The lead4ward Instructional Strategies Playlists are designed to provide teachers with detailed descriptions of specific, instructional strategies, many of which are modeled and experienced in lead4ward professional development sessions. This resource is intended to support educators in using an intentional planning process that includes delivering instruction that is aligned to the TEKS, promotes student engagement, and teaches for access, rigor, and transfer. Teachers use instructional strategies to:

- engage learners
- provide practice without penalty
- encourage interaction among students
- see and hear students’ thinking

### Instructional Strategies Playlists for Teachers

<table>
<thead>
<tr>
<th>Playlist</th>
<th>Description</th>
</tr>
</thead>
</table>
| movement and discourse playlist | Learning is activated when kids are moving and talking. Movement provides the opportunity for learners to become actively engaged and talk to each other in a variety of group sizes. Get them moving every 18-20 minutes.  
**access** Help each other get started  
**rigor** Hear each other thinking out loud  
**transfer** Share and add to a first idea |
| rehearsal and practice playlist | Learning requires rehearsal and practice. The more the teacher varies the practice, the more likely kids are to engage in learning. Rehearsal and practice that allow for collaborative work also help learners self-correct misconceptions.  
**access** Practice and share different ways to start  
**rigor** Adapt thinking based on additional input  
**transfer** Vary the ways to rehearse learning with different visuals and problem scenarios |
| extending thinking playlist | Learning requires thinking. Well-designed learning tasks allow kids to think about a topic multiple ways or think through a topic to arrive at more complete and justifiable answers. Often learners stop too early in their thinking or in the learning process.  
**access** Determine what the learning might be about  
**rigor** Think more than one way about a topic or concept  
**transfer** Apply learning in different contexts (different visuals, texts, or scenarios) |
| learning from mistakes playlist | Learning is assessed in a variety of ways on high stakes tests. Items will never be repeated on these tests but the visuals and errors associated with the content will be. Teachers use items strategically and purposefully.  
**access** Use information from the item (visuals/words) to determine the concept/topic  
**rigor** Adapt to the errors in learning found in the distractors  
**transfer** Explore the variety of ways a standard can be assessed |
| evidence of learning playlist | Learning is best assessed in multiple measures – tests, products, discourse, and other formative and summative assessment methods. When kids describe their own learning strengths and areas for growth, they are more willing to commit to additional learning.  
**access** Expand ways to start the work  
**rigor** Evaluate learning by the depth of thinking  
**transfer** Use multiple representations to show understanding |
### Instructional Strategies Playlists

#### movement and discourse playlist
- Ball Toss Boogie
- Choose and Chat
- Duos/Trios/Quartets
- Four Corners
- Jig Saw
- Learning Loop
- Make an Appointment
- Musical Mix-Freeze-Group
- Pair - SQUARE - Share
- Rise and Shine
- Shake and Share
- Stick to It Babbling Beans
- Team - Two - One
- Think and Throw
- Thinking Partners

#### rehearsal and practice playlist
- Always-Sometimes-Never
- Brainiac
- Circuit Training
- Fact or Fib Showdown
- Mystery Bag
- Mystery Sequence/ Re-sequence
- Pick Up the Slip Up
- Play It – Say It
- Rank ’Em/ Rank It
- Sketch It
- Stop Plop and Roll
- Tour of Knowledge
- Triple Play
- Who Am I
- Vocabulary Pyramid Game

#### extending thinking playlist
- Card Sort
- Compare/Contrast Model
- Connect 4 Thinking
- Connect the Dots
- Idea Shuffle
- Justified List
- Match it Up
- Matching Double Trouble
- Nine Squares
- Odd One Out
- Pick a Process
- Rock and Roll Vocabulary
- Synectics Snowball
- Tic-Tac-Tally
- Vocabulary Dominoes

#### learning from mistakes playlist
- 3-2-1 Test Review
- ABCD Reasoning Cards
- Brain in the Game
- Connect 4 Thinking
- Bubble When You Struggle
- Careless/Clueless
- Get to the Point
- IQ Slap Down
- Make The Case
- Pick 3 That Stump Me
- Rock and Roll Item Review
- Roll With It
- Show Me What You Know
- Swipe It
- Toss a Question
- What When Wrong?

#### evidence of learning playlist
- 3-2-1 Summary
- Consensogram
- Exit Ticket
- Graffiti + 3-Way Thinking
- Graphic Representations & Organizers
- Hot and Cold
- KWL Chart
- Lead4ward Anchor Charts
- Learning Lap
- One Minute Paper
- Ping Pong Summary
- Plus-Check-Minus
- RERUN
- Rule of 3
- What’s On Your Plate?
### Movement and Discourse Strategies

#### Instructional Strategy

<table>
<thead>
<tr>
<th>Ball Toss Boogie</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image" alt="Beach Ball" /></td>
</tr>
</tbody>
</table>

#### Instructional Implications

**PURPOSE – Movement and Discourse:** Allow students to respond to a question, collaborate with a friend, and justify answers by catching and throwing a ball.

1. Organize students into one large circle, into several smaller circles, or simply keep the class seated as a whole group.
2. Teacher poses a thinking question based on content recently taught and tosses a beach ball, stuffed animal, or soft object to a student in the class or standing in the circle(s).
   - Student catching the ball may answer the question independently
   - Student catching the ball may “phone a friend” standing/seated next to him who can then whisper ideas, clues, or hints
   - The student who caught the ball must answer, even if his “phone a friend” helped him frame his response
   - Other students evaluate the response by saying “Bravo!” or “Rethink!”
   - Original student may stand his ground with the original answer or may phone another friend to help rethink his response
3. Teacher sees and hears students’ thinking and clarifies/verifies as appropriate.
4. A new question is posed, and the ball is tossed to another student.

#### When to Use:

- Quick check during instruction
- Layered with the strategy PICK A PROCESS for infusing rigorous questioning
- Bell ringers/warm up questions
- Closure activity
- When students have been sitting for a while and need to move and interact
- Rehearsal/practice to scaffold learning with 3-4 questions before independent practice

#### Materials:

- Thinking questions related to content (use the verbs from the highly tested process standards to develop your questions)
- Beach ball, stuffed animal, or other soft object to toss
- lead4ward sentence stems (some students may need these stems to help them answer these rigorous questions)

#### Think it Up

- How can you **apply** what you know to think through the question?
- How can you **summarize** ideas, hints, or clues your “phone a friend” gives you?
- **Draw a conclusion** about the questions that required the most “phone a friend” assistance.
**Choose and Chat**

**PURPOSE – Movement and Discourse:** Analyze and evaluate your own understanding of a concept, process, or skill and articulate your thinking with a partner.

1. Teacher presents students with a term, question, or statement representing important concepts, skills, or processes.
2. Teacher asks students to choose a response to the question OR choose a signal that reflects their understanding of the concept, such as the following:
   - Choose a response (based upon the type of question, statement, concept, or skill posed) such as the following:
     - Answer choice A, B, C, or D
     - Fact or fib
     - Always true, sometimes true, never true
     - Correct sequence of steps
     - Opinion or idea
     - Selection from possible options
   - OR
   - Choose a hand signal:
     - thumb up = I completely understand
     - thumb to the side = I kind of understand
     - thumb down = I need more information
3. Students evaluate their understanding, CHOOSE their response or signal, and then stand up. On the teacher’s cue, students walk at least 10 steps while music plays, then stop and get a partner when the music stops. Students CHAT with a partner about the following:
   - Justify/defend your original response or signal
   - Summarize parts of the content you do understand
   - Identify parts of the content you do not understand and help each other
   - Ask one clarifying question for the teacher to answer
4. Teacher sees and hears the students’ thinking and clarifies/verifies as appropriate.

**When to Use:**
- Quick check during instruction
- Review activity for specific assessment questions
- Bell ringers/warm up
- Closure activity
- When students have been sitting for a while and need to move and interact
- Rehearsal/practice to scaffold learning with 3-4 questions before independent practice

**Materials:**
- Question(s) prepared for which students will choose and answer or signal
<table>
<thead>
<tr>
<th>Instructional Strategy</th>
<th>Instructional Implications</th>
<th>Think it Up</th>
</tr>
</thead>
</table>
| **Duos, Trios, Quartets** | **PURPOSE – Movement and Discourse:** Allow students to compare, justify, discuss, and rethink their responses in a safe, small-group setting. | • Apply what you know and justify your response.  
• Compare your response to others in your small group; how could you rethink or add to your original response?  
• Draw a conclusion from all your partners’ responses about which part of this content is most difficult to understand. |
| 1. Students engage in focused discussion around specific questions, strategies, assessment items, or learning activities:  
   • First with a partner (DUOS)  
   • Then in groups of three (TRIOS)  
   • Last in groups of four (QUARTETS) | | |
| 2. Teacher sees and hears the students’ thinking and clarifies/verifies as appropriate. | | |
| **When to Use:** | | |
| • Bell ringers/warm up  
• Closure activity  
• Quick check during instruction  
• Rehearsal/practice to scaffold learning with 3-4 questions before independent practice  
• Add movement and discourse by layering it with another instructional strategy | | |
| **Materials:** | | |
| • Question(s) prepared for which students will answer, then compare, justify, discuss, and rethink in their DUOS, TRIOS, and QUARTETS | | |
| **Four Corners** | **PURPOSE – Movement and Discourse:** Allow students to answer questions or rehearse/practice skills in a safe, small-group setting so that every student participates and articulates his/her learning. | • How did each group apply their understanding to the question or task differently?  
• Compare your group’s response to another group’s answer and either justify or rethink your original response. |
| 1. Assign each corner of the room a title based on commonalities, such as vacation destinations, soft drinks, candy bars, etc.  
2. Ask students to make a choice based on their personal preference and then move to their favorite corner (number of students in each corner does not need to be even).  
3. Once students are in their chosen corner, they form a duo or trio with two or three people who have selected that same corner preference.  
4. Teacher poses a question or task related to the content recently taught.  
5. Students work with their duos or trios to answer the question or rehearse/practice the skill by applying what they know, discussing appropriate processes/answers, and then justifying their response.  
6. Teacher sees and hears the students’ thinking and clarifies/verifies as appropriate. | | |
| **When to Use:** | | |
| • Bell ringers/warm up  
• Closure activity  
• Quick check during instruction  
• Review activity for specific assessment questions students found difficult  
• Add movement and discourse by layering it with another instructional strategy | | |
| **Materials:** | | |
| • Question or quick task prepared for students to complete  
• Optional: Signs for each corner preference, for example:  
  - Corner 1: Coke  
  - Corner 2: Sprite  
  - Corner 3: Dr. Pepper  
  - Corner 4: Gatorade | |
<table>
<thead>
<tr>
<th>Instructional Strategy</th>
<th>Instructional Implications</th>
<th>Think it Up</th>
</tr>
</thead>
</table>
| **Jigsaw**             | **PURPOSE – Movement and Discourse:** Divide content into sections or parts, groups become experts in one section, teach their home group members, and connect ideas to form a whole. | • How would you classify or categorize the information shared by each expert?  
• How do all these categories and the information you learned from each expert connect? |
| 1. Organize students into home groups. | 2. Students number-off from 1-4 to form expert groups. | |
| 3. Assign each numbered group a topic, step in a process, or section of content. | 4. Expert groups have a designated time to dig deeper into their assigned content and summarize important information. | |
| 5. Experts return to home groups. | 6. Each expert teaches/shares his summary with his group, following a designated time limit set by the teacher. | |
| 7. After all experts have presented, students compare/contrast, analyze cause/effect, sequence, and evaluate the combined information. | 8. Students draw a conclusion about the big idea represented by connecting all the information taught/shared. | |
| 9. Teacher sees and hears the students' thinking and clarifies/verifies as appropriate. | | |
| **When to Use:** | • When content can be easily divided among groups  
• Review activity  
• Vocabulary extension activity  
• Assessment item deconstruction (4 different, difficult items with various stimuli) | |
| **Materials:** | • Assignments/instructions prepared for each expert group  
• Instructions for home groups on how to capture all the experts' summaries and the final conclusion connecting all the "jigsawed" information | |
| **Learning Loop** | **PURPOSE – Movement and Discourse:** Describe a term, respond to a question, or analyze a visual. | • Make a connection between several terms, questions, and visuals.  
• Evaluate which questions were the most difficult. What will you do to learn these better? |
| 1. Arrange the class into two loops: | • One-half of the class forms a circle or loop facing out  
• The other half of the class forms a circle or loop facing in so that each student has a partner | |
| 2. Inside-circle students are each provided a card with a vocabulary term, assessment question, or visual associated with the unit content. | 3. Outside-circle students respond to the cards presented by the inside-circle students by describing the term, answering the question, or analyzing the visual. | |
| 4. Inside circle clarifies/verifies the outside circle’s answer. | 5. At the teacher’s signal, the outside circle rotates one person to the left to have a new partner with a new question. | |
| 6. Repeat steps 2-5 for as many rounds as the teacher determines adequate or until the outside circle returns to its original position. | 7. Inside-circle students pass their question card to their outside-circle partner. | |
| 10. Teacher sees and hears the students’ thinking and clarifies/verifies as appropriate. | | |
| **When to Use:** | • Review activity  
• Vocabulary activity | |
| **Materials:** | • Terms, questions, or visual cards for the inside-circle students | |
### Make an Appointment

**Purpose – Movement and Discourse:** Students move and collaborate to respond to a question or complete a task.

1. Teacher presents students with a clock graphic with appointments for 2:00, 4:00, 6:00, 8:00, and 10:00.
2. Students mingle around the room to find appointments for each of the five time slots.
3. Students write the names of their appointments on the lines.
4. Teacher poses a guiding or clarifying question or assigns a quick task related to content recently taught.
5. Teacher asks students to meet with one of the appointment partners to discuss/answer the question or complete the task, justifying their responses, and adding new information to their original responses.
6. Teacher sees and hears the students' thinking and clarifies/verifies as appropriate.

**When to Use:**
- Quick check during instruction
- Review activities/questions
- Closure activity
- Add movement and discourse by layering it with another instructional strategy
- Rehearsal/practice to scaffold learning with 3-4 questions before independent practice

**Materials:**
- MAKE AN APPOINTMENT handout
- Questions/tasks prepared

### Musical Mix-Freeze-Group

**Purpose – Movement and Discourse:** Allow students to compare, justify, discuss, and rethink their responses in a safe, small-group setting so that every student participates and articulates his/her learning.

1. Mix: Play music while students MIX around the room.
2. Freeze: Stop music and say, “FREEZE!” so students will freeze wherever they are in the room.
3. Group: Say, “GROUP!” and ask students to turn to the person closest to them to form a partnership.
4. Teacher presents a question or task associated with content.
5. Students work with their partner to answer the question or complete the task.
6. Teacher sees and hears students’ thinking and clarifies/verifies as appropriate.
7. Repeat 3-4 rounds with 3-4 different questions or tasks.

**When to Use:**
- Quick check during instruction
- Review activities/questions
- Closure activity
- Add movement and discourse by layering it with another instructional strategy
- Rehearsal/practice to scaffold learning with 3-4 questions before independent practice

**Materials:**
- Questions/tasks prepared
- Music
## Pair-Square-Share

**PURPOSE – Movement and Discourse:** Generate ideas with a partner, then share and compare responses with another pair.

1. Organize students into pairs.
2. Student PAIRS work collaboratively to answer a question or complete a task.
3. Student pairs stand up to find another pair to form a SQUARE.
4. Student pairs SHARE their response to the question or task.
5. Students compare/contrast their responses and evaluate accuracy.
6. Students may revise their original responses based on their discussions.
7. Teacher sees and hears students’ thinking and clarifies/verifies as appropriate.

### When to Use:
- Quick check during instruction
- Review activities/questions
- Closure activity
- Add movement and discourse by layering it with another instructional strategy

### Materials:
- Questions/tasks prepared

## Rise and Shine

**PURPOSE – Movement and Discourse:** Allow students to compare, justify, discuss, and rethink their responses in a safe, small-group setting so that every student participates and articulates his/her learning.

1. Teacher poses a question or task.
2. Students then RISE and hold up their hand, walking at least 10 steps.
3. Students find a partner and hands go down.
4. Students SHINE as they collaborate to offer ideas and solutions.
5. Teacher sees and hears students’ thinking and clarifies/verifies as appropriate.

### When to Use:
- Quick check during instruction
- Review activities/questions
- Closure activity
- Add movement and discourse by layering it with another instructional strategy

### Materials:
- Questions/task prepared

---

### Think it Up

- How did each set of partner’s responses compare?
- Evaluate which response was more complete and explain why.
- Predict how many different ways this information might be assessed on a test.

- Apply what you know to this task and draw a conclusion about where you SHINE.
- Predict what parts of this question/task might cause some students to find this task difficult.
<table>
<thead>
<tr>
<th>Instructional Strategy</th>
<th>Instructional Implications</th>
<th>Think it Up</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Shake and Share</strong></td>
<td><strong>PURPOSE – Movement and Discourse:</strong> Share, compare, and justify responses with a partner to determine flaws in thinking or add value to the original response.</td>
<td><strong>• Summarize</strong> the sequence you used to answer the question or solve the problem.</td>
</tr>
<tr>
<td></td>
<td>1. Teacher presents students with a question, term, or assessment item that they answer independently first.</td>
<td><strong>• Draw a conclusion</strong> about how the answer to this question might be represented three different ways.</td>
</tr>
<tr>
<td></td>
<td>2. Students stand up and walk at least 5 steps.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>3. Students find a partner and SHAKE hands.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>4. Students SHARE and compare how they analyzed and interpreted the question, term, or item and then either justify, rethink, or stand their ground.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>5. Students then switch – SHAKE AND SHARE with a new partner to deepen understanding, following the same process as before.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>6. Teacher sees and hears students’ thinking and clarifies/verifies as appropriate.</td>
<td></td>
</tr>
<tr>
<td><strong>When to Use:</strong></td>
<td>• Quick check during instruction</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Review activities/questions</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Closure activity</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Add movement and discourse by layering it with another instructional strategy</td>
<td></td>
</tr>
<tr>
<td><strong>Materials:</strong></td>
<td>• Questions/task prepared</td>
<td></td>
</tr>
</tbody>
</table>
**Purpose - Movement and Discourse:** Take turns sharing ideas to solve a problem, answer a question, or complete a task so that all group members contribute in a safe, small group.

1. Organize students into small groups.
2. Give each student three beans.
3. Teacher provides students with a set of cards reflecting various vocabulary terms, questions, concepts, or assessment items.
4. One at a time, each student draws a card and reads the information/question listed on the card to the group.
5. Students silently analyze and interpret the question.
6. Students apply prior knowledge to formulate a response to the card such as the following:
   - identify/interpret key terms
   - identify/interpret stimuli
   - predict the topic
   - communicate how to start
   - develop a synonym or antonym for a key term
   - sequence the steps in solving/answering the question
   - explain a solution
7. When a student responds to the card or question, he must play a bean in the center of the table.
8. The other group members may challenge or accept the student’s response. If he is challenged, he can rethink his original response and change his answer, or justify why he is sticking to his original answer.
9. Repeat this process with another card.
10. Once a student plays all three of his beans, he must be completely silent until all students have played their beans in contributing to the discussion. Once all players have played their beans, they can retrieve their three beans and can add to the discussion.
11. Teacher sees and hears the students’ thinking and clarifies/verifies as appropriate.

**When to Use:**
- Review activities/questions
- Vocabulary extension
- Engaging way to practice test questions

**Materials:**
- Set of cards representing vocabulary terms, various stimuli, and different assessment questions
- Beans (3 per student)

**Think it Up**
- Analyze/Interpret
- Apply
- Evaluate a peer’s response and challenge any parts that do not seem justified or thorough.
- Make a generalization about which questions/tasks were the most difficult and categorize them by topic.
<table>
<thead>
<tr>
<th>Instructional Strategy</th>
<th>Instructional Implications</th>
<th>Think it Up</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Team-Two-One</strong></td>
<td><strong>PURPOSE – Movement and Discourse:</strong> Scaffold learning by allowing students to collaborate as a team on the first question, only with a partner on the second, and alone on the third question.</td>
<td>• Compare the three questions and <strong>sequence/rank</strong> them from easiest to most difficult. Explain your ranking to your partner. • What did all three questions <strong>generally</strong> have in common?</td>
</tr>
<tr>
<td></td>
<td>1. Students are placed into groups of four.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>2. Teacher poses a question; the group analyzes the question and applies what they have learned, makes inferences, and draws conclusions to answer as a TEAM.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>3. Teacher clarifies/verifies as appropriate.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>4. Teacher poses a second question; students break into partners of TWO and answer only using their partner for help.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>5. Teacher clarifies/verifies as appropriate.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>6. Teacher poses a third question; students answer the question alone as ONE.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>7. Teacher clarifies/verifies as appropriate.</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>When to Use:</strong></td>
<td>• How can you <strong>justify</strong> your response? • <strong>Evaluate</strong> what makes a response valid, partially valid, or invalid. • Can you make <strong>connections</strong> to other ideas to improve the validity?</td>
</tr>
<tr>
<td></td>
<td>• Quick check during instruction</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Review activities/questions</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Engaging way to practice test questions</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Materials:</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Three questions or assessment items</td>
<td></td>
</tr>
<tr>
<td><strong>Think and Throw</strong></td>
<td><strong>PURPOSE – Movement and Discourse:</strong> Analyze, defend, share, and evaluate a response to a question.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>1. Students answer a question posed by the teacher and justify/defend their response anonymously on a sheet of notebook paper.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>2. Students then crumple their anonymous response paper into a snowball, then stand and toss the snowball randomly across the classroom.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>3. Students pick up a random snowball and toss it as well.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>4. Students continue tossing random snowballs until they have tossed three snowballs.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>5. Students pick up a fourth snowball to evaluate.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>6. With a partner, students read their two snowball responses and evaluate the responses as valid, partially valid, or invalid.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>7. Students then add new information to these anonymous responses to make them stronger and more valid.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>8. Teacher sees and hears the students’ thinking and clarifies/verifies as appropriate.</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>When to Use:</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Quick check during instruction</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Bell ringers/warm up</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Closure activity</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Materials:</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Question prepared to target specific content and thinking</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Paper</td>
<td></td>
</tr>
</tbody>
</table>
### Thinking Partners

<table>
<thead>
<tr>
<th><strong>Instructional Strategy</strong></th>
<th><strong>Instructional Implications</strong></th>
<th><strong>Think it Up</strong></th>
</tr>
</thead>
</table>
| **PURPOSE – Movement and Discourse:** Add rigor by thinking in many different ways around one topic or concept with a partner. | | • How can you apply what you know to this type of thinking?  
• Make an inference of what an assessment question might look like and say if it required this type of thinking. |
| 1. At the beginning of a unit, the teacher presents students with the THINKING PARTNERS handout. | | |
| 2. Students mingle around the room to find 12 different partners for each of the 12 different types of thinking. | | |
| 3. Each partner writes his/her name on their partner’s handout. | | |
| 4. Throughout the unit, the teacher asks students to find a specific thinking partner to discuss the content using this type of thinking, such as, “Get with your Summarize Thinking Partner and summarize what we just learned.” | | |
| 5. Students meet with their Thinking Partner and develop an appropriate response, using the assigned thinking verb. | | |
| 6. Teacher sees and hears the students’ thinking and clarifies/verifies as appropriate. | | |
| **When to Use:** | | |
| • Quick check during instruction  
• Review activities/questions  
• Closure activity  
• Add movement and discourse by layering it with another instructional strategy | | |
| **Materials:** | | |
| • THINKING PARTNERS handout  
• Questions/tasks prepared | | |
## Rehearsal and Practice Strategies

<table>
<thead>
<tr>
<th>Instructional Strategy</th>
<th>Instructional Implications</th>
<th>Think it Up</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Always-Sometimes-Never</strong></td>
<td><strong>PURPOSE – Rehearsal and Practice:</strong> Make inferences to justify and defend categorization of ideas.</td>
<td>• Make inferences to classify/categorize ideas.</td>
</tr>
</tbody>
</table>
| | 1. Teacher creates and distributes content cards that include a variety of statements about content recently taught.  
   - Cards should include ideas that are ALWAYS true, SOMETIMES true, and NEVER true.  
   - Cards may be based on student misconceptions, concept distractors, big ideas, skills, and/or significant vocabulary terms. | • Share, compare, justify, or rethink categorizations. |
| | 2. Students first independently make inferences to classify the cards:  
   - ALWAYS true  
   - SOMETIMES true  
   - NEVER true | • What generalizations can you make about all the ideas in each category? |
| | 3. Students then turn and talk with a partner to share, compare, justify, and rethink their classifications. | |
| | 4. As a whole class, student groups debate the statements on which they disagree and have the opportunity to rethink, change their minds, or stand their ground. | |
| | 5. Teacher sees and hears students’ thinking and clarifies/verifies as appropriate. | |

### When to Use:
- Rehearsal/practice
- Pre-test and post-test activity
- Review activity

### Materials:
- Teacher-created content cards reflecting statements about terms, concepts, or skills, recently taught  
  - some cards reflect statements that are ALWAYS true  
  - some cards reflect statements that are SOMETIMES true, depending on circumstances  
  - some cards reflect statements that are NEVER true  
- Optional: Tape for students to tape cards into their notebooks/journals
**Purpose – Rehearsal and Practice:** Rehearse and review major concepts by creating a sketch, sculpture, question, vocabulary association, or dramatic role play.

1. Organize students into groups of four.
2. Provide each group with a set of materials listed below, including a set of BRAINIAC colorful cards.
3. Students take turns rolling the die.
4. Students grab the color card that corresponds with the number they rolled.
5. Students read the BRAINIAC color-coded card and complete the activity as instructed on the colorful card.
6. Was the student successful? If applicable, ask another team member to check.
   - **YES!** Move on to the next task card.
   - **No.** Repeat task until successful.
7. Students continue rolling the die and completing the corresponding activities.

**When to Use:**
- Rehearsal/practice
- Review activity

**Materials:**
- BRAINIAC cards (one set per group) – created by copying the BRAINIAC Key and BRAINIAC card templates onto the appropriate card stock color. Teachers attach the appropriate term(s) or assessment item(s) to each card to create the full BRAINIAC card set.

Listed below is a summary of what the teacher will need to add to each BRAINIAC card template:

<table>
<thead>
<tr>
<th># Rolled</th>
<th>Card Color</th>
<th>Task</th>
<th>Teacher Adds…</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>blue</td>
<td>Pictionary</td>
<td>1 unique vocabulary term attached to each blue card</td>
</tr>
<tr>
<td>2</td>
<td>orange</td>
<td>Model big idea with play dough</td>
<td>1 unique assessment item attached to each orange card</td>
</tr>
<tr>
<td>3</td>
<td>green</td>
<td>BRAIN IN THE GAME process</td>
<td>1 unique assessment item attached to each green card</td>
</tr>
<tr>
<td>4</td>
<td>pink</td>
<td>Create an assessment question from a stimulus</td>
<td>1 unique stimulus (not the whole question) attached to each pink card</td>
</tr>
<tr>
<td>5</td>
<td>yellow</td>
<td>Word Worm free-association activity</td>
<td>2 different vocabulary terms attached to each yellow card</td>
</tr>
<tr>
<td>6</td>
<td>purple</td>
<td>Act It Out</td>
<td>1 unit assessment item attached to each purple card</td>
</tr>
</tbody>
</table>

Set of materials for each group:
- BRAINIAC colorful cards (1 set)
- Die
- Play Dough (1-2 containers)
- Blank paper 3-4 sheets
- Markers (1 set)
- STAAR Performers Thinking Bubbles for BRAIN IN THE GAME (2 copies)
- BRAINIAC key, indicating which color card and task students should complete for each number rolled
### Instructional Strategy: Circuit Training

**PURPOSE – Rehearsal and Practice:** Allow students to rehearse, practice, and articulate their understanding of various concepts through movement and dialog within multiple learning circuits.

1. Teacher sets up 6-8 learning “circuits” around the room that reflect various opportunities for students to:
   - Rehearse/practice a skill
   - Extend their thinking around a concept
   - Practice assessment items in a way that encourages students to learn from their mistakes
   - Produce evidence that they understand the content
2. Students are organized into groups of three or four and are assigned a beginning learning circuit.
3. Student groups rotate through all the learning circuits at the teacher’s direction.
4. At each learning circuit, the following materials will help guide students through the circuit:
   - Step-by-step instructions on how to complete the learning circuit activity
   - Instructions for reconstructing the learning circuit materials for the next group
   - Materials, supplies, manipulatives, visuals, activity pages, etc., needed for multiple groups to rotate through the learning circuit
   - Answer key in an envelope for students to self-monitor their understanding and correct misconceptions associated with that specific learning circuit
5. Students evaluate their responses after each learning circuit activity has been completed in order to target the areas in which they still need to work.
   - For activities that have a correct answer, students evaluate their responses:
     - I got it correct the first time, and I understand it.
     - I got it correct, but I’m not sure why.
     - I got it wrong, but I know where I messed up.
     - I got it wrong, and I have no idea how to do this.
   - For activities that do not have a specific correct answer or have several correct responses, students evaluate their own understanding:
     - I understand this content and could teach it to someone else.
     - I somewhat understand this content, but I need some clarification.
     - I do not understand this content and need a re-teach.
6. While teachers may select engaging strategies and activities with which students are familiar for learning circuits, suggestions for setting up CIRCUIT TRAINING stations are listed below:
   - Learning Circuit #1: Vocabulary Card Sort (sort terms associated with the review content)
   - Learning Circuit #2: ABCD Reasoning (practice complex assessment item)
   - Learning Circuit #3: Matching Double Trouble (match terms to descriptions or visuals)
   - Learning Circuit #4: Odd One Out (analyze/compare four visuals and determine which is “Odd One Out” and why)
   - Learning Circuit #5: Connect the Dots (make connections between four terms, visuals, test items, etc.)
   - Learning Circuit #6: Compare/Contrast Model (compare/contrast two important concepts associated with the review content using a paper plate model)
   - Learning Circuit #7: Rock and Roll Item Review (practice complex assessment item)
   - Learning Circuit #8: One-Minute Paper (summarize your understanding)
7. Teacher facilitates and monitors students’ dialog, questions, and progress as they move through the learning circuits, clarifying and verifying as appropriate.

**NOTES:**
- Teachers must determine which strategies/activities will be represented at each learning circuit, being mindful of what strategies/activities are familiar to students and which will best help them with access, rigor, and transfer.
- In addition, the amount of time for each learning circuit may vary, and teachers should not expect students to complete every learning circuit within only one class period.

**When to Use:**
- Rehearsal/practice
- Deepen understanding
- Review activity

**Materials:**
- For each learning circuit:
  - Step-by-step instructions
  - Instructions for reconstructing the learning circuit materials for the next group
  - Materials, supplies, manipulatives, visuals, activity pages, etc.
  - Answer key
- Optional: CIRCUIT TRAINING handout for student reflection

- Draw a conclusion about which learning circuit was the most complex and why.
- Make a generalization about all the learning circuits; what do they all have in common?
<table>
<thead>
<tr>
<th>Instructional Strategy</th>
<th>Instructional Implications</th>
<th>Think it Up</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fact or Fib Showdown</td>
<td>PURPOSE – Rehearsal and Practice: Determine and clarify misconceptions as students make inferences, predictions, and justifications.</td>
<td>- What clues led you to make the inference or predict the statement was a fact or fib, and how did you justify your response?</td>
</tr>
<tr>
<td></td>
<td>1. Students get two sticky notes or index cards and write “FACT” on one card and “FIB” on the other.</td>
<td>- Draw a conclusion about what faulty thinking was corrected.</td>
</tr>
<tr>
<td></td>
<td>2. Assign students a thinking partner.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>3. Present students with a statement or visual about content just explained, described, or taught. (The statement may represent a true statement or a false statement).</td>
<td></td>
</tr>
<tr>
<td></td>
<td>4. Allow students 5-8 seconds to make inferences or predict if the statement or visual is a FACT or a FIB.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>5. When the teacher says, “One! Two! Three! Showdown!” students slap their “FACT” or “FIB” cards down on their desks – all at the same time.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>6. Students justify their response with their thinking partner; after dialog with their thinking partner, they may revise their response or stand their ground.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>NOTE: Students may record their FACT or FIB responses and any misconceptions that were clarified on a FACT or FIB Recording Sheet.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>7. Teacher sees and hears the students’ thinking and clarifies/verifies as appropriate.</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>When to Use:</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Pre-test/post-test</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Rehearsal/practice</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Quick check during instruction</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Review activity</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Materials:</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td>- 4-6 FACT or FIB statements (with visuals included as appropriate)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Sticky notes, notecards, or paper for students to create their “FACT” and “FIB” cards</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Optional: FACT OR FIB SHOWDOWN Student Recording Sheet</td>
<td></td>
</tr>
<tr>
<td>Mystery Bag</td>
<td>PURPOSE – Rehearsal and Practice: Students apply what they know and draw conclusions about a specific prompt, question, or task.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>1. Organize students into groups of three or four.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>2. Present each group with a bag/sack with a different prompt, question, assessment item, manipulatives, cards, or tasks to analyze, interpret, and complete.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>3. Collaborating as a group, the students will apply what they know to the MYSTERY BAG item(s) and draw inferences and conclusions about its significance.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>4. Groups share and discuss their conclusions with the class.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>5. Students evaluate each group’s conclusions as valid or invalid by showing a signal:</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- thumbs up = indicates the group’s conclusion was valid</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- point to their head = indicates the group needs to rethink their conclusion</td>
<td></td>
</tr>
<tr>
<td></td>
<td>6. Groups may rethink, revise, or stand their ground with their original conclusion.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>7. Teacher sees and hears students’ thinking and clarifies/verifies as appropriate.</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>When to Use:</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Rehearsal/practice</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Deepen understanding of key terms and concepts</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Evidence of learning</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Materials:</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td>- 5-8 mystery prompts, questions, concepts, or tasks (one for each group)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- 5-8 bags (one for each group)</td>
<td></td>
</tr>
</tbody>
</table>
## Instructional Strategy

### Mystery Sequence/Re-sequence

**PURPOSE – Rehearsal and Practice:** Sequence, rank, or order a series of terms, concepts, or steps in a process and justify the sequence.

1. Organize students into groups of two to four.
2. Provide each group a set of cards, ideas, posters, or steps in a process to sequence before they have been exposed to any instruction about the content.
3. Group leaders distribute the cards/posters among the group members.
4. Students have several minutes to huddle, read the cards/posters, and then determine an appropriate sequence, ranking, or order.
5. At the teacher’s signal, student groups turn and show their sequences to the class.
6. Groups compare sequences and justify, rethink, or stand their ground.
7. Students then examine each step in greater detail and depth through buddy reading, online research, video clips, jigsaw structures, teacher instruction, etc.
8. Students self-evaluate and re-sequence their cards based on the new information they have learned.
9. Teacher clarifies/verifies the correct sequence, summarizing the content over which the lesson focused.
10. The teacher sees and hears the students’ thinking and clarifies verifies as appropriate.

**When to Use:**
- Pre-test and post-test activity
- Rehearsal/practice
- Reflection activity after teaching a process
- Review activity

**Materials:**
- Sets of cards to sequence

*Time-saving tip:* Students could create their own set of cards by working as a team to copy the various sequencing statements/words on notecards from a projected master.

### Pick Up the Slip Up

**PURPOSE – Rehearsal and Practice:** Analyze three statements to make inferences about which two are true and which one is inaccurate.

1. Students create ABC cards using notebook paper, sticky notes, or note cards.
2. Students place the cards on their desks in front of them.
3. Teacher presents three statements: two are true and one is a “slip up” or false statement.
4. The teacher instructs students to:
   - "Think!" (think about which statement is the slip up or false statement)
   - "Hover!" (students hover their hand over their ABC cards showing they are ready)
   - “1-2-3, PICK UP THE SLIP UP!” (students grab the letter of the slip up and hold it high)
5. Students must justify with a thinking partner why they think that statement is a slip up.
6. Teacher sees and hears the students’ thinking and clarifies verifies as appropriate.

**When to Use:**
- Pre-test and post-test activity
- Rehearsal/practice
- Closure activity
- Review activity

**Materials:**
- Notebook paper, sticky notes, or index cards
- 3-4 sets of PICK UP THE SLIP UP statements (2 true/1 false)
### Instructional Strategy: Play it – Say it!

**PURPOSE – Rehearsal and Practice:** Infer which response best matches a prompt and justify your thinking.

1. Organize students into thinking partners.
2. Students create their own response cards (determined by the teacher) and hold them in their hand like a set of playing cards.
3. Response cards may consist of the following:
   - 5-7 important terms
   - Steps in a process (one step on each card)
   - 5-7 difference assessment questions (students would cut these apart from a handout to create the response cards)
4. Teacher presents students with a statement that matches or can be associated with one of the response cards in their hands.
5. Allow students 10-12 seconds to make an inference about which card best matches the statement.
6. Teacher says, “1-2-3, PLAY IT!”
7. All at the same time, students slap down the response card on their desks that they infer best matches the statement.
8. Teacher then says, “SAY IT!” and students shout out their answer all at the same time.
9. Students then justify to their thinking partner why they slapped down that answer.
10. Teacher sees and hears the students’ thinking and clarifies/verifies as appropriate.

**When to Use:**
- Rehearsal/practice
- Review activity
- Vocabulary activity

**Materials:**
- Index cards (or cut apart notebook paper) to create response cards
- List of appropriate responses for students to create cards OR handout of assessment questions student cut apart to create response cards
- 5-10 statements that correlate to the various response cards

### Instructional Strategy: Rank ‘Em!

**PURPOSE – Rehearsal and Practice:** Rank/order ideas and justify your ranking.

1. Organize students into thinking partners.
2. Provide students with a set of 4-6 terms, concepts, assessment items, charts, graphs, or images.
3. Students cut the items apart, rank the cards in some way, and then justify their ranking to a thinking partner.
4. Type of ranking may include but is not limited to:
   - Rank by importance
   - Rank by sequential order
   - Rank by time period
   - Rank by how well you understand them
   - Rank by significance from a specific point of view, then rank from an opposing point of view
5. Teacher sees and hears the students’ thinking and clarifies/verifies as appropriate.

**When to Use:**
- Rehearsal/practice
- Reflection activity after learning a process or sequence
- Activity to explore different perspectives
- Evidence of learning
- Review activity

**Materials:**
- Handout with the content students will cut apart and rank
<table>
<thead>
<tr>
<th>Instructional Strategy</th>
<th>Instructional Implications</th>
<th>Think it Up</th>
</tr>
</thead>
</table>
| **Sketch It** | **PURPOSE – Rehearsal and Practice:** Create a graphic representation of a complex concept or term. | • Make a generalization about the sketches you analyzed.  
• Summarize how your sketch reflects the concept. |
| | 1. The teacher explains/describes an important term or concept.  
2. Students draw a quick SKETCH or graphic representation of the term or concept.  
3. Students participate in MUSICAL MIX-FREEZE -GROUP:  
  - MIX: students walk around the room as music plays  
  - FREEZE: student stop mixing when the music stops  
  - GROUP: students partner with the person closest to them  
4. With a thinking partner, students compare their sketches adding detail or clarification.  
5. Repeat one more round of MUSICAL MIX-FREEZE -GROUP to share ideas with another partner.  
6. Students make a generalization about the three sketches they observed.  
7. Teacher sees and hears students’ thinking and clarifies/verifies as appropriate. | |
|  | **When to Use:**  
  - Rehearsal/practice  
  - Quick check during instruction  
  - Evidence of learning  
  - Exit ticket/closure activity  
  - Vocabulary activity | |
|  | **Materials:**  
  - None | |
| **Stop, Plop, and Roll** | **PURPOSE – Rehearsal and Practice:** During a reading assignment (in any subject area), students participate in activities to monitor comprehension to better understand what they are reading. | • Go beyond the text and make an inference as to why this information was important.  
• Compare this text to something you read in another class. Can you find any similarities?  
• Draw a conclusion at the end of the reading assignment and determine why this information matters. |
| | 1. Organize students into groups of two or three.  
2. Students begin an assigned or self-selected reading assignment.  
3. Students read for approximately 5-10 minutes until the teacher gives a signal for STOP, PLOP, AND ROLL.  
4. Students move to the STOP, PLOP, AND ROLL board taking turns rolling the die, answering the questions they get, and discussing the text they read.  
5. Once everyone in the group has had an opportunity to roll and talk, students go back into independent reading until the teacher gives the next signal for STOP, PLOP, AND ROLL.  
6. Teacher sees and hears students’ thinking and clarifies/verifies as appropriate. | |
| | **When to Use:**  
  - Rehearsal/practice  
  - Monitor comprehension while reading independently  
  - Deepen understanding of text | |
|  | **Materials:**  
  - Dice (1 for each group)  
  - STOP, PLOP, AND ROLL game board (teacher may revise the questions on the template provided to better align to the reading assignment and content area)  
  - Reading assignment | |
<table>
<thead>
<tr>
<th>Instructional Strategy</th>
<th>Instructional Implications</th>
<th>Think it Up</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tour of Knowledge</td>
<td>PURPOSE – Rehearsal and Practice: Analyze various stimuli/visuals and develop appropriate assessment questions aligned to the stimuli.</td>
<td>• Evaluate all the stimuli and determine which were most complex. • Develop a plan for better understanding the stimuli you chose as most complex. • Predict how an assessment question might reflect different stimuli for the same concept.</td>
</tr>
<tr>
<td></td>
<td>1. Organize students into groups of three or four.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>2. Each group is given a different colored marker.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>3. Teacher posts 7-8 learning stations around the room representing various stimuli (not an entire assessment question – just the stimulus), such as the following:</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Reading: various reading passages, text titles, genre examples</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Math: charts, graphs, number lines, tables, models, coordinate planes, geometric figures, formulas</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Science: charts, graphs, illustrations, models, tables, diagrams, webs/cycles, maps, formulas, pictures</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Social Studies: charts, graphs, illustrations, political cartoons, art work, photographs, maps, primary sources</td>
<td></td>
</tr>
<tr>
<td></td>
<td>4. Groups have 3-4 minutes at each station to record anything they know about the given stimuli on the provided chart paper at the learning station.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>5. Groups place a checkmark beside information they agree with from another group and add new ideas. Groups may also cross through any ideas they disagree with, adding a justification explaining why they disagree.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>6. At the teacher’s signal, groups rotate to the next stimulus learning station and repeat step 4. Groups continue rotating, at the teacher’s signal, until every group has completed a TOUR OF KNOWLEDGE at each station.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>7. Think it up idea: students then complete a SECOND TOUR OF KNOWLEDGE through each stimulus learning station, but this time, they write a potential question that might be associated with the specific stimulus.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>8. Evidence of learning: students answer a formal assessment item associated with each of the learning station stimuli, identifying what information was needed to answer the question. (Assessment questions may come from released STAAR tests, previous unit tests, textbook materials, or teacher-developed questions.)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>9. Teacher sees and hears the students’ thinking and clarifies/verifies as appropriate.</td>
<td></td>
</tr>
<tr>
<td>When to Use:</td>
<td>• Rehearse and practice analyzing various stimuli/visuals</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Review activity</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Evidence of learning</td>
<td></td>
</tr>
<tr>
<td>Materials:</td>
<td>• 7-8 different stimuli/visuals for each learning station</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• 7-8 assessment questions associated with these stimuli/visuals</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Chart paper at each learning station</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Markers (one unique color for each group)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Assessment item aligned to each of the learning station stimuli</td>
<td></td>
</tr>
</tbody>
</table>
**Instructional Strategy**

**Triple Play**

**PURPOSE – Rehearsal and Practice:** Connect important words, descriptions, and sketches.

1. Choose 5-7 important terms that students need to review.
2. Organize students into teams of three and assign each team member an A, B, or C role.
3. Assign each group a different vocabulary term from the list of 5-7 words.
4. Team members help each other to complete the following three tasks:
   - A = Write the term on one paper
   - B = Describe the term or give an example on another paper
   - C = Sketch the term on a third paper

5. At the teacher’s signal, students wad their papers into “baseballs” and have a brief snowball fight with their paper baseballs.
6. Students toss three total paper baseballs.
7. On the fourth paper baseball, students open it, analyze their paper, and try to make a TRIPLE PLAY by finding the other students who have snowballs that complete the three parts: word, description, and sketch.
8. Students call out “TRIPLE PLAY!” when they find the other students who complete their three word parts.
9. Students add value by drawing another sketch or adding to the description.
10. Students then return to their original group of three and teach their TRIPLE PLAY term to their group.
11. Teacher sees and hears the students’ thinking and clarifies/verifies as appropriate.

**When to Use:**
- Rehearse and practice important vocabulary
- Review

**Materials:**
- List of 5-7 important terms
- Paper – 1 sheet per student

**Think it Up**

- Can you make connections to other words in previous units of instruction?
- Compare/contrast two of the terms from the game.
- Can the terms in this game be classified or categorized in any way?
## Who Am I?

**PURPOSE – Rehearsal and Practice:** Give clues, make inferences, and draw conclusions about important words.

1. Students and teacher determine 6-10 terms that are the most difficult for the current unit.
2. Students secretly select one term from the list and write their word on a sticky note.
3. Keeping the word hidden, students place their sticky note on a partner’s forehead so that partners do not know the word on their forehead.
4. Students participate in MUSICAL MIX-FREEZE-CROUP to find a new partner and ask, “WHO AM I?”
5. Student partners make inferences to communicate clues (describe, explain, provide examples, etc.) about the word on their partner’s forehead.
6. Students synthesize all clues to draw a conclusion about which word they have.
7. If the friend cannot guess his word, his partner finds another friend to help give clues.
8. Play 2-3 rounds of this game so that each student is exposed to 2-3 difficult terms.
9. Teacher sees and hears the students’ thinking and clarifies/verifies as appropriate.

**When to Use:**
- Rehearse and practice important vocabulary
- Review
- Add movement and discourse to instruction

**Materials:**
- List of 6-10 important terms
- Sticky notes (or students can cut/tear notebook paper into squares and simply hold the word card on their foreheads)

## Vocabulary Pyramid Game

**PURPOSE – Rehearsal and Practice:** Give clues, make inferences, and draw conclusions about important words.

1. Organize students into thinking partners.
2. Student A is the clue-giver and makes inferences to provide hints, phrases, and ideas related to the term revealed on the game board.
3. Student B is the guesser who draws conclusions about the clues and provides possible answers.
4. When student B guesses the correct term, Student A pops up and says, “Woo hoo!” and then sits back down to begin giving clues for the next term.
5. Student pairs continue giving clues and guessing terms until all terms have been correctly identified.
6. Teacher sees and hears the students’ clues and guesses, and when the “woo hoos” stall, the teacher will know which words were most difficult.

**NOTE:** some students may need a word bank, vocabulary cards, or their notes to successfully participate in the activity.

**When to Use:**
- Rehearse and practice important vocabulary
- Review

**Materials:**
- Vocabulary Game Board(s) developed using PowerPoint template or paper game board
# Extended Thinking Strategies

## Instructional Strategy: Card Sort

**PURPOSE – Extended Thinking:** Make connections by classifying/categorizing important terms or concepts.

1. The teacher and/or students create a set of cards reflecting various vocabulary terms, visuals, assessment items, or content.
2. Students work cooperatively in small groups or with partners to sort the cards into various categories such as the following:
   - **Pre-/Post-Test:**
     - Don’t know this yet
     - Kind of know this, but need more practice
     - Completely know this! Could teach it to someone else!
   - **Open Sort:** students create their own categories, sort the cards, and justify their thinking
   - **Closed Sort:** teacher provides the categories and asks students to sort their cards into these new categories and justify their thinking
3. As students sort, the teacher circulates among the groups asking for justifications, encouraging students to rethink any cards they cannot justify.
4. Teacher clarifies/verifies as a whole group and allows students to have a different categorization as long as they can justify their thinking.
5. Students may transfer the sorting categorization matrix into a graphic representation in their journals.

**OPTION:** Concept Hang Ups - Teachers may choose to implement a card sort using hangers on which students hang their category cards (see example of a Genre Hang Up below).

### Genre Hang Up

**When to Use:**
- Pre-test/post-test
- Vocabulary connections activity
- Review activity

**Materials:**
- Cards with terms, visuals, or assessment items

**Time-saving tip:** Write terms on the white board and ask students to form groups and create their own card set using note cards or notebook paper cut into rectangles.

**Time-saving tip:** Present groups with a worksheet or test and ask them to cut the items apart into separate cards for an assessment item CARD SORT.

---

## Think it Up

- What connections can you make between ideas?
- Justify and rethink categories and connections.
- Can you make a generalization about all the categories?
<table>
<thead>
<tr>
<th>Instructional Strategy</th>
<th>Instructional Implications</th>
<th>Think it Up</th>
</tr>
</thead>
</table>
| **Compare/Contrast Model** | **PURPOSE – Extended Thinking:** Compare/contrast two different concepts, texts, visuals, or problems by collaboratively building a model. | **• Compare/contrast your model to another group’s. How are they the same/different and which ideas are most profound?**

<table>
<thead>
<tr>
<th></th>
<th></th>
<th><strong>• What conclusions can you draw about the relationship between these two ideas/concepts?</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Organize students into groups of three.</td>
<td></td>
</tr>
<tr>
<td>2.</td>
<td>Give each group a set of materials (see below).</td>
<td></td>
</tr>
<tr>
<td>3.</td>
<td>WHITE PLATES: Students list topic #1 on the first white plate and topic #2 on the second white plate. (Topics may be determined by the teacher and/or the students but must be aligned to the unit of study.)</td>
<td></td>
</tr>
<tr>
<td>4.</td>
<td>Each group member gets 2 plates of each color (2 purple, 2 red, 2 blue).</td>
<td></td>
</tr>
<tr>
<td>5.</td>
<td>PURPLE PLATES: Taking turns and sharing the dry erase marker, students generate ideas of similarities between the two topics, share their ideas, and place their purple plates in the center of the model.</td>
<td></td>
</tr>
<tr>
<td>6.</td>
<td>RED PLATES: Taking turns and sharing the dry erase marker, students generate ideas of how topic #1 is unique and different from topic #2, share ideas, and place their plates in the model.</td>
<td></td>
</tr>
<tr>
<td>7.</td>
<td>BLUE PLATES: Taking turns and sharing the dry erase marker, students generate ideas of how topic #2 is unique and different from topic #1, share ideas, and place their plates in the model.</td>
<td></td>
</tr>
<tr>
<td>8.</td>
<td>Students may “take a cruise” to three other groups, comparing and contrasting the model they created to other models.</td>
<td></td>
</tr>
<tr>
<td>9.</td>
<td>Teacher sees and hears the students’ thinking and clarifies/verifies as appropriate.</td>
<td></td>
</tr>
<tr>
<td>10.</td>
<td>Students transfer information from the model into their journals or notes after teacher clarification.</td>
<td></td>
</tr>
<tr>
<td>11.</td>
<td>Students wipe the plates clean and place them back into the baggies to prepare them for the next group.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th></th>
<th><strong>When to Use:</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>• Extend and deepen understanding and thinking around two concepts, terms, or processes</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Compare/contrast two different, difficult assessment items with different stimuli</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Rehearsal or practice</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th></th>
<th><strong>Materials:</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>• One baggy of materials per group:</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- 2 white plastic plates</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- 6 blue plastic plates</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- 6 red plastic plates</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- 6 purple plastic plates</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- 1 dry erase marker</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- 1 paper towel</td>
</tr>
</tbody>
</table>

**NOTE:** Students may use plastic plates, paper plates, sticky notes, colorful paper, colored index cards, or chart paper with colored markers to create the COMPARE/CONTRAST MODEL.
## Connect 4 Thinking

**PURPOSE – Extended Thinking:** Make connections between a major concept and its synonym, antonym, an analogy, other terms, and/or real life.

1. Organize students into groups of four.
2. Assign student groups a major concept to analyze.
3. Each student in the group makes a different connection with the term and explains the connection to the group.
4. Possible connections may include the following:
   - synonym
   - antonym
   - analogy
   - quick sketch or graphic representation
   - another term or concept
   - real life
5. Students record the four connections in their journals or interactive notebooks.
6. Groups share their CONNECT 4 THINKING if they were assigned different concepts.
7. Teacher sees and hears the students’ thinking and clarifies/verifies as appropriate.

**When to Use:**
- Extended thinking activity
- Vocabulary extension
- Evidence of learning

**Materials:**
- Optional: CONNECT 4 THINKING handout

## Connect the Dots

**PURPOSE – Extended Thinking:** Make connections among four different visuals, terms, assessment questions, events, texts, or people.

1. Organize students into groups of two or three.
2. Provide students with the CONNECT THE DOTS handout representing four different visuals, terms, assessment questions, events, texts, people, etc. (Teacher can determine what to put on the four dots.)
3. Students work collaboratively to make connections between the two ideas at the end of each arrow, developing at least one similarity and one difference.
4. Teacher sees and hears students’ thinking and clarifies/verifies as appropriate.

**When to Use:**
- Rehearsal/practice
- Extended thinking activity
- Review activity at the end of a unit
- Evidence of learning

**Materials:**
- CONNECT THE DOTS handout that the teacher has customized with the four ideas
### IDEA SHUFFLE

1. The teacher presents the class with 4-5 different prompts that require different types of thinking, but all prompts relate to the same topic recently taught.
2. The teacher then assigns each student a prompt to respond to in 1-2 sentences. Examples of prompts include:
   - Sketch and describe the following term: ____________.
   - Compare and contrast the following: __________ and __________.
   - Summarize what you know about ____________ and why it is important.
   - Make an inference about ____________.
   - Draw a conclusion about the importance of ____________.
   - Make an inference about ____________.
   - Write a sentence summarizing the major cause of ____________.
   - Write a sentence summarizing the major cause of ____________.
   - Make a generalization about ____________.
   - Analyze the following (chart, graph, illustration, cartoon, etc.) and draw a conclusion about the main idea it communicates.
   - Predict what might happen if ____________.
   - Other: the teacher may create any prompt that students could answer in 1-2 sentences.

3. Students analyze the prompt they were assigned and then respond by writing 1-2 sentences on the front of a sticky note, note card, or half-sheet of paper. They do not put their name on the card.
4. IDEA SHUFFLE: (3 rounds so that each student reads and rates 3 different cards)
   - Trade: Students stand up and mix around the room trading cards at least 5 times. (Make sure students keep trading until they get a card they have not yet rated.)
   - Read: Student carefully reads the card they have.
   - Rate: Student evaluates the response by rating the card on the back:
     - 3 = excellent! (well-written, great thinking – you wish you had written this!)
     - 2 = good! (thinking was good, even if there were a few mistakes)
     - 1 = getting there! (it is the start of a good idea, but it needs a little more work)

5. After the third round of IDEA SHUFFLE, ask students to add all three ratings to calculate a final score for the card they have.
6. Ask students to read out the cards that scored 8-9 points so students see and hear what solid thinking looks and sounds like.
7. Teacher sees and hears students’ responses and clarifies/verifies as appropriate.

### When to Use:
- Extended thinking activity
- Review activity
- When students have been sitting a while and need to move and process information

### Materials:
- Sticky notes, note cards, or paper for students to write responses on that they can shuffle
- 4-5 prompts/questions prepared that require different types thinking related to the same topic recently taught

---

**Purpose – Extended Thinking:** Generate, share, and rate ideas, responses, or answers to a specific question or task.

### Think it Up

- Compare the responses that scored 8-9 points with your response. How are they the same and how are they different?
- Make an inference about what you need to do next time to earn a high rating for your thinking?
### Instructional Strategy: Justified List

**PURPOSE – Extended Thinking:** Make inferences to determine examples and non-examples.

1. Provide students with a question stem associated with a big idea, concept, or process that requires extended thinking to answer.
   - Examples of question stems include:
     - Science: Which of the following is a mixture?
     - Math: Which of the following are associated with the coordinate plane?
     - Social Studies: Which of the following are associated with the Age of Jackson?
     - Reading: Which of the following are examples of expository text?
2. Students are provided a list of examples and non-examples associated with the question.
3. Students check all the items that are positive examples associated with the question stem and justify individual responses (if appropriate).
4. Students then create an overarching rule or justification validating why they checked the items.
5. Organize students into groups of three or four and ask them to share their rules.
6. Student groups share/compare rules and pick the best rule from their group.
7. Group rules are presented to the class; the class evaluates all the rules and votes on the most complete.
8. Teacher sees and hears students’ thinking and clarifies/verifies as appropriate.

**When to Use:**
- Extended thinking activity
- Review activity

**Materials:**
- JUSTIFIED LIST handout – teacher develops with examples and non-examples

### Instructional Strategy: Match It Up!

**PURPOSE – Extended Thinking:** Analyze a stimulus/visual and match it to as many assessment items as possible.

1. Organize students into groups of two or three.
2. Provide students with assessment items that represent various stimuli/visuals.
3. Students cut the item stimulus apart from the actual test question, which results in two sets of cards: stimulus cards and assessment item cards.
4. Student groups place the stimulus cards in one stack face down.
5. Students place all the assessment item cards face up in the center of the table so that all the items can be easily seen.
6. Taking turns, students draw a stimulus card and MATCH IT UP! to as many assessment items as possible, justifying their reasons for the match.
7. Teacher sees and hears the students’ thinking and clarifies/verifies as appropriate.

**When to Use:**
- Extended thinking activity
- Review activity
- Engaging way to analyze and practice test items

**Materials:**
- Assessment items (one set per group)
- Scissors (one pair per group)
### Double Trouble Matching

**Purpose – Extended Thinking:** Make connections between words, text descriptions, and graphics/visuals.

1. Organize students into groups of two or three.
2. Provide students with a set of word cards, text cards (descriptions of the terms) and graphic cards (images representing the terms) representing 5-10 important vocabulary terms.
3. Students distribute the cards among their group members.
4. Taking turns, students match the word cards to the text cards, justifying their matches.
5. Students then take turns matching the text cards to the graphic cards, justifying their matches.
6. At the end of the activity, students evaluate their hands-on matrix of terms, descriptions, and graphic representations and make adjustments/revisions as appropriate.
7. Teacher sees and hears the students’ thinking and clarifies/verifies as appropriate.

**OPTION:** Students transfer the hands-on DOUBLE TROUBLE MATCHING information into their interactive notebooks, by restating the descriptions in their own words, and adding new graphic images/sketches.

**When to Use:**
- Extended thinking activity
- Review activity
- Vocabulary extension

**Materials:**
- DOUBLE TROUBLE MATCHING cards (one set per group)

**Time-saving tip:** Create a handout with the cards in random order and have students cut the cards apart.

**Time-saving tip:** Project the words, descriptions, and images in random order and ask students to create their own card set by copying the projected information onto separate note cards.

### Nine Squares

**Purpose – Extended Thinking:** Analyze a text or image to determine facts/details, make inferences, and draw conclusions.

1. Students read a text or view an image, visual, or stimulus.
2. Students then analyze the text or image by determining and writing the following:
   - 5 facts/details (What does it say or what do you see?)
   - 2 inferences (What does it mean?)
   - 2 valid conclusions (Why does it matter?)
3. Students may trade NINE SQUARES with a partner to see if each can “guess” the 5 details, the 2 inferences, and the 2 conclusions the student developed.
4. Teacher sees and hears the students’ thinking and clarifies/verifies as appropriate.

**Note:** As a scaffolding activity, teachers may choose to complete the NINE SQUARES statements for the students, but present them in a mixed up order. Students would cut the “word bank” cards apart and sort the details, inferences, and conclusions into the NINE SQUARES game board.

**When to Use:**
- Extended thinking activity
- Review activity

**Materials:**
- image, visual, or stimulus to analyze
- Optional: NINE SQUARES handout
## Instructional Strategy

### Odd One Out

**Purpose – Extended Thinking:** Compare/contrast four visuals, assessment questions, or texts to determine which one is ODD ONE OUT.

1. Organize students into home groups of four and ask them to number off 1-2-3-4.
2. Provide students with a handout representing four different visuals, stimuli, pictures, or assessment items.
3. Students analyze the four items and make a generalization about what all four visuals are about.
4. Students then move into expert groups and analyze their ONE assigned visual:
   - #1 = huddle with other #1s and become an expert on visual #1
   - #2 = huddle with other #2s and become an expert on visual #2
   - #3 = huddle with other #3s and become an expert on visuals #3
   - #4 = huddle with other #4s and become an expert on visuals #4
5. Students expert groups brainstorm what they know about their assigned visual and then summarize at least four-five key points or big ideas.
6. Student experts return to home groups and communicate their summaries.
7. Teacher clarifies and verifies between each expert’s summary as appropriate.
8. Students then compare/contrast the four visuals and select one that is ODD ONE OUT and justify why that example is different from the others.
9. Groups communicate their ODD ONE OUT responses and justifications, and the teacher clarifies/verifies as appropriate.
10. OPTION: To add rigor and infuse additional verbs from the highly tested process TEKS, teachers may choose to extend the ODD ONE OUT activity to include the following additional thinking activities:
    - Identify one vocabulary term that summarizes each square
    - Tear the squares apart and rank/sequence them in some way (justify)
    - Classify/Categorize the squares in some way (justify)
    - Select one square and communicate a cause/effect relationship (justify)
    - Select one square and make a prediction (justify)
11. Groups justify their responses, and the teacher clarifies/verifies as appropriate.

### When to Use:
- Extended thinking activity
- Review activity

### Materials:
- ODD ONE OUT handout – teacher develops with appropriate visuals, stimuli, text, etc.
# Instructional Strategy

**Pick a Process**

<table>
<thead>
<tr>
<th>Instructional Implications</th>
<th>Think it Up</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>PURPOSE – Extended Thinking:</strong> Encourage students to think many different ways around a topic or concept through engaging questioning strategies.</td>
<td><strong>Evaluate</strong> which student thinking was most profound and explain why.</td>
</tr>
<tr>
<td>1. Organize students into thinking partners or groups of three.</td>
<td><strong>Draw a conclusion</strong> about how you could add more depth of thinking to your original response.</td>
</tr>
</tbody>
</table>
| 2. Assign each group a thinking verb from the highly tested process standards through an engaging PICK A PROCESS method:  
  - rolling a die from 1-6 where each number corresponds to a designated verb  
  - pulling a craft stick that is labeled with a specific verb  
  - picking a card where each card corresponds to a specific verb | **Create/develop** one assessment question based upon your assigned verb. |
| 3. Cards, numbers, or sticks correspond to a verb from the highly tested process TEKS. For example:  
  1 = Analyze/Interpret  
  2 = Infer  
  3 = Draw a Conclusion  
  4 = Summarize  
  5 = Predict  
  6 = Compare/Contrast | |
| 4. At the teacher’s direction, students work with their thinking partner(s) to:  
  - answer a question associated with the selected verb provided by the teacher OR  
  - write a sentence about the content just learned using the assigned verb | |
| 5. Assist students by offering them sentence stems/frames to help answer questions or develop sentences. | |
| 6. Student groups share their thinking with the class. | |
| 7. Teacher sees and hears the students’ thinking and clarifies/verifies as appropriate. | |

**When to Use:**
- Extended thinking activity during instruction
- Review activity
- Closure activity

**Materials:**
- Dice, sticks, or cards
- Optional: Questions prepared for students with the assigned verbs infused
### Instructional Strategy

<table>
<thead>
<tr>
<th>Rock and Roll Vocabulary</th>
</tr>
</thead>
</table>

#### PURPOSE – Extended Thinking:
Think deeply about complex vocabulary terms.

1. Organize students into thinking partners.
2. Provide student pairs with a die.
3. Present students with a vocabulary term aligned to a difficult concept or skill.
4. Student pairs take turns rolling the die.
5. The number rolled dictates the activity they complete with the term:
   1 = state the meaning of the term in your own words
   2 = provide a synonym
   3 = provide an antonym
   4 = create a sentence using the word
   5 = create an analogy linking the word to something familiar in real life
   6 = act it out
6. Students continue rolling the die until they have completed all the activities.
7. Students may complete 3-4 rounds of ROCK AND ROLL VOCABULARY so they are exposed to 3-4 different terms.
8. Teacher clarifies and verifies correct responses for each of the numbers rolled.
   NOTE: to help struggling learners, the teacher may choose to differentiate the activity by offering students a synonym/antonym word bank and sentence stems for the analogy.

#### When to Use:
- Extended thinking activity during instruction
- Review activity
- Vocabulary activity

#### Materials:
- Dice
- Optional: ROCK AND ROLL VOCABULARY handout

---

### Instructional Implications

#### Think it Up
- Can the terms be classified or categorized in any way?
- Make a connection between terms.
- Predict how these terms might be used on an assessment question.
<table>
<thead>
<tr>
<th>Instructional Strategy</th>
<th>Instructional Implications</th>
<th>Think it Up</th>
</tr>
</thead>
</table>
| SYNPECTICS SNOWBALL    | PURPOSE – Extended Thinking: Analyze a concept and develop a visual analogy, justifying the connection between the two seemingly unrelated things. | • Analyze what made some analogies better than others. How can you make your original response stronger?  
• Create a new analogy with a picture of your choosing. |

1. Organize students into groups of four.
2. Provide each student with a sentence stem aligned to a major, complex concept such as the following:
   - Social Studies: “Manifest Destiny is most like...”
   - Reading: “Reading an expository text is most like...”
   - Math: “Calculating perimeter is most like...”
   - Science: “The process of mitosis is most like...”
3. Provide students with 4-5 pictures unrelated to the concept.
4. Each student circles one picture to form a relationship or analogy with the concept in some way and justifies their analogy by writing a “because statement.” (Students should not put their names on their papers.)
5. When all students have completed their Synectics analogy, they stand up and push their chairs in.
6. Students crush their analogy into a “snowball” to share ideas.
7. Snowball sharing:
   - At the teacher’s signal, students toss their snowball across the room.
   - Students pick up two additional random snowballs and toss them.
   - After tossing three snowballs, students pick up a fourth snowball, read it, and share it with their group of four.
   - Cooperative groups evaluate their four analogies and select the best to share with the class.
8. Teacher sees and hears the students’ thinking and clarifies/verifies as appropriate.

When to Use:
- Extended thinking activity during instruction
- Review activity
- Vocabulary extension

Materials:
- Optional: SYNPECTICS SNOWBALL handout – developed by the teacher with the appropriate stem and pictures
<table>
<thead>
<tr>
<th>Instructional Strategy</th>
<th>Instructional Implications</th>
<th>Think it Up</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tic-Tac-Tally</td>
<td><strong>PURPOSE – <em>Extended Thinking</em>: Make connections between important words, visuals/stimuli, and assessment items.</strong>&lt;br&gt;1. Organize students into groups of three.&lt;br&gt;2. Provide groups a handout with nine rectangles associated with content and representing various stimuli, terms, and assessment questions.&lt;br&gt;3. Students cut out the nine cards and distribute them among the group members.&lt;br&gt;4. Students draw a large TIC-TAC-TALLY board on a large sheet of paper.&lt;br&gt;5. Students individually take turns playing a card on the board, arranging the cards on the board so that they make connections. Students must verbally justify the connections when they play a card.&lt;br&gt;6. Students draw a line from the connected cards and write the connection on the TIC-TAC-TALLY game board.&lt;br&gt;7. When three connections have been made vertically, horizontally, or diagonally, they shout, “TIC-TAC-TALLY!”&lt;br&gt;8. Teacher clarifies/verifies students’ connections.&lt;br&gt;9. Students continue to play cards and look for connections from one card to the next to create more connections and more TIC-TAC-TALLY!&lt;br&gt;OPTION: Leave a few of the nine cards blank on the handout and let students write a word or sketch an image on the blank cards to help them make connections.</td>
<td><strong>Challenge your team to get a “blackout” TIC-TAC-TALLY game board by making connections all across the board.</strong>&lt;br&gt;<strong>Remove the cards from the TIC-TAC-TALLY board and classify/categorize them in some way, justifying your connections.</strong></td>
</tr>
<tr>
<td><strong>(template available)</strong></td>
<td><strong>When to Use:</strong>&lt;br&gt;• Extended thinking activity during instruction&lt;br&gt;• Review activity&lt;br&gt;• Vocabulary extension&lt;br&gt;• Engaging way to analyze assessment questions</td>
<td></td>
</tr>
<tr>
<td><strong>(Adapted from Law Related Education)</strong></td>
<td><strong>Materials:</strong>&lt;br&gt;• TIC-TAC-TALLY cards – teacher creates (one set per group)&lt;br&gt;• TIC-TAC-TALLY Game Board (one per group)&lt;br&gt;• Scissors (one pair per group)</td>
<td></td>
</tr>
</tbody>
</table>
### Instructional Strategy: Vocabulary Dominoes

**Purpose – Extended Thinking:** Make connections between important words and concepts.

1. Organize students into groups of three or four.
2. Give each group a set of prepared VOCABULARY DOMINOES with important terms.
3. Students place the dominos face down and mix them up.
4. Each student draws 4-6 dominos.
5. Students decide who plays first, and the first domino is placed in the center as the “spinner” to begin the game.
6. Each player takes a turn matching one of their VOCABULARY DOMINOES with a domino on the board explaining how the two terms are related to each other.
   - **Note:** It is extremely important that students articulate their connections when playing a domino.
7. Should a student not be able to make a connection, he/she draws another vocabulary domino and tries to play that one.
8. Students continue taking turns and making connections until all dominos are played.
9. Teacher sees and hears the students’ thinking and clarifies/verifies as appropriate.

**Option:** Teachers may create their dominos with only one term, with two terms (one at each end), or with a mixture of words and visuals.

<table>
<thead>
<tr>
<th>Domino with one term</th>
<th>Domino with two terms</th>
<th>Domino with one term and one visual</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>Fraction</em></td>
<td><em>Observational Patterns</em></td>
<td><em>Plane &amp; Solid</em></td>
</tr>
</tbody>
</table>

**When to Use:**
- Extended thinking activity during instruction
- Review activity
- Vocabulary extension

**Materials:**
- Set of VOCABULARY DOMINOES – teacher creates (one set per group)

---

### Think it Up

- **Evaluate** which dominos were the most difficult to connect on the board? Why?
- **Take** the domino cards and sort them into **categories**. Can you **justify** which terms go into which categories?
### Instructional Strategy: 3-2-1 Test Review

**PURPOSE – Learning from Mistakes:** Create student ownership in learning from tests and help teachers prioritize which items to review.

1. Students analyze a graded test to evaluate where they are strong and where they still need to work.
   - 3 = Compare and select 3 difficult questions you got correct; explain/summarize why you got them correct to a friend.
   - 2 = Compare and select 2 questions you thought you got correct, but you missed. Correct your mistake with a friend.
   - 1 = Compare and select 1 question that was most complex and you want the teacher to go over in class.
2. The teacher should clarify/verify the questions the majority of students selected as the “1” question that was most difficult (usually 4-6 questions per test).

**When to Use:**
- Review activity after an assessment

**Materials:**
- Graded assessment
- Optional: 3-2-1 TEST REVIEW handout (students may complete on notebook paper)

### Instructional Strategy: ABCD Card Reasoning

**PURPOSE – Learning from Mistakes:** Analyze answer choices and predict possible mistakes in learning or thinking.

1. Organize students into groups of four.
2. Assign each student a letter: A-B-C-D.
3. Students distribute among their group four different assessment items (cards or questions) provided by the teacher.
4. For the assessment item they currently have, each student analyzes the item and predicts or infers why a student might select the answer choice they were assigned, even if it is the incorrect answer.
   - Possible justifications may include the following: guessed, careless error, stopped too early, or mixed stuff up.
   - Students may use the “Learning from Mistakes” handout to assist them in their thinking.
5. On the back of the assessment item (or on notebook paper), students justify/explain in writing why a student may have selected their answer choice.
6. Students rotate their cards/questions and continue to analyze the new item and to justify why a student might choose their assigned answer choice for all four different questions.
7. After all questions have been rotated around the group, students draw conclusions about the correct answer for each item and probable errors students might make on each item.
8. Teacher sees and hears the students’ thinking and clarifies/verifies as appropriate.

**OPTION:** If data is available for the items, the teacher could display the data and discuss the actual error patterns students made.

**When to Use:**
- Review activity after an assessment
- Item practice activity

**Materials:**
- 4 different assessment questions per group (target specific content students struggled with and questions with various stimuli if possible)
- Optional: Learning from Mistakes handout

---

**Think it Up**

- What learning strategies (new or your best ones) will you apply more often now?
- Make connections to the most common kinds of mistakes you saw.

- Analyze assessment items and make predictions about possible error patterns.
- Draw a conclusion about the types of mistakes you made and how you can avoid them next time.
### Instructional Strategy

#### Brain in the Game

**PURPOSE – Learning from Mistakes:** Access content by knowing how to start answering complex assessment questions.

1. When students encounter an assessment question or stimulus they do not know how to start answering, they can get their BRAIN IN THE GAME by completing the following steps:
   - **Analyze** the item’s stimulus (chart, table, picture, poem, word problem, etc.)
   - **Identify** 3-5 important vocabulary terms in the item (underline or highlight)
   - **Predict** what the question might be about
2. Layer this strategy with a cooperative structure such as MUSICAL MIX-FREEZE-GROUP or CHASE AND CHALLENGE so students can compare, discuss, justify, or rethink their responses.
3. Teacher sees and hears the students’ thinking and clarifies/verifies as appropriate.

#### When to Use:
- Review activity before or after an assessment
- Bell ringer or warm-up activity

#### Materials:
- Assessment items that students have difficulty answering
- Optional: BRAIN IN THE GAME handout

### Bubble When You Struggle

**PURPOSE – Learning from Mistakes:** Access content by knowing how to start answering complex assessment questions.

1. The teacher develops 3-4 key questions students may ask themselves when they are stumped on an assessment item to help them move from “frozen” to “starting” the problem.
2. When students answer these 3-4 questions, they draw a bubble beside the item and list the answers to those 3-4 key questions the teacher provided.

Possible BUBBLE WHEN YOU STRUGGLE ideas for content areas:

#### Social Studies - PEGS

- **P** = Political ideas?
- **E** = Economic issues?
- **G** = Geographic concepts?
- **S** = Social issues?

#### Science – SWAT!

- **S** = Stimulus/visuals?
- **W** = Words?
- **A** = Asking me to...?
- **T** = Type of Science?

#### Math – SWAT!

- **S** = Stimulus/visuals?
- **W** = Words?
- **A** = Asking me to...?
- **T** = Type of Math?

#### Reading – Focus on Comprehension

- **R** = Read the question
- **E** = What are key elements in the question?
- **A** = How can you apply the key elements to the text?
- **G** = What is the general idea of the text?
- **L** = Locate the answer in the text
- **P** = Prove your answer

#### When to Use:
- Item practice strategy
- Bell ringer or warm-up activity
- Test review activity (use for the most complex items)

#### Materials:
- Complex/difficult assessment items the majority of students struggle to answer

---

### Think it Up

- **Compare** the stimuli in these questions to other questions you have practiced in the past.
- **Make connections** between important terms in these questions.
- **Draw a conclusion** as to if there might be more than one way to begin answering these questions.
### Instructional Strategy

**Careless-Clueless**

#### PURPOSE – Learning from Mistakes:
Analyze a graded assessment to determine careless error patterns and items you did not know how to start.

1. Students evaluate a graded assessment by coding each incorrect item as one of the following:
   - CARELESS mistake (knew it and blew it!)
   - CLUELESS mistake (didn’t reach me; need to teach me!)
   NOTE: students who missed 3 or less questions should select the 3 most difficult questions from the test and explain why they were so complex.
2. Students choose one CARELESS item or one CLUELESS item.
3. Using a cooperative strategy such as CHOOSE AND CHAT, students share their analysis and try to help each other correct mistakes.
4. Play 3 rounds with 3 different partners and 3 different assessment questions.
5. Students vote for the most complex item they would like the teacher to go over and review with the class.
6. Using an engaging item review strategy such as IQ SLAP DOWN, the teacher reviews the 3-4 most complex items the majority of students requested.

#### When to Use:
- Review activity after a test

#### Materials:
- Graded test

---

### Get to the Point

#### PURPOSE – Learning from Mistakes:
Evaluate assessment items, select the three most difficult questions, determine errors to avoid, words to remember, and how to start in the future.

1. Return a graded assessment to students.
2. Post a blank copy of the various pages of the test on separate walls around the classroom.
3. Provide students with three dot-style stickers, and instruct them to write their name on their stickers.
4. Students evaluate their graded test and select three questions they perceive were most difficult and would like the teacher to deconstruct/explain. They may select items based on:
   - Difficult items they got incorrect
   - Difficult items they got correct by guessing
   - Difficult items they got correct but still lack confidence in
5. Taking turns as groups, students walk to the blank test pages on the walls and place their three dots on the three questions they want the teacher to deconstruct.
6. The teacher notes which 3-5 questions the majority of students asked to deconstruct.
7. Implementing an engaging Learning from Mistakes strategy such as IQ SLAP DOWN or MAKE THE CASE, the teacher deconstructs and thoroughly reviews the items.
8. After each item reviewed and deconstructed with the teacher, students get a thinking partner to articulating the following:
   - I can conclude that the error(s) I need to avoid is/are _____ because _____.
   - I can infer the important words I need to know are ______ because ______.
   - I predict I will do better on a question about this in the future if I start by ______.
   NOTE: Items that only a few students indicated were difficult may become content for small group intervention.

#### When to Use:
- Review activity after an assessment
- Bell ringer or warm-up activity (once the questions for deconstruction have been determined)

#### Materials:
- Graded test
- Blank test pages posted on the walls around the classroom
- Dot-style stickers, such as garage sale stickers

---

### Think it Up

- **Evaluate** incorrect answers to determine where you made careless errors.
- **What learning strategy can you apply** to avoid these careless errors in the future?
- **What plan could you develop** that would help you start answering a question where you feel clueless?
## Investigating the Question (IQ) Slap Down Game

**PURPOSE – Learning from Mistakes:** Analyze or practice test items by determining the worst answer, the distracter, and the correct answer.

1. Organize students into groups of three or four.
2. Have each student create a set of “A-B-C-D” cards using index cards or notebook paper.
3. Provide students with a specific assessment question.
4. Round 1: At the teacher's signal, students slap down the answer choice that represents the **worst answer** and then justify their response.
5. Round 2: At the teacher's signal, students slap down the answer choice that represents the **distracter** (answer that is close to being correct, but not the best answer) and then justify why many students may have mistakenly chosen that answer.
6. Round 3: At the teacher’s signal, students slap down the answer that represents the **correct answer** and then justify why this is the appropriate response.

**NOTE:** It is critical that students justify their responses and articulate the potential thinking mistakes students may make.

**When to Use:**
- Review activity before or after a test
- Layered with GET TO THE POINT strategy

**Materials:**
- Graded test
- Notebook paper or index cards for students to create “A-B-C-D” cards

**Think it Up**
- What learning strategies (new or your best ones) will you apply more often now?
- Make connections to the most common kinds of mistakes you saw.

## Make the Case

**PURPOSE – Learning from Mistakes:** Defend or prosecute answer choices as incorrect or correct.

1. Students practice one assessment item, targeted toward a standard that students find difficult according to the data.
2. Organize students into four groups using a FOUR CORNERS activity. Corner designations may be various types of candy, soft drinks, vacation destinations, sports, types of food, etc. For example:
   - Corner 1 – like Coca Cola best
   - Corner 2 – like Sprite best
   - Corner 3 – like Dr. Pepper best
   - Corner 4 – like Gatorade best
3. Corner groups are assigned one answer choice (A, B, C, or D) and collaborate to MAKE THE CASE to either:
   - Defend the answer to the class as “innocent of a crime” by explaining why it is the correct response.
   - Prosecute the answer in front of the class as “guilty of a crime” by explaining why their answer is the incorrect response.
4. The teacher sees and hears the students’ defense or prosecution arguments and clarifies/verifies as appropriate.

**When to Use:**
- Review activity after an assessment
- Layered with GET TO THE POINT strategy

**Materials:**
- Assessment item(s) students found complex

**Think it Up**
- Predict which answer choice most students may have mistakenly chosen and how this error could be avoided.
- Infer which errors were careless mistakes and how to correct them.
### Instructional Strategy

**Pick Three That Stump Me**

**Purpose – Learning from Mistakes:** Identify difficult questions before a test and determine the best strategies to apply to the questions.

1. As students are taking a test or quiz, they identify and circle three items they feel they will have difficulty answering or will "stump them."
2. Rather than answering the questions, students should annotate the following in the margin:
   - Why is the question difficult for you? Possible answers may include:
     - I don’t know the words in this question.
     - I don’t understand what the question is asking.
     - I don’t understand this concept.
     - I don’t remember how to do this process.
     - Too many answers seem correct.
   - What do you know about the question (words, parts of a process, etc.)?
   - What do you think the answer might be?
3. Teachers note patterns/trends regarding which items the majority of students circled as complex and their annotations.
4. Using an engaging item practice strategy such as IQ SLAP DOWN or MAKE THE CASE, the teacher helps students deconstruct and analyze these difficult questions.

**When to Use:**
- During an assessment
- Layered with a test review strategy after an assessment

**Materials:**
- Assessment

---

### Instructional Strategy

**Rock and Roll Item Review**

**Purpose – Learning from Mistakes:** Analyze and practice complex test questions to determine mistakes in content and thinking.

1. Organize students into thinking partners.
2. Provide partner pairs with a die.
3. Present students with several assessment items aligned to a challenging concept or skill.
4. Student pairs take turns rolling the die and analyzing the item based on the task associated with the number rolled:
   1. State the concept or big idea of the item
   2. Identify the stimulus/visual
   3. Communicate your plan for answering the item
   4. Select the worst answer choice (justify)
   5. Determine the distracter or best wrong answer (justify)
   6. Determine the correct answer (justify)
5. Students continue rolling the die until they have completed all the activities.
6. Teacher sees and hears the students’ thinking and clarifies/verifies as appropriate.

**When to Use:**
- Engaging item practice strategy
- Deconstruct/analyze difficult questions after a test

**Materials:**
- Assessment question(s)
- Dice
- Optional: ROCK AND ROLL ITEM REVIEW handout
**Purpose – Learning from Mistakes:** Make connections between assessment items and major concepts.

1. Organize students into pairs or triads and provide each group with a die.
2. Present each group with assessment items targeting six major concepts or topics you recently taught or want to review.
   NOTE: The number of items may vary based upon teacher’s preference and the age of the students.
   HINT: Knowledge and Skills statements offer an excellent source for the major concepts.
3. Students cut the items apart into assessment cards that are placed face-up on their table.
4. Assign the six major concepts or topics a number (1-6) on the die and provide each group with a key showing which number represents which topic/concept.
5. Taking turns, students roll the die; the number rolled corresponds with the assigned concept/topic.
6. The student who rolled completes the following tasks:
   - analyze the assessment items that are face-up on the table
   - compare/contrast to find those that match that concept/topic rolled
   - justify his/her reasoning for selecting those items
   - pick those assessment items up and place them into his/her stack
7. The next student rolls until he or she gets a new number and selects the items that correspond to his or her concept/topic.
8. Continue until all students have rolled and selected items that match the concept they rolled.
   NOTE: Student may “steal” assessment items from another player’s stack if they can justify a connection to both the original concept and the new concept.
9. Teacher sees and hears the students’ thinking and clarifies/verifies as appropriate.

**When to Use:**
- Engaging item practice strategy
- Review activity

**Materials:**
- Dice
- Key reflecting the six topics/concepts and the four tasks each student should complete
- Optional: ROLL WITH IT handout

**Think it Up**
- Sequence/rank the six concepts from those you understand best to those you need to review.
- Develop a plan for better understanding those difficult concepts.
### Show Me What You Know

**PURPOSE – Learning from Mistakes:** Analyze, interpret, and practice assessment items.

1. Organize students into thinking partners.
2. Provide each pair with a test with various assessment questions.
3. Thinking partners cut the assessment items apart.
4. Thinking partners then classify/categorize the items into two categories:
   - Item looks the same as the way my teacher taught it
   - Item looks different from the way my teacher taught it
5. Students justify their classification by explaining how the question looks different from the way the teacher taught it (different stimulus, terms, wording, the way the answer choices are phrased, etc.).
6. Students then answer the items and classify the items a second time:
   - Which ones did I get right?
   - Which ones did I miss?
   - Why might that be?
7. Teacher notes the students’ errors in content and thinking and clarifies/verifies as appropriate.

**When to Use:**
- Engaging item practice strategy
- Review activity

**Materials:**
- Assessment
- Scissors

### Swipe It

**PURPOSE – Learning from Mistakes:** Analyze and make inferences about assessment items.

1. Organize students into groups of three or four.
2. Students elect a "leader" and the other members are "guessers." (Leader role may rotate after each round so that all students are "guessers" and all students are "leaders.")
3. Each group will have 2 sets of cards that have the exact same assessment items: 1 set is for the leader and 1 set is for the guessers.
4. Leader role:
   - Place the set of cards face down like a deck of cards.
   - Pick the top card without showing it to the group members.
   - Analyze the "secret" test item and provide clues to the group about this item (type of stimulus, topic, past learning activities, key vocabulary terms, etc.).
5. Guessers’ role:
   - As the leader gives clues, group members look at the items that are face up on the table and make inferences to find a match based on the Leader’s hints.
   - If a student thinks he has found a match, he swipes the card off the table and justifies why the item is a match.
6. The team leader will verify if the guesser made a correct match by saying, “Good Match!” or “Bad Match!” If no match was made, the group continues to make guesses.
7. After a match is made, the leader role switches to a new person, and the game continues.
8. To model the activity, the teacher should give the first set of clues for all students in the groups to SWIPE IT as a practice round.
9. Teacher sees and hears the students’ thinking and clarifies/verifies as appropriate.

**When to Use:**
- Engaging item practice strategy
- Review activity

**Materials:**
- Assessment item cards (2 sets per group)
### Instructional Strategy: Toss a Question

**Purpose:** Learning from Mistakes: Collaboratively practice and analyze various assessment items, focusing on stimuli, terms, errors, patterns, and distractors.

1. Organize students into groups of three or four.
2. Give each group a unique marker color.
3. Provide each group with a different assessment item taped or glued to a large chart paper.
4. Teacher instructs groups where to toss their questions, at the appropriate signal.
5. Student groups collaborate and help each other apply what they have learned to analyze only one part of the question each round:
   - **Round 1:** Analyze the stimulus (then toss)
   - **Round 2:** Identify and describe 3-5 key terms from the question (then toss)
   - **Round 3:** Predict the big idea of the question (then toss)
   - **Round 4:** Determine the correct answer and justify why (then toss)
   - **Round 5:** Determine the worst answer and justify why (then toss)
   - **Round 6:** Determine the incorrect answer students may have chosen and why they may have chosen it – careless error or mixed stuff up (then toss)
6. At the teacher’s signal, groups wad up their entire chart paper question and “toss” it to the next designated group at the end of each round.
7. Groups analyze, collaborate, and complete the next task over their new question.
8. At the end of round 6, groups review their original question to determine any errors they find in the other groups’ responses.
9. Teacher provides the correct responses, encourages discussion about other possible answers, and clarifies misconceptions as appropriate.

**When to Use:**
- Engaging item practice strategy
- Review activity

**Materials:**
- A different assessment question taped to chart paper for each group
- Unique marker color for each group

### Instructional Implications

### Think it Up

- Evaluate which question was the most difficult to analyze and explain why.
- Predict how many different stimuli could be associated with your question’s topic.

---

### Instructional Strategy: What Went Wrong?

**Purpose:** Learning from Mistakes: Create student ownership in learning from mistakes by analyzing incorrectly answered test questions.

1. Students analyze a graded assessment focusing on the questions missed.
2. Students determine WHAT WENT WRONG? by identifying the mistake made:
   - Guessing
   - Careless
   - Stopped too soon
   - Mixed things up
3. Students use the Learning from Mistakes handout to help them in their analysis.
4. Using a movement and discourse strategy such as CHOOSE AND CHAT or MUSICAL MIX-FREEZE-GROUP, students share their analysis with a thinking partner.
5. Thinking partners try to help each other correct their mistakes.
6. Teacher sees and hears the student’s thinking and clarifies/verifies as appropriate.

**When to Use:**
- Engaging item practice strategy
- Review activity

**Materials:**
- Graded assessment
- Learning from Mistakes handout

### Think it Up

- Make inferences about how to correct your mistakes and how you will avoid them next time.
- What learning strategies will you apply to better understand this content?
### Evidence of Learning Strategies

<table>
<thead>
<tr>
<th>Instructional Strategy</th>
<th>Instructional Implications</th>
<th>Think it Up</th>
</tr>
</thead>
</table>
| **3-2-1 Summary** | **PURPOSE – Evidence of Learning:** Summarize learning and then think more deeply about the content.  
1. Students write 3 things they learned.  
2. Students write 2 examples, applications, or inferences about what they learned.  
3. Students write 1 question or draw 1 conclusion about what they learned.  
4. Teacher evaluates students’ responses and clarifies/verifies as appropriate. | - Share your summary with another student and add one new idea to any section.  
- Have groups select an inference from their group to share out loud. Compare inferences. |
| **Consensogram** | **PURPOSE – Evidence of Learning:** Evaluate understanding before instruction and after instruction to determine progress, growth, and areas for review.  
1. Develop an essential question aligned to the big idea in a unit of study.  
2. Develop 3-4 degrees of response that reflects students’ understanding such as:  
   - I don’t know this yet.  
   - I know parts of this but not everything.  
   - I know this really well, but I could not teach it.  
   - I know this so well I could teach someone else about this.  
3. Create a poster with the degrees of response in separate table cells.  
4. Provide each student with the same color dot-style sticker.  
5. Students place this first dot in the cell representing their initial response before instruction.  
6. At the end of the unit, provide students with a different color dot-style sticker.  
7. Students place this second dot in the cell representing their response after instruction takes place.  
8. Teacher notes patterns and trends of students’ perceptions and adjusts instruction accordingly.  
NOTE: Do not ask students to write their name on the stickers so that their privacy is protected and honest answers will be generated. | - Evaluate your understanding of the content.  
- How did you analyze the specific areas that were easy to understand; which were the most difficult to understand?  
- What learning plan will you create/develop for the words, skills, processes, etc. that you do not yet understand at the end of the unit? |

**When to Use:**  
- Pre-test/post-test  
- Activity to spark specific areas for review, reteach, or loopback  
- Evidence of learning  

**Materials:**  
- Poster with the essential question and the response degrees  
- Two different-colored dot-style stickers, such as garage sale stickers (one of each color for each student)
### Exit Ticket

**PURPOSE – Evidence of Learning:** Provide evidence of learning by applying a skill, answering a question, or summarizing content.

1. Students are given a term to describe or illustrate, a question to answer, an assessment item to solve, or summary task to complete as an EXIT TICKET to get out the door at the end of the class period.
2. Students analyze the task and apply what they learned during the lesson to provide evidence of their understanding.
3. EXIT TICKET may include a written answer or sketch/graphic representation, as appropriate.
4. Teacher notes EXIT TICKET responses, patterns, and trends, and adjusts instruction accordingly.

**When to Use:**
- Closure activity
- Evidence of learning

**Materials:**
- EXIT TICKET prompt or question

### Graffiti + 3-Way Thinking

**PURPOSE – Evidence of Learning:** Develop a graphic representation (graffiti) summarizing learning and extending thinking.

1. Students draw a one-minute “graffiti” representing the major concept taught during the lesson, unit, or instructional time period (illustration, sketch, puffy letters, etc.) that summarize the big idea of the learning.
2. Students then add three sentences to think three ways about the content:
   - Make one inference
   - Draw one conclusion
   - Make one prediction
   
   **NOTE:** Some students may need the lead4ward sentence stems to help them develop their 3-WAY THINKING sentences.
3. Students participate in two rounds of MUSICAL MIX-FREEZE-GROUP to share their GRAFFITI AND 3-WAY THINKING with two different peers.
4. Teacher sees and hears students’ thinking and clarifies/verifies as appropriate.

**When to Use:**
- Closure activity
- Evidence of learning

**Materials:**
- Optional: GRAFFITI + 3-WAY THINKING handout (students may complete on notebook paper)

### Graphic Representations or Organizers

**PURPOSE – Evidence of Learning:** Organize information into a graphic representation to provide evidence of learning, connections between ideas, and reflect specific thinking.

1. Students brainstorm ideas or identify specific content information, then organize and represent their thoughts/connections in a graphic representation.
2. Select the GRAPHIC ORGANIZER based upon the type of thinking students are required to do.
3. Teacher evaluates students’ responses and adjusts instruction accordingly.

**When to Use:**
- Extend and deepen understanding and thinking
- Rehearsal/practice
- Evidence of learning

**Materials:**
- GRAPHIC ORGANIZER for students to complete, or students may create the organizer on notebook paper following a projected visual

---

© lead4ward
### Instructional Strategy: Hot and Cold

**PURPOSE – **Evidence of Learning: Read an assigned text (any subject area), rate understanding, and collaborate to better understand text.

1. Assign students a thinking partner.
2. Give students a reading assignment, divided into sections, paragraphs, or pages.
3. Students individually read the first section and rate their understanding verbally and in writing as HOT, WARM, or COLD:
   - 10 = HOT (I understood all of what I read.)
   - 5 = WARM (I understood parts of what I read.)
   - 0 = COLD (I did not understand any of what I read.)
4. Students share their rating with their thinking partner and help each other summarize the content verbally to better understand it. Students may change their rating after discourse with their thinking partner.
5. Students continue reading the next section, rating their understanding and summarizing with their thinking partners.
6. Teacher evaluates all of the students’ ratings for each section at the end of the reading assignment, clarifies the sections the majority of students rated as COLD/WARM, and verifies understanding for the sections rated as HOT.

**When to Use:**
- Reading comprehension strategy
- Rehearsal/practice
- Evidence of learning

**Materials:**
- Reading passage divided into sections

### Instructional Strategy: KWL Chart

**PURPOSE – **Evidence of Learning: Engage students by activating prior knowledge, developing student-generated questions, and summarizing what was learned.

1. Assign students a thinking partner.
2. Teacher presents students with a concept associated with an upcoming unit of instruction in an intriguing, interesting manner. Examples include: presenting a few visuals or video clip, telling a quick story, framing the concept as a riddle, or using other ideas that would interest students.
3. Students complete the KWL Chart and share with their thinking partner:
   - KNOW: Students activate prior knowledge by writing what they know about the concept and then share what they know with their thinking partner.
   - WANT TO KNOW: Students then write what they want to know about the concept and share their ideas with their thinking partner, adding ideas after their discussion.
   - LEARNED: At the end of the instruction, students write what they learned, including new words, processes, visuals, etc. and share what they learned with their thinking partner.
4. Teacher sees and hears students’ thinking, adjusts instruction accordingly, and clarifies/verifies misconceptions after each step of the KWL process.

**When to Use:**
- Evidence of learning
- Pre-instruction and post-instruction activity

**Materials:**
- Optional: KWL CHART (students may simply create the KWL CHART on notebook paper)

### Think it Up

- Make a generalization about all the text sections to determine what they were generally all about.
- Even though the text doesn’t explicitly say it, what inferences can you make about what it means?
### lead4ward Anchor Charts

**PURPOSE – Evidence of Learning:** Access content, infuse rigor, and transfer learning by making connections between words, visuals, experiences, and evidence of learning.

1. Determine the topic or big idea for a unit of instruction.
2. As the unit progresses, the teacher and students co-create a comprehensive ANCHOR CHART that includes the following:
   - **Words:** Help students access content by teaching significant words associated with this concept or big idea.
   - **Visuals:** Help students transfer learning by infusing a variety of visuals, stimuli, resources, texts, pictures, charts, graphs, videos, etc.
   - **Engaging Experiences:** Help students access, transfer, and infuse rigor by implementing engaging, memorable learning experiences.
   - **Evidence:** Help students demonstrate rigor by providing many opportunities to prove they know the content (GRAPHIC ORGANIZERS, 3-2-1 SUMMARIES, EXIT TICKETS, etc., as well as tests and quizzes).
3. Students may transfer the ideas from the class ANCHOR CHART into their Interactive Notebooks or journals throughout the unit. At the end of each instructional unit, each student will then have a replica of the ANCHOR CHART as a “visual scrapbook of learning” at their fingertips.
4. Students loop back to the ANCHOR CHARTS throughout the year to access and connect learning.

### When to Use:
- Quick check during lesson
- Exit ticket/closure activity
- Review activity at the end of the lesson and unit
- Vocabulary activity

### Materials:
**Class ANCHOR CHART:**
- Chart paper
- Markers
- Tape
- Scissors
- Visuals, examples, student work (to add to the ANCHOR CHART)

**Individual Student ANCHOR CHART:**
- Optional: ANCHOR CHART handout
- Journal or interactive notebook
- Tape
- Scissors
### Learning Lap

**Purpose – Evidence of Learning:** Review learning by making connections between words, visuals, engaging experiences, and evidence of learning.

1. Going around the entire lead4ward ANCHOR CHART, students review words, visuals, engaging experiences, and evidence of learning from the completed unit of instruction.

2. Vocabulary LEARNING LAP example:
   - Students select an important term/concept from the ANCHOR CHART.
   - Students then review the term by completing a LEARNING LAP around the ANCHOR CHART and answering the following questions:
     - What does the term mean and what relationship does the selected term have with other terms/words?
     - What various stimuli/visuals were used to represent/teach the term?
     - What engaging experiences were used to better understand the term?
     - What evidence of learning proves students know the concept?

3. Stimuli LEARNING LAP example:
   - Students select a specific stimulus/visual on the ANCHOR CHART (example: a table).
   - Students then review the stimuli by completing a LEARNING LAP around the ANCHOR CHART and answering the following questions:
     - What relationship does the selected stimuli have with important words/terms on the ANCHOR CHART?
     - What other stimuli/visual were used to represent similar content?
     - What engaging experiences were used to better understand the content in this stimuli/visual?
     - What evidence of learning proves students know the concept associated with this stimuli/visual?

4. What evidence of learning proves students understand how to analyze and interpret this stimulus and its content?

5. Teacher sees and hears the students' thinking and clarifies/verifies as appropriate.

**When to Use:**
- Evidence of learning
- Review activity

**Materials:**
- lead4ward ANCHOR CHART

### One Minute Paper

**Purpose – Evidence of Learning:** Summarize learning through a quick writing activity.

1. Teacher informs students to “brain dump” all the ideas, concepts, skills, processes, etc., they have learned by writing for one minute.

2. Students pair up and share what they wrote, adding ideas and deepening understanding.

3. Students then draw one conclusion about the content they learned.

4. Teacher sees and hears students’ thinking and clarifies/verifies as appropriate.

**When to Use:**
- Evidence of learning
- Quick check during instruction
- Review activity
- EXIT TICKET/closure activity

**Materials:**
None

### Think it Up

- Make connections between words, visuals, engaging experiences, and evidence.
- Evaluate the ideas on the ANCHOR CHART and select an idea that is still unclear to you. Develop a plan to know this content better.
- Draw a conclusion about the purpose of the learning. Why does it matter that you know this information?
- What learning strategies were used that caused you understand the content the best?
### Ping Pong Summary

**PURPOSE – Evidence of Learning:** Take turns summarizing or “teaching back” what was just taught and learned.

1. Divide students into pairs.
2. Student partners decide who is PING and who is PONG.
3. PING summarizes/teaches the content just learned.
4. PONG adds to, clarifies, and extends the content just shared.
5. Reverse the roles in the next summary.
6. Teacher sees and hears students’ thinking and clarifies/verifies as appropriate.

**When to Use:**
- Evidence of learning
- Quick check during instruction
- Review activity
- Closure activity

**Materials:**
- None

---

### Plus-Check-Minus

**PURPOSE – Evidence of Learning:** Evaluate understanding using a symbol.

1. Students create three cards: one with a plus sign, one with a checkmark, and one with a minus sign.
2. Teacher asks students to think about their understanding of what was just taught.
3. Students slap down their sign representing their understanding of the concept(s):
   - PLUS = “I totally understand and could teach someone else what this means!”
   - CHECK = “I get it, but may need some more practice.”
   - MINUS = “I’m not sure I understand this yet.”
4. Students turn and talk to each other to explain or ask questions about the concept.
5. Teacher sees and hears students’ thinking and clarifies/verifies as appropriate.

**When to Use:**
- Evidence of learning
- Quick check during instruction
- Review activity
- Closure activity

**Materials:**
- PLUS-CHECK-MINUS cards (students may create on notebook paper, index cards, or sticky notes)

---

### Think it Up

- What can you infer were the most important parts of the learning?
- How can you prove you can apply this new learning in many different situations?
### RERUN Chart

**PURPOSE – Evidence of Learning:** Review an important learning experience by recalling, explaining, evaluating results, articulating experiences, and making inferences about the new things learned.

1. Assign students a thinking partner.
2. Students independently review what they learned through a RERUN activity.  
   - **R** = Recall and summarize an important activity, strategy, experience, lab, media event, or memorable moment from the unit of instruction.
   - **E** = Draw conclusions by explaining the significance of the activity, strategy, or experience.
   - **R** = Evaluate the cause/effect of the activity, experience, strategy, lab, etc. by explaining the results.
   - **U** = Create/develop any uncertainties or questions about the content from the activity, experience, strategy, lab, etc.
   - **N** = Make inferences about the new things learned from the activity, strategy, lab, etc.
3. Students share their RERUN CHART with their thinking partner, adding ideas generated by the dialog.
4. Teacher sees and hears students’ thinking and clarifies/verifies as appropriate.

**When to Use:**
- Evidence of learning
- Review activity

**Materials:**
- Optional: RERUN CHART handout

### Rule of Three

**PURPOSE – Evidence of Learning:** Students demonstrate understanding by proving they know the content in multiple ways.

1. Instead of praising students’ correct answers, praise students’ effort and perseverance, following the RULE OF THREE:
   - **Rule 1:** Praise students who can formulate and justify 3 possible answers.
   - **Rule 2:** Praise students who can explain 3 ways to get to the correct response.
   - **Rule 3:** Praise students who can construct the correct answer in 3 different ways (words, numbers, chart, graph, sketch, graphic representation, diagram, etc.).
2. Teacher evaluates students’ responses and clarifies/verifies as appropriate.

**When to Use:**
- Evidence of learning
- Quick check during instruction

**Materials:**
- None
### What’s On Our Plate

**Brainstorming**

**PURPOSE – Evidence of Learning:** Brainstorm all the concepts, words, processes, and skills taught in a unit of instruction, and then evaluate strengths and weaknesses.

1. At the end of an instructional unit, provide each student with a paper plate.
2. Ask students, “WHAT WAS ON OUR PLATE to learn during this unit?” Students then brainstorm everything they learned (or were supposed to learn) in this unit including major concepts, skills, vocabulary terms, visuals, processes, etc.
3. **Rock Star Ideas:** Ask students to evaluate their understanding of these ideas by drawing a star beside the 2-3 ideas they believe they understand the best – in essence, they are a Rock Star at that concept, skill, or term.
4. **Loopback Ideas:** Ask students to circle 2-3 ideas they are still confused about or need to “loop back” in order to deepen their understanding.
5. Students then participate in three rounds of MUSICAL MIX-FREEZE-GROUP:
   - Round 1 – Partner #1:
     - Partners communicate brainstormed ideas.
     - Students add new ideas to their plates.
   - Round 2 – Partner #2:
     - Partners summarize the Rock Star ideas they circled.
   - Round 3 – Partner #3:
     - Partners explain the loopback ideas they circled.
     - Partners help each other understand those concepts better.
     - If a student better understands a circled idea after the partner explains it, the student may cross out that circled item.
6. Students return to their seats and summarize their learning on the back of the plate:
   - What is your #1 Rock Star idea – what do you know the best?
   - What is your #1 Loopback idea – what do you need to review?
   - What is your plan to learn this loopback better (re-do an assignment, draw sketches of vocabulary terms, reread the passage, get help from a peer, come to tutorials for that skill, etc.)?
7. Teachers collect the paper plates and analyze student needs:
   - Any concept, skill, or term the majority of the students circled becomes a whole class reteach/review item through bell ringers, warm ups, and loopbacks.
   - Any concept, skill, or term only a few students circle becomes an intervention item for that student.

**When to Use:**
- Evidence of learning
- Review activity

**Materials:**
- Paper plates

### References

- Frayer, Dorothy. *Frayer Model for Understanding of New Words.* Available at [www.wvde.state.wv.us/strategybank/FrayerModel.html](http://www.wvde.state.wv.us/strategybank/FrayerModel.html).