Culturally & Linguistically Responsive Arts Teaching and Learning in Action
Strategies that Increase Student Engagement and Achievement
STRATEGY: Big Words for Big Minds
This strategy is part of a larger publication entitled *Culturally and Linguistically Responsive Arts Teaching and Learning in Action: Strategies that Increase Student Engagement and Achievement.*

This publication is the result of a yearlong process undertaken by the CCSESA Arts Initiative and the CISC Regional Arts Leads who serve on the Curriculum and Instruction Steering Committee/Visual and Performing Arts Subcommittee. CCSESA’s Creativity at the Core Initiative recognizes the transformative power of the arts in the lives of our students as they develop critical thinking skills and capacities that ensure success in our complex, multifaceted, globalized world. To download the entire publication, go to downloads in this module.
How To Use This Document

“I believe it is impossible to make sense of life in this world except through art.”

- Daniel Pinkwater
How to Use This Document

AUDIENCE
This handbook is designed with two primary users in mind.

Administrators/Other Leaders
Administrators and other arts and educational leaders can use this handbook to help them in designing professional development services, especially as those are focused on expanding teacher’s repertoire of culturally and linguistically responsive, interactive instructional strategies. Not only will the information in this handbook provide administrators and teacher leaders with a concise overview of key aspects of culturally and linguistically responsive pedagogy, but it will also provide an approach or template for thinking about how to select specific instructional strategies that translate that culturally and linguistically responsive pedagogy into classroom practice. By providing arts-specific examples of these strategies in action, teachers will be able to identify those that are most appropriate for their own settings. What’s more, the strategies and examples are likely to prompt leaders to recall other strategies already in their repertoires that they can revive, and to create new strategies of their own design.

Classroom Teachers/Teaching Artists/Arts Specialists
Classroom teachers, teaching artists, and arts specialists can use this handbook to help them design learning experiences for their students. The organization of each instructional strategy allows for teachers to understand the objectives and processes, and to adapt them to their own settings and students by customizing the content of the activities. As teachers make decisions about which strategies to incorporate into their learning plans, they will be able to construct sophisticated learning sequences designed to engage students actively in the learning, to build new learning opportunities that take full advantage of students’ languages, cultures, and prior experiences/knowledge, and to invite students into reflection and metacognitive activities that can spiral their learning to new levels.

STRATEGY TEMPLATE (See Figure 1)
Each strategy featured in this handbook is organized according to a format that includes the following:

Introductory Information
- Strategy Name
- Strategy Source
- Targeted Objectives
- Applicable Grade(s)
- Time Required
- Materials Required
- Grouping Recommendations

VAPA Connection
- Rationale for Use of the CLRP Strategy in VAPA Classroom Settings

Implementation Process
- Steps for Using the Strategy with Students
- Synthesis, Reflection/Debriefing Suggestions
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STRATEGIES IN ACTION
(See Figure 2)
This handbook also provides examples of each strategy as it might be used in one of the arts disciplines (dance, music, theatre arts, visual arts, media arts, or integrated arts). These examples are organized according to a consistent format. This format includes:

Introductory Information
- Strategy Name
- VAPA Discipline Targeted
- Creativity at the Core Module Alignment
- Applicable Grade(s)
- Time Required
- Materials Required
- Grouping Recommendations
- Required Student Prior Preparation

Planning Information
- Theme/Big Idea
- Performance-Based Assessment
- Teacher Resources
- Learning about the Students

Implementation Process
- Assessing & Building Background Knowledge
- Engaging in the Activity
- Synthesis, Reflection, & Debriefing
- Applying Learning in New Contexts

Pedagogical Principles & Specific CLRP Practices
- Targeted Principles and Practices & How Addressed
  - Language & Culture
  - Learning Community
  - Student Agency, Voice, and Mindset
  - Stretching & Bridging

USING THE STRATEGIES
Teachers can make the best use of these strategies by thinking of them as instructional planning resources. Once a teacher has identified the big rational (the actual work to be accomplished) and experiential (the experience we want students to have as they work) outcomes, s/he can review the available strategies and determine which is most likely to address those outcomes. The teacher can then select from that subset of strategies the one that is the best fit for the target students (age, grade, language proficiency, background knowledge) and the content.

Educators can either select a particular strategy to use as part of a larger learning sequence, or they can create an extended learning sequence (unit of study, for example), by ordering/sequencing and integrating a series of strategies.

One recommendation we make to educators is that the first time they introduce a strategy to students, they do so with low-demand content so that students don't have to manage both learning the strategy and addressing cognitively demanding content at the same time. Over time, if a teacher recycles a strategy with different content, students will become expert at the strategy and will be able to carry it out more smoothly. In fact, students can become so expert at the strategies that as new students come into the classroom, students themselves can induct new students into how the strategies work. The fact that the strategies are LEARNABLE by students supports the development of autonomous, self-confident, and efficacious learners.

CONNECTION TO THE CREATIVITY AT THE CORE MODULES
Each strategy in action is tied to a particular Creativity at the Core module housed on the CCSESA Arts website at www.ccsesaarts.org. This connection is indicated in the introductory information provided for each strategy in action. A particular strategy can be used in the context of a Creativity at the Core module but also used independently as it’s integrated it into other curricula. As teachers become more familiar with the strategies, not only will they find new ways of using the strategies in their own arts disciplines, but they will also find themselves creating new versions of the “strategy in action”.

In the strategies in action, the arts learning has been integrated in each strategy to create a classroom interaction that will not only provide learning in the arts, but present that learning in a way the enhances students’ confidence and academic mindset.
# FIGURE 1: STRATEGY TEMPLATE

**NAME OF STRATEGY**  
A CLRP STRATEGY

*Brief Introduction to Strategy and Its CLRP Connections*

<table>
<thead>
<tr>
<th>OBJECTIVES</th>
<th>MATERIALS</th>
</tr>
</thead>
<tbody>
<tr>
<td>GRADE(S)</td>
<td>GROUPING</td>
</tr>
<tr>
<td></td>
<td>SOURCE</td>
</tr>
<tr>
<td></td>
<td>TIME NEEDED</td>
</tr>
</tbody>
</table>

**PROCESS**

*Using the Strategy*

*Synthesis, Reflection/Debriefing*
How to Use This Document

**FIGURE 2: ACTIVITY TEMPLATE**

(This is directly tied to a specific STRATEGY, and should explain how to use a particular STRATEGY in an actual classroom with real arts content.)

<table>
<thead>
<tr>
<th>NAME OF STRATEGY</th>
<th>A CLRP STRATEGY CONNECTED TO DANCE</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Brief Introduction to the Arts Activity</strong></td>
<td></td>
</tr>
<tr>
<td>VAPA DISCIPLINE</td>
<td>CONTRIBUTING REGION/ARTS LEAD</td>
</tr>
<tr>
<td>TARGET GRADE(S)</td>
<td>GROUPING</td>
</tr>
<tr>
<td>THEME/BIG IDEA</td>
<td>ARTS DISCIPLINE OBJECTIVE</td>
</tr>
<tr>
<td>LEARNING ABOUT THE STUDENTS</td>
<td>TEACHER RESOURCES</td>
</tr>
<tr>
<td>STUDENT PRIOR PREPARATION OR REQUISITE SKILLS/KNOWLEDGE</td>
<td>PERFORMANCE-BASED ASSESSMENT</td>
</tr>
<tr>
<td>ASSESSING &amp; BUILDING BACKGROUND KNOWLEDGE</td>
<td></td>
</tr>
<tr>
<td>PROCESS</td>
<td></td>
</tr>
<tr>
<td>SYNTHESIS, REFLECTION/DEBRIEFING</td>
<td>APPLYING LEARNING IN NEW CONTEXTS</td>
</tr>
<tr>
<td>PEDAGOGICAL PRINCIPLES AND PRACTICES ADDRESSED BY THE STRATEGY</td>
<td></td>
</tr>
<tr>
<td>---------------------------------------------------------------</td>
<td></td>
</tr>
<tr>
<td><strong>SPECIFIC PEDAGOGICAL PRINCIPLES</strong></td>
<td>HOW ADDRESSED BY STRATEGY?</td>
</tr>
<tr>
<td>These essential pedagogical principles should inform our specific classroom practice. (Adopted by Creativity at the Core from Jackson’s Pedagogy of Confidence)</td>
<td>This strategy addresses and enacts these essential pedagogical principles, which operationalize our values around cultural and linguistic responsiveness.</td>
</tr>
<tr>
<td>Identifying and building on student strengths.</td>
<td></td>
</tr>
<tr>
<td>Establishing powerful relationships that nurture success.</td>
<td></td>
</tr>
<tr>
<td>Eliciting high intellectual performance.</td>
<td></td>
</tr>
<tr>
<td>Engaging students actively in the learning process.</td>
<td></td>
</tr>
<tr>
<td>Creating environments of enrichment rather than remediation.</td>
<td></td>
</tr>
<tr>
<td>Situating learning in the lives of students.</td>
<td></td>
</tr>
<tr>
<td>Addressing the prerequisites for learning.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>SPECIFIC CLR PRACTICES</th>
<th>HOW ADDRESSED BY STRATEGY?</th>
</tr>
</thead>
<tbody>
<tr>
<td>How will this strategy contribute to creating a culturally and linguistically responsive learning environment?</td>
<td>How does this strategy addresses, contributes to, and/or enacts one or more of these features of culturally and linguistically responsive learning environments?</td>
</tr>
<tr>
<td>Asserting the legitimacy of students' languages and dialects and using students' languages, cultures, experiences, and skills to create new successes.</td>
<td></td>
</tr>
<tr>
<td>Building a broad array of language/literacy, crosscultural, and multimedia communication skills.</td>
<td></td>
</tr>
<tr>
<td>Celebrating, respecting, and appreciating our language and cultural diversity.</td>
<td></td>
</tr>
<tr>
<td>Taking advantage of cultural traditions to help students process information more efficiently and effectively.</td>
<td></td>
</tr>
<tr>
<td>Being responsive to the lives of our students and families.</td>
<td></td>
</tr>
</tbody>
</table>
## FIGURE 2: ACTIVITY TEMPLATE (continued)

<table>
<thead>
<tr>
<th>SPECIFIC CLRP PRACTICES</th>
<th>HOW ADDRESSED BY STRATEGY?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Check if addressed in the strategy.</td>
<td>How will this strategy contribute to creating a culturally and linguistically responsive learning environment?</td>
</tr>
<tr>
<td></td>
<td>How does this strategy addresses, contributes to, and/or enacts one or more of these features of culturally and linguistically responsive learning environments?</td>
</tr>
</tbody>
</table>

### LEARNING COMMUNITY
- Developing a sense of community, self-determination, trust, and democracy.
- Providing affirmation, mutual respect, and validation.
- Minimizing social threats, and maximizing opportunities to connect with others in community.
- Creating a safe learning environment and modeling high expectations for learning.
- Promoting assets-based rather than deficit-focused perspectives and behaviors.
- Explicitly addressing the impact of the context in which students of color live and helping them develop counter-narratives to the resulting negative portrayals of them and their families.

### STUDENT AGENCY, VOICE, & MINDSET
- Honoring students' voices and creating environments where student voice permeates the classroom instruction.
- Helping students create a counter-narrative about their identity as learners.
- Providing students with the language to talk about their learning and thinking (metacognition) and to mark/assess their progress.
- Supporting students in using their learning to create new knowledge, art, and understanding.
- Activating students' ability to direct their attention to their own learning.
- Providing a clear process for reflecting and acting on teacher/peer feedback.

### STRETCHING & BRIDGING
- Intentionally connecting new learning to students’ background knowledge and experiences. Helping students bridge from prior knowledge/learning to new learning.
- Challenging students and providing opportunities for them to “stretch,” expanding their potential to do more complex thinking and learning.
**Featured Strategy Description**

**BIG WORDS FOR BIG MINDS**
**A CLRP STRATEGY**

*This strategy allows students to draw from what they know, both in terms of language and experience, to expand their own vocabulary in a meaningful and personal way that models for them an effective strategy that they’ll be able to use in many other learning contexts. It’s most effective when it’s used with the vocabulary that’s connected to something specific students are using, and when students themselves identify the words they need to define.*

<table>
<thead>
<tr>
<th>OBJECTIVES</th>
<th>MATERIALS</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Expand and deepen academic vocabulary knowledge</td>
<td>• Vocabulary Lists</td>
</tr>
<tr>
<td>• Introduce a variety of text resources and reference materials</td>
<td>• Dictionaries and Other Reference/Resource Materials</td>
</tr>
<tr>
<td>• Make a personal connection to new vocabulary</td>
<td></td>
</tr>
<tr>
<td>• Gain academic vocabulary while simultaneously linking it to a new concept</td>
<td></td>
</tr>
<tr>
<td>• Teach words as tools used to understand or express something else, much like the way young children increase their lexicon</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>GRADE(S)</th>
<th>GROUPING</th>
<th>SOURCE</th>
<th>TIME NEEDED</th>
</tr>
</thead>
<tbody>
<tr>
<td>K-Adult</td>
<td>Flexible</td>
<td>James Cummins</td>
<td>40 Minutes</td>
</tr>
</tbody>
</table>

**PROCESS**

**Using the Strategy**

*Students work in pairs as language detectives to extend their academic vocabulary learning. Either they identify the vocabulary words to work with, or the teacher provides them. These could also be key words from their content text or focus.*

- For each word, students identify:
  » Meaning
  » First or Second Language Equivalent
  » Synonyms
  » Antonyms

- Students add these words and the related information as entries in their individual and/or class dictionaries. As students encounter these words in various contexts, they continue to expand on their entries to capture additional aspects or nuances of the words.

- **EXAMPLES**

<table>
<thead>
<tr>
<th>WORD</th>
<th>MEANING</th>
<th>BIG</th>
<th>TEMPO</th>
</tr>
</thead>
<tbody>
<tr>
<td>MEANING</td>
<td>large in dimensions, quantity, number, or amount</td>
<td>music’s speed or pace; beat or rhythm; beats per minute</td>
<td></td>
</tr>
<tr>
<td>SPANISH*</td>
<td>grande</td>
<td>tempo (m)</td>
<td></td>
</tr>
<tr>
<td>SYNONYMS</td>
<td>large, huge</td>
<td>cadence, pace, rhythm, beat, pulse, stroke, measure, bounce, rate, velocity</td>
<td></td>
</tr>
<tr>
<td>ANTONYMS</td>
<td>small</td>
<td>NONE</td>
<td></td>
</tr>
<tr>
<td>EXAMPLES OF</td>
<td>sun, an elephant</td>
<td>andante grazioso, presto, allegro</td>
<td></td>
</tr>
<tr>
<td>FORM</td>
<td>adjective</td>
<td>noun</td>
<td></td>
</tr>
<tr>
<td>USES</td>
<td>LITERAL: I live in a big house. It has five bedrooms. FIGURATIVE: He has a big heart. He is very generous.</td>
<td>LITERAL: The song had an upbeat, jazzy tempo that made me want to dance. METAPHORIC: The tempo of life in a small town is too slow for me.</td>
<td></td>
</tr>
</tbody>
</table>

**Synthesis, Reflection/Debriefing**

- What was the most challenging or rewarding part of this task?
- How did this activity help you remember what you already knew about the vocabulary words? How did this activity help you learn new things about these words?
- How did this task help you (1) build stronger relationships and connections with your partner; (2) develop respect for your partner’s perspectives; (3) take responsibility for your/your partner’s learning; and/or (4) connect to learning that is important/interesting to you?
- How will you be able to use what you did/learned today to help you in future learning tasks?
- What helped you/your team of two succeed at the task? What kept you/your team of two from being as successful as you would have liked?
- Did you feel that you and your partner cooperated and listened well and communicated effectively?
Using the Featured CLRP Strategies with Arts Content

“Creativity is now as important in education as literacy.”

– Sir Ken Robinson
### BIG WORDS FOR BIG MINDS

**A CLRP STRATEGY CONNECTED TO ARTS INTEGRATION**

This vocabulary enrichment strategy allows students to add more elaborated vocabulary to their repertoire and to deepen their understanding of the targeted vocabulary by exploring those words from a variety of perspectives in a way that brings personal meaning to the words.

<table>
<thead>
<tr>
<th>VAPA DISCIPLINE</th>
<th>CONTRIBUTING REGION/ARTS LEAD</th>
<th>SOURCE</th>
<th>MODULE ALIGNMENT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Arts integration</td>
<td>11 – Shannon Wilkins</td>
<td>Shannon Wilkins</td>
<td>11 – Assessing Arts Integration</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>TARGET GRADE(S)</th>
<th>GROUPING</th>
<th>TIME NEEDED</th>
<th>MATERIALS</th>
</tr>
</thead>
<tbody>
<tr>
<td>3rd Grade</td>
<td>This is a whole-class lesson. Students also work in small groups during the PRE-SESSION MATH LESSON, and in pairs during LESSON ONE.</td>
<td><strong>40 minutes needed for PRE-SESSION MATH LESSON</strong></td>
<td><strong>PRE-SESSION MATH LESSON</strong></td>
</tr>
<tr>
<td></td>
<td></td>
<td><strong>90 Minutes needed for LESSON ONE: DISCUSS ART, CREATE DESIGN</strong></td>
<td>• Angle-legs mathematics manipulatives for creating quadrilaterals, and/or examples of different types of quadrilaterals</td>
</tr>
</tbody>
</table>

**MATERIALS**

- PRE-SESSION MATH LESSON
  - Ebony or Charcoal Pencils, (or any soft pencil)
  - Blank Paper or Student Journals
  - Photocopied Template of a 4.5-inch Square on Plain Paper
  - Rulers
  - Colored Pencils
  - Angle-Legs Mathematics Manipulatives (for creating quadrilaterals, and/or examples of different types of quadrilaterals)
  - Examples of Bilateral Symmetry (search online for images displaying bilateral symmetry)

### THEME/BIG IDEA

During this lesson sequence (PRE-LESSON, LESSON ONE, AND LESSON TWO), students learn to create a bilaterally symmetrical design with various types of quadrilaterals and repeatedly print their design to create radial symmetry.

During the PRE-SESSION MATH LESSON, students learn about the attributes of quadrilaterals.

During LESSON ONE: DISCUSS ART, CREATE DESIGN, students learn about bilateral symmetry, create a bilaterally symmetrical design, and describe and classify different types of quadrilaterals in their own and others’ art.

### VISUAL ARTS OBJECTIVE

Draw a bilaterally symmetrical design, and describe and classify different types of quadrilaterals (and/or triangles) in their own and others’ art.

### LEARNING ABOUT THE STUDENTS

Know who your English Learners are so that you can form pairs, trios, and/or small groups that include both English Learners and fluent English speakers.

### TEACHER RESOURCES

- Online images of bilateral symmetry. Google “bilateral symmetry”, “bilateral symmetry in nature”, and “bilateral symmetry in art and design” and look for appropriate, illustrative images.
BIG WORDS FOR BIG MINDS (continued)

A CLRP STRATEGY CONNECTED TO ARTS INTEGRATION

STUDENT PRIOR PREPARATION OR REQUISITE SKILLS/KNOWLEDGE

• Students should be familiar with basic geometric shapes.
• Students must be able to work productively in small groups on an art activity.
• Students must be able to engage in pair, trio, and/or small group discussions with classmates, sharing their ideas and listening respectfully to others.
• With attention to grouping practices by the teacher, students of multiple proficiency levels will successfully learn and engage in this lesson.

PERFORMANCE-BASED ASSESSMENT

Each student creates a bilaterally symmetrical design that utilizes quadrilaterals.

ASSESSING & BUILDING BACKGROUND KNOWLEDGE

NOTE:
These lessons focus on quadrilaterals. However, lessons could be adapted to focus on quadrilaterals and triangles, or only on triangles.

PRE-SESSION MATH LESSON

• As you prepare for the lesson, plan for whole-class instruction, with students working in small groups during the lesson. Assure that English Learners are grouped with students who are more fluent in English.
• As you prepare for the lesson, be sure to review the lesson plan, watch the lesson video, review the Big Words for Big Minds strategy, and prepare materials for the Pre-Session Math Lesson.
• Ask students these two focus questions:
  » What are the attributes of shapes?
  » How does knowing the attributes of different types of quadrilaterals help you tell the difference between them?
• Review the Big Words for Big Minds approach to expand and deepen academic vocabulary knowledge. Look at Procedures listed for this strategy, and be sure that as you discuss vocabulary related to quadrilaterals, you talk about word meaning, first language equivalents, form (grammatical category), use, etc.
• Share examples of quadrilaterals using angle-legs or other manipulatives or graphic representations of these quadrilaterals. Make sure to rotate manipulatives so that students learn to identify them by their attributes as opposed to memorizing how they look in a certain position.
• Introduce or review the key terms for quadrilaterals - rectangle, square, rhombus, and trapezoid – and/or the key terms for triangles - scalene, isosceles, equilateral, and right triangle.
• Discuss the attributes of each shape, and use these terms in context.
• Ask students to identify examples of these shapes in the environment.
• Use the Big Words for Big Minds strategy of building individual and/or class dictionaries. Add the key terms to the dictionary. Include a sketch of each figure.
• In small groups, have students create a circle map focused on quadrilaterals. Have students include shapes that are quadrilaterals inside the circle, and shapes that are not quadrilaterals outside the circle.
• Create a classroom circle map with all groups contributing. If groups have the same (or similar) brainstorms, place a check by that idea/thought on the circle map.
• Use the Big Words for Big Minds Reflection activities to guide students in reflecting on the activity. Ask students questions such as:
  » What was the most challenging or rewarding part of making the circle chart?
  » How did this activity help you remember what you already knew about the topic? How did this activity help you learn new things about the topic? How did this task help you become a better learner?
  » How will you be able to use what you did/learned in this task to help you in future learning tasks?
• Use the Big Words for Big Minds Process Debriefing activities to guide students in reflecting on the activity. Ask students questions such as:
  » Did you feel that people in your group/class cooperated? Listened well? Communicated effectively? Included all learners?

LESSON ONE: DISCUSS ART, CREATE DESIGN

• As you prepare for the lesson, plan for whole class instruction, with students working in pairs during the lesson. Assure that English Learners are paired with students who are more fluent in English.
**BIG WORDS FOR BIG MINDS** *(continued)*

**A CLRP STRATEGY CONNECTED TO ARTS INTEGRATION**

- As you prepare for the lesson, be sure to review the lesson plan, watch the lesson video, and prepare materials for the lesson. Select images of bilateral symmetry that you will share with students. There is one image in the lesson plan, and there are additional images on the video. Other images are readily available online. Consider using some images from nature, and some from art or design.
- Begin the lesson by assessing prior knowledge about quadrilaterals. Ask students what they know about quadrilaterals. Review different kinds of quadrilaterals, rotating the quadrilaterals to assure that students can identify them by their attributes rather than memorizing how they look in a certain position.
- Ask students what they know about symmetry, and draw from that knowledge as you continue the lesson.

**PROCESS**

- Show students the art images from the lesson plan. Ask the following questions as you discuss the images:
  - What do you see?
  - What kind of quadrilaterals do you notice?
  - What do you notice about the size of the quadrilaterals?
  - Why do you think the artist placed the quadrilaterals where he/she did?
  - Where is the positive and negative space?
  - How does your eye move across the page?
  - What patterns do you recognize?
  - Which lines or shapes seem to be moving?
- Introduce the term bilateral symmetry, and show students multiple images of bilateral symmetry. Ask students to identify examples of bilateral symmetry.
- Have students use either a journal page or a blank paper to create a bilaterally symmetrical design. Direct them to do the following:
  - Fold a corner of a page in their journal (or paper) over to create a right triangle and open it up again.
  - Draw shapes in charcoal on the part of the paper that was folded over.
  - Fold paper over and rub so charcoal transfers to the other side of the paper.
- Then, give each student a copy of the page with the 4.5-inch square pattern.
  - Use a ruler to divide the 4.5-inch square in half horizontally or diagonally, creating two equal rectangles. Trace over this line with a colored pencil. This will be the line of symmetry.
  - Draw a quadrilateral on the line of symmetry and an identical one on the other side of the line of symmetry. Repeat for other types of quadrilaterals.
  - Have students continue to fill their square with quadrilaterals, making sure to have at least one of each kind of quadrilateral and to vary the sizes of quadrilaterals. Remind them to make a mark on one side of the line of symmetry and immediately repeat the same mark on the other side, rather than creating a design on one side and replicating it on the other.
  - Fill in the space with as many quadrilaterals as possible, but do not fill the entire page as there needs to be some negative space.
  - Students who finish early can use colored pencils to color code each different kind of quadrilateral.
- Important: Save students’ 4.5-inch square designs; these designs will be used during the printmaking process in the next lesson.

**SYNTHESIS, REFLECTION/DEBRIEFING**

Have students work in pairs.
- Ask students to look at their partner’s work and identify one of each kind of quadrilateral in it.
- Ask students to look at their partner’s work and identify parts of the design that are symmetrical in it.

**APPLYING LEARNING IN NEW CONTEXTS**

- Students will apply learning from today’s pre-session mathematics lesson and lesson in a new context during LESSON TWO: CREATE PRINT, REFLECT.
- Ask students to look for examples of quadrilaterals and bilateral symmetry in their home and environment. Ask them to make a list of examples. Have students bring that list to LESSON TWO: CREATE PRINT, REFLECT.
- Extension Activity: Show students how rotating their designs through the line of symmetry can create movement.
Student Reflection & Debriefing

“\nThe arts are a major area of human cognition, one of the ways in which we know about the world and express our knowledge. Much of what is said in the arts cannot be said in another way.\n”

— Dr. Howard Gardner, Harvard Graduate School of Education
We have a responsibility to help our students develop autonomy as learners. That means helping them to develop the sorts of social, cognitive, linguistic, and metacognitive learning strategies that help them figure out how to be better learners.

By providing students with structures that help them reflect and think metacognitively about their learning, we allow them to make meaning and contextualize and synthesize learning. By thinking about HOW they accomplished a cognitive task, students are learning about learning. They learn how to learn by thinking critically and using information creatively. We can also provide them with questioning/reflection strategies and structures that, used regularly, help students not only learn more about their learning processes, but also begin to organize their learning strategies.

One of the issues for many students is that they may not realize that there ARE strategies they can use to help them be more successful. It’s critical, therefore, that students have plenty of opportunities to debrief their learning experiences. We can do that by engaging students directly in using reflection and debriefing protocols and prompts.

**REFLECTION**
Provide questions for students to reflect on their learning through the strategy/activity.

- What was the most challenging or rewarding part of this task?
- How did this activity help you remember what you already knew about the topic? How did it help you learn new things about the topic? How did this task help you become a better learner?
- How did this task help you (1) build stronger relationships and connections with others; (2) develop respect for others’ perspectives; (3) take responsibility for your/others’ learning; and/or (4) connect to learning that is important/interesting to you?
- How will you be able to use what you did/learned in this task to help you in future learning tasks?

**PROCESS DEBRIEFING**
Identify questions and sentence starters that help students think about their learning and how they accomplished the task.

- Appreciation & Recognition
  - It helped me when . . .
  - I appreciated . . .
  - Thank you for . . .
  - It felt good when . . .

- What helped you/your group/the class succeed at the task? What kept you/your group/the class from being as successful as you would have liked?
- What might you/your group/the class try next time to be more successful in a similar task?
- Did you feel that the people in your class/group
  - Coordinated?
  - Listened well and communicated effectively?
  - Included all members?
  - Facilitated learning/growth for all members?

**REFLECTIVE PRACTICE**
As you consider incorporation of specific strategies into your instructional planning, reflect on this key question. How can this strategy or activity facilitate learners’ growth in the following areas?

- Academic/Cognitive Development?
- Linguistic Development?
- Social/Affective Development?
- Artistic/Creative Development?
- Metacognitive Development?

When your selection and integration of specific interactive strategies facilitates students’ development simultaneously in all of these areas, you dramatically magnify the power of your instructional approach.