Art As a Way of Learning®: The Languages of Inquiry

A Curriculum Framework to Promote Young Children’s Development and Learning

Early Childhood Education
What Is Curriculum?

Curriculum is all of the experiences that young children have as they develop their skills, construct knowledge, and acquire attitudes about learning. Learning naturally occurs as children explore ideas and materials within an aesthetic environment, interact positively with each other and caring adults, and engage in daily routines.

At Northampton Community College's Children's Center, our goals are for young children to:

- **Use multiple languages to inquire about, represent, and communicate knowledge**—so children engage in learning experiences in which they use a variety of symbol systems to express what they know and feel.
- **Develop critical and creative thinking skills**—so children document their unique ideas and imaginative solutions to problems through the many languages of learning.
- **Develop and maintain caring relationships**—so children interact positively with others; develop a more mature understanding of and ability to care for themselves; and connect with their families, cultures, and community.

Teachers at NCC and in many other settings use the Art As a Way of Learning® curriculum framework as a guide when they intentionally

- set up an aesthetic learning environment, indoors and outdoors
- plan appealing inquiries to explore concepts with children
- communicate with the languages of learning to make knowledge visible

The languages of learning include

- **literacy** (verbal, written, textural, and gestural symbol systems)
- **visual arts** (paint, draw, sculpt using art elements and principles)
- **movement** (dance, health, fitness, balance)
- **music** (listen, respond to, and create tone, melody, and rhythm)
- **math** (geometry, number, patterns, money, time, quantity, measures)
- **science** (processes, inquiry, and concepts about fields such as botany, biology, physics, ecology, anatomy)
- **human connections** (culture, family, social skills, maps, social studies)

Some of these languages of learning are described here in more detail to enable teachers to more fully and intentionally explore their potential for inquiry with children from ages birth through 8. All are integrated when children explore.
The Languages of Literacy

Processes of Language and Literacy
Children use verbal and written language to...
- **listen** and understand
- **speak** and communicate
- **engage** in pretend, imaginative play
- **write** thoughts and feelings
- **read** written languages and body languages (gestures)
- **express ideas** through role play, drama, storytelling, authoring, puppetry

Elements of Language and Literacy
Children develop the ability to use the elements and structures of verbal and written languages when they...
- **articulate** sounds and words
- **identify and form** alphabet letters and other symbols, such as Braille or Chinese characters
- **describe** ideas and feelings
- **form** sentences to convey complete thoughts
- **tell** stories
- **document** their learning

Art As a Way of Learning®
Language and Literacy Experiences

Curricular Goal Areas
Children are provided with abundant, intentional literacy learning opportunities

1. **Children represent and express ideas through verbal and written languages when they**
   - **describe** aesthetic objects and compelling events
   - **imitate** friendly words, signs/gestures, and actions
   - **pretend** to be someone or something else
   - **tell/retell** stories
   - **share** information
   - **invent** spellings
   - **read** signs, symbols, their own words, others' words
   - **re-enact** the plots and dialogue of stories
   - **represent** and/or interpret the knowledge they are constructing
   - **reflect on** concepts and experiences

2. **Children inquire and solve problems with the languages of literacy when they**
   - **observe**: look carefully, listen to understand
   - **identify and describe** parts/steps, connections
   - **investigate** objects and actions (What happens if...? Why does...?)

Children's picture books often combine languages: literacy, visual arts, and movement!
• predict what might happen next
• employ multiple approaches
• critique concepts
• connect new learning to prior experiences

3. Children connect community, family, and culture through verbal and written language and literacy when they
• freely use their home languages in conversations and writings
• choose books, pictures, artifacts, and stories that depict diverse cultures, contemporary and historic
• are familiar with diverse authors and illustrators
• visit libraries, exhibits, and other local venues
• select from diverse, aesthetic learning materials (play props, international clothing, natural objects)

4. Children build relationships and understanding of themselves when they use the languages of literacy to
• distinguish themselves from others in verbal and written work
• take care of themselves
• form attachments to primary caregivers
• express emotions appropriately with words
• develop confident, realistic self-concepts
• form a group identity
• show empathy verbally toward the feelings and needs of others
• play and work both alone and in groups: share materials, contribute ideas
• resolve social conflicts, such as using verbal language to negotiate or respond to bias
• make verbal choices and accept the logical consequences

Art As a Way of Learning®
Language and Literacy Tools and Environments
Children use and adapt a variety of tools and aesthetic materials to pursue inquiry through verbal and written languages, including
• writing instruments: paper with markers, crayons, colored pencils, Braille styluses and slates, calligraphy brushes
• books, magazines, and other visually appealing print materials
• journals in which children write
• aesthetically pleasing puppets, miniature characters, toy animals
• flannel boards with people, animals, accessories, and backdrops
• diverse dramatic play props
• computers with literacy software, printers, scanners
• recorded stories and videos
The Languages of Visual Arts

Processes of Visual Arts
Children use visual arts languages when they...
- paint
- draw
- sculpt/mold
- weave
- assemble/construct

To communicate and invent unique ways to express ideas and document their learning.

Elements of Visual Arts
Children develop the ability to use these elements and principles of visual arts language:
- line
- shape
- form
- color & value
- texture
- unity
- variety or contrast
- balance
- repetition, rhythm, & pattern
- emphasis
- proportion
- movement

(Pinciotti, 2001, p. 47)

Art As a Way of Learning®
Visual Arts Experiences

Curricular Goal Areas
Children are provided with abundant, intentional visual arts learning opportunities.

1. Children represent and express ideas through the visual arts when they
   - explore aesthetic materials and visual arts tools
   - visually create original representations that interpret the knowledge they are constructing
   - inquire about and imitate the styles/moods of artists
   - reflect on and critique their own work and that of others

A toddler explores form, color, texture, and movement in the visual arts.

2. Children inquire and solve problems with visual arts languages when they
   - look intently to identify visual arts elements and principles
   - identify and describe parts/steps in a creative process
creatively connect new visual knowledge to prior experiences

observe people and objects from various perspectives

investigate objects and actions. [How does (a tool, technique, medium) work?]

experiment with multiple media and techniques

predict the effects of visual arts materials, tools, and techniques

document their learning with various media

critique art using the elements and principles

distinguish their creative, unique work from others

develop confidence about their innate creative abilities

form a group identity as an artistic community

show empathy toward the feelings and work of others

play and create art both alone and in groups: share materials, contribute ideas

make choices and accept the logical consequences

3. Children connect community, family, and culture through visual arts literacy when they

view the natural world as well as pictures of their families and neighborhoods

study compelling, relevant works of art

work with artists in residence

visit museums, art galleries, and installations

4. Children build relationships and understanding of themselves when the visual arts enable them to

recognize that feelings, knowledge, and needs can be expressed visually

form attachments to primary caregivers

express emotions appropriately with media

Children explore the languages of the visual arts with a variety of clean, safe, open-ended tools and materials, including

- children's own art
- inspiration from nature (flowers, butterflies)
- crayons, markers, pencils
- paint, paint brushes, easels
- scissors, hole punches
- art prints and aesthetic displays of diverse items
- clay and modeling dough, modeling tools
- fabric, yarn, string, ribbon
- variety of papers
- wood, hammers, saws, nails
- wooden, unit building blocks
- draw/paint/construct software
- glue, tape, adhesives
- recycled items (cardboard boxes, plastic containers)
The Languages of Movement

Processes of Movement
Children use movement when they...
- gesture to communicate
- use muscle strength and agility to accomplish a task
- move or dance with stability and balance
- enact real or imaginary roles
- play games and sports
- maintain healthy, fit lifestyles

Elements of Movement
Through the languages of movement, children develop greater abilities to...
- be aware of their body positions and actions as they affect themselves and others
- use motor skills: walk, run, leap, hop, jump, slide, gallop, skip, climb, bend, stretch, swing, twist, manipulate
- employ the elements and principles of dance: awareness of space, effort, and body

Movement Experiences
Curricular Goal Areas
Children are provided with daily, intentional opportunities to learn through movement
1. Children represent and express ideas through the languages of movement when they
   - explore physical skills with their bodies, materials, and sounds
   - imitate the natural movements of people and animals
   - re-create an image or feeling using movement
   - move to a steady beat
   - play with or on small- and large-motor equipment, indoors and outdoors
   - participate in group games
   - reflect on their skills and areas for improvement

Dancing to their own beat, these preschoolers use drums from diverse cultures to move together with a compelling rhythm.
2. Children inquire and solve problems with the language of movement when they
   - connect movements and positions in space to prior physical experiences
   - use parts of their bodies
   - move their whole bodies
   - move with objects
   - observe (see movement demonstrations, follow directions)
   - investigate aesthetic objects and actions (What happens when I move...?)
   - describe parts or steps to make fluid movements
   - predict changes in space, effort, body positions
   - explore multiple movements
   - critique the movements of self and others

3. Children connect community, family, and culture through movement when they
   - dance using movements, clothing, and music from various world cultures (folk dance, celebrations)
   - play children’s games from diverse cultures and eras
   - work with dancers and athletes

4. Children build relationships and understanding of themselves when movement enables them to
   - form a group identity as a fit, agile community
   - recognize that they take care of themselves with a healthy, fit lifestyle
   - physically express attachment to primary caregivers
   - express empathy for others through dance and movement
   - play and move alone and in groups
   - use appropriate movements to solve social conflicts
   - make choices of movements and accept their consequences

Art As a Way of Learning®
Movement Tools and Environments

Indoors and outside, children use a variety of safe, challenging equipment to develop their motor skills, including
- hoops
- balls
- scarves and fabric
- balance beam
- bean bags
- nature (gardens, flying birds, leaves blowing on trees)
- music instruments and recordings
- structures for large-motor activities (climbers, ramps, steps, logs, boats)
- bikes and other riding vehicles
- videos of sports, dance, and fitness experiences
The Languages of Music

Processes of Music
Children use music when they...
- sing
- create sounds with instruments or other objects
- listen
- improvise
- compose
- dance

Elements of Music
Children develop the ability to use these elements and principles of the language of music
- pitch
- harmony
- rhythm
- dynamics
- texture
- form
- tempo
- timbre

Art As a Way of Learning® Music Experiences
Curricular Goal Areas
Children are provided with planned opportunities to learn and communicate through music

1. Children represent and express ideas through music when they
- listen and respond to music
- imitate aesthetically pleasing or silly sounds
- explore music with their voices, instruments, and sound makers
- create songs to tell stories
- sing songs and fingerplays
- represent their knowledge with music

This outdoor xylophone enables children to create music that is inspired by their natural surroundings: perhaps chirping birds, lush green foliage, children at play, and even the weather.

2. Children inquire and solve challenges with musical languages when they
- listen to and move with music and natural sounds (dance, play singing games)
- investigate how music makers work. (What happens when I sing or play...?)
- identify and describe music elements, principles, and patterns (which instrument makes a sound, when to repeat a refrain)
- predict when an element or principle will be repeated (rhythm, changes in dynamics)
- connect musical sounds and words to their experiences (acting appropriately in response to a clean-up time song)
- experiment with multiple approaches to create music
3. **Children connect community, family, and culture through music when they**

- **reflect** on their own and others' music
- **document their learning** (write new lyrics to a familiar tune, compose original rhythms)

4. **Children build relationships and understanding of themselves when music enables them to**

- **perform** alone or with a group, spontaneously or with planning
- **form a group identity** by creating music together
- **resolve** social conflicts through music

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**Art As a Way of Learning®
Music Tools and Environments**

Indoors and outside, children use a variety of learning materials to develop their musical skills, including:

- sound-making items (shells, wood blocks, water, wheels)
- rhythm instruments from diverse cultures (drums, sandpaper blocks, sticks, maracas, gongs)
- musical instruments from around the world (bells, flutes, keyboards, string instruments)
- diverse recordings of international instrumental and vocal music
- players for recordings
- natural sounds (birds singing, fountains, wind chimes)
- wide variety of videos (folk celebrations, band, orchestra, ballet, opera, contemporary)
- pictures of diverse types of instruments, dance, costumes
- computer software to listen and compose music
The Languages of Math

Processes of Math
Children use the languages of math when they...

- solve mathematical problems (How many...? Which shape will...?)
- reason (sort, order, identify patterns)
- communicate (with number, quantity, time)
- make math connections to their lives
- represent their mathematical knowledge with math symbols (numerals, geometric shapes)

Elements of Math
Children develop the ability to use these mathematical elements and principles

- number
- shape
- measurement
- amount/quantity
- patterns
- space
- time

Art As a Way of Learning® Math Experiences

Curricular Goal Areas
Children are provided with intentional opportunities to learn and communicate with math

1. **Children represent and express ideas through the languages of math and number operations when they**

- explore aesthetic, natural objects (multicultural fabric, seeds, wood grain)
- match items (seashells, beads from many cultures)
- count and order objects (fabric napkins/placemats)
- classify and seriate items (sizes/colors of wooden blocks, measuring cups)
- put together and take apart groups of objects (wood puzzles, flannel board shapes)
- fill and empty containers (sand, wood shavings, water)
- represent ideas with shapes (collage, mosaics, stones)
- create and describe patterns (parquetry blocks)
- arrange objects to determine length (align unit blocks)
- represent data (graphs, charts, document learning with numerals or shapes)

From small to large, this funnel display—draped with multicultural fabrics in front of a window filled with children's art—shows how math concepts can be aesthetically appealing!
2. **Children inquire and solve math problems when they**
   - observe math being used (count, sort, design)
   - investigate objects and actions (What happens when...?)
   - connect math to their daily experiences
   - notice how objects are the same and different
   - identify and describe parts or steps in a process (follow a recipe)
   - predict math relationships
   - experiment with different math approaches (count, seriate, measure)
   - describe the location of objects in space (high/low)
   - anticipate the beginning and time interval of familiar events (outdoor play, lunch)
   - experience fast and slow (music, wheeled vehicles)
   - observe people and objects from various perspectives

3. **Children connect community, family, and culture through math when they**
   - handle natural, diverse manipulatives (seashells, multicultural buttons)
   - move to and identify the beats of rhythms from various cultures
   - count and recognize shapes in more than one language
   - identify how people everywhere use number (temperature, distance, time, shapes, architecture)

4. **Children build relationships and understanding of themselves when math enables them to**
   - take responsibility for self (count number of items needed to play a game, complete an art project)
   - play alone and together using math concepts (build block constructions)
   - resolve social conflicts with math skills (time limits, divide items to share)
   - make choices and accept logical consequences

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**Art As a Way of Learning®**

**Math Tools and Environments**

Indoors and outside, children use a variety of aesthetic learning materials to develop their math skills, including
- natural counting objects (stones, seeds, shells)
- attribute and pattern blocks
- Unifix cubes
- Cuisenaire rods
- geometric solids
- measuring tools (cups, rods, scales, rulers, footprints, timer)
- art and nature prints
- math and nature software
The Languages of Science

Processes of Science
Children use scientific thinking to learn when they...
- Observe
- Ask Questions
- Conduct Research
- Hypothesize (Ask questions)
- Experiment and Test
- Review/Revise/Reflect
- Propose/Create changes or revision
- Evaluate Results
- Communicate Results

Art As a Way of Learning®
Science Experiences

Curricular Goal Areas
Children are provided with intentional opportunities to learn and communicate with Science

1. *Children represent and express ideas through the languages of science when they*

   - **explore** aesthetic, natural objects (multicultural fabric, seeds, wood grain)
   - **classify** and seriate items (sizes/colors of wooden blocks, measuring cups)
   - **put together and take apart** groups of objects (wood puzzles, flannel board shapes)
   - **fill and empty** containers (sand, wood shavings, water)
   - **represent** data (graphs, charts, document learning with numerals or shapes)
   - **record** observations using words, pictures, charts and graphs

Elements of Science
Children develop the ability to explore with science when they have the opportunity to learn about the content areas of science
- Physics
- Life Science/Biology
- Earth & Space Science
- Science & Technology
- Science in Personal & Social Perspectives
- Chemistry
2. **Children inquire and solve scientific problems when they**
   - **observe** the natural world around them (animals, plants, weather)
   - **investigate** objects and actions (What happens when...?)
   - **connect** science to their daily experiences
   - **notice** how objects are the same and different
   - **identify and describe** parts or steps in a process (follow a recipe)
   - **predict** science relationships
   - **experiment** with different science approaches (count, seriate, measure)
   - **anticipate** the beginning and time interval of familiar events (outdoor play, lunch)
   - **observe** people and objects from various perspectives
   - **raise** questions
   - **engage** in simple investigations
   - **identify** patterns & relationships
   - **hypothesize**; develop tentative explanations and ideas

3. **Children connect community, family, and culture through science when they**
   - **discover** natural, diverse manipulatives (seashells, multicultural buttons)
   - experience science in their daily lives (field trips, outdoor play, community events)
   - **identify** how people everywhere use the inquiry process

4. **Children build relationships and understanding of themselves when science enables them to**
   - **take responsibility** for self as they solve problems and experiment (try science experiments, count number of items needed to play a game, complete an art project)
   - **play alone and together** using science concepts (build block constructions)
   - **resolve social conflicts** with science/math skills (time limits, divide items to share)
   - **make choices** and accept logical consequences
   - **share and discuss** ideas and listen to new perspectives

**Art As a Way of Learning®**

**Science Tools and Environments**

Indoors and outside, children use a variety of aesthetic learning materials to develop their science skills, including:

- natural objects (leaves, bugs, pinecones, stones, seeds, shells)
- blocks/ramps
- water/sand tables
- nets/containers
- microscopes
- eye droppers
- measuring cups/containers
- scales
- pulleys
- incline plan
- wheel & axle
- screws
Bibliography


SOURCE: http://ecrp.illinois.edu/beyond/seed/worth.html