The A-LIST: Essential Academic Words

1. Analyze  break something down methodically into its parts
   break down • deconstruct • examine

2. Argue  provide reasons or evidence to support or oppose
   claim • persuade • propose

3. Compare/Contrast  identify similarities or differences between items
   delineate • differentiate • distinguish

4. Describe  report what one observes or does
   illustrate • report • represent

5. Determine  make a decision or arrive at a conclusion after considering
   all possible options, perspectives, or results
   establish • identify • define

6. Develop  improve the quality or substance of
   formulate • generate • elaborate

7. Evaluate  establish value, amount, importance, or effectiveness
   assess • figure out • gauge

8. Explain  provide reasons for what happened or one’s actions
   clarify • demonstrate • discuss

9. Imagine  create a picture in one’s mind; speculate or predict
   anticipate • hypothesize • predict

10. Integrate  make whole by combining the different parts into one
    combine • incorporate • synthesize

11. Interpret  draw from a text or data set some meaning or significance
    deduce • infer • translate

12. Organize  arrange or put in order
    arrange • classify • form

13. Summarize  retell the essential details of what happened
    outline • paraphrase • report

14. Support  offer evidence or data to illustrate your point
    cite • justify • maintain

15. Transform  change in form, function, or nature to reveal or emphasize
    alter • change • convert
### Marcia Tate’s Instructional Strategies for Brain-based Instruction

<table>
<thead>
<tr>
<th>Strategy</th>
<th>Multiple Intelligence</th>
<th>Learning Style</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Brainstorming and Discussion</td>
<td>Verbal-Linguistic</td>
<td>Auditory</td>
<td>Students are given the opportunity to discuss and debate issues without criticism.</td>
</tr>
<tr>
<td>Drawing and Art work</td>
<td>Spatial</td>
<td>Tactile-Kinesthetic</td>
<td>Using the ability to perceive and transform the visual-spatial world to channel content learning.</td>
</tr>
<tr>
<td>Field Trips</td>
<td>Naturalist</td>
<td>Tactile-Kinesthetic</td>
<td>Field trips and virtual field trips provide students the opportunity to experience learning in a way that is more applicable to the real world.</td>
</tr>
<tr>
<td>Games</td>
<td>Interpersonal</td>
<td>Tactile-Kinesthetic</td>
<td>Motivational techniques used to engage students and bring a competitive format to learning.</td>
</tr>
<tr>
<td>Graphic organizers, semantic maps and word verbs</td>
<td>Logical-mathematical and spatial</td>
<td>Visual-Tactile</td>
<td>Visual representation of linear ideas and benefit both the left and right brain hemispheres. These strategies help students organize, pattern and make sense of ideas.</td>
</tr>
<tr>
<td>Humor</td>
<td>Verbal-linguistic</td>
<td>Auditory</td>
<td>Using jokes, riddles, celebrations and other positive interactions to create a positive environment and facilitate learning.</td>
</tr>
<tr>
<td>Manipulatives Experiments, labs and models</td>
<td>Logical-mathematical</td>
<td>Tactile</td>
<td>Hands-on strategies that make learning more physical and concrete in nature.</td>
</tr>
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<tr>
<td>Metaphors, analogies and similes</td>
<td>Spatial</td>
<td>Visual-auditory</td>
<td>The most powerful strategy! This strategy allows students to connect new information to prior knowledge through comparison.</td>
</tr>
<tr>
<td>Mnemonic Devices</td>
<td>Musical-Rhythmic</td>
<td>Visual-auditory</td>
<td>Mnemonic derives from the Greek word for memory. This strategy uses the principle of association and includes acronyms and acrostics.</td>
</tr>
<tr>
<td>Movement</td>
<td>Bodily-Kinesthetic</td>
<td>Kinesthetic</td>
<td>Acting out learning, providing students with the opportunity to incorporate body movement with conceptual understanding.</td>
</tr>
<tr>
<td>Music, Rhythm, rhyme and rap</td>
<td>Musical- Rhythmic</td>
<td>Auditory</td>
<td>Using familiar song patterns to help facilitate student learning.</td>
</tr>
<tr>
<td>Project-based and problem-based instruction</td>
<td>Logical- mathematical</td>
<td>Visual-tactile</td>
<td>The utilization of problems and projects that involve real-life situations. This strategy possesses problems that are pertinent to the real world and require a systematic approach and in-depth analysis.</td>
</tr>
<tr>
<td>Reciprocal Teaching and Cooperative Learning</td>
<td>Verbal-linguistic</td>
<td>Auditory</td>
<td>This strategy provides opportunities for students to work in pairs or small groups. In cooperative learning student assignments are structured in such a way as to insure each student is accountable.</td>
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<tr>
<td>Role play, drama, pantomime, charades</td>
<td>Bodily-kinesthetic</td>
<td>Kinesthetic</td>
<td>This strategy links semantic information with movement placing information to be learned in more than one memory pathway. This increases the chance that remembering will occur.</td>
</tr>
<tr>
<td>Storytelling</td>
<td>Verbal-linguistic</td>
<td>Auditory</td>
<td>A format used to engage the learner in the information by attaching information to be learned to an emotional, dramatic and sensory experience.</td>
</tr>
<tr>
<td>Technology</td>
<td>Spatial</td>
<td>Visual/tactile</td>
<td>The use of computers, visual/auditory equipment, calculators, and other such devices to engage students in the learning process.</td>
</tr>
<tr>
<td>Visualization and guided imagery</td>
<td>Spatial</td>
<td>Visual</td>
<td>The use of the imagination to visualize a relationship/link between the learning concepts.</td>
</tr>
<tr>
<td>Visuals</td>
<td>Spatial</td>
<td>Visual</td>
<td>Using pictures, charts and graphs to clarify meaning.</td>
</tr>
<tr>
<td>Work study and apprenticeships</td>
<td>Interpersonal</td>
<td>Kinesthetic</td>
<td>Opportunities for students to use information gained within an educational setting in the real world outside of the classroom.</td>
</tr>
<tr>
<td>Writing and Journals</td>
<td>Intrapersonal</td>
<td>Visual/Tactile</td>
<td>Allowing students the opportunity to express thoughts and ideas in formats that are more focused on the individual learners own thought processes.</td>
</tr>
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</table>
Lesson Design: A Recipe for Success

**Bellwork:** Lesson planning is like baking a cake because . . .

Bellwork separates the ______________ atmosphere in the halls from the ___________ environment of the classroom.

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**Standard #2:** Educators know their subject matter and how to teach it.

2.3 Uses the district-developed long range plan or develops long range plan(s).
2.5 Develops lesson plans incorporating effective lesson design.
2.8 Implements instructional practices which actively engage students.
2.13 Develops, integrates, and uses a variety of informal and formal assessments in order to make instructional decisions.

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**AT&L Session Objectives for Today:**

- To identify and understand the components of effective lesson design
- To understand the relationship between the objectives, checking for understanding, and closure.

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**Where do I begin:** Begin with the end in mind.

1.
2.
3.

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**Effective Lesson Design**

**“The Ingredients”**

- Objective
- Essential Question
- Formative Assessment
- Materials
- Bellwork
- Input
- Modeling
- Guided Practice
- Independent Practice
- Closure
Is it an objective or an activity?

Objective: 

Activity: 

What are the implications of the Primacy-Recency Effect?

Twenty Brain-based Strategies ~Marcia Tate

- Brainstorming/Discussion
- Drawing Artwork
- Field Trips
- Games
- Humor
- Graphic Organizers/Semantic Maps/Word Webs
- Manipulatives/Experiments/Labs/Models
- Metaphor/Analogy/Simile
- Mnemonic Devices
- Movement
- Music/Rhythm/Rhyme/Rap
- Project/Problem-Based Instruction
- Reciprocal Teaching/Cooperative Learning
- Role-play/Drama/Pantomime/Charades
- Technology
- Visualization/Guided Imagery
- Visuals
- Work Study/Apprenticeships
- Writing/Journals
- Storytelling

Acquisition of a New Skill: Explicit Instruction

Input/Modeling = ________________

Guided Practice = ________________

Independent Practice = ________________

Closure: Is it done?

1.
Input: Brain-Compatible Instruction

Brain-compatible instruction includes a variety of strategies that incorporate multiple modalities to meet the different learning styles of students.

The purpose of using brain-compatible strategies in the classroom is to gain and maintain the attention of students during instruction.

The following are quotes and information from Maria Tate’s book *Worksheets Don’t Grow Dendrites: Twenty Instructional Strategies That Engage the Brain*.

- “When students are actively engaged in experiences with content, they stand a much better chance of learning and remembering what we want them to know” (Tate 5).
- “Learning-Style theorists (Gardener, 1983; Marzano, 2007; McCarthy, 1990; and Sternberg & Grigorenko, 2000) and educational consultants (Jensen, 2008; Jensen, 2009b; Sousa, 2006; and Wolfe, 2001) have concluded that there are some instructional strategies that, by their very nature, result in long-term retention” (Tate 5).
- Through her extensive study of the brain, Marcia Tate has synthesized twenty instructional strategies for delivering instruction (Tate 5).
- Tate says that in every lesson that she teaches, regardless of which grade level or content area, she attempts “. . . to incorporate at least four of the strategies, one from each of the four modalities: visual, auditory, kinesthetic, and tactile” (Tate 146).

Implementing the twenty brain-compatible strategies will increase academic achievement for all students, decrease behavior problems by minimizing boredom, and make teaching and learning fun for all grade levels (Tate 5).