

# GUIDE TO BENCHMARKS

## LANGUAGE ARTS & MATHEMATICS

Benchmarks are standard reference points that can be measured and assessed.

Teachers use benchmarks to help understand where their students are in their education and know where supports and extensions are needed.

Students develop understanding in their own timeline and these benchmarks are goals in which students strive toward through their own developmental process.







# GRADE 1

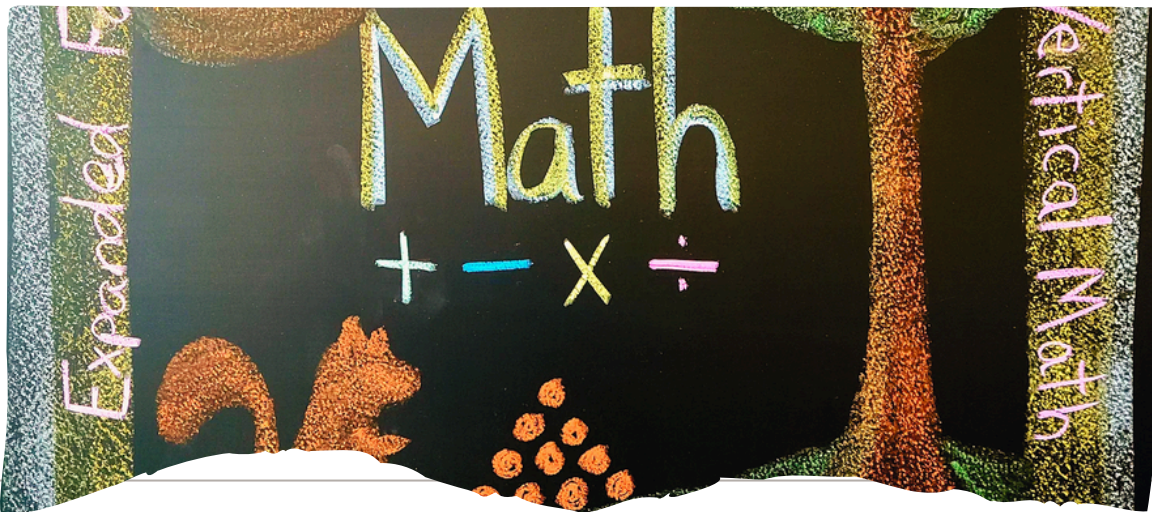
## LANGUAGE ARTS

- Recognize all of the 26 upper and lowercase letters of the alphabet by sight and sound
- Read words created in lessons, chorally and independently
- Learn how to use context clues to read and decipher words
- Verbally retell stories in sequence and with detail, both as a group and independently
- Phonetic instruction via multi-sensory/multi-modal models
- Beginning to decode words using phonetic strategy
- Understand letter/sound and spelling relationships
- Be familiar with the idea of 'sight words', or words that we use that do not follow the pattern. (Refer to Fry's List of high frequency words)
- Write routinely, through a combination of writing, drawing, and speaking.
- Print all upper and lower case letters
- Begin to spell words in common word families and high-frequency words; use phonetic spelling for other words.
- Recognize and represent sounds in written language
- Exchange ideas through storytelling, discussion and collaboration.

## MATHEMATICS

- Whole number relationships: Count, read and write 1-100,
- Rhythmic recitation of the 2, 3, 4, 5, 10, 11 times tables,
- Addition and subtraction facts 1-20
- Basic linear measurement
- Geometric and running forms in form drawing
- Experience a qualitative relationship with numbers 1-12
- Have a qualitative sense of the four processes: addition, subtraction, multiplication, division
- Read and write number sentences (e.g.,  $2=1+1$ ,  $6=2\times 3$ ,  $9=10-1$ )
- Recognize the difference between odd and even numbers
- Use concrete objects (stones, acorns, fingers) to solve arithmetic problems
- Follow "number journeys" through mental arithmetic (introduction to word problems) using addition and subtraction
- Be familiar with Roman numerals up to 100
- Describe basic geometric forms through movement, walking patterns, string formation, and drawing.





# GRADE 2

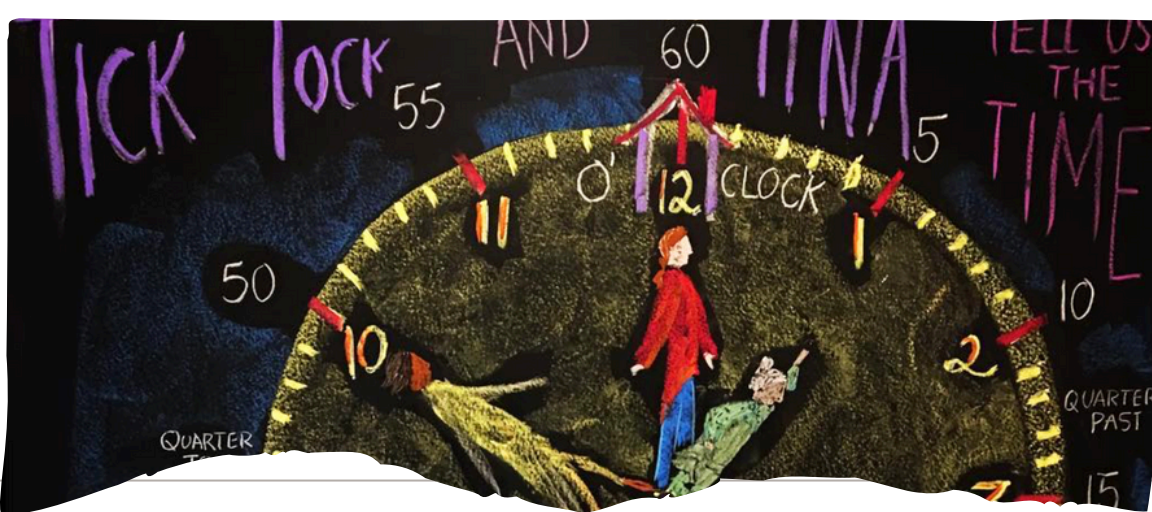
## LANGUAGE ARTS

- Sound out words using phonics
- Know commonly used sight words
- Be familiar with vowel and consonant blends, short and long vowels
- Write printed upper and lower case letters with increasing neatness and consistency
- Listen to oral stories and be able to engage in oral retelling and review of the story in subsequent lessons
- Engage in recitation of poetry and verse, accompanied by articulation, and the use of echo responses
- Recognize and represent sounds in written language with increasing accuracy
- Write sentences with a capital letter and end with a period or other appropriate punctuation.
- Recognize capital letters and full stops in sentences
- Begin to recognize subject and action words in sentences
- Begin employing meaning and syntax to decode words
- Participate in choral reading.
- Reading in small groups and independently
- Participate in a dramatic performance that requires choral speaking of memorized lines and may include some individual speaking
- As a group, join in morning activities involving singing, recitations and movement
- Write routinely, including illustration, for a range of tasks, purposes, and audiences
- Write to tell a story, introducing conflict to a character and setting
- Demonstrate basic understanding and use of descriptive language and features of spoken language

## MATHEMATICS

- Reading and writing numbers with up to 4 digits
- Base-Ten system: count by fives, tens and multiples of hundreds.
- Memorizing multiplication and division tables in order
- Understanding which "advisor" (add, subtract, multiply, divide) is being used in a problem
- Telling time on an analog clock
- Addition and Subtraction up to 1000
- Column addition and carrying
- Subtraction with borrowing
- Simple multiplication and division
- Symmetry with vertical and horizontal forms, transformational forms, running forms, and geometric forms





# GRADE 3

## LANGUAGE ARTS

- Use knowledge of phonics and sight words to take simple dictations or write simple compositions independently
- Recognize the four main parts of speech: nouns, verbs, adjectives and adverbs
- Be able to decipher poly/multi-syllabic words
- Begin to use cursive in main lesson books
- Listen to oral stories, and participate in summarizing the story in their own words
- Engage in recitation of poetry and verse both chorally and individually.
- Recognize and diagram rules of grammar
- Participate in a dramatic performance
- Read and write common sight words
- Use correct punctuation (including commas in series and apostrophes), spelling, capitalization, and grammar, authentically in writing.
- Read aloud from chapter books smoothly and clearly
- Read non-fiction books or articles to prepare for curricular projects such as reports on shelters
- Students should be able to write paragraphs of 3-5 sentences.

## MATHEMATICS

- Multiplication and Division math facts up to 100
- Show working knowledge of short and long division with and without remainders
- Comparing numbers: Equal to, Less than and Greater than
- Perform simple calculations involving time, money, and measurements of length and weight.
- Show working knowledge of the times tables 1-12 in random order
- Use a ruler to measure and a scale to weigh
- Compare and classify two dimensional geometric figures by shape and angle.
- Attributes of two-dimensional regions: area and perimeter
- Understand and use complex symmetries including left/right, above below with crossing at midpoint





# GRADE 4

## LANGUAGE ARTS

- Show a qualitative understanding of the structure of a paragraph and how to open and close compositions appropriately
- Show competency in spelling dictations
- Recognize prepositions, articles, conjunctions, and subject/predicate
- Be familiar with verb tenses -- past, present and future
- Using vocabulary based on the curriculum and the children's own writing
- Listen to oral stories and be able to independently write a summary of the story with words and pictures
- Begin to learn research methods for expository writing
- Expand use of punctuation to include quotation marks, commas, parentheses and apostrophes
- Participate in a dramatic performance
- Summarize lesson content independently
- Identify all nine parts of speech

## MATHEMATICS

- Multiplication and division facts out of order
- Classify, describe and analyze two-dimensional shapes
- Understanding place value 1-1,000,000,000,000
- Multi-digit multiplication and division
- Long division with two and three step problems
- Greatest Common Factor and Least Common Multiple
- Equivalent fractions
- Reducing fractions
- Finding common denominators
- Mixed numbers and improper fractions
- Add, subtract, multiply and divide fractions
- Understanding data sets and data set displays





# GRADE 5

## LANGUAGE ARTS

- Locate, select and read texts representing various perspectives and identities like and unlike their own, using various methods of searching for text.
- Read independently and monitor understanding of grade-level text; self-correct as needed, independently using strategies including, but not limited to, making inferences and connecting text to background knowledge
- Identify main characters, setting, and conflicts within a story
- Write paragraphs using topic and supporting sentences
- Write a three-part essay (introduction, body, and conclusion) with guidance
- Begin to differentiate between informative texts and subjective texts
- Increase accuracy in written grammar and mechanics
- Identify passive and active voices
- Use a wide range of reference material including atlas, index, glossary, and table of contents
- Begin to proofread and edit their own writing

## MATHEMATICS

- Math fact fluency with fraction operations
- Decimal and Fraction relationships: add, subtract, multiply and divide between decimals and fractions
- Three dimensional space: understand and calculate volume
- Order of operations: understand and use the order of operations in number equations.
- Multi-digit multiplication and division
- Long division with multi- step problems
- Write and interpret mathematical expressions
- Conversion of measurement units
- Draw and interpret data sets and data set displays





# GRADE 6

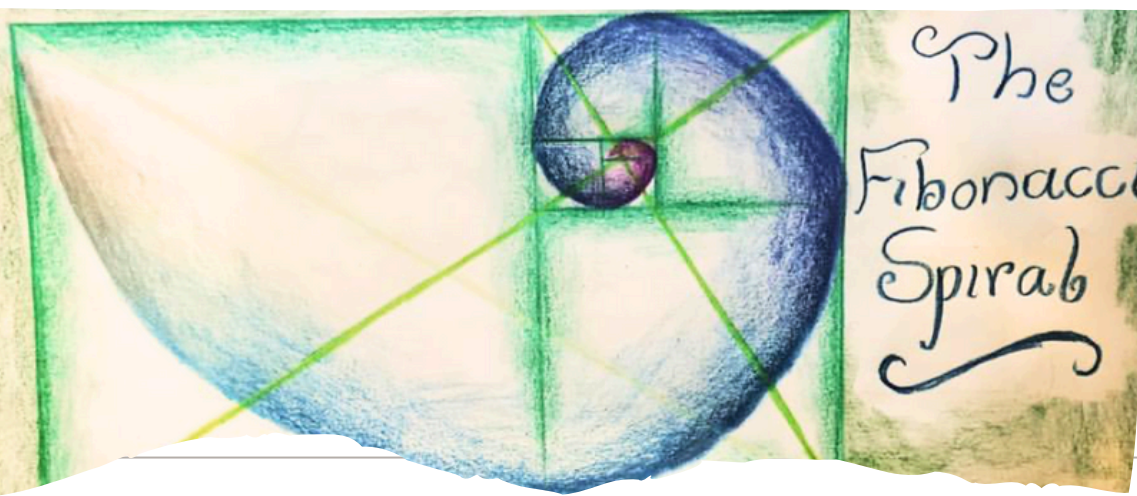
## LANGUAGE ARTS

- Write using active and passive voice
- Use correct punctuation (including dashes, hyphens, and ellipses), spelling, capitalization, and grammar, authentically in writing
- Learn note-taking skills
- Organize information from independent research for presentation or essay writing
- Create an outline for a written assignment
- Plan and conduct independent research from a variety of sources that represent varying perspectives; evaluate credibility and relevance of information, avoid plagiarism, and share findings in writing
- Demonstrate mastery of writing mechanics from previous years
- Build repertoire of complex sentence structures
- Incorporate peer and teacher feedback into the revision and editing process
- Begin to identify and use different essay writing styles such as expository, personal and persuasive.

## MATHEMATICS

- Understand relationships among rational numbers. (e.g., integers, decimals, fractions, percents, ratios, numbers with whole-number exponents).
- Estimate quantities involving rational numbers
- Using patterns, relations, and functions
- Represent and analyze mathematical structures using algebraic symbols
- Use mathematical models to represent and understand quantitative relationships
- Analyze characteristics and properties of two- and three-dimensional geometric shapes
- Transformations and symmetry
- Construct, draw and recognize / compare geometric figures
- Collect, organize, analyze and display data sets
- Understand and apply basic concepts of probability





# GRADE 7

## LANGUAGE ARTS

- Demonstrate understanding of literary techniques such as simile, metaphor, hyperbole, and point of view
- Master the use of punctuation in writing
- Begin to show a sense for meter in verse, and be able to imitate prosthetic styles, e.g. ballads
- Refine note-taking skills and outline forms
- Work with the five-paragraph essay using a thesis statement
- Include direct and indirect quotes into writing
- Independently source and use information from reference materials
- Imitate the style of a particular author or poet
- Analyze informational text structure (including, but not limited to, compare/contrast, cause/effect, and problem/solution)
- Discuss an author's intention and technique
- Use narrative structure in short story writing including point of view
- Read texts in a range of styles, confidently and independently, for pleasure and information

## MATHEMATICS

- Expressions and Equations Work with radicals and integer exponents.
- Understand the connections between proportional relationships
- Define, evaluate, and compare functions
- Understand congruence and similarity using physical models,
- Understand and apply the Pythagorean Theorem
- Solve real-world and mathematical problems involving volume of cylinders, cones, and spheres
- Investigate patterns of association in bivariate data.
- Spatial relationships using coordinate geometry and other representational systems
- Understand the properties of exponents
- Understand properties of rational and irrational numbers.



# GRADE 8

## LANGUAGE ARTS

## MATHEMATICS

- Communicate claims and findings, emphasizing important points in a focused, coherent manner with relevant evidence, valid reasoning, and carefully selected details, in a variety of presentation styles, following ethical and safe communication practices
- Develop and strengthen writing through the pre-writing and revision process
- Select, read, and comprehend texts that address academic tasks, personal identity, and intersectionality
- Cite textual evidence to support conclusions, determine multiple themes or central ideas, and analyze the development of a text
- Determine the meaning of words and phrases as they are used in a text, including figurative, connotative, and technical meanings

- Understand the Laws of Exponents to include rational exponents
- Understand the Laws of Exponents to include negative exponents
- Understand operations with rational numbers
- Multiply and factor polynomials
- Write, solve and graph linear equations
- Write, solve and graph quadratic equations
- Write, solve absolute value equations, functions and inequalities
- Write, solve and introduced to graphing exponential equations
- Write and solve a system of equations
- Functions
- Introduction to Data Analysis and Probability