Differentiation in Practice

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FRAYER Diagram - Directions:
Complete the chart to show what you know about differentiation. Write as much as you can.
We Make the Weather

“I’ve come to the frightening conclusion that I am the decisive element in the classroom. It’s my personal approach that creates climate. It’s my daily mood that creates weather. As a teacher, I possess a tremendous power to make a child’s life miserable or joyous. I can be a tool of torture or an instrument of inspiration. I can humiliate or humor, torture or heal. In all situations, it is my response that decides whether a crisis will be escalated or de-escalated, a child humanized or de-humanized.” (Ginott, 1993, p. 15)

“So, how do we use this ‘tremendous power’ accorded to us simply because we are teachers, in wise and positive ways?”
What Differentiated Instruction is **NOT**

- Doing something different for the 30 kids in our classroom
- Chaotic
- Just another way to provide homogeneous grouping
- Just “tailoring the same suit of clothes”
What Differentiated Instruction IS

• Proactive
• More qualitative than quantitative
• Rooted in assessment
• A way to provide multiple approaches to content, process, and product
• Student centered
• A blend of whole-class, group, and individual instruction
Differentiated Instruction
is
a teacher’s response to learner’s needs

guided by general **principles** of differentiation, such as

- respectful tasks
- ongoing assessment and adjustment
- clear learning goals
- appropriate degree of challenge

flexible grouping

Teachers can differentiate

**Content**

- Multiple intelligences
- Jigsaw
- Taped materials
- Anchor activities
- Varying organizers
- Varied texts
- Varied supplementary materials
- Literature circles
- Etc.

**Process**

- Tiered lessons
- Tiered centers
- Tiered products
- Learning contracts
- Small group instruction
- Group investigation
- Orbitals
- Independent study
- Etc.

**Product**

- 4-MAT
- Varied questioning strategies
- Interest centers
- Interest groups
- Varied homework
- Compacting
- Varied journal prompts
- Complex instruction
- Etc.

through a range of instructional strategies
“Differentiation is making sure that the right students get the right learning tasks at the right time. Once you have a sense of what each student holds as ‘given’ or ‘known’ and what he or she needs in order to learn, differentiation is no longer an option; it is an obvious response.”

An Important Digression...

Good curriculum matters for good differentiation!

A BIG IDEA/PRINCIPLE OF DIFFERENTIATION: Clarity of learning goals means stating what you want students to

KNOW
UNDERSTAND
BE ABLE TO DO
Differentiation doesn’t suggest that a teacher can be all things to all individuals all the time.

It does, however, mandate that a teacher create a reasonable range of approaches to learning much of the time, so that most students find learning a fit much of the time.
Differentiated Instruction: *Elements*

Five elements that teachers can differentiate, or modify, to increase the likelihood that each student will learn as much as possible, as efficiently as possible:

**Content - Input, what students learn**

**Process - How students go about making sense of ideas and information**

**Product - Output, how students demonstrate what they have learned**

**Learning Environment**
Learning Environment
☞ Decisions about Space
☞ Decisions about Materials
☞ Decisions about Time

**Essential Principles**

1) Good Curriculum Comes First
2) All Tasks Should be Respectful of Each Learner
3) When in Doubt, Teach Up!
4) Use Flexible Grouping
5) Become an Assessment Junkie
6) Grade for Growth
Differentiated Instruction: *Student Characteristics*

- **Readiness**
  - If tasks are a close match for their skills

- **Interest**
  - If tasks ignite curiosity or passion

- **Learning Profile**
  - If the assignment encourages students to work in a preferred manner
Ongoing Assessment and Adjustment

Using frequent formative assessment is the only way we will be able to gauge if our curriculum and instruction is...

- ...providing our students with the proper degree of support and **Challenge**
- ...acting as a source of **Affirmation**
- ...allowing them to make a real **Contribution**
- ...providing them with a sense of **Power**
- ... providing them with a sense of **Purpose**
Sternberg’s Three Intelligences

- We all have some of each of these intelligences, but are usually stronger in one or two areas than in others.
- We should strive to develop as fully each of these intelligences in students...
- ...but also recognize where students’ strengths lie and teach through those intelligences as often as possible, particularly when introducing new ideas.
For PRACTICAL Thinkers

Practical = Street Smart – Contextual – Focus on Use

• Demonstrate how someone uses ________ in their life or work.
• Show how we could apply ________ to solve this real life problem: ____________________.
• Based on your own experience, explain how ____________________ can be used.
• Here’s a problem at school, ________.
• Using your knowledge of ________, develop a plan to address the problem.
For CREATIVE Thinkers

Creative = Innovator – Outside the Box – “What if?” – Improver

• Find a new way to show ________________.
• Use unusual materials to explain ________________.
• Use humor to show ________________.
• Explain (show) a new and better way to ______.
• Make connections between _____ and _____ to help us understand ________________.
• Become a ________________ and use your “new” perspective to help us think about ________________.
For ANALYTICAL Thinkers

Analytical = Linear – Schoolhouse Smart -- Sequential

• Show the parts of _______________ and how they work.
• Explain why _______________ works the way it does.
• Diagram how __________ affects __________.
• Identify the key parts of ________________.
• Present a step-by-step approach to _____.
I Like...

- Designing new things
- Coming up with ideas
- Using my imagination
- Playing make-believe and pretend games
- Thinking of alternative solutions
- Noticing things people usually tend to ignore
- Thinking in pictures and images
- Inventing (new recipes, words, games)
- Supposing that things were different
- Thinking about what would have happened if certain aspects of the world were different
- Composing (new songs, melodies)
- Acting and role playing

CREATIVE

(Sternberg & Grigorenko, 2000)
I Like...

- Taking things apart and fixing them
- Learning through hands on activities
- Making and maintaining friends
- Understanding and respecting others
- Putting into practice things I learned
- Resolving conflicts
- Advising my friends on their problems
- Convincing someone to do something
- Learning by interacting with others
- Applying my knowledge
- Working and being with others
- Adapting to new situations

PRACTICAL

(Sternberg & Grigorenko, 2000)
I Like...

• Analyzing characters when I’m reading or listening to a story
• Comparing & contrasting points of view
• Criticizing my own & others’ work
• Thinking clearly & analytically
• Evaluating my & others’ points of view
• Appealing to logic
• Judging my & others’ behavior
• Explaining difficult problems to others
• Solving logical problems
• Making inferences & deriving conclusions
• Sorting & classifying
• Thinking about things

ANALYTICAL

(Sternberg & Grigorenko, 2000)
Learning Goals:

Know: Names of cell parts, functions of cell parts
Understand: A cell is a system with interrelated parts
Do: Analyze the interrelationships of cell parts/functions. Present understandings in a clear, useful, interesting and fresh way.

After whole class study of a cell, students choose one of the following sense-making activities.

Analytical: Use a cause/effect chain or some other format you develop to show how each part of a cell affects other parts as well as the whole. Use labels, directional markers, and other symbols as appropriate to ensure that someone who is pretty clueless about how a cell works will be enlightened after they study your work.
**Practical:** Look around you in your world or the broader world for systems that could serve as analogies for the cell.

Select your best analogy ("best" most clearly matched, most explanatory or enlightening).

Devise a way to make the analogy clear and visible to an audience of peers, ensuring that they will develop clearer and richer insights about how a cell works by sharing in your work.

Be sure to emphasize both the individual functions of cell parts and the interrelationships among the parts.
**Creative**: Use unlikely stuff to depict the structure and function of the cell, with emphasis on interrelationships among each of the parts. You should select your materials carefully to reveal something important about the cell, its parts, and their interrelationships your aha’s should trigger ours.

**OR**

Tell a story that helps us understand a cell as a system with interdependent actors or characters, a plot to carry out, a setting, and even a potential conflict. Use your own imagination and narrative preferences to help us gain insights into this remarkable system.

Students share their work in a 3 format – first triads of students who completed the same option, then triads with each of the 3 categories represented.

**OR**

This is then followed by a teacher-led, whole class discussion of cells as systems, then a “Teacher Challenge” in which the teacher asks students to make analogies or other sorts of comparisons between cells, cell parts, or interrelationships and objects, photos, or examples produced by the teacher.
Understanding Number

**Analytic Task**
Make a number chart that shows all ways you can think of to show 5.

**Practical Task**
Find as many things as you can at school and at home that have something to do with 5. Share what you find with us so we can see and understand what you did.

**Creative Task**
Write and/or recite a riddle poem about 5 that helps us understand the number in many, unusual, and interesting ways.
Evaluating Plot

Standard: Students will evaluate the quality of plot based on clear criteria

Analytical Task: Experts suggest that an effective plot is:
believable, has events that follow a logical and energizing sequence, has compelling characters and has a convincing resolution.

OR

Select a story that you believe does have an effective plot based on these three criteria

OR

Select a story you believe has an effective plot in spite of the fact that it does not meet these criteria. Establish the criteria you believe made the story’s plot effective. Make a case, using specific illustrations from the story, that “your” criteria describes an effective plot
Evaluating Plot

**Practical Task:** A local TV station wants to air teen-produced digital videos based on well known works. Select and storyboard you choice for a video. Be sure your storyboards at least have a clear and believable plot structure, a logical sequence of events, compelling characters and a convincing resolution. Note other criteria on which you feel the plot’s effectiveness should also be judged. Make a case that your choice is a winner based on these and other criteria you state.

**Creative Task:** Propose an original story you fell has a clear and believable plot structure, a logical sequence of events, compelling characters, and a convincing resolution. You may write it, storyboard it, or make a flow chart of it. Find a way to demonstrate that your story achieves these criteria as well as any others you note as important.
Understanding the Needs of Advanced Learners

Primary intent of DI is to maximize student capacity. A good time to offer advanced learning opportunities is when we can see (or have a hunch) that a student can learn more deeply, move a brisker pace, or make more connections that instructional blueprints might suggest. There are many reasons why advanced learners don’t achieve their full potential. Advanced learners

• can become mentally lazy, even though they do well in school.
• may become “hooked” on the trappings of success.
• may become perfectionists.
• may fail to develop a sense of self-efficacy.
• may fail to develop study and coping skills.
Understanding the Needs of Struggling Learners

The learning profile of a struggling learner may shift over time. Many students whom we perceive as “slow” or “at risk” are proficient in talents that schools view as secondary. Principles to help struggling learners maximize their capacity in school:

- Look for the struggling learner’s positives.
- Don’t let what’s broken extinguish what works.
- Pay attention to relevance.
- Go for powerful learning.
- Teach up.
- Use many avenues to learning.
- See with the eyes of love.
Categories of Instructional Strategies
Identifying Similarities & Differences

Students need explicit structure AND graphic/symbolic representations

- Comparing
- Classifying
- Creating Metaphors
- Creating Analogies
## Model for Comparing

<table>
<thead>
<tr>
<th>Steps for Comparing</th>
<th>Steps for Comparing (young students)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1) Select the items you want to compare.</td>
<td>1) What do I want to compare?</td>
</tr>
<tr>
<td>2) Select the characteristics of the items on which you want to base your comparison.</td>
<td>2) What things about them do I want to compare?</td>
</tr>
<tr>
<td>3) Explain how the items are similar and different with respect to the characteristics.</td>
<td>3) How are they the same? How are they different?</td>
</tr>
</tbody>
</table>

Adapted from Marzano, et. al., 1997)
Complete this matrix by adding one more living thing and one more characteristic. Focus on similarities and differences.

<table>
<thead>
<tr>
<th>Characteristics</th>
<th>Pine Tree</th>
<th>Tulip</th>
<th>Elephant</th>
<th>Shark</th>
</tr>
</thead>
<tbody>
<tr>
<td>External Body Features</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Habitat</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sources of Energy</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

What knowledge did you need to complete this task?

What insights did you gain about the process of identifying similarities and differences while using the comparison matrix?
<table>
<thead>
<tr>
<th>Characteristics</th>
<th>Items to be Compared:</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Sample #1</td>
<td>Sample #2</td>
</tr>
<tr>
<td>1.</td>
<td></td>
<td>Similarities:</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Differences:</td>
</tr>
<tr>
<td>2.</td>
<td></td>
<td>Similarities:</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Differences:</td>
</tr>
<tr>
<td>3.</td>
<td></td>
<td>Similarities:</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Differences:</td>
</tr>
<tr>
<td>4</td>
<td></td>
<td>Similarities:</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Differences:</td>
</tr>
<tr>
<td>5.</td>
<td></td>
<td>Similarities:</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Differences:</td>
</tr>
<tr>
<td>6.</td>
<td></td>
<td>Similarities:</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Differences:</td>
</tr>
</tbody>
</table>
**Figure 3.3**
Metaphor Organizer—Human Heart Is a Heat Pump

- **Element**: Heat Pump
  - Refrigerant pumped through a coil
  - Absorbs heat from outside air, the ground, well water, or some other source
  - Flows to an indoor coil
  - Warmth is radiated or blown into the space
  - Refrigerant flows through a valve that lowers temperature and pressure
  - Turns to liquid
  - Pumped into outdoor coil to begin cycle again

- **Literal Pattern**: A pump moves a liquid through a system in order to make an exchange
- **Abstract Relationship**: Blood from veins in the body flow through the superior vena cava and inferior vena cava into the right atrium through the tricuspid valve to the right ventricle through the pulmonary artery to the lungs. Blood picks up oxygen and loses carbon dioxide. Pulmonary veins return oxygenated blood to the left atrium.

- **Element**: Heart
Analogy Organizer—Great Depression

A

Stock Market Crash of 1929

is to

U.S. economy

B

Something attacks a system and weakens its ability to prevent serious affliction.

As

exposure to germs

is to

human body

D

Blackline master available
The table below lists items grouped into three categories of resources. Take a moment to study these categories and the items in each.

<table>
<thead>
<tr>
<th>Natural Resources</th>
<th>Human Resources</th>
<th>Capital Resources</th>
</tr>
</thead>
<tbody>
<tr>
<td>Land</td>
<td>Police officer</td>
<td>Bricks</td>
</tr>
<tr>
<td>Forests</td>
<td>Mail carrier</td>
<td>Hammer</td>
</tr>
<tr>
<td>Rivers</td>
<td>Teacher</td>
<td>Bus</td>
</tr>
<tr>
<td>Oceans</td>
<td>Engineer</td>
<td>2&quot; x 4&quot; lumber</td>
</tr>
<tr>
<td>Sunlight</td>
<td>Taxi driver</td>
<td>Table saw</td>
</tr>
<tr>
<td>Coal</td>
<td>Construction worker</td>
<td>Dump truck</td>
</tr>
<tr>
<td>Pastures</td>
<td>Accountant</td>
<td>Dishwashing machine</td>
</tr>
<tr>
<td>Mineral deposits</td>
<td>Telephone operator</td>
<td>Jackhammer</td>
</tr>
<tr>
<td></td>
<td>Salesperson</td>
<td>Computer</td>
</tr>
</tbody>
</table>

Now it's your turn. Reclassify these items using categories that you determine. Take a moment to explain the new categories. Then answer the following questions:

What steps did you follow to reclassify the items?

What do you see differently about the items now that you have reclassified them?
**Metaphor Organizer—Human Heart Is a Heat Pump**

**Element**
- **Heat Pump**
  - Refrigerant pumped through a coil ➔ absorbs heat from outside air, the ground, well water, or some other source ➔ to a compressor that raises its temperature and pressure ➔ turns to vapor ➔ flows to an indoor coil ➔ warmth is radiated or blown into the space ➔ refrigerant flows through a valve that lowers temperature and pressure ➔ turns to liquid ➔ pumped into outdoor coil to begin cycle again

**Literal Pattern**
- a pump moves a liquid through a system in order to make an exchange

**Abstract Relationship**
- Blood from veins in the body flow through the superior vena cava and inferior vena cava into the right atrium ➔ through the tricuspid valve to the right ventricle ➔ through the pulmonary artery to the lungs ➔ blood picks up oxygen and loses carbon dioxide ➔ pulmonary veins return oxygenated blood to the left atrium ➔

**Element**
- **Heart**
Below are several analogies from different content areas. Before each analogy is a statement of the content knowledge that is the focus of the analogy. Imagine that your teacher asks you to explain each analogy in Set 1 and complete each analogy in Set 2. As you complete this assignment, notice what the task asks you to do with the knowledge. How does it take you beyond simply recalling information?

**Set 1. Explain the analogies that follow each knowledge statement.**

**Target Knowledge:** Knows different ways in which living things can be grouped and purposes of different groupings (Science, Grades 3–5)

- Kangaroo: marsupial; platypus: monotreme

**Target Knowledge:** Knows the defining characteristics of a variety of literary forms and genres (Language Arts, Grades 9–12)

- Sonnet: poem; passion: play; drama

**Target Knowledge:** Understands the properties of and the relationships among addition, subtraction, multiplication, and division (Mathematics, Grades 3–5)

- Addition: subtraction; multiplication: division

**Set 2. Complete the analogies that follow each knowledge statement.**

**Target Knowledge:** Understands the characteristics and properties (e.g., order relations, relative magnitude, base-10 place values) of the set of rational numbers and its subsets (Mathematics, Grades 6–8)

\[ 2 \times 4 \times x \]

\[ x = \underline{\text{__________}} \] because \underline{\text{______________}}

**Target Knowledge:** Understands similarities and differences among the characteristics of artworks from various eras and cultures (Visual Arts, Grades 5–8)

- Van Gogh: expressionism: \underline{__________}:

**Target Knowledge:** Knows various people and groups who make, apply, and enforce rules and laws for others and who manage disputes about rules and laws (Civics, Grades 3–5)

- President: United States: \underline{__________}:

**Target Knowledge:** Knows the characteristics of a variety of regions (Geography, Grades 3–5)

\underline{__________}:

- grass: meadow
Summarizing & NoteTaking

• Upper elementary and middle
The Topic-Restriction-Illustration pattern
Expository texts that fit this pattern commonly include the following elements:

**Topic:** a general statement about the topic to be discussed

**Restriction:** statements that limit the information in some way

**Illustration:** statements that exemplify the topic or restriction

The T-R-I pattern can have several restrictions and additional illustrations.

The Topic-Restriction-Illustration frame
Guiding questions for the T-R-I frame:

**Topic:** What is the general statement or topic?

**Restriction:** What information does the author give that narrows or restricts the general statement or topic?

**Illustration:** What examples does the author give to illustrate the topic or restriction?
The argumentation pattern

Texts that fit the argumentation frame attempt to support a claim. The argumentation pattern commonly includes the following elements:

**Evidence:** information that leads to a claim

**Claim:** the assertion that something is true (identify the claim that is the focal point of the argument)

**Support:** examples of or explanations for the claim

**Qualifier:** a restriction on the claim or evidence

**Evidence:** What information does the author present that leads to a claim?

**Claim:** What does the author assert is true?

**Support:** What examples or explanations support the claim?

**Qualifier:** What restrictions on the claim, or evidence counter to the claim, are presented?
The problem or solution pattern
Text that fits this pattern introduces a problem and then identifies one or more solutions. This pattern commonly includes the following elements:

**Problem:** a statement of something that has happened or might happen that is problematic

**Solution:** a description of one possible solution

**Solution:** a statement of another possible solution

**Solution:** a statement of another possible solution

**Solution:** identification of the solution with the greatest chance of success

---

The problem or solution frame
Guiding questions for the problem or solution frame:

What is the problem?

What is a possible solution?

What is another possible solution?

What is another possible solution?

Which solution has the best chance of succeeding?
The problem or solution pattern
Text that fits this pattern introduces a problem and then identifies one or more solutions. This pattern commonly includes the following elements:

**Problem:** a statement of something that has happened or might happen that is problematic

**Solution:** a description of one possible solution

**Solution:** a statement of another possible solution

**Solution:** a statement of another possible solution

**Solution:** identification of the solution with the greatest chance of succeeding

The problem or solution frame
Guiding questions for the problem or solution frame:

What is the problem?

What is a possible solution?

What is another possible solution?

What is another possible solution?

Which solution has the best chance of succeeding?
Plants and animals go through a life cycle that includes the stages of:

- Birth
- Growth and development
- Reproduction
- Death

This general pattern is the same for all plants and animals. The details of the life cycle are different for individual organisms.
Modeling Mantra:
I do it.
   We do it.
      Y’all do it.
         You do it.

Paraphrasing Strategy: Crash Course
This is a simple but effective strategy that you can use to understand and remember what you’ve read. It is best described as “rapping” to yourself or translating the information that you read into your own words and stating it to yourself. You chunk information into small units by reading one paragraph or subsection. Next, you ask yourself questions about identifying the topic, main idea and details. Finally, you put the main idea and details into your own words and state them to yourself. Then, you read another chunk, and so forth. An active mind focuses better while reading, thus improving understanding. By stating information to yourself, you will remember more.
The steps of the strategy are as follows: (RAP)

**Read a paragraph**
Read one chunk of the passage (paragraph or subsection)

**Ask yourself, “What are the main ideas and details?”**
To find the main idea, ask yourself, “What is the topic?” And, “What does this tell me about the topic?”

**Put it into your own words**
Answer each question you have asked using your own words. For the main idea say, “This paragraph is about ________________.” For the details, name two or three details. Be sure to translate the words in the passage into your own words.

**Requirements for a paraphrase:**
Must be totally accurate
Must be in your own words
Must make sense
Reinforcing Effort & Providing Recognition

<table>
<thead>
<tr>
<th>Effective Praise</th>
<th>Ineffective Praise</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Is delivered contingently</td>
<td>1. Is delivered randomly or unsystematically</td>
</tr>
<tr>
<td>2. Specifies the particulars of the accomplishment</td>
<td>2. Is restricted to global positive reactions</td>
</tr>
<tr>
<td>3. Shows spontaneity, variety, and other signs of</td>
<td>3. Shows a bland uniformity which suggests conditioned response made with mixing</td>
</tr>
<tr>
<td>credibility, suggests clear attention to the</td>
<td>attention</td>
</tr>
<tr>
<td>student's accomplishment</td>
<td>4. Rewards mere participation, without consideration of performance processes or</td>
</tr>
<tr>
<td>4. Rewards attainment of specified performance</td>
<td>outcomes</td>
</tr>
<tr>
<td>criteria (which can include effort criteria)</td>
<td>5. Provides no information at all or gives students information about their status</td>
</tr>
<tr>
<td>5. Provides information to students about their</td>
<td>6. Orient students toward comparing themselves with others and thinking about</td>
</tr>
<tr>
<td>competence or the value of their accomplishments</td>
<td>competing</td>
</tr>
<tr>
<td>6. Orient students toward better appreciation of their</td>
<td>7. Uses the accomplishments of peers as the context for describing students'</td>
</tr>
<tr>
<td>own task-related behavior and thinking about problem</td>
<td>present accomplishments</td>
</tr>
<tr>
<td>solving</td>
<td>8. Is given without regard to the effort expended or the meaning of the</td>
</tr>
<tr>
<td>7. Uses students' own prior accomplishments as the</td>
<td>accomplishment (for this student)</td>
</tr>
<tr>
<td>context for describing present accomplishments</td>
<td>9. Attributes success to ability alone or to external factors such as luck or</td>
</tr>
<tr>
<td>8. Is given in recognition of noteworthy effort or</td>
<td>easy task</td>
</tr>
<tr>
<td>success at difficult (for this student) tasks</td>
<td>10. Fosters exogenous attributions (students believe that they expend effort on</td>
</tr>
<tr>
<td>9. Attributes success to effort and ability,</td>
<td>the task for external reasons—to please the teacher or win a competition or</td>
</tr>
<tr>
<td>implying that similar successes can be expected in</td>
<td>reward</td>
</tr>
<tr>
<td>the future</td>
<td>11. Focuses students' attention on the teacher as an external authority who is</td>
</tr>
<tr>
<td>10. Fosters endogenous attributions (students believe</td>
<td>manipulating them</td>
</tr>
<tr>
<td>that they expend effort on the task because they</td>
<td>12. Intrudes into the ongoing process, distracting attention from task relevant</td>
</tr>
<tr>
<td>enjoy the task and want to develop task-relevant</td>
<td>behavior</td>
</tr>
<tr>
<td>skills</td>
<td></td>
</tr>
<tr>
<td>11. Focuses students' attention on their own task</td>
<td></td>
</tr>
<tr>
<td>relevant behavior</td>
<td></td>
</tr>
<tr>
<td>12. Fosters appreciation of and desirable attributions</td>
<td></td>
</tr>
<tr>
<td>about task relevant behavior after the process is</td>
<td></td>
</tr>
<tr>
<td>completed</td>
<td></td>
</tr>
</tbody>
</table>
Sample Homework Policy

This letter explains the homework policy for my classroom. Please read the policy with your child so that you understand the expectations of students and parents with regard to homework. Following these guidelines can help decrease tension associated with homework and increase your child’s learning.

For your child to be successful with homework, he needs:

**A place to do homework.** If possible, your child should do his homework in the same place (an uncluttered, quiet space to study).

**A schedule for completing homework.** Set a homework schedule that fits in with each week’s particular activities.

**Encouragement, motivation, and prompting.** It is not a good idea to sit with your child and do homework with him. Your child needs to practice independently and to apply what he has learned in class. If your child consistently cannot complete homework assignments alone, please contact me.

**Understanding of the knowledge.** When your child is practicing a skill, ask which steps he finds difficult and easy and how he plans to improve speed and accuracy with the skill. If your child is working on a project, ask what knowledge he is using to complete the work. If your child consistently cannot answer these questions, please contact me.

**Reasonable time expectations.** If your child seems to be spending too much time each night on homework, please contact me.

**A bedtime.** When it is time to go to bed, please stop your child, even if he has not finished the homework.

**Grading:** I will grade each homework assignment for content and timeliness. If your child turns in an assignment late, the score for “timeliness” will reflect the lateness.

Please return this policy with the appropriate signatures, acknowledging that you have read and discussed the policy with your child. If you have any questions about homework expectations please contact me.

---

Parent’s (or Guardian’s) Signature

Student’s Signature
Representing Knowledge

Nonlinguistic Representations

Time Sequence Pattern Organizer

Highlights of the Apollo Space Program

- May 1961: President John F. Kennedy initiates the program
- January 1967: Apollo 1, crew dies during simulation
- December 1968: Apollo 8, first manned mission to achieve lunar orbit
- July 1969: Apollo 11, first lunar landing mission
- November 1969: Apollo 12, first mission to make a pinpoint landing on the moon
- April 1970: Apollo 13, explosion on board aborts mission
- January 1971: Apollo 14, third mission to land on the moon
- December 1972: Final mission of the Apollo program
Episode Pattern Organizer—Tiananmen Square

Beijing, China
2 months
1989

Public discontent spurred by the death of Hu Yaobang

Tiananmen Square Protest 1989

Widespread arrests, trials and executions
Foreign press banned
Chinese press strictly controlled

Hu Yaobang

People's Liberation Army

Deng Xiaoping

Beijing citizens

Li Peng

Workers

Students
Fables are stories that teach a lesson

“The Fox and the Crow”
Do not trust someone who flatters you

“The Tortoise and the Hare”
Slow but steady wins the race

“The Ant and the Grasshopper”
Get ready today for what you might need tomorrow
How a Bill Becomes a Law in the United States

House of Representatives

- Bill introduced
- Committee hearing
- Floor action
- House approves
- Joint conference committee
- Senate approves
- President signs
- Bill becomes law

Senate

- Constituent need
- Bill introduced
- Committee hearing
- Floor action
- White House
- President vetoes
- Congress may attempt to override veto

Blackline master available, p. 31
Learning Groups

Cooperative Learning (PIGS FACE)

1) Positive Interdependence (sense of sink or swim together)
2) Individual & Group Accountability (each of us has to contribute to the group achieving its goals)
3) Group Processing (reflecting on how well the team is functioning)
4) Small Group & Interpersonal Skills (communication, trust, leadership, decision making, & conflict resolution)
5) Face-to-Face Promotive Interaction (helping each other learn, applauding success & efforts)

www.clcrc.com/index.html#essays
Generating & Testing Hypotheses

• Systems Analysis
• Problem Solving
• Decision Making
• Historical Investigation
• Experimental Inquiry
• Invention
## Model for Systems Analysis

### Steps in the Process

1. Explain the purpose of the system, the parts of the system, and the function of each part.
2. Describe how the parts affect one another.
3. Identify a part of the system, describe a change in that part, and then hypothesize what might happen as a result of this change.
4. When possible, test your hypothesis by actually changing the part or by using a simulation to change the part.

### Steps in the Process (young students)

1. What are the parts of the system? How does each part work?
2. How do the parts affect one another?
3. Pick a part of the system. What might happen if the part did something differently?
4. Change the part to test your hypothesis. If you cannot change the part, use a pretend setup and act out the change to test your hypothesis.
# Model for Historical Investigation

## Steps in the Process

1) Clearly describe the historical event to be examined.
2) Identify what is known or agreed upon and what is confusing or contradictory.
3) Based on what you understand about the situation, offer a hypothesis.
4) Seek out and analyze evidence to determine if your hypothetical scenario is plausible.

## Steps in the Process (young students)

1) What historical event do I want to explain?
2) What do people already know about this event?
3) What confuse people about this event?
4) What confuses people about this event?
5) What suggestions do I have for clearing up these confusions?
6) How can I explain my suggestions?
# Graphic Organizer—Historical Investigation

## George Washington and the Cherry Tree

**Concept or Scenario:**
Did George Washington chop down the cherry tree?

---

**Known or Agreed Upon:**
The story is meant to teach children a lesson.

**Confusions or Contradictions:**
Other stories exist, too.

---

**Specifics:**
- The story about George Washington chopping down a cherry tree was published in a book by Mason Locke Weems in 1809.
- George Washington was a popular figure and many stories were told about him.

**Specifics:**
- There is a story about his mother’s favorite colt dying while George was riding it. George told the truth and did not try to hide the fact that he had been riding the colt.

---

**Resolution:**
The cherry tree story was probably made up. But the important part of the story is what matters. It is meant to teach us to tell the truth.
<table>
<thead>
<tr>
<th>Steps In the Process</th>
<th>Steps in the Process (young students)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1) Observe something that interests you and describe what has occurred.</td>
<td>1) What do I see or notice?</td>
</tr>
<tr>
<td>2) Explain what you have observed. What theories or rules could explain what you have observed?</td>
<td>2) How can I explain it?</td>
</tr>
<tr>
<td>3) Based on your explanation, make a prediction.</td>
<td>3) Based on my explanation, what can I predict?</td>
</tr>
<tr>
<td>4) Set up an experiment or activity to test your prediction.</td>
<td>4) How can I test my prediction?</td>
</tr>
<tr>
<td>5) Explain the results of your experiment in light of your explanation. If necessary, revise your explanation or prediction or conduct another experiment.</td>
<td>5) What happened? Is it what I predicted? Do I need to try a different explanation?</td>
</tr>
</tbody>
</table>
Observation:
Huge flashes of light—lightning—appear during thunderstorms.

Relevant Theory or Rule:
Metal conducts electricity

Possible Explanation:
Lightning is an electrical current in nature. Thunderstorms create an electric-charge imbalance in the atmosphere.

Prediction:
If thunderstorms create an electrical charge in lightning, I should be able to conduct electricity through metal during a storm.

Activity or Experiment:
Tie a piece of metal wire to the top of a kite and a key to the kite string. Fly the kite as a storm approaches. Stand inside and fly the kite out a window. Do not get wet and do not allow the kite string to touch the window frame. Do not touch the key.

Results:
As the storm approached, loose threads on the kite string stood on end away from each other as if attached to a conductor. A piece of metal drew sparks from the electrified key.
# Model for Invention

### Steps in the Process

1. Describe a situation you want to improve or a need you want to respond to.
2. Identify specific standards for the invention that would improve the situation or meet the need.
3. Brainstorm ideas and hypothesize the likelihood that each will work.
4. If your hypothesis suggests that a specific idea might work, begin to draft, sketch, and then create the invention.
5. Develop your invention to the point that you can test your hypothesis.
6. If necessary, revise your invention until it reaches the standards you have set.

### Steps in the Process (young students)

1. What do I want to make? Or what do I want to make better?
2. What standards do I want to set for my invention?
3. What is the best way to make a rough draft of my invention?
4. How can I make my rough draft better?
5. Does my invention meet the standards I have set?
**NEED**
A grade book that lets me keep track of information about what my students know and can do in relation to standards.

**STANDARDS**
Easy to use and understand.
Can use a store-bought grade book to create it keeps track of info about student performance on all of my standards topics.

**HYPOTHESIS**
If I use one page per student and use columns for topics instead of assignments, I'll be able to keep track of more information.

**HYPOTHESIS**
It might be more effective to use an entire two-page spread for each student.

**HYPOTHESIS**
It will be better if I add space for nonacademic factors.

<table>
<thead>
<tr>
<th>Standards</th>
<th>Students</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
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</table>

Blackline materials available, p.
Research & Theory on Cues & Questions

Generalizations:
1. Cues and questions should focus on what is important as opposed to what is unusual.
2. “Higher level” questions produce deeper learning than “lower level questions.
3. “Waiting” briefly before accepting responses from students has the effect of increasing the depth of students’ answers.
4. Questions are effective learning tools even when asked before a learning experience.

Explicit Cues: Straightforward ways of activating prior knowledge. A way to provide students with a preview of what they are about to experience.
Questions that Elicit Inferences

Things/People:
- What action does this thing or person usually perform?
- How is this thing usually used?
- What is the process for making this thing?
- How is this thing usually sold?
- Does this thing have a particular value?

Actions:
- What thing or person usually performs this action?
- What effect does this action have on the taste, feel, sound, or look of this thing?
- How is the value of a thing changed by this action?
- How does this action change the state of a thing?

Events:
- What people are usually involved in this event?
- At what point in history did this even take place?
- How long does this event usually take?
Expository Advance Organizers

Straightforward descriptions of new content
Narrative Advance Organizers

Stories – Help students make personal or real-world connections

When I was 4 years old, a tornado blew away half of the house my family lived in. My sister, who was 10, and I were the only ones home at the time. My sister had walked me home from school at my insistence—it was raining, and I wanted to use my new Mickey Mouse umbrella. Soon after we arrived home, the tornado sirens started sounding. My sister ran around gathering flashlights and other supplies, as she had learned to do on a field trip to the weather center the week before. We were in the basement hiding behind the couch when the tornado hit the house.

When I was college, I wrote an essay about the tornado and how the experience had affected me. When I shared the essay with my sister, she told me I had the story all wrong.

After the television went black in the middle of the Mickey Mouse Club show, and my sister made me duck behind the couch, I remember being totally quiet and in awe of the whole scene. I popped up my head to look at the windows blowing out, the carpet undulating like a roller coaster, and plaster falling from the ceiling. My sister, on the other hand, recalls me shrieking at the top of my lungs the entire time while she covered my head to protect me. Memories of that day are vivid for both of us—we just happen to have very different memories.
Graphic Advance Organizers

See next few slides for examples.
The FRAME Routine

Key Topic is about...

Main idea

Essential details

Main idea

Essential details

Main idea

Essential details

So What? (What’s important to understand about this?)
The FRAME Routine

Key Topic

is about...

Main idea
Main idea
Main idea

Essential details

So What? (What’s important to understand about this?)
The FRAME Routine

Key Topic is about...

Main idea
Main idea
Main idea
Main idea

Main idea
Main idea
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Essential details

So What? (What’s important to understand about this?)
The FRAME Routine

Key Topic is about...

- Main idea
- Essential details
- Main idea
- Essential details
- Main idea
- Essential details
- Main idea
- Essential details

So What? (What’s important to understand about this?)
The FRAME Routine

Key Topic

is about...

- Main idea
- Main idea
- Main idea

Essential details

- 
- 
- 

So What? (What’s important to understand about this?)

- 
- 
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- 
- 
- 

<table>
<thead>
<tr>
<th>Thesis Statement</th>
<th>Hook &amp; Introduction</th>
</tr>
</thead>
<tbody>
<tr>
<td>Topic Sentence</td>
<td># 2</td>
</tr>
<tr>
<td>Detail 1</td>
<td>Detail 1</td>
</tr>
<tr>
<td>Ex.</td>
<td>Ex.</td>
</tr>
<tr>
<td>Detail 2</td>
<td>Detail 2</td>
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<tr>
<td>Ex.</td>
<td>Ex.</td>
</tr>
<tr>
<td>Detail 3</td>
<td>Detail 3</td>
</tr>
<tr>
<td>Ex.</td>
<td>Ex.</td>
</tr>
<tr>
<td>Conclusion--Restate Introduction</td>
<td># 3</td>
</tr>
</tbody>
</table>
| Restate Topic Sentence and Transition | Restate Topic Sentence and Transition | Restate Topic Sentence and Transition
Planning Guides: Lesson Plan

• Revised Bloom’s Taxonomy
• Understanding by Design (UbD)
Essential Question

...suggest investigation and inquiry rather than the more directive term “objective.”

Objective: The student will look at the three branches of the government as organized in the constitution.

Essential Question: How is the constitution the backbone structure of America?
Other Sample EQs:

• Is intelligence solely a human phenomenon?
• How can tolerance be taught?
• How can principles of force and motion help driver effectiveness and safety?
• What were major contributions of the ancient Egyptians?
• How does the physical environment of Japan impact its people?
• What are the characteristics of traditional folktales with regards to cultures of the world?
• What are the uses of personal narratives?
• How do plants perform the process photosynthesis to make their own food?
• What are the main organs of the digestive system and how do they function as a system?
• How do we apply range, mean, median, and mode to real world problems?
• How do percents relate to decimals and factions?
Mental Skills Come in Two Different Forms:

- Tactics
- Algorithms

Generalizations:

1. The discovery approach is difficult to use effectively with skills
2. When teachers use discovery learning, they should organize examples into categories that represent the different approaches to the skill.
3. Skills are most useful when learned to the level of automaticity.
Research & Theory on Vocabulary Terms & Phrases

There is a strong relationship between vocabulary and:
- Intelligence
- One’s ability to comprehend new information
- One’s level of income

Generalizations to guide vocabulary and phrase instruction:
1. Students must encounter words in context more than once to learn them.
2. Instruction in new words enhances learning those words in context.
3. One of the best ways to learn a new word is to associate an image with it.
4. Direct vocabulary instruction words
5. Direct instruction on words that are critical to new content produces the most powerful learning.
A Process for Teaching New Terms & Phrases

Present students with a
1) brief explanation or description of the new term or phrase.
2) nonlinguistic representation of the new term or phrase.

Ask students to
3) generate their own explanations or descriptions of the term or phrase.
4) create their own nonlinguistic representation of the term or phrase
5) Periodically ask students to review the accuracy of their explanations and representations.
Research & Theory on Details

- Students should have systematic, multiple exposure to details.
- Details are highly amenable to “dramatic” instruction.
ASCD Videos
   Educating Everybody’s Children
   Differentiating with WebQuests
Developing RAFT Activities
Carol Tomlinson’s Page & a Video
Differentiation Central
A Video Archive
More Resources
Scaffolding (high school)
Targeted Interventions in Math (middle school)
Real-World Perspectives
Formative Assessment
Reteach and Enrich (elementary)
References

Mapping the Big Picture
Integrating Curriculum & Assessment K–12
Heidi Hayes Jacobs

How to Differentiate Instruction in Mixed-Ability Classrooms
Carol Ann Tomlinson

A Handbook for Classroom Instruction that Works
Robert J. Marzano, Jennifer S. Marzano, Debra J. Pickering, Barbara R. Gaddy

Differentiation in Practice
A Resource Guide for Differentiating Curriculum
Grades 5–9
Carol Ann Tomlinson, Caroline Cunningham Eidson

Understanding by Design
Grant Wiggins and Jay McTighe

Classroom Instruction that Works
Research-Based Strategies for Increasing Student Achievement
Robert J. Marzano, Debra J. Pickering, Jane C. Pollock
A Whole Bunch of Samples,
Y’all
**Directions:** Complete the chart to show what you know about Jazz. Write as much as you can.
Knowledge Rating Chart

1. I’ve never heard of this before
2. I’ve heard of this, but am not sure how it works
3. I know about this and how to use it

_____ Direct object
_____ Direct object pronoun
_____ Indirect object
_____ Indirect object pronoun
_____ Object of a preposition
_____ Adjective
_____ Interrogative adjective
Examples of Visual Representations: Knowledge Rating Chart.

Directions: Rate the following statistics terms as follows:

1. I've never heard of the word before.
2. I've heard the term, but I don't know how it applies to mathematics.
3. I understand the meaning of this term and can apply it to a mathematics problem.

mean ___________________ line of best fit ___________
median ___________________ correlation _______________
mode ___________________ range _______________
weighted average __________

normal distribution __________
bimodal distribution __________
skewed distribution __________
flat distribution __________
Exit Cards: Earth Science

Name:

- Draw the orbit of the earth around the sun. Label your drawing.
- What causes the seasons?
- Why is it warmer in the summer than in the winter?
Exit Cards: Poetry

Name:

- What is a “Conceit”? 
- Briefly explain the Conceit used in the poem, “The Flea,” as well as in one other poem we’ve read this week. 
- Why do you think these poets used this technique?
Exit Cards: Algebra

• Name:

• Draw a graph & label the “x” and “y” axes

• Graph a line with the endpoints (3,5) (7,2)

• Graph a line with the endpoints (-3,-5) (7,2)

• Provide two ways of writing the equation for a line
Students who are struggling with the concept or skill

Students with some understanding of concept or skill

Students who understand the concept or skill

Group 1

Group 2

Group 3

Readiness Groups
3-2-1 Card

Name:

• **3 things I learned** from the friction lab...

• **2 questions** I still have about friction...

• **1 thing way I see friction working in the world around me....**
Windshield Check

- **CLEAR** – “I get it!”
- **BUGS** – “I get it for the most part, but I still have a few questions.”
- **MUD** – “I still don’t get it.”

**Alternative Method:**
Thumbs-up/Wiggle palms/Thumbs down
Question Box

- After doing today’s exit card, what questions do you still have?
- “I still don’t get...”
- “I don’t understand why...”
- “I understood everything until...”
- $y=mx+b$ ????
Teaching Vocabulary for Success

- Front load vocabulary instruction
- Encourage descriptions vs. definitions
- Use both linguistic and non-linguistic tools
- Teach key word parts
- Preassess and use formative assessment to match words and instruction to learner needs
- Use games
- Have students interact about words they are learning
- Use words that are important in academic subjects
- Meet with students in need-specific groups/teams

Tomlinson ‘04 – Modified from Marzano ‘04
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
Learning Contracts

Contracts take a number of forms that begin with an agreement between student and teacher. The teacher grants certain freedoms and choices about how a student will complete tasks, and the student agrees to use the freedoms appropriately in designing and completing work according to specifications.
## Writing Bingo

Try for one or more BINGOs this month. Remember, you must have a real reason for the writing experience! If you mail or email your product, get me to read it first and initial your box! Be sure to use your writing goals and our class rubric to guide your work.

<table>
<thead>
<tr>
<th>Recipe</th>
<th>Thank you note</th>
<th>Letter to the editor</th>
<th>Directions to one place to another</th>
<th>Rules for a game</th>
</tr>
</thead>
<tbody>
<tr>
<td>Invitation</td>
<td>Email request for information</td>
<td>Letter to a pen pal, friend, or relative</td>
<td>Skit or scene</td>
<td>Interview</td>
</tr>
<tr>
<td>Newspaper article</td>
<td>Short story</td>
<td>Your choice</td>
<td>Grocery or shopping list</td>
<td>Schedule for your work</td>
</tr>
<tr>
<td>Advertisement</td>
<td>Cartoon strip</td>
<td>Poem</td>
<td>Instructions</td>
<td>Greeting card</td>
</tr>
<tr>
<td>Letter to your teacher</td>
<td>Proposal to improve something</td>
<td>Journal for a week</td>
<td>Design for a web page</td>
<td>Book Think Aloud</td>
</tr>
<tr>
<td>Graphics</td>
<td>Problem of the Day</td>
<td>Computer</td>
<td></td>
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<tr>
<td>Tangram Ex (p.14#1) the</td>
<td>Complete the odd # problems</td>
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</tr>
<tr>
<td>Tangram Ex (p.11,#9) cards</td>
<td>from the POD board.</td>
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<tr>
<td>Geoboard Pentagon</td>
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<tr>
<td>Geoboard Hexagon</td>
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**Math Writing**

**Feature**

- Explain in clear step by step how you: called
- *Solved your problem of the day or solved your Tangram/Geoboard challenge*
- *Use pictures and words to teach someone how to do one of your five math tasks*
- Develop a real problem someone might have which graphing might help them.
- Explain and model how the problem & solution would work.
## Poetry Contract

<table>
<thead>
<tr>
<th>Creating a Rhyming Wheel</th>
<th>Use Your Rhyming Wheel</th>
<th>Write an Acrostic Poem</th>
</tr>
</thead>
<tbody>
<tr>
<td>Use your spelling lists as a way to get started</td>
<td>To write a poem that sounds like Shel Silverstein might have written it</td>
<td>Be sure it includes alliteration</td>
</tr>
<tr>
<td>Write</td>
<td>Computer Art</td>
<td>Write About You</td>
</tr>
<tr>
<td>A cinquain (check that you have the right pattern)</td>
<td>Use kid pix or other clip art to illustrate a simile, metaphor, or analogy on our class list, or ones you create</td>
<td>Use good descriptive words in a poem that helps us know and understand something important about you</td>
</tr>
<tr>
<td>Interpret</td>
<td>Research a Famous Person</td>
<td>Illustrate a Poem</td>
</tr>
<tr>
<td>“How to Eat a Poem”</td>
<td>Take notes, Write a clerihew that uses what you learned</td>
<td>Find a poem we’ve read that you like, illustrate it</td>
</tr>
<tr>
<td>Student choice #1</td>
<td>Student choice #2</td>
<td>Student choice #3</td>
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**Student choice #1**  
____________________  
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**Student choice #2**  
____________________  
____________________  
____________________  

**Student choice #3**  
____________________  
____________________  
____________________  

*Note: The table above outlines various poetry assignments and tasks that students can choose from. Students can select one task from each category.*
Write the poems about a topic you care about to help you think about that topic more fully and to express your ideas and interest

• **KNOW**: haiku, cinquain, etc.

• **UNDERSTAND**:  
  – Poets explore things that matter to them  
  – Poetry helps us and the poet understand self and world

• **DO**:  
  – Write with expression  
  – Use effective mechanics
Concepts: evolution, exploration, expression, perspective

- As we explore ideas the ideas evolve and so do we
- Exploration leads to understanding
- Exploration if varied perspectives broadens our understanding
- Expression reveals the writer
Tiered Assignments

• In a differentiated classroom, a teacher uses varied levels of tasks to ensure that students explore ideas and use skills at a level that builds on their prior knowledge and prompts continued growth.

• While students work at varied degrees of difficulty on their tasks, they all explore the essential ideas and work at high levels of thought.

• Assessment-based tiering allows students to work in their “Zone of Proximal Development” or in a state of “moderate challenge.”
What Zone Am I In?

**Too Easy**
- I get it right away...
- I already know how...
- This is a cinch...
- I’m sure to make an A...
- I’m coasting...
- I feel relaxed...
- I’m bored...
- No big effort necessary...

**On Target**
- I know some things...
- I have to think...
- I have to work...
- I have to persist...
- I hit some walls...
- I’m on my toes...
- I have to re-group...
- I feel challenged...
- Effort leads to success...

**Too Hard**
- I don’t know where to start...
- I can’t figure it out...
- I’m spinning my wheels...
- I’m missing key skills...
- I feel frustrated...
- I feel angry...
- This makes no sense...
- Effort doesn’t pay off...

THIS is the place to be... THIS is the achievement zone...
Elementary Physical Education

Skill: Dribbling and basketball

1. Dribble from point A to point B in a straight line with one hand
   - Switch to the other hand and repeat.
   - Use either hand and develop a new floor pattern from A to B (not a straight line)

2. ZIGZAG –
   - One hand
   - Other hand
   - Increased speed
   - Change pattern to simulate going around opponents

3. In and out of pylons as fast as possible
   - Change hand
   - Increase speed

4. Dribble with one hand – and a partner playing defense.
   - Increase speed and use other hand
   - Trade roles

5. Through pylons, alternating hands, & partner playing defense
   - Increase speed
   - Trade roles
**Novel Think-Tac-Toe**  *basic version*

Directions: Select and complete one activity from each horizontal row to help you and others think about your novel. Remember to make your work thoughtful, original, rich with detail, and accurate.

<table>
<thead>
<tr>
<th>Character</th>
<th>Setting</th>
<th>Theme</th>
</tr>
</thead>
<tbody>
<tr>
<td>Create a pair of collages that compares you and a character from the book. Compare and contrast physical and personality traits. Label your collages so viewers understand your thinking.</td>
<td>Draw/paint and write a greeting card that invites us into the scenery and mood of an important part of the book. Be sure the verse helps us understand what is important in the scene and why.</td>
<td>Using books of proverbs and/or quotations, find at least 6-8 that you feel reflect what’s important about the novel’s theme. Find at least 6-8 that do the same for your life. Display them and explain your choices.</td>
</tr>
<tr>
<td>Write a bio-poem about yourself and another about a main character in the book so your readers see how you and the characters are alike and different. Be sure to included the most important traits in each poem.</td>
<td>Make a model or map of a key place in your life, and an important one in the novel. Find a way to help viewers understand both what the places are like and why they are important in your life and the characters’.</td>
<td>Interview a key character from the book to find out what lessons he/she thinks we should learn from events in the book. Use a Parade magazine for material. Be sure the interview is thorough.</td>
</tr>
<tr>
<td>Write a recipe or set of directions for how you would solve a problem and another for how a main character in the book would solve a problem. Your list should help us know you and the character.</td>
<td>Make 2 timelines. The first should illustrate and describe at least 6-8 shifts in settings in the book. The second should explain and illustrate how the mood changes with the change in setting.</td>
<td>Find several songs you think reflect an important message from the book. Prepare an audio collage. Write an exhibit card that helps your listener understand how you think these songs express the book’s meaning.</td>
</tr>
</tbody>
</table>
# Novel Think-Tac-Toe *advanced version*

Directions: Select and complete one activity from each horizontal row to help you and others think about your novel. Remember to make your work thoughtful, original, insightful, and elegant in expression.

<table>
<thead>
<tr>
<th>Character</th>
<th>Setting</th>
<th>Theme</th>
</tr>
</thead>
<tbody>
<tr>
<td>Write a bio-poem about yourself and another about a main character in the book so your readers see how you and the character are alike and different. Be sure to include the most important traits in each poem.</td>
<td>Research a town/place you feel is equivalent to the one in which the novel is set. Use maps, sketches, population and other demographic data to help you make comparisons and contrasts.</td>
<td>Find out about famous people in history or current events whose experiences and lives reflect the essential themes of this novel. Show us what you’ve learned.</td>
</tr>
<tr>
<td>A character in the book is being written up in the paper 20 years after the novel ends. Write the piece. Where has life taken him/her? Why? Now, do the same for yourself 20 years from now. Make sure both pieces are interesting feature articles.</td>
<td>Make a model or a map of a key place in your life, and in important one in the novel. Find a way to help viewers understand both what the places are like and why they are important in your life and the characters’.</td>
<td>Create a multi-media presentation that fully explores a key theme from the novel. Use at least 3 media (for example painting, music, poetry, photography, drama, sculpture, calligraphy, etc.) in your exploration.</td>
</tr>
<tr>
<td>You’re a “profiler”. Write and illustrate a full and useful profile of an interesting character from the book with emphasis on personality traits and mode of operating. While you’re at it, profile yourself too.</td>
<td>The time and place in which people find themselves and when events happen shape those people and events in important ways. Find a way to convincingly prove that idea using this book.</td>
<td>Find several songs you think reflect an important message from the book. Prepare an audio collage. Write an exhibit card that helps your listener understand how you think these songs express the book’s meaning.</td>
</tr>
</tbody>
</table>
## DOUBLE ENTRY JOURNAL (Basic)

<table>
<thead>
<tr>
<th>IN THIS COLUMN, NOTE:</th>
<th>IN THIS COLUMN, EXPLAIN:</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Key phrases</td>
<td>• How to use ideas</td>
</tr>
<tr>
<td>• Important words</td>
<td>• Why an idea is important</td>
</tr>
<tr>
<td>• Main ideas</td>
<td>• Questions</td>
</tr>
<tr>
<td>• Puzzling passages</td>
<td>• Meaning of key words, passages</td>
</tr>
<tr>
<td>• Summaries</td>
<td>• Predictions</td>
</tr>
<tr>
<td>• Powerful passages</td>
<td>• Reactions</td>
</tr>
<tr>
<td>• Key parts</td>
<td>• Comments on style</td>
</tr>
<tr>
<td>• Etc.</td>
<td>• Etc.</td>
</tr>
</tbody>
</table>
## Split Journal for Math

### Basic Version

<table>
<thead>
<tr>
<th>Problem</th>
<th>Strategy #1 for Solving the Problem</th>
<th>Strategy #2 for Solving the Problem</th>
<th>Solving and Explaining a Real World Application of the Problem</th>
</tr>
</thead>
<tbody>
<tr>
<td>Find the missing side of a triangle</td>
<td>Trig (Explain)</td>
<td>Pythagorean Theorem (Explain)</td>
<td>Will a tree of $X$ dimensions hit a house of $X$ distance away if it’s cut down?</td>
</tr>
</tbody>
</table>

![Diagram of triangle with sides 13, 15, and $X$]
A RAFT is...

... an engaging, high level strategy that encourages writing across the curriculum
... a way to encourage students to...

- ...assume a role
- ...consider their audience,
- ...examine a topic from a relevant perspective,
- ...write in a particular format

All of the above can serve as motivators by giving students choice, appealing to their interests and learning profiles, and adapting to student readiness levels.
RAFTs can...

- Be differentiated in a variety of ways: readiness level, learning profile, and/or student interest
- Be created by the students or Incorporate a blank row for that option
- Be used as introductory “hooks” into a unit of study
- Keep one column consistent while varying the other columns in the RAFT grid
## Sample RAFT Strips

<table>
<thead>
<tr>
<th>Role</th>
<th>Audience</th>
<th>Format</th>
<th>Topic</th>
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<tbody>
<tr>
<td>Gingerbread Man</td>
<td>Our Class</td>
<td>Oral Response</td>
<td>I never should have listened to the fox</td>
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<tr>
<td>Squanto</td>
<td>Other Native Americans</td>
<td>Pictographs</td>
<td>I can help the inept settlers</td>
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<tr>
<td>Band Member</td>
<td>Other Band Members</td>
<td>Demo Tape</td>
<td>Here’s how it goes</td>
</tr>
<tr>
<td>Positive Numbers</td>
<td>Negative Numbers</td>
<td>Dating Ad</td>
<td>Opposites Attract</td>
</tr>
<tr>
<td>Rational Numbers</td>
<td>Irrational Numbers</td>
<td>Song</td>
<td>Must you go on forever?</td>
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<tr>
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<td>Fractions</td>
<td>Poem</td>
<td>Don’t you get my point?</td>
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<tr>
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<td>Area</td>
<td>Diary Entry</td>
<td>How your shape affects me</td>
</tr>
<tr>
<td>Monet</td>
<td>Van Gogh</td>
<td>Letter</td>
<td>I wish you’d shed more light on the subject!</td>
</tr>
<tr>
<td>Joan of Arc</td>
<td>Self</td>
<td>Soliloquy</td>
<td>To recant, or not to recant; that is the question</td>
</tr>
<tr>
<td>Tree</td>
<td>Urban Sprawl</td>
<td>Editorial</td>
<td>My life is worth saving</td>
</tr>
<tr>
<td>Thoreau</td>
<td>Public of his day</td>
<td>Letter to the Editor</td>
<td>Why I moved to the pond</td>
</tr>
<tr>
<td>Young</td>
<td>Experienced Children’s Book</td>
<td>Children’s Book</td>
<td>What becomes of us in mitosis?</td>
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<td>Experienced Children</td>
<td>Children’s Book</td>
<td>What becomes of us in mitosis?</td>
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Grade 6
Social Studies RAFT

Students will

Know:
Names and roles of groups in the feudal class system.

Understand:
Roles in the feudal system were interdependent. A person’s role in the feudal system will shape his/her perspective on events.

Be Able to Do:
Research
See events through varied perspectives
Share research & perspectives with peers
Following the RAFT activity, students will share their research and perspectives in mixed role groups of approximately five. Groups will have a “discussion agenda” to guide their conversation. -Kathryn Seaman
RAFT Assignment – Grade 10 English

Know: Voice, Tone, Style

Understand: Each writer has a voice; Voice is shaped by life experiences and reflects the writer; Voice shapes expression; Voice affects communication; and Voice and style are related

Be Able to Do: Describe a writers voice and style; Mimic a writer’s voice and style; Create a piece of writing that reflects a writer’s voice and style

<table>
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<th>Role</th>
<th>Audience</th>
<th>Format</th>
<th>Topic</th>
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</thead>
<tbody>
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<td>Edgar Allen Poe</td>
<td>10th grade writers</td>
<td>Letter</td>
<td>Here’s how I found my voice</td>
</tr>
<tr>
<td>Garrison Keillor</td>
<td>10th grade writers</td>
<td>E mail</td>
<td>Here’s how I found my voice</td>
</tr>
<tr>
<td>Emily Dickinson</td>
<td>Self</td>
<td>Diary entry</td>
<td>Looking for my voice</td>
</tr>
<tr>
<td>10th grader</td>
<td>English teacher</td>
<td>Formal request</td>
<td>Please help me find my voice</td>
</tr>
<tr>
<td>Teacher</td>
<td>10th graders</td>
<td>Interior monologue</td>
<td>Finding a balance between voice and expectations</td>
</tr>
<tr>
<td>3 authors</td>
<td>The public</td>
<td>Visual symbols/logos annotated</td>
<td>Here’s what represents my voice</td>
</tr>
<tr>
<td>3 authors from different genre</td>
<td>One another</td>
<td>Conversation</td>
<td>What shaped my voice and style</td>
</tr>
</tbody>
</table>
3-2-1 Card

3 things I learned about differentiation

2 questions I still have

1 concrete example of how I will differentiate instruction next week