

A stack of four books is shown, with a single red apple resting on top of the stack. The books are of varying thicknesses and colors, including white, blue, and brown. The background is a dark red gradient.

## Leveling the Playing Field:

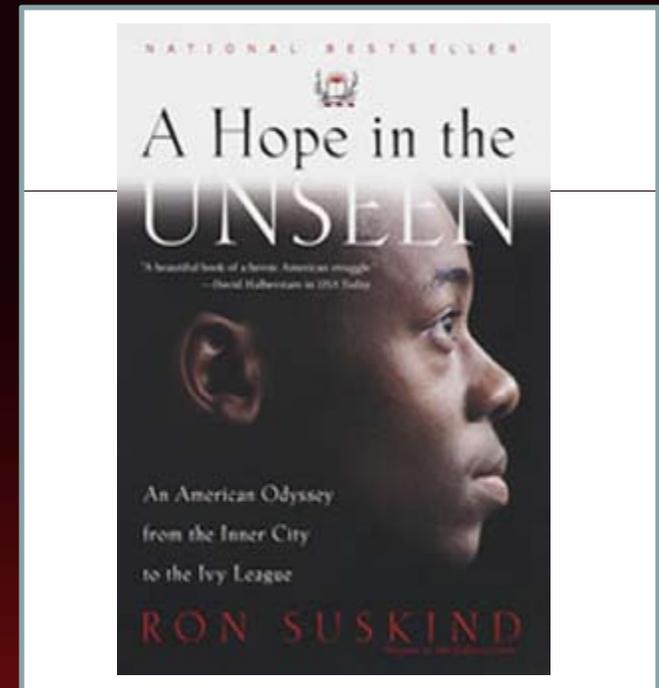
Achieving Fairness in Education through  
Thoughtful, Differentiated Instruction

Presented by  
Tyrone Olverson



**DEDICATED TO CEDRIC JENNINGS**

**A HOPE IN THE UNSEEN :  
AN AMERICAN  
ODYSSEY FROM  
THE INNER CITY  
TO THE IVY LEAGUE**



The image features a red apple resting on a stack of several books. A vertical red line runs down the right side of the apple and books. The background is a dark, gradient red.

The first step is to agree that most people share the goal of true diversity, with many races competing freely and successfully. But everyone wanting the same thing doesn't tell us 'how'--how do we get there? How do we lift often poorly educated minorities to an equal footing in the classroom? How do we do this while respecting that being singled out for special attention--and often being 'tracked' into a lower educational rung--can result in crippling doubts about one's abilities?



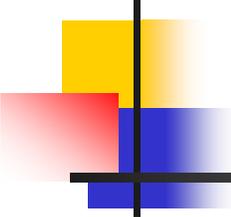
## The Geometry of Fairness A Study in Equity: thoughtful Questions

What does it mean to be treated fairly?

Do we all start the race at the same time? With the same resources? What role, if any, do our individual differences play in being treated fairly?

How does the playing field in education influence the rules of the game as well as who wins and who loses?

How can we make the game of education equitable?



# Associations

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*What comes to mind when you think of the word, “fairness”? (words, ideas, pictures, sounds, feelings)*

*How about when you think of the word, “unfair”?*

# Learner's Role in Reading for Meaning

**R**eview each statement, establish hypothesis.

**E**xamine the text carefully.

**A**s you read, collect evidence to support/refute each statement .

**D**ecide if evidence is sufficient to support/refute.

**S**hare your evidence with your teammates; see if you agree or disagree; try to resolve your differences .



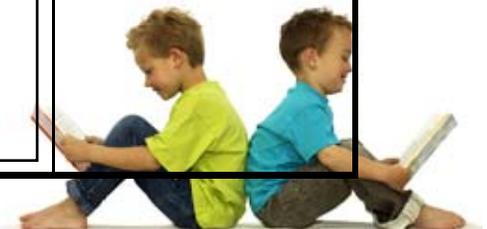
## The Geometry of Fairness: A Study in Equity

Before Reading (A/D?)		After Reading (A/D?)		
	<p data-bbox="688 695 1411 734" style="text-align: center;"><b><i>Mathematical truths cannot be disputed.</i></b></p> <table border="1" data-bbox="541 748 1587 977"><tr><td data-bbox="541 748 1066 977" style="text-align: center;">Support</td><td data-bbox="1066 748 1587 977" style="text-align: center;">Refute</td></tr></table>	Support	Refute	
Support	Refute			
	<p data-bbox="537 1015 1583 1101" style="text-align: center;"><b><i>Life is a stage, we all play a part, but few people are aware of the play they are in or the part they are playing.</i></b></p> <table border="1" data-bbox="541 1146 1587 1375"><tr><td data-bbox="541 1146 1050 1375" style="text-align: center;">Support</td><td data-bbox="1050 1146 1587 1375" style="text-align: center;">Refute</td></tr></table>	Support	Refute	
Support	Refute			



## The Geometry of Fairness: A Study in Equity

Before Reading (A/D?)	Reading For Meaning Statements	After Reading (A/D?)		
	<p data-bbox="533 477 1528 553"><b><i>The shape of the playing field has a dramatic impact on how the game is played.</i></b></p> <table border="1" data-bbox="506 557 1556 781"> <tr> <td data-bbox="506 557 1016 781">Support</td> <td data-bbox="1016 557 1556 781">Refute</td> </tr> </table>	Support	Refute	
Support	Refute			
	<p data-bbox="558 808 1535 885"><b><i>Science and mathematics are not of much use when it comes to solving social problems.</i></b></p> <table border="1" data-bbox="506 888 1556 1122"> <tr> <td data-bbox="506 888 1016 1122">Support</td> <td data-bbox="1016 888 1556 1122">Refute</td> </tr> </table>	Support	Refute	
Support	Refute			
	<p data-bbox="516 1143 1566 1219"><b><i>Handicapping in golf, and in life, makes for an even playing field.</i></b></p> <table border="1" data-bbox="506 1222 1556 1456"> <tr> <td data-bbox="506 1222 1016 1456">Support</td> <td data-bbox="1016 1222 1556 1456">Refute</td> </tr> </table>	Support	Refute	
Support	Refute			



# Reflection

What is the shape of your school's playing field?

Is it tilted for some students to succeed and others to struggle?

Why might two students who come to your school eager to learn find success and another failure?

What do you think your school needs to do to even the playing field?

What are the hidden dimensions that must be addressed?





# Fairness Means

1. Taking the time to listen and understand before you act.
2. Giving a voice to everyone.
3. An equal opportunity for everyone to succeed.
4. Others taking responsibility by looking out for others.
5. Playing by the rules.
6. Having the courage to change the rules when they are not fair.
7. Having the confidence in yourself and your own abilities to get the job done.
8. Having the resources you need to succeed.
9. Is what makes democracy work.
10. Standing up against injustice.

# ***Focus of the Thoughtful Classroom***

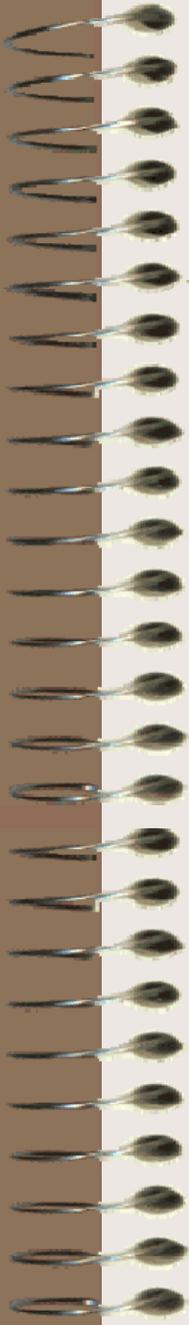
## **Five Essential (Thoughtful) Questions:**

- ***What skills do students need to develop in order to achieve at high levels?***
- ***What instructional strategies enable the greatest gains in student achievement?***
- ***How can we address the diversity of our students in a way that is manageable and provides an equal opportunity for all students to achieve?***
- ***How can we design units of instruction that motivate learners with different learning styles yet still address the skills and core content knowledge students need to succeed?***
- ***How do schools become professional learning communities that support teachers through the improvement process?***

# Read the essay the Know How of High Achievers

- Stop regularly at:
  - Bottom of page 2.4
  - Middle of page 2.5
  - Bottom of page 2.5
  - Bottom of page 2.6
- Make a post it note. The note can be a brief summary, a question, reaction to what you read or a connection you make from the text to another idea.





# Four Reasons for Making Notes

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- Improves comprehension
- Organize our writing
- Help us study
- Used to reflect

To notice means to take a  
second look.

The word note comes from  
the same root as the word  
notice. Notes are the  
things we underline or  
write that helps us revisit  
what we think is important  
to pay attention to.

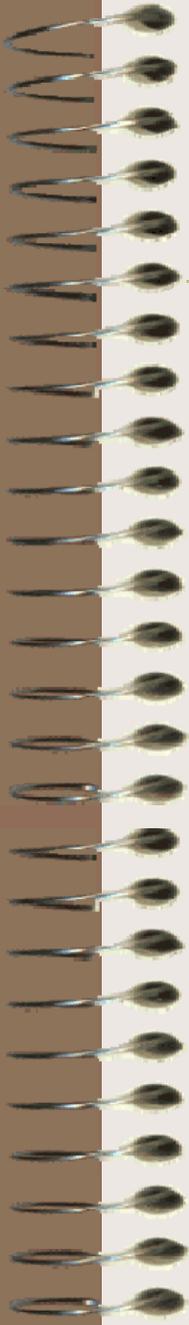
# Use the Window Notes Organizer to Analyze Your Notes

Facts

Feelings

Questions

Ideas



*How many notes do you have  
in each category?*

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- Compare your notes with a friend. How are they similar/different? What do these similarities and differences mean?
- If your notes were a “window” into your mind, what do they say about how you pay attention to your world?

What we see from this example is that people tend to lean toward one of the following:

- Fact Finders

Feeling Watchers

Question Seekers

Idea Makers

Which style of *ATTENTION* seems to be your preference?

# High Achievers:

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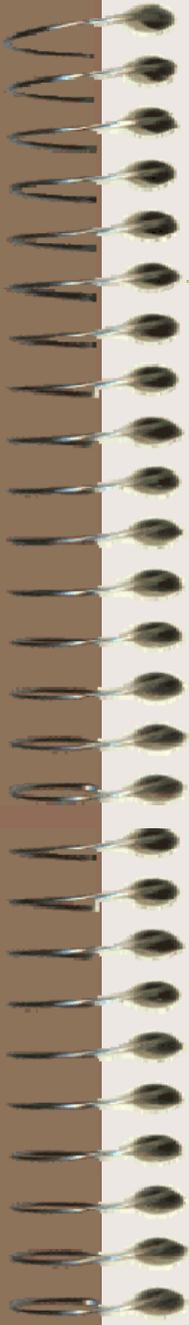
- *Make FIVE times as many notes as Average Achievers*
- *Make notes in all four boxes*
- *AVERAGE ACHIEVERS make notes in predominately ONE box: **FACTS AND DETAILS***
- *Why do you think this is so?*

# What IF....

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*We taught students how to make notes in all four boxes?*

*What would be the impact of their notes on their comprehension, their retention, their communication (speaking and writing)?*



## High Achievers vs. Low/Average Achievers:

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- *Read almost TWICE as slow as average achievers*
- *Make nearly three times more notes when reading*
- *Are able to manage abstract terms and academic content vocabulary*

*What else distinguishes High Achievers from their Average Achiever peers?*

Carefully observe the  
following slide:

*Identify the skills that  
students need in order  
to respond  
successfully to the  
task:*

# From the Connecticut State Science Exam

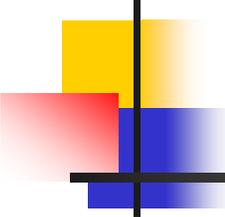
Science Standard 5B12: *Explain how organisms are adapted to environmental conditions in different biomes. (LIB2)*

Study the picture of the imaginary animal below. **Based on its features,** make **scientific** inferences about the animal's habitat and about its niche. In other words, tell about the kind of area it might live in, what it might eat, and what role it might play in its community. **Be sure to explain your reasoning.**



# *Why "Hidden"?*





# The Hidden Skills of Academic Literacy

<p><b><u>Reading and Study Skills</u></b></p> <ul style="list-style-type: none"><li>✓ Collect &amp; Organized Ideas Through Note-making</li><li>✓ Make Sense of Abstract Academic Vocabulary</li><li>✓ Read &amp; Interpret Visual Displays of Information</li></ul>	<p><b><u>Reflective Skills</u></b></p> <ul style="list-style-type: none"><li>o Construct Plans to Address Questions and Tasks</li><li>o Use Criteria and Guidelines to Evaluate Work in Progress</li><li>o Control or Alter Mood and Impulsivity</li></ul>
<p><b><u>Thinking Skills</u></b></p> <ul style="list-style-type: none"><li>□ Draw Conclusions, Make Inferences, Hypotheses, Conjectures, &amp; Test Them</li><li>□ Conduct Comparisons Using Criteria</li><li>□ Analyze the Demands of Different Kinds of Higher-order Thinking Questions</li></ul>	<p><b><u>Communication Skills</u></b></p> <ul style="list-style-type: none"><li>❖ Write Clear, Well-formed, Coherent Explanations in All Content Areas</li><li>❖ Write Comfortably in Non-Fiction Genres: Problem/Solution, Decision-making, Argument, Comparative</li><li>❖ Read &amp; Write About 2 or More Documents</li></ul>

# Bringing the Hidden Skills Out of the Closet



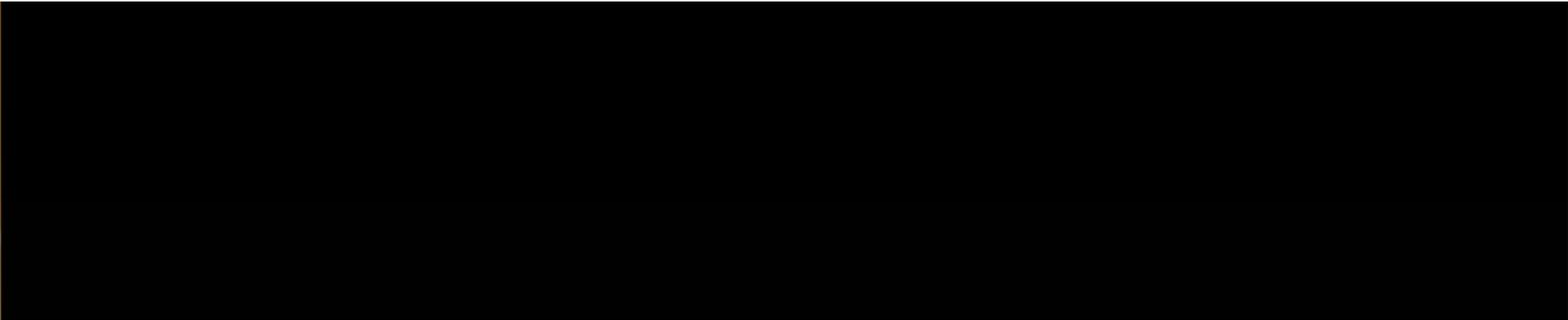
<b>Note-making</b>	<b>Planning</b>
<b>Comparing</b>	<b>Explaining</b>

1. *What do you do to improve your students' abilities in these areas?*
2. *What are your colleagues doing?*
3. *How could you find out what's happening with these skills in your school?*
4. *How would you organize your school to get improvement in one of these areas?*

# The Importance of Summarization

<b>Synthesis Study</b>	<b>No. ESs</b>	<b>Ave. ESs</b>	<b>Percentile Gain</b>
Pflaum, Walberg, Kareganes & Rasher	2 2	.62 .73	23 27
Crismore	100	1.04	35
Rosenshine & Meister	10	.88	31
Hattie, Biggs, Purdie	15	.88	31
Rosenshine, Meister, Chapman	16	.87	31
Raphael & Kirschner	3	1.80	47

***Summarization is a communication device which can be done orally, dramatically, artistically, visually, physically, musically, in groups, or individually.***



How does an idea  
become a main idea?

# How does an idea become a main idea?

Imagine you were an idea. Not a great idea, not an important idea. Something smaller, and off to the side. Something other people saw as a detail. You lived in a writer's head, or in a reader's mind, or on a page somewhere in a library. But you were ambitious; you wanted to become something more, something bigger, say a main idea. What would you do?

# MAIN IDEA

## ENGLISH LANGUAGE ARTS LEARNING STANDARDS

**Students will read, write, listen, and speak for information and understanding.**

- distinguish between relevant and irrelevant information and between fact and opinion
- develop information with appropriate supporting material, such as facts, details, illustrative examples or anecdotes, and exclude extraneous material
- make distinctions about the relative value and significance of specific data, facts, and ideas
- use inference and deduction to understand the text
- make precise determinations about the perspective of a particular writer or speaker by recognizing the relative weight he/she places on particular arguments and criteria
- express ideas and concerns clearly and respectfully in conversations and group discussions

### THE SCENARIO

**At the core of every summary is the main idea. The main idea provides the gist of what the text is all about. If students cannot find or construct a main idea, the chances are that they will not be able to write a good summary.**

**Unfortunately, most schools stop direct instruction regarding main ideas somewhere between the third and fourth grades. This is exactly at the point where main ideas are inferred, expository texts become more prevalent, and the application of main idea strategies become more essential.**

**The Main Idea strategy helps overcome these difficulties by modeling the clear differences between finding the topic (the subject of the reading) and finding the main idea (a sentence that summarizes the central thoughts of the reading). The strategy shows students how to check findings by assembling and organizing details that support the main idea. It also provides direct teaching and practice in notemaking using a system that ensures students gradually develop their abilities to record notes that are accurate, well organized, and easy to understand.**

# THE HOOK

## How Does an Idea Become a Main Idea?

Imagine you were an idea. Not a great idea, not an important idea. Something smaller, and off to the side. Something other people saw as a detail. You lived in a writer's head, or in a reader's mind, or on a page somewhere in a library. But you were ambitious; you wanted to become something more, something bigger, say a main idea. What would you do?

MASTERY TASK	INTERPERSONAL TASK
<p><b>Activity 2</b> <i>Read and Review</i> Read the steps in the Main Idea strategy and review them with a neighbor. Apply the steps to the "origin of scientific names" text.</p>	<p><b>Activity 1</b> <i>Do. Look. Learn.</i> Read one of the following texts and identify the main idea. Explain the main idea of the text you read to your neighbor; then discuss what steps you would recommend to someone to find the main idea of the text.</p>
<p><b>Activity 3</b> <i>Agree or Disagree</i> Is a main idea embedded in the text or is it a product of the experience that the reader brings to the text? Where do you stand? Give three reasons to support your position.</p>	<p><b>Activity 4</b> <i>Metaphorical Thinking</i> Explain how looking for a main idea is like searching for a constellation of stars in the night sky? Give at least three reasons to support your thesis.</p>
UNDERSTANDING TASK	SELF-EXPRESSIVE TASK

**1. Key Words**

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

**2. Topic:**

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

**3. Main Idea**

**4. Support**

**4. Support**

**4. Support**

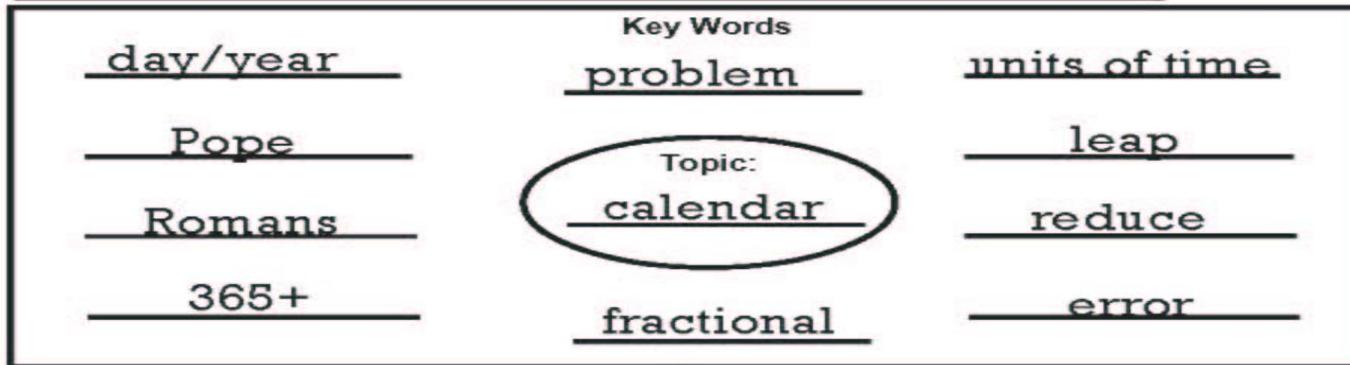
**5. Summary**

**Read the Leap Years essay.**

**Then examine the main idea statements. Which one do you think best represents the main idea of the piece?**

**Explain why.**

1. Making a calendar is harder than you think.
2. Throughout history, people have had to adjust their calendars to make up for the difference between the solar year and the 365 day year.
3. We all need an accurate way to keep time.
4. Believe it or not, the development of the calendar makes for a fascinating story.



Main Idea

Throughout history, people have had to adjust their calendars because of the difference between the solar year and the calendar year.

Support  
Romans  
people  
today

Support  
Leap year  
Gregorian calendar  
1582; lost 12 days

Support  
Still an error  
of 0.12 today

Summary

Throughout history, people have needed to adjust their calendars because of the difference between the actual time it takes the earth to revolve around the sun, 365.2422 days, and the 365 day calendar. To make their calendars work, the Romans created a leap year and added one extra day, February 29th, to every fourth year. This still did not solve the problem because by 1582 the calendar year had skipped 12 days. Pope Gregory then made another adjustment to the calendar by adding ten days, but even today there is still a discrepancy between our calendar and the earth's rotation around the sun.

# Instructional Practices and Strategies: *Marzano's Nine*

- \_\_\_ Generating & Testing Hypotheses
- \_\_\_ Summarizing & Note-taking
- \_\_\_ Identifying Similarities & Differences
- \_\_\_ Questions, Cues, and Advance Organizers
- \_\_\_ Reinforcing Effort & Providing Recognition
- \_\_\_ Cooperative Learning
- \_\_\_ Vocabulary Linguistic & Non-Linguistic Representation
- \_\_\_ Setting Objectives & Providing Feedback
- \_\_\_ Homework & Practice

*Which do you think are the top 3 practices? Put a \* next to them.*

**Research clearly indicates the impact of *each* of these on student learning:**

<b>Category</b>	<b>%ile Gain</b>
Identifying Similarities & Differences	45
Summarizing & Note-taking	34
Reinforcing Effort & Providing Recognition	29
Homework & Practice	28
Non-Linguistic Representation	27
Cooperative Learning	27
Setting Objectives & Providing Feedback	23
Generating & Testing Hypotheses	23
Questions, Cues, and Advance Organizers	22



## What the Research reveals:

1. Presenting students with explicit guidance in identifying similarities and differences enhances students' understanding of and ability to use knowledge.
2. Asking students to independently identify similarities and differences enhances student's understanding of and ability to use knowledge.
3. Representing similarities and differences in graphic or symbolic form enhances students' understanding of an ability to use knowledge.
4. Identification of similarities and differences can be accomplished in a variety of ways. The identification of similarities and differences is a highly robust activity.

# WHAT IS COMPARE & CONTRAST?

This portfolio focuses on **Compare & Contrast**, a strategy unique in its capacity to build students' memories, eliminate confusions, and highlight critical similarities and differences. **Compare & Contrast** is one of a family of four comparative thinking strategies that together make up our most effective tool for improving student learning. (See *Classroom Instruction That Works* by Robert J. Marzano, Debra J. Pickering, and Jane E. Pollock, 2001.)

## Compare & Contrast

is used when you want students to conduct a careful analysis of two concepts or objects in order to discover key attributes, similarities, and differences.

**Example:** Compare and contrast primary and compound numbers.

## Decision Making

is the most personal form of comparison, inviting students into the content where they examine alternatives and use their own values to make and justify a decision.

**Example:** What was the most important scientific discovery of the 20th Century?

## Classification

requires students to examine a set of examples or a bank of data and develop a classification system.

**Example:** How would you classify the different types of friendships we have read about?

## Metaphor

engages students in creative comparison, asking them to make and explain connections between two dissimilar ideas or items.

**Example:** How is democracy like a diamond?

## What can the **Compare & Contrast** strategy do for you and your students?

### *Goal #1* **Memory**

By focusing student thinking on analyzing pairs of ideas, the **Compare & Contrast** strategy strengthens students' ability to remember content area information.

### *Goal #2* **Higher-Order Thinking**

**Compare & Contrast** acts as a practical and easy-to-use introduction to higher-order thinking.

### *Goal #3* **Comprehension**

**Compare & Contrast** improves comprehension by eliminating confusions, highlighting important details, and making abstract ideas more concrete.

### *Goal #4* **Writing in the Content Areas**

The **Compare & Contrast** strategy helps students strengthen their writing skills by providing tools to help them write with better organization and greater clarity.

## THE 4 PHASES OF A THOUGHTFUL COMPARE & CONTRAST LESSON

Guide your students through the following phases. Regular practice will lead them to independent use of the Compare & Contrast strategy.

**D**escribe

- Identify your purpose
- Describe each item separately using criteria to keep yourself focused

**C**ompare

- Use a diagram to record the similarities and differences you discover

**C**onclude

- Discuss what you have learned from your comparison

**A**pply

- Show how you can use what you have learned

### The Phases

**1 Description:** Students observe and describe each item separately.

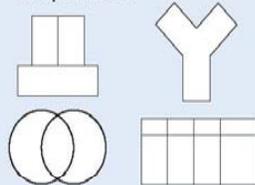
**Teacher Planning:**

- What's the purpose for this comparison?
- What sources of information will my students use?
- How will I help students identify the criteria they need to focus their description?

**2 Comparison:** Students use a visual organizer to identify similarities and differences between the items.

**Teacher Planning:**

- What sort of visual organizer will students use to record their comparisons?



Full-size copies of these organizers are provided.

**3 Conclusion:** Students discuss the relationship between the items.

**Teacher Planning:**

- Design a discussion question that will help students draw conclusions:
- Are the items more alike/different?
  - What causes the differences and similarities between the items?

**4 Application:** Students apply what they have learned through the comparison.

**Teacher Planning:**

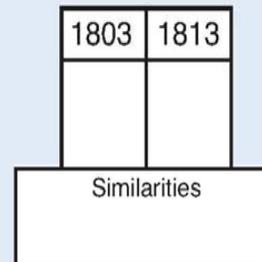
- Create a task that will help students synthesize their learning.

### An Example

**1** Mrs. Rimbaldi wants her eighth graders to assess Thomas Jefferson's purchase of the Louisiana Territory. She provides her students with maps, editorials, and appropriate textbook passages. She and her students agree to first describe the United States before and then 10 years after the purchase. They use the following criteria to describe each:

- Population
- Economic opportunities
- Resources
- Arguments for the purchase
- Arguments against the purchase

**2** Mrs. Rimbaldi uses a tophat organizer so students can record differences next to each other and similarities below.



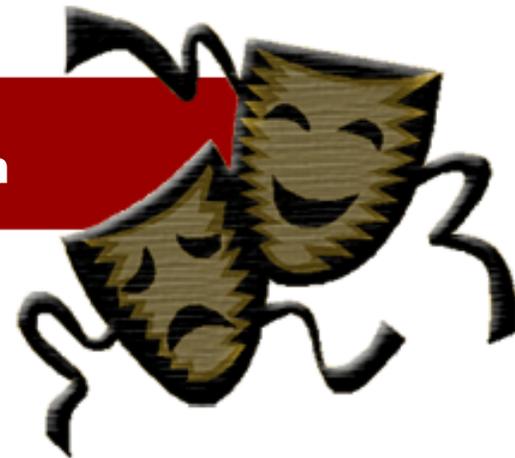
**3** Mrs. Rimbaldi asks her students to think about and discuss this question:

**Was America before the Louisiana Purchase more similar to or more different from America 10 years after the purchase?**

**4** Mrs. Rimbaldi asks her students to write a letter to the editor answering Jefferson's critics.

Let's find out about how the sphere and the rectangular prism are different and alike! First of all the word vertices means corners. A sphere and a rectangular prism are alike because they are 3-D shapes. The way that they are different are that ~~the sphere~~ the sphere can roll while the prism doesn't. The prism has vertices and the sphere doesn't. The sphere doesn't have edges and the prism does. The prism has faces and the sphere doesn't. Also the prism has flat bases while the sphere doesn't. How do you think they are alike and different?

## 4 Phases of a Thoughtful Compare & Contrast Lesson



### Describe

Identify your purpose: select two items to compare

Describe each item separately using criteria to keep yourself focused

### Compare

Use a graphic organizer to record the similarities and differences you discover

### Conclude

Discuss what you have learned from your comparison: are the items more similar or different? What generalizations occur to you?

### Apply

Show how you can use what you have learned either by identifying other examples of each item, or by creating a product that applies to new learning

## Why Comparison Strategies Fail

## What We Can Do About It

Most comparison strategies place an emphasis on evaluation by appearing in one of two settings: as end-of-chapter questions and on tests.

Students don't have access to the information sources they might need to make an effective comparison

Students don't know what they're looking for.

Use Compare and Contrast as a learning strategy.

Provide immediate sources of information students can use in making comparisons.

Provide or work with students to establish criteria for comparison, and keep students focused on the relevant information.

## Why Comparison Strategies Fail

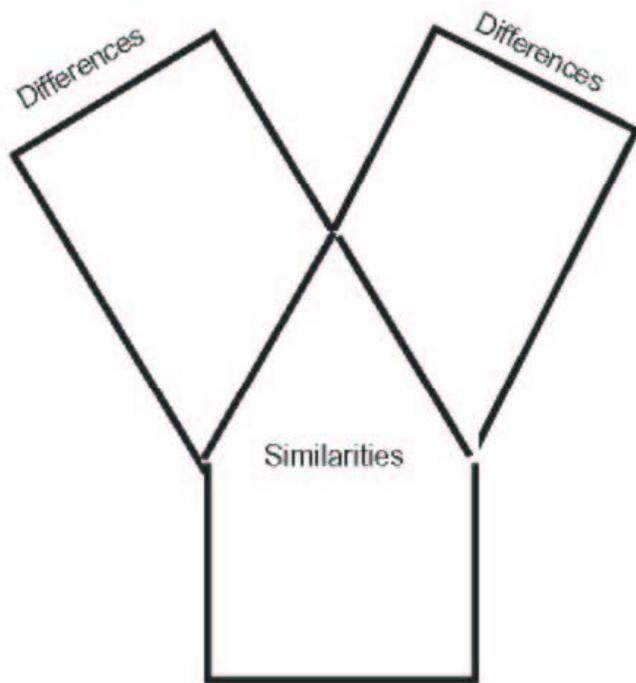
## What We Can Do About It

Students don't know how to collect and organize their findings.

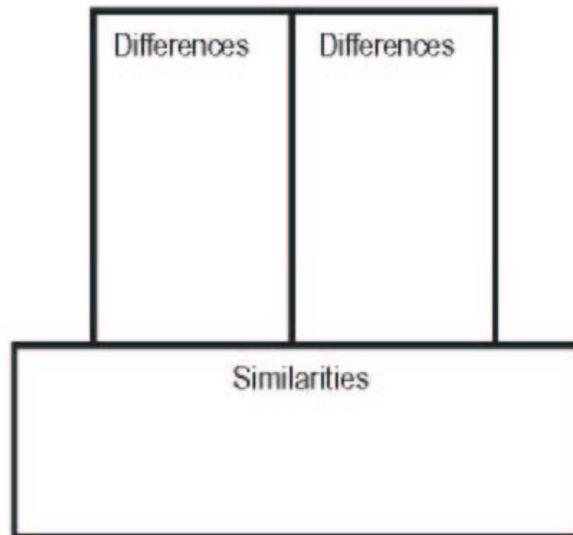
Comparison tasks often go nowhere.

Develop or help students develop a visual organizer that allows them to see the big ideas and the relevant details.

Allow students to discuss what they have learned and then apply their new understanding to a synthesis task.



The Why



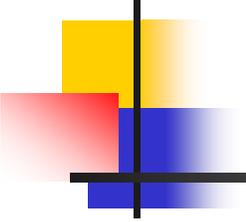
The Top Hat

Criteria	Items to Compare			
	1	2	3	
1				<i>Similarities</i>
				<i>Differences</i>
2				<i>Similarities</i>
				<i>Differences</i>
3				<i>Similarities</i>
				<i>Differences</i>
4				<i>Similarities</i>
				<i>Differences</i>

## ***Focus Number Three:***

- ***How can we address the diversity of our students in a way that is manageable and provides an equal opportunity for all students to achieve?***

**To change the playing field, we must address the diversity of student learning styles in a way that is meaningful and manageable.**



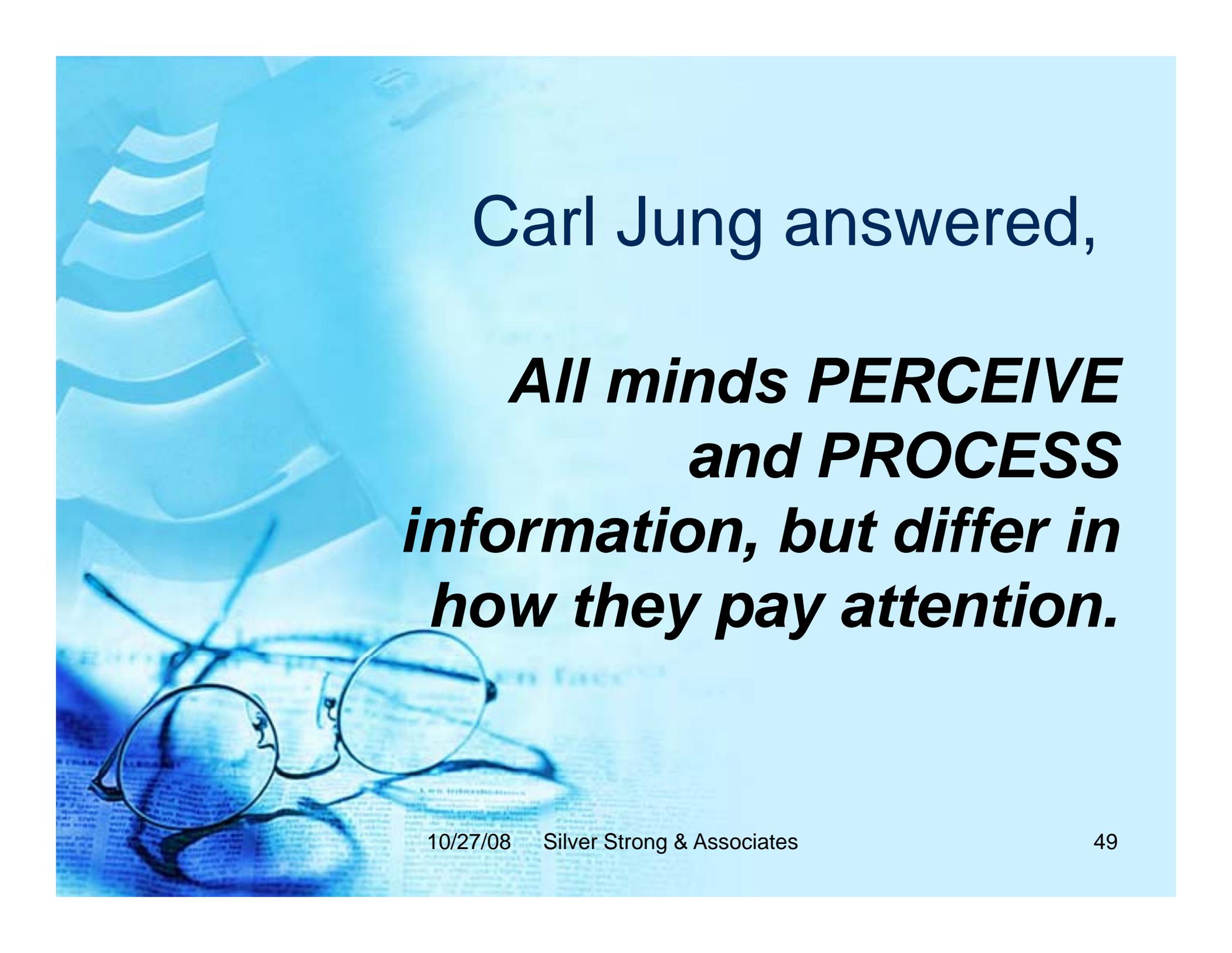
***Carl Jung asked,***

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***How are all minds alike?***

***How are all minds  
different?***

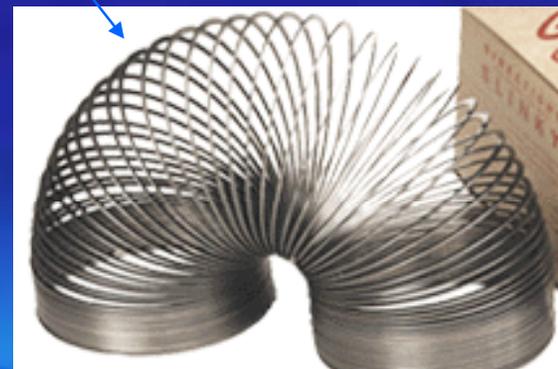
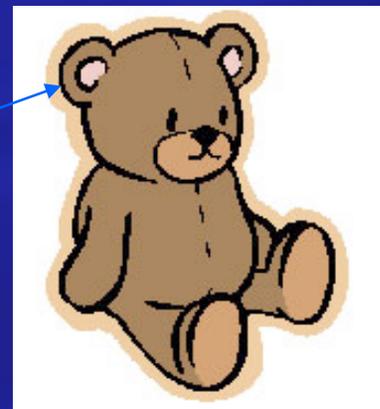
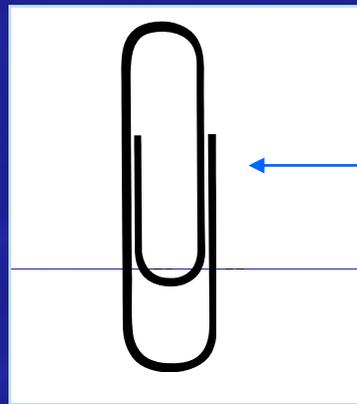




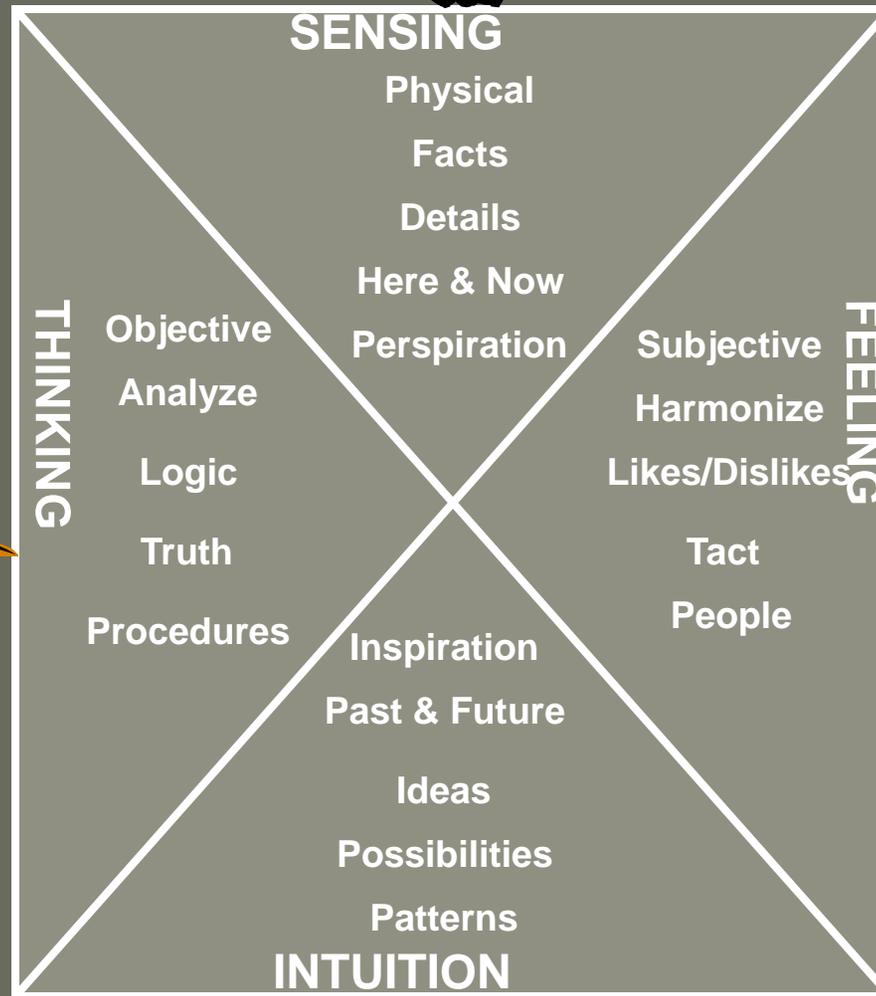
Carl Jung answered,

***All minds PERCEIVE  
and PROCESS  
information, but differ in  
how they pay attention.***

*Are you more like...*

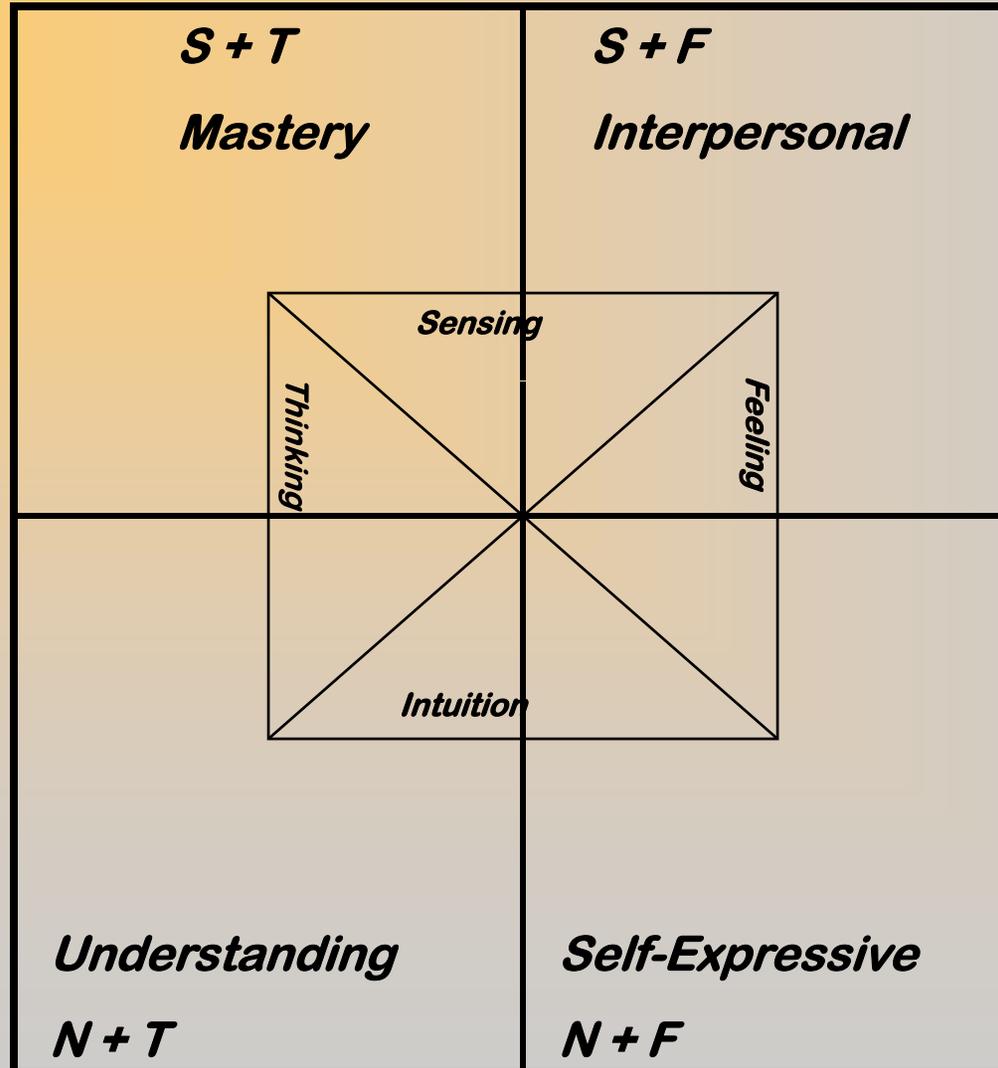


# The Four Functions of Style



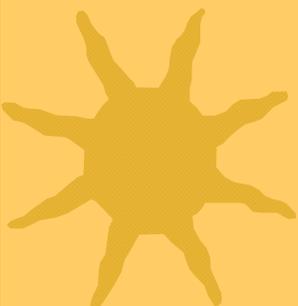
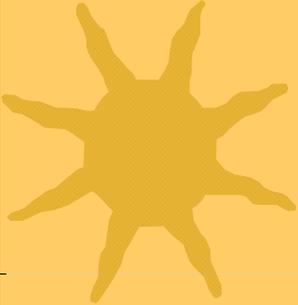


## *From Function to Style:*





# *The Four Learning Styles in the Classroom*



## **Mastery**

**Emphasizes:** Memory (knowing)  
**Looks for:** Specific knowledge/skills  
**Learns by:** Modeling, exercising, practicing, and receiving immediate feedback  
**Values:** Correctness and competence  
**Performs as:** Competent worker

## **Interpersonal**

**Emphasizes:** Connecting with people; social skills  
**Looks for:** Social utility of learning  
**Learns by:** Experience, empathy, making personal connections  
**Values:** Caring and cooperation  
**Performs as:** Community contributor

## **Understanding**

**Emphasizes:** Discovery (reasoning)  
**Looks for:** Ideas, patterns, principles, rules  
**Learns by:** Inquiry, explaining, proving, and probing  
**Values:** Critical thinking and problem-solving  
**Performs as:** Complex thinker

## **Self-Expressive**

**Emphasizes:** Invention (creativity)  
**Looks for:** Issues, speculations (what if?), ethical/philosophic dilemmas, creative products  
**Learns by:** Challenge, choice, creativity, originality  
**Values:** Craftsmanship and communication  
**Performs as:** Creative contributor



## Let's examine a Task Rotation card:

- ➔ Review the goals and academic expectations page: how are the three examples similar?
- ➔ Study the Hooks on the other side of each example with an eye toward their purposes.
- ➔ Examine the tasks: What are the characteristics of the Mastery, Interpersonal, Understanding, and Self-Expressive activities similar?

# MATHEMATICS

## KENTUCKY LEARNING GOALS AND ACADEMIC EXPECTATIONS

### Kentucky Academic Expectations:

**1.5 - 1.9:** Students use mathematical ideas and procedures to communicate, reason, and solve problems.

**2.9:** Students understand space and dimensionality concepts and use them appropriately and accurately.

#### Core Content Standards:

**MA-E4-2.1.1c-** Students will use measurements to describe and compare attributes of objects to include length, width, height, money, temperature, and weight, sort objects, and compare attributes.

**MA-E4-3.1.2-** Students will identify, describe, and give examples of basic two-dimensional shapes, and will use these shapes to solve real-world and/or mathematical problems.

## THE SCENARIO

**Area and perimeter are two geometric properties that are very important in everyday life, but which are often confused. By using exploratory examples and activities, this Task Rotation illustrates the difference between perimeter and area and provides practice for students to explore the concepts on their own.**

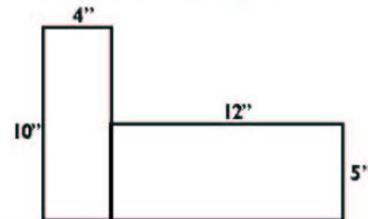
# THE HOOK

Think of a time when you didn't receive enough information. How much information do you need to find the perimeter and area of a square? Only the measurement of a single side: because of the unique properties of a square, the measurement of a single side allows you to compute both perimeter and area.

Today we're going to look at irregular shapes. How much information do you need to find out their perimeter and area?

## MASTERY TASK

If a rectangle that is  $4'' \times 10''$  is placed next to one that is  $5'' \times 12''$ , what is the perimeter of the combined figure? What is the area of the combined figure?



## INTERPERSONAL TASK

Draw a picture of the floor plan of your home showing the dimensions of each room. Then compute the perimeter and area for each room and order them from largest to smallest according to their perimeter.

If you have a figure like the one below, what are the fewest number of sides you must know to accurately calculate the perimeter and area? Explain your answer.



Create a problem in which students must find the perimeter and area of two rectangles, a square, and an equilateral triangle. The problem must be solved using four measurements. Can you create another problem using only three measurements? How about two?

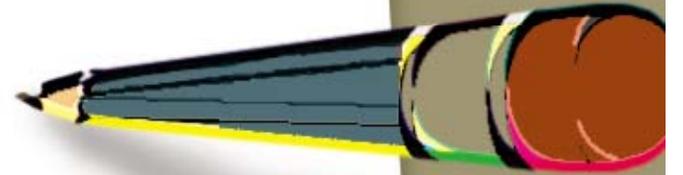
## UNDERSTANDING TASK

## SELF-EXPRESSIVE TASK

## ***Focus Number Four:***

- ***How can we design units of instruction that motivate learners with different learning styles yet still address the skills and core content knowledge students need to succeed?***

*Taking my work HOME...*



*How is a Curriculum Unit Like a House or a Home?*



*What do you know  
about Houses or  
Homes?*



*What do you know  
about Curriculum  
Units?*



*How are they similar?*

# Unit Planning: A Home for the Mind

## ***My Foyer:***

How do I introduce the lesson?

## ***My Workshop:***

How students practice what they learn?

## ***My Library:***

How do students acquire new information?

## ***My Porch:***

How do I help students reflect on their learning?

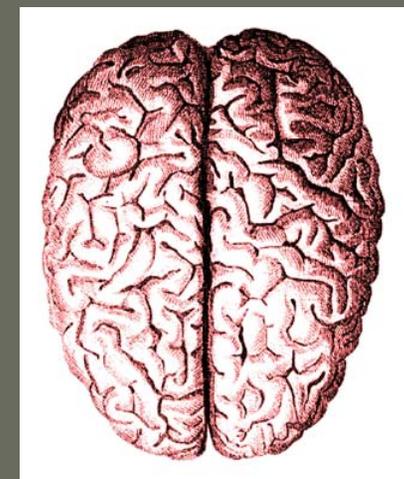
## ***My Kitchen:***

What kinds of tasks do I use to assess students' learning?



10/27/08

Silver Strong & Associates



# Classroom Curriculum Design

## Unit Blueprint:

*What Standards will be addressed?*

*What FACTS and Procedures do you want students to know?  
(VOCABULARY)*

### Foyer

(Knowledge Anticipation)

How does the unit begin?  
What activities do teachers use at the beginning?  
What resources do they supply?

*What do you want students to be like?  
(HABITS OF MIND & ATTITUDES)*

### Workshop

(Practice)

What particular skills will be modeled and practiced during this unit?

### Library

(Knowledge Acquisition)

What texts or other sources will the students use to acquire new information?

### Porch

(Reflection)

What activities or strategies will be used to help students reflect on what they are learning or have learned?

*What BIG IDEAS do you want students to understand?*

### Kitchen

(Assessment)

What assessment tasks will the students work on throughout the unit and at its close?

*What do you want students to do?  
(SKILLS)*

## ***Focus Number Five:***

- ***How do schools become professional learning communities that support teachers through the improvement process?***

**C**ollaboration

**R**eflection

**A**daptability

**F**ocus

**T**houghtful Teaching & Learning

## The content of Professional Learning has four focuses:

1. The real work going on in classrooms and schools;
2. What happens to learners;
3. The building of collegial relationships; and
4. The application, the practice of research-based strategies.



***Work,  
Learner,  
Collegiality,  
Practice ...***

**Focus** – A school’s capacity to select a common goal and maintain focus on that goal over time.

**Collaboration** – A school’s capacity to create forums in which faculty and administration can work together as a team.

**Reflection** - A school’s capacity to select or create assessment strategies and use data to develop and revise plans.

**Adaptability** – A school’s capacity to support teachers in their quest to apply what they learn in their classrooms.

Thank you for attending!

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Presented by: Tyrone Olverson

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