**Alcuin Montessori Curriculum Benchmarks**

### DEVELOPMENT

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- **Toddler**
  - Fine motor skills: palmer, pincer grasp, muscular strength
  - Gross motor skills: walking, running, jumping, balancing
  - Body control
  - Growing independence

- **Primary**
  - Lengthening attention span
  - Developing gross and fine motor control
  - Developing sense of order
  - Increasing independence
  - Increasing self-motivation

- **Junior Elementary**
  - Increasing responsibility and accountability
  - Beginning to explore abstract world
  - Reasoning
  - Connecting facts, thoughts, and memories
  - Developing increased sympathy and empathy
  - Developing ability to collaborate

- **Senior Elementary**
  - Social beings
  - Exploring abstract world
  - Searching for reasons and answers
  - Beginning to create a sense of identity and code of values
  - Beginning to think about their place in the world
  - Beginning to identify and employ their own individual learning style
  - Beginning to develop a strong sense of justice

- **Middle School**
  - Highly social
  - Need to understand adult world
  - Developing personal identity
  - Values sense of community belonging
  - Values personal dignity and social justice
  - Increasingly capable of purely abstract thought, reasoning
## LIFE SKILLS

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- **Toddler**
  - Care of self: dressing, undressing, toilet learning, self-feeding, self-soothing
  - Care of the environment: care for workspace, rug etiquette, cleaning up, using materials with care and respect
  - Grace and Courtesy: greeting peers and adults, patience, tolerance, appropriate social graces and manners

- **Primary**
  - Grace and Courtesy: participate in and build a community in the classroom and society
  - Observation skills
  - Carry out a plan to completion
  - Respect for and care of materials and the environment
  - Care of self - basic needs (bathroom, nose blowing, hand washing, dressing)
  - Community awareness; introduction to community service
  - Peace education; conflict resolution
  - Silence

- **Junior Elementary**
  - Conflict resolution/problem-solving skills
  - Respectful of self and others
  - Daily work plan and objectives
  - Community jobs
  - Care for the environment and materials
  - Care for animals
  - Manners while eating
  - Food preparation
  - Care of self
  - Management of personal spaces
  - Community awareness
  - Advocating for one's own needs

- **Senior Elementary**
  - Recognizing and valuing differences in others
  - Compassion for others and self
  - Reflect on and appreciate strengths and challenges
  - Ability to take/give feedback from/to peers
  - Takes ownership in personal growth
  - Awareness to find the balance between work/friendships
  - Developing critical thinking skills
  - Developing the ability to see someone else's perspective

- **Middle School**
  - Greater personal, social, and academic responsibility
  - Care of self and community
  - Leadership
  - Entrepreneurialism
  - Executive functioning skills
  - Increased independence in work management
  - Conflict resolution and community problem-solving
  - Employment skills
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- **Receptive language:**
  - Listening, responding to name, music and sounds, able to follow one-step and multiple-step direction, engaging in eye contact
  - Expressive language:
  - Growing vocabulary of 10-100 words, expressing needs and feelings with words, asking and answering simple questions, engaging in eye contact
  - Introduction of letter sounds

- **Primary**
  - Identifying sounds
  - Associating sounds with lowercase letters
  - Introduction to grammar
  - Comprehension and articulation; organizing thoughts and feelings
  - Establishing logical relationships
  - Verbal commands
  - Three-period lessons
  - Expansion of vocabulary

- **Junior Elementary**
  - Parts of speech
  - Basic punctuation
  - Sentence analysis
  - Word study (parts and types)
  - Introduction to dictionary, thesaurus, encyclopedia, atlas
  - Alphabetical order
  - Spelling

- **Senior Elementary**
  - Prefixes and suffixes
  - Etymology
  - Punctuation and capitalization
  - Spelling patterns
  - Sentence analysis
  - Word study
  - Sentence diagramming
  - Usage of dictionary, thesaurus and encyclopedia
  - Sentence structure

- **Middle School**
  - Prefixes, suffixes, roots
  - Grammar rules
  - Punctuation
  - Sentence structure
  - Active and passive voice
  - Using dictionary and thesaurus as resources
## READING

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<tr>
<td>Preparation for reading: books read by teacher, children explore books independently</td>
<td>Reading readiness: letter/sound recognition</td>
<td>Fluency</td>
<td>Vocabulary development</td>
<td>Development of skills in close reading, comprehension, and critical thinking</td>
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<td>Identifying alphabet letters with matching work, puzzles</td>
<td>Development of phonetic decoding</td>
<td>Decoding skills</td>
<td>Fluent independent reading skills in a variety of literary genres</td>
<td>Analysis and interpretation of literary elements (setting, character, plot, conflict, theme) and literary devices (foreshadowing, allusion, symbolism, flashback, etc.)</td>
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<td>Phonograms, sight words, puzzle words</td>
<td>Comprehension strategies</td>
<td>Understanding fiction and non-fiction texts</td>
<td>Exploration and comparison of various literary genres</td>
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<td>Appreciation of written language</td>
<td>Phonics</td>
<td>Sequence order in a story</td>
<td>Analysis and reflection of text supported with textual evidence</td>
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<td>Reading for information</td>
<td>Sight word vocabulary</td>
<td>Prediction</td>
<td>Research skills</td>
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<td>Comprehension</td>
<td>Understanding fiction and non-fiction texts</td>
<td>Glossary and reference skills</td>
<td>Analysis and reflection of text supported with textual evidence</td>
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<td>Sequence order in a story</td>
<td>Guided reading</td>
<td>Research skills: locate and discern validity of print and internet sources; outlining and synthesize material; document sources</td>
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## Writing

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- **Toddler**
  - Preparation for writing with pincer grasp activities (i.e. holding a paintbrush, transfer work, holding a small crayon, coloring, tracing shapes)
  - Chalkboard

- **Primary**
  - Finger dexterity and strength are developed through working with Practical Life, Sensorial and other manipulative exercises
  - Sandpaper letters & moveable alphabet
  - Metal insets
  - Cursive handwriting
  - Pincer grip
  - Chalkboard, unlined, lined paper
  - Create stories and record; composition of thoughts
  - Begin learning upper case in Extended Day
  - Punctuation: introduce period, capitalize first letter, etc.
  - Grammar; function of words

- **Junior Elementary**
  - Cursive
  - Record work neatly
  - Dictation
  - Sentence writing
  - Paragraph writing
  - Paraphrasing
  - Summary writing
  - Creative writing
  - Letter writing
  - Writing process: prewriting, drafting, editing and revising
  - Research report
  - Bibliography

- **Senior Elementary**
  - Paraphrasing
  - Summarizing
  - Note-taking
  - Concept maps
  - Outlines
  - Topic sentences
  - Transition words
  - Conclusions
  - Styles of poetry
  - Story writing
  - Letter writing
  - Report writing
  - Research papers
  - Essays
    - Persuasive
    - Descriptive
    - Expository
    - Narrative
  - Bibliographies, use of primary and secondary sources
  - Writing process: brainstorming, rough draft, editing, publishing
  - Peer editing

- **Middle School**
  - Information writing: research-based essays and publications, argument essays, journalism
  - Narrative writing: personal narrative, realistic fiction, short story
  - Poetry: free verse and a variety of structured forms; techniques
  - Evaluation of audience, purpose, and effectiveness of writing
  - Varying and appropriate use of tone and voice
  - Development of transitions, precision of language, detail, sensory language
  - Writing process: plan, draft, revise (repeat), edit, proofread, publish
  - Peer conferencing
## MATHEMATICS

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- Counting taught through the classroom materials and Practical Life area (i.e. counting plates and utensils needed to set a table)
- Concrete materials are used to increase sensorial experience of quantities and numerals (sandpaper numbers, wooden cylinders from 1-10)

- Preparation for math begins in the Practical Life and Sensorial areas, including geometry and algebra concepts
- Mathematical mind: order and precision
- Concrete materials are utilized throughout curriculum, materials move from more concrete to more abstract
- Intro to numbers: quantity and symbol recognition with numbers 1 – 10, concept of 0, odd and even numbers
- Linear Counting: 11 – 9999 and skip counting
- Sensorial introduction to square and cube roots
- Decimal system: quantity and symbol recognition, place value for numbers 1 - 9,999.
- Introduction to operations addition and multiplication, subtraction and division; Static, then

- Addition, subtraction, multiplication, and division process
- Numeric order, place value
- Telling time using analog and digital clock
- Fractions
- Geometric shapes and symmetry
- Area and perimeter
- Word problems
- Multiplication with multi-digit multipliers
- Division with multi-digit divisors
- Graphs: collecting and representing data
- Mental math and estimation
- Measurement: length, weight, temperature
- Skip counting and multiples 1-10
- Coin and bill names and values
- Money math
- Rounding
- Squaring
- Cubing
- Squaring, cubing, square roots, cube

- Mathematical properties
- Traditional and alternative algorithms to solve addition, subtraction, multiplication, and division problems with whole numbers
- Geometry: properties of 2-D and 3-D figures; area, perimeter, volume; concepts of shape and volume; types of angles and angle measurement
- Collect, record, and graph data
- Logic problems
- Addition, subtraction, multiplication, and division of whole numbers, fractions and decimals
- Ratio, proportion, percentages
- Integers
- Negative numbers
- Exponents
- Probability
- Variables
- Order of operations

- Negative numbers: addition, subtraction, multiplication, and division
- Comparing and converting fractions, decimals, and percentages
- Identifying, graphing, and comparing rates and proportional relationships
- Interpreting and solving expressions, equations, and inequalities
- Evaluating and writing expressions
- Volume & surface area
- Complementary, supplementary, and vertical angles
- Geometric similarity
- Scaling drawings
- Simple probability and compound events
- Comparing and sampling populations
- Exponents and exponent properties
- Solving equations with one unknown
- Graphing, analyzing, and solving linear
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<th>Parts of a circle</th>
<th>roots</th>
<th>equations and functions</th>
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<td>Introduction to fractions</td>
<td>Study of triangles</td>
<td>Word problems</td>
<td>Systems of equations</td>
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<tr>
<td>Word problems</td>
<td>Study of quadrilaterals</td>
<td>Measurement</td>
<td>Pythagorean Theorem</td>
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<td>Record equations</td>
<td>Types of polygons</td>
<td>Balancing equations</td>
<td>Geometric transformations</td>
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<td>Rounding</td>
<td>Scatter plots and lines</td>
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<td>● Developing awareness of seasons/weather (daily conversations)</td>
<td>● Geography: includes landforms, maps, flags, and cultures through artifacts and photos</td>
<td>● History of writing and math</td>
<td>● U.S. States: capitals, major cities, climate and vegetation, regional characteristics</td>
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<td>● Introduction to learning about different cultures (through songs, books, and short presentations)</td>
<td>● History: awareness of the passage of time through timelines, calendars, seasons, clockwork; celebration of life</td>
<td>● Civic responsibilities, types of government: local, county, state and U.S.</td>
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<td>● Environmental awareness</td>
<td>● Ancient cultures</td>
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- **Toddler**: age 1.5-3
  - Developing an awareness about plants and how to care for them
  - Developing an awareness of animals through care of a class pet (how it lives, eats, etc) and books about different animals
  - Physical science: exploration of physical experiments

- **Primary**: age 3-6
  - Scientific classification: observation, research, experimentation
  - Botany: development of the child’s awareness of plant life, plant care, gardening
  - Zoology: development of the child’s awareness of animals, care of animals
  - Physical science: exploration of physical experiments

- **Junior Elementary**: age 6-9
  - Timeline of Life
  - Evolution studies
  - Scientific method
  - Classification of organisms
  - Observation skills
  - Microscope
  - Five living kingdoms studies
  - Animal kingdom studies
  - Plant studies
  - Animal care and functions
  - Animal behaviors/habitats
  - Study of vertebrates and invertebrates
  - Three states of matter
  - Energy, motion
  - Observe physical and chemical changes
  - Magnetism
  - Simple machines
  - Balance and weight
  - Human body studies
  - Nutrition

- **Senior Elementary**: age 9-12
  - Timeline of Life
  - Scientific method
  - Cell structure/processes
  - Genetics
  - Classification of organisms
  - Organism adaptations/cycles
  - Human body systems/functions
  - Nutrition
  - Static electricity, magnets
  - Energy production, transfer, and its uses
  - Weather and climate
  - Earth study: formation, cycles, changes, rotation and revolution
  - Plate tectonics
  - Study of rock/minerals
  - Parts of a volcano
  - Environmental studies
  - Recycling/composting
  - Solar system
  - Constellation of stars

- **Middle School**: age 12-14
  - Scientific method
  - Botany: cell structure and function, parts and functions of a plant, soil components, photosynthesis
  - Chemistry: Periodic Table, atomic structure, chemical and physical changes, ionic and covalent bonding, pH/acids/bases
  - Ecology: characteristics of life, classification, ecological systems and cycles, evolution and adaptation
  - Physics: simple machines, work, force, motion, potential and kinetic energy, Newton’s laws of motion
  - Anatomy and physiology: cell structure and function, body systems, puberty, sexual reproduction, health, genetics
  - Earth science: geologic time, structure and composition of Earth, plate tectonics, terrestrial coordinates, Earth’s movements,
| rotations and orbits | - Scientific papers and lab reports |