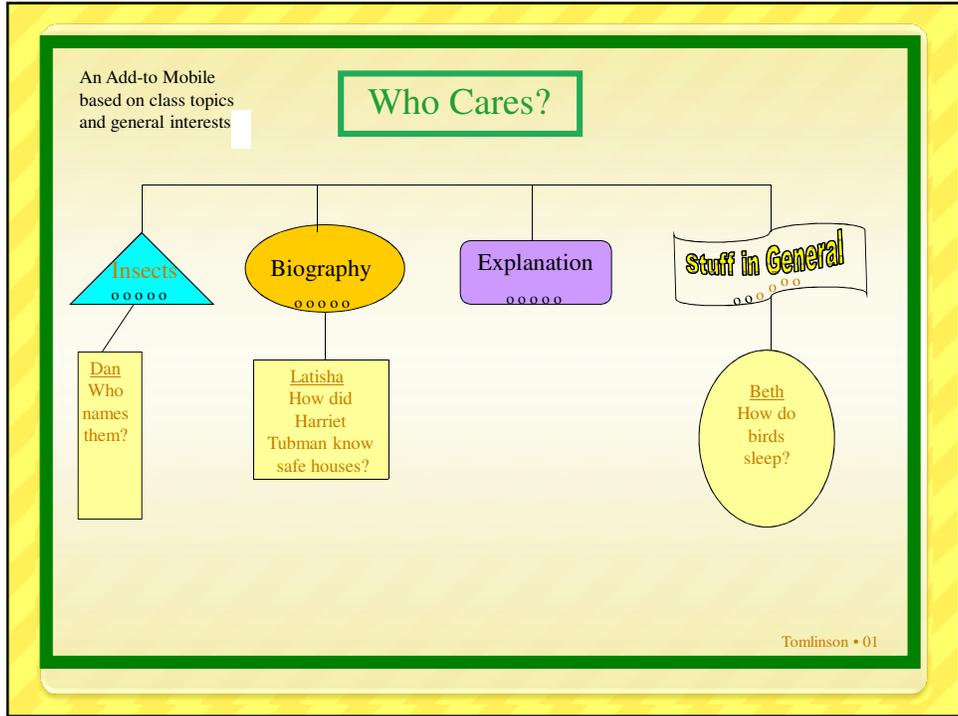
- |  |   |
|--|---|
| <ul style="list-style-type: none"><li>•Use small group instruction</li><li>•Teach in multiple modes</li><li>•Offer work alone/work with a friend options</li><li>•Put key materials on tape</li><li>•Offer Let's Make a Deal options</li><li>•Provide mini-workshops</li><li>•Regularly connect details to the big picture of meaning</li><li>•Connect ideas to student interests</li><li>•Ask student advice on class</li></ul> | <ul style="list-style-type: none"><li>•Offer varied ways of exploring and expressing ideas</li><li>•Connect schoolwork with life beyond the classroom</li><li>•Set personal criteria for student success</li><li>•Encourage students to develop personal criteria for success</li><li>•Use key reading strategies regularly (e.g. close reads think-alouds)</li><li>Watch more, listen better</li></ul> |
|--|---|

...to Make a Difference

Tomlinson 08

### *Some Simple Ways to Address Learning Profile*

- |   |   |
|---|---|
| <ul style="list-style-type: none"><li><input type="checkbox"/> <b>Work alone/work with a partner</b></li><li><input type="checkbox"/> <b>Plan with an outline, a prose summary, a graphic organizer, or storyboards</b></li><li><input type="checkbox"/> <b>Work at your desk, work on the floor</b></li><li><input type="checkbox"/> <b>Praise the group/praise the individual</b></li><li><input type="checkbox"/> <b>Mastery/utility</b></li></ul> | <ul style="list-style-type: none"><li><input type="checkbox"/> <b>Earplugs for quiet Carrels/"offices" for Concentration</b></li><li><input type="checkbox"/> <b>Read first/listen first</b></li><li><input type="checkbox"/> <b>Choice of formats to demonstrate what you've learned</b></li><li><input type="checkbox"/> <b>Prompts to allow reflection</b></li><li><input type="checkbox"/> <b>Competition/collaboration</b></li></ul> |
|---|---|



## Thinking About Student Interest

- 1) Personal Word Lists
- 2) Sustained Silent Reading  
Students identify interest areas  
Students select reading materials  
Teachers provide regular SSR time  
Students reflect on what they learned  
*Reading logs, Structured response, Varied representations*
- 3) Orbitals
- 4) Web Inquiry
- 5) Interest Centers
- 6) Expert Groups
- 7) Independent Studies
- 8) Biographical Inquiry
- 9) Mode of Expression Options
- 10) Design A Day
- 11) Group Investigation
- 12) Let's Make a Deal

Tomlinson '04

# Orbitals

## Background:

Chris Stevenson (1992, 1997) suggests "orbital studies" as an ideal way to address both commonalities and differences among middle-level learners. Indeed the strategy appears easily adapted to learners at all levels.

(Tomlinson, 1999, p. 71)



## Description:

1. An orbital study focuses on a topic of student interest related to some facet of the curriculum.
2. A student may work on an orbital study for three to six weeks.
3. Teachers help students develop clear questions for study, a plan for research, a method of presentation, and criteria for quality.
4. Successfully completing an orbital includes keeping a log of time spent on the study, resources used, and ideas and skills gained.

(Tomlinson, C.A., 1999, *The Differentiated Classroom: Responding to the Needs of All Learners*, p. 72)

# Orbitals

## Background:

An instructional approach designed to foster/support student interests and teach skills of inquiry and independence.

## Steps:

1. Students are asked to complete out-of-class investigations to answer questions or learn about topics of interest to them. The topics/questions do not have to relate to class content.
2. The teacher guides students from their particular points of readiness to pose good questions, find resources, abstract viable information, keep records, determine answers, share work, raise subsequent questions, etc.
3. Students share findings in appropriate formats with peer audiences
4. Lengths, conditions of orbitals will vary with student readiness, interest, and mode of learning



## Some Other Ways to Build Capacity in Struggling Readers & Writers

### READING

- Books/Selections on tape
- Scaffolded reading w/ teacher
- Text preview
- Think-Alouds
- Echo Reading
- Tutoring younger students
- Interest-based reading
- Excerpted reading
- Materials kids can read
- Materials kids want to read
- Materials with substantive ideas

### WRITING

- Experiential writing
- Dictation Pairs
- Personalized vocabulary
- Models of student writing
- Scaffolded writing
- Personal journals
- Draw first, then write
- Small group writing instruction



## A Variety of Texts for a Variety of Purposes



What kids really need is more assistance in *understanding hard concepts*. Instead of a constant stream of super-hard texts, students need a mix of materials, ranging from easy to hard. We already have textbooks in the classrooms; what we need to add, in all content areas, is more material that's relatively easy, so students can concentrate on absorbing challenging content. This may sound counterintuitive, but evidence shows that students, including struggling readers, progress faster when given opportunities to read books that make sense to them (Allington 2002). We probably shouldn't need research to convince us of this simple reality: when kids read stuff they *can read*, they make more sense of what they *do read*. Just as important, Allington reports that when given interesting materials that they can read without too much difficulty, students *will* read. If we believe that our job is to help students enter the subject fields, dig into the big ideas, and grapple with increasingly complex concepts, then we must add accessible books to the reading mix.

Teaching The Best Practice Way by Daniels and Bizar • Stenhouse Pub. • p. 44

(1 of 3)

## A Variety of Texts for a Variety of Purposes



In her kindergarten classroom in San Diego, Linda Hamilton has assembled a collection of book baskets, each one filled with six to ten books on a particular subject: whales, dinosaurs, insects, holidays, and more. Some contain mostly pictures while others have plenty of text; the publishers would probably say each basket runs from pre-school to third-grade level or higher. Part of every day's routine, pairs of children select a basket that interests them, sit down together on the rug, and go through a "text set," looking at the similarities among the books. Then they pick one book to "read" together, which means they page through the book. Talking about the pictures as they go, along with any text they can decipher.

Teaching The Best Practice Way by Daniels and Bizar • Stenhouse Pub. • p. 44

(2 of 3)

## A Variety of Texts for a Variety of Purposes



At Andrew High School in Tinley Park, Illinois, Jeff Janes' science students are reading selections from the current adult nonfiction title *E=MC<sup>2</sup> : A Biography of the world's Most Famous Equation* by David Bodanis, which explains Einstein's famous equation by sharing the biographies of a dozen people, including several as yet unsung women, who contributed key ideas over several centuries. Why has Jeff assigned the book, which is far longer and more detailed than the related sections in the physics textbook? Simple, Jeff explains: "It is written at an easier reading level, it's much more interesting, and it does a much better job of explaining the equation than our physics textbook. I think kids who read this book will really understand the concepts."

Teaching The Best Practice Way by Daniels and Bizar • Stenhouse. • p. 45

(3 of 3)

## A Close Read

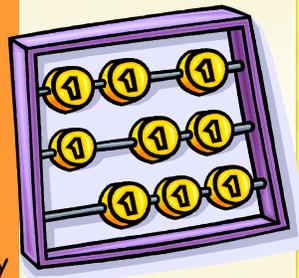
Asks students to slow down, read deeply, converse with the material, to establish understanding.

It asks them to become cameras and zoom in on what's in the material that can help them read intelligently.



## A Fifth Grade Teacher's Approach To Close Reading a Math Problem

- Read the problem 2-3 times
- State what it asks you to solve
- Select the information you'll need to help you solve the problem
- Decide if there's a formula you need to use
- Decide if you need to set up an equation
- Draw a picture to help you see the problem and data
- Substitute small whole numbers if necessary and see if your solution works that way
- Write in words what you understand about the problem
- Ask, "Does my answer make sense?"



Teaching Reading in Social Studies, Science, & Math by Laura Robb, New York :Scholastic, 2003, pp. 147-148

## Close Reading a Graphic

- Look at the graphic
- Read its title
- Think about the meaning of the title and how it relates to the graphic
- Ask yourself how the title & graphic relate to the chapter or article
- Ask yourself, "What's important here?"
- Make sure you understand the words
- Connect the important information to your life, your world, or something you already know.



*Teaching Reading in Social Studies, Science, & Math* by Laura Robb, New York: Scholastic, 2003

## Close Reading a Poem

- Read the poem aloud
- Use the dictionary to figure out the meaning of unfamiliar words
- Explore the connotations of words
- Explore the meaning of figurative language
- Look for help from titles and graphics
- Look for "loaded words" (words with double meanings, that link to titles, that are repeated)



## Word Jars

Words that tickle my ears!



Words that warm my heart!



Words that make me wonder!



Words that make me feel smart!



Words that I've heard someone say!



Words that can calm my ears!



Janet Allen (1999) *Words, Words, Words*. • Stenhouse • p. 146

## Personal Skills Log Writing and Reading

For \_\_\_\_\_ Dates \_\_\_\_\_

I can read these new words:

I can write these new words:

I can say these rhymes:

I can use these describing words  
correctly:

Here's something else I can do:





## Teaching Vocabulary for Success

- ✓ Front load vocabulary instruction
- ✓ Encourage descriptions vs. definitions
- ✓ Use both linguistic and non-linguistic tools
- ✓ Teach key word parts
- ✓ Use games
- ✓ Have students interact about words they are learning
- ✓ Use words that are important in academic subjects
- ✓ Pre-assess and use formative assessment to match words and instruction to learner needs

Tomlinson '04 - Modified from Marzano '04

### So...What Words Should I Front Load?



**Ones that are essential for understanding how the information makes sense,**

**Ones I know the students will struggle with,**

**Ones that lack adequate support for making meaning in the text.**

### HOW MANY SHOULD I TEACH UP FRONT??

**About 3-4 for the lower grades**

Teaching Reading in Social Studies, Science, & Math by Laura Robb (2003) Scholastic, p. 197

**About 5-6 for the upper grades**

## When You Front Load Vocabulary, Be Sure:

Students have a context for the word

Or that you establish a context

To show students how to use root words to  
make meaning

You maintain a focus on the words throughout  
the chapter

That you hold up the words in subsequent  
chapters as prior knowledge



### WORD MAP

|  |   |
|--|---|
| <u>Definition</u><br>Aware of            | <u>Sentence/Picture to Show Understanding</u><br> |
| <u>Non Examples/ Antonym</u><br>Clueless | <u>Example/Synonym</u><br>With it<br>Clued in     |

**Cognizant**

*Useful to help many students explore, process, and retain new words.*

Can address:

*Readiness (vary the words)      Interest*  
*Learning Profile                      Second Language*  
*Exceptionalities including second language, reading, LD, cognitive disability*

Tomlinson • (04)

# Ways

## To Differentiate Content

- Reading partners/ Reading Buddies
  - Read/Summarize
  - Read/Question/Answer
  - Visual Organizer/Summarizer
  - Parallel Reading with Teacher Prompt
- Choral Reading/Antiphonal Reading
- Flip books
- Split Journals (Double Entry - Triple Entry)
- Books on Tape
- Highlights on Tape
- Digests/"Cliff Notes"
- Notetaking Organizers
- Varied Texts
- Varied Supplementary Materials
- Highlighted Texts
- Think-Pair-Share/Preview-Midview-Postview



## Electricity

|   |  |
|---|--|
| <p style="text-align: center;"><b><u>Description</u></b></p> <p>Electricity is one kind of energy</p>   | <p style="text-align: center;"><b><u>Kinds of Electricity</u></b></p> <p>There are two kinds of electricity, static and current. Static electricity is on electric charge that does not move. Current electricity is the movement of electrons.</p>  |
| <p style="text-align: center;"><b><u>Electric Circuits</u></b></p> <p>There are two kinds of electric circuits<br/>A series circuit is one in which current can follow only one path<br/>A parallel circuit is one in which current can follow more than one path.</p>                | <p style="text-align: center;"><b><u>Producing Electricity</u></b></p> <p>A generator is a machine that changes mechanical energy into electrical energy.<br/>A dry cell uses a chemical paste, carbon rod, and zinc to produce a flow of electrons.<br/>A wet cell uses acid and water, which reacts with metal plates, to produce a flow of electrons.</p>   |
| <p style="text-align: center;"><b><u>Using Electricity</u></b></p> <p>Electricity is an important source of light and heat.<br/>Electrical energy can be changed to mechanical energy.<br/>Fuses and circuit breakers are safety devices designed to help use electricity safely.</p> | <p style="text-align: center;"><b><u>Measuring Electricity</u></b></p> <p>The amount of electricity used is measured in kilowatt-hours.</p> <p><small>Note: Basic format "Perceptions and Strategies," by M.W.Olson and T.C. Gee, 1991. <i>The Reading Teacher</i>, 45(4), 298-307 Copyright 1991 by the International Reading Association <i>Teaching Reading in Science</i> by Barton and Jordan</small></p> |

# A Simple & Important Example

## Varied Homework

Why'd we ever think the same homework for everyone made sense anyhow??

Sure you can check homework when kids do varied tasks!!

## Homework Checkers



# Homework Checkers



### Background:

This is a process for checking multiple homework assignments simultaneously in a classroom so that the teacher feels free to differentiate homework as necessary to address particular student learning needs.

### Steps:

1. The teacher checks to make sure each student has completed assigned homework
2. Students who have not completed the assignment work in a designated area of the room to complete the assignment (teacher floats to provide guidance/feedback)
3. Students who completed the HW work in groups of 4 to check all 4 sets for agreement/disagreement
4. All students mark each answer for agreement/disagreement as well as explanations of why an answer is wrong and how to make it right
5. Students sign indicating agreement, staple set of 4 together, turn in
6. Teacher spot checks, "grades" one per set

## When Does it Make Sense to...

Give everyone the same homework assignment?  
Why do you say so?

Use different homework assignments?  
Why do you say so?

What problems might it create if you sometimes  
used different homework assignments?

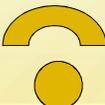
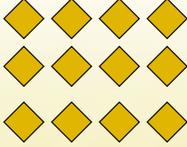
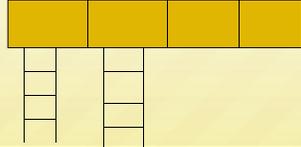
Think about it...



# Writing



- Group 1**
  - Meet with teacher
  - Brainstorm for hot topics
  - Web ideas for possible inclusion
  - Develop a word bank
  - Storyboard a sequence of ideas
  - Make support ladders
  - Begin writing
- Group 2**
  - Alone or in pairs, develop a topic
  - Make a bank of power ideas
  - Web or storyboard the sequence and support
  - Meet with teacher to "ratchet"
  - Begin writing
  - Paired revision
  - Paired editing



| Sedimentary   | Igneous   | Metamorphic   |
|---|---|---|
|  |  |  |
|   |   |   |

**Rock Log**  
Sort your samples. Draw each sample in the correct column. Write a description that tells color, texture and other characteristics about the rock.

| Sedimentary  | Igneous  | Metamorphic  |
|--|--|--|
|   |    |   |
| <p>Look at Sample # _____<br/>You may see small particles of rock and other materials. The particles may look rounded. You may see layers in some rocks.</p> | <p>Look at Sample # _____<br/>You may see large crystals in some of these rocks. Others will not have crystals, but you will see air holes. Some may look like glass. There are no layers.</p> | <p>Look at Sample # _____<br/>These rocks may have crystals or layers. They are formed from other rocks that have been changed by heat and pressure.</p> |



The class does the same activity, but more guidance is given for those who may need it.

Created by Meri-Lyn Stark  
Elementary Science Coordinator  
Park City School District

## DOUBLE ENTRY JOURNAL

### (Basic)

|  |  |
|--|--|
| <p style="color: blue; font-weight: bold;">As You Read, Note:</p> <ul style="list-style-type: none"> <li>• Key phrases</li> <li>• Important words</li> <li>• Main ideas</li> <li>• Puzzling passages</li> <li>• Summaries</li> <li>• Powerful passages</li> <li>• Key parts</li> <li>• Important graphics</li> <li>• Etc.</li> </ul> | <p style="color: blue; font-weight: bold;">After You Read, Explain:</p> <ul style="list-style-type: none"> <li>• How to use ideas</li> <li>• Why an idea is important</li> <li>• Questions</li> <li>• Meaning of key words, passages</li> <li>• Predictions</li> <li>• Reactions</li> <li>• Comments on style</li> <li>• Interpretation of graphics</li> <li>• Etc.</li> </ul> |
|--|--|

# DOUBLE ENTRY JOURNAL

(Advanced)

As You Read

- Key passages
- Key vocabulary
- Organizing concepts
- Key principles
- Key patterns
- Links between text & graphics

As/After You Read

- Why ideas are important
- Author's development of elements
- How parts and whole relate
- Assumptions of author
- Key questions

After You Read

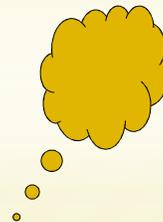
- Teacher
- Author
- Expert in field
- Character
- Satirist
- Political cartoonist
- Etc.

# DOUBLE ENTRY JOURNAL

(Basic)

WHAT I SAW OR HEARD:

WHAT I THINK...



# DOUBLE ENTRY JOURNAL

(Advanced)

WHAT I SAW /  
HEARD



WHAT I THINK



WHAT -----  
WOULD THINK



## Play Around with the Ideas....



*How can you use some of these strategies in your classroom  
to teach varied learners more effectively?*

**Stick with these Four Questions—Persistently & Insistently**

1

•What should students know, understand, & be able to do as a result of this learning segment?

2

•How are we going to know who's learning what we intend, who already knows it, and who already has it?

3

•What are we going to do now that we know who's where relative to the learning goals?

4

•What do we need to do to ensure that the environment here actively supports the success of each student?