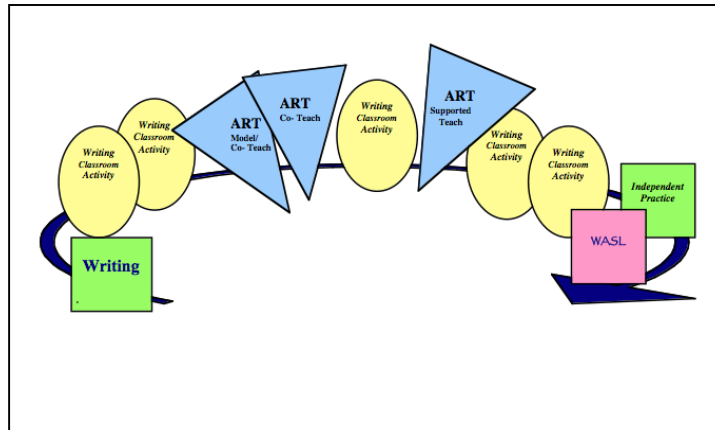




Scope and Sequence for Art-Infused Math Curricula
Mastery Arcs and Practicing for Mastery
A Review of Math Transition Ideas FROM Your Classrooms FOR Your Classrooms



This year *Arts Impact* is providing a **Scope and Sequence** for the complete third, fourth, and fifth grade **Art-Infused Math Curricula**. You will see alignment between Math and Dance and Math and Visual Art, and your classroom ideas for Classroom Activities and ways to traditionally and artistically Practice for Mastery that lead to overall conceptual mastery.

The following classroom guide will not only give you the conceptual focus, but give you a chance to see where each lesson fits into a bigger picture of learning.

Thanks for your great ideas this past spring in our Learning Community Meetings.

Here is a compilation of your ideas for application in 2008-2009 aligned with the Scope and Sequence of the Curricula!

This is a great chance to borrow from other teachers experiences in other classrooms from other schools!

Scope and Sequence for Third Grade Math Arts-Infusion with Dance and Visual Art

THIRD GRADE Art-Infused Concepts	DANCE Lesson Descriptions	VISUAL ART Lesson Descriptions	PRACTICING FOR MASTERY Teacher Ideas from the Classroom
Polygons: square rectangle triangle parallelogram Congruency Symmetry symmetrical shapes	#1 Attributes of Polygons: Stretchy Shapes Creates a sequence of polygons with stretchies (parallelogram, rectangle, square, triangle).	#1 Congruency: Match Shapes in Compositions Identifies, records and organizes polygons in a composition for unity.	In Dance: <ul style="list-style-type: none"> Shape: Perform the Polygon Chant at least once/week; use the stretchies to make geometric shapes; after a discussion about the shapes students made, students pair-up and mirror congruent shapes; perform Geometry Calisthenics from <i>Everyday Math</i>, p.410. In Visual Art: <ul style="list-style-type: none"> Shape: Using shape templates, draw any two congruent shapes; using shape templates and colored pencils, color congruent shapes specific, like colors; using Geoboards and rubber bands, create polygons and congruent shapes; use <i>Everyday Math</i>: Unit 6.
	#2 Congruent Polygons: Copying Stretchy Shapes Makes polygons with stretches that are the same size and shape as a partner’s shape.	#2 Shapes are Everywhere Observes, labels, and draws shapes in common objects from the everyday world.	
	#3 Polygons: Attributes and Congruence—Shape Choreography Choreographs a three part dance with a small group and stretchies (1. polygon shape, 2. locomotor or non-locomotor movement, 3. a different polygon shape).	#3 Polygons in Symmetry: Animal Inventions Links, layers, and compares diverse polygons to create 2-D symmetrical figures.	

Scope and Sequence for Fourth Grade Math Arts-Infusion with Dance and Visual Art

FOURTH GRADE <u>Art-Infused Concepts</u>	DANCE Lesson Descriptions	VISUAL ART Lesson Descriptions	PRACTICING FOR MASTERY Teacher Ideas from the Classroom
<p><u>Polygons</u> square rectangle triangle parallelogram</p> <p><u>Symmetry:</u> lines of symmetry pathways symmetrical shapes</p> <p><u>Congruency</u></p> <p><u>Lines:</u> parallel perpendicular</p> <p><u>Transformations:</u> translations (slides) reflections (flips)</p>	<p>#1 Lines of Symmetry—Mirror Dance Mirrors with a partner using one and two lines of symmetry.</p>	<p>#1 Parallel and Perpendicular Lines Identifies and draws parallel and perpendicular lines from the everyday environment and uses parallel and perpendicular lines in a composition.</p>	<p><u>In Dance:</u></p> <ul style="list-style-type: none"> • <u>General:</u> Use geometric sense workbook pages from other curriculum sources—<i>Silver Bullet</i>; <i>exit slips</i>—ask students to demonstrate a math concept with their bodies before exiting the classroom; since Geometric Sense is in <i>Saxon Math</i> at the end of the school year, introduce the <i>Geometry BrainDance</i> at the beginning of the year for kinesthetic learners; use geometry vocabulary worksheets as a pre-teach to dance lessons; • <u>Shape:</u> Use <i>Everyday Math</i>, Unit 1, <i>Geometry</i>; • <u>Parallel and Perpendicular Lines:</u> Quick Show Me!—line up for the gym making parallel and perpendicular lines; do hand-dances; make parallel and perpendicular lines using body—draw it on paper—label it; • <u>Translations/Reflections:</u> Practice slides/flips on graph paper. <p><u>In Visual Art:</u></p> <ul style="list-style-type: none"> • <u>Shape:</u> Locate geometric shapes in architecture; practice folding papers, cutting symmetrical shapes; use shape templates to make animals or images; • <u>Parallel and Perpendicular Lines:</u> also parallel and perpendicular lines (entrance to buildings); using a ruler, draw a parallel line—a perpendicular line—draw a line that is ___ inches long; use strips of paper, weave a design and have a discussion about parallel and perpendicular lines; observe spider webs, paying attention to parallel and perpendicular lines.
	<p>#2 Parallel and Perpendicular Lines—Symmetrical Pathway Maps Draws and dances a mirror image pathway map with 5 pairs of parallel lines and 8 pairs of perpendicular lines.</p>	<p>#2 Polygons in Symmetry: Architectural Entry Design Draws, labels and describes attributes of polygons, parallel and perpendicular lines, congruence, and reflections in symmetrical components of building entrances.</p>	
	<p>#3 Translations and Reflections: Dancing Slides and Flips Creates a dance using stretchies to show a polygon and two slides then two flips or two flips then two slides.</p>	<p>#3 Transformations: Architectural Elevations Draws, labels and describes attributes of polygons, parallel and perpendicular lines, congruence, reflections and translations in components of building sides.</p>	

Scope and Sequence for Fifth Grade Math Arts-Infusion with Dance and Visual Art

FIFTH GRADE Art-Infused Concepts	DANCE Lesson Descriptions	VISUAL ART Lesson Descriptions	PRACTICING FOR MASTERY Teacher Ideas from the Classroom
<p><u>Polygons:</u> square rectangle triangle parallelogram rhombus</p> <p><u>Angles:</u> right acute obtuse</p> <p><u>Lines:</u> parallel perpendicular vertical (VA) horizontal (VA) oblique (VA)</p> <p><u>Transformations:</u> translations (slides) reflections (flips) rotations</p> <p><u>Symmetry:</u> line of symmetry</p>	<p>#1 Parallel and Perpendicular Lines and Lines of Symmetry: Rhombus Shadowing In a rhombus formation with one leader and three shadows, dances with symmetry, parallel lines, then perpendicular lines.</p>	<p>#1 Reflections: Balancing Line, Shape and Color Labels and combines lines to make a variety of congruent angles and geometric shapes/2-D figures.</p>	<p><u>In Dance:</u> <u>Parallel and Perpendicular Lines:</u> <i>Saxon Math</i>: pgs. 151A and 223A; before students leave the classroom...use body to make parallel lines;</p> <ul style="list-style-type: none"> • <u>Shape</u>: two students create shapes w/stretchies and the class responds; • <u>Symmetry</u>: <i>Saxon Math</i>: Lesson 105 • <u>Angles</u>: students perform hand dances at their desk, then draw on paper; <i>Saxon Math</i>: Lesson 63: p. 391 and p. 497; • <u>Translations/Reflections</u>: <i>Saxon Math</i>: Lesson 88: p. 458A. <p><u>In Visual Art:</u></p> <ul style="list-style-type: none"> • <u>Shapes</u>: locate geometric shapes from around the school or on field trips and draw in sketchbooks; make geometric shapes by folding and cutting paper; use shape templates and <i>Everyday Math</i>: Geometry Unit 3/7; • <u>Angles</u>: measure angles from previous math lessons.
	<p>#2 Angles: Shapelines Makes a line of shapes to show acute, right, and obtuse angles.</p>	<p>#2 Mapping Angles from Above Identifies and draws lines to create right, acute, and obtuse angles to describe a bird's eye view of a city.</p>	
	<p>#3 Translations and Reflections of Triangles: Transformation Dances Creates a dance with a small group and stretchies, showing slides and flips of acute, right, or obtuse triangles.</p>	<p>#3 Locations and Transformations: Polygon Collages Identifies and makes shapes in transformation: reflection, translation and rotation.</p>	

Scope and Sequence of Concepts

	Polygons/Shapes	Congruency	Symmetry	Lines	Transformations	Angles
Third Grade	square rectangle triangle parallelogram	congruent shapes	symmetrical shapes lines of symmetry			
Fourth Grade	square rectangle triangle parallelogram	congruent shapes	lines of symmetry symmetrical pathways symmetrical shapes	parallel perpendicular	translations (slides) reflections (flips)	
Fifth Grade	square rectangle triangle parallelogram rhombus	congruent angles	line of symmetry	parallel perpendicular vertical (VA) horizontal (VA) oblique (VA)	translations (slides) reflections (flips) rotations	right acute obtuse