Curriculum Overview
Grades 1-4

Table of Contents

GRADE 1

First grade is a time when children begin a major transition in their intellectual growth. They begin to approach the world more logically. This year is a key year in terms of both social and academic growth. First graders love to manipulate things. Hands-on, experiential learning and design-process activities are a major component of the curriculum. Individual differences and learning styles are becoming clearer. Some students may prefer working in groups; others prefer concrete tasks on their own. Some students grasp concepts quickly; others need more time for growth. The first grader is extremely open and eager to learn all she or he can. Curiosity, imagination, and enthusiasm are at their peak at this point in a child's life. It is a critical year for forming good work habits and attitudes. First Grade is a building block in the strong foundation they will need for continued success at Chapin.

The curriculum helps children to explore the world through all their academic disciplines in our immersive thematic units. Rich children's literature is a starting point to helping them experience the wonders of the many different topics that interest and tantalize the first grader's mind. Curiosity and questioning are encouraged, as well as having a great deal of fun!

CLASSROOM EXPECTATIONS

The first-grade classroom expectations revolve around character development based on Chapin's five virtues. The children are expected to respect one another and all who are involved in their lives. They are to show responsibility for their belongings, classroom routines, and work. They learn to recognize the need for and importance of rules and the consequences of certain behaviors. They are to always demonstrate kindness towards and consideration of other people. Sharing is an emphasized skill. Honesty is the best policy for a first grader, and they quickly learn to be truthful. In all their work, we expect that they will persevere until they have completed the task at hand. First grade is a year of learning how to deal with other people and how to work together for the good of everyone. Chapin's virtues are a key to a peaceful classroom as well as the children's use of Chapin's Choices. By using Chapin Choices, the children work to independently resolve conflicts with their peers.

STEAM (SCIENCE, TECHNOLOGY, ENGINEERING, ARTS, AND MATHEMATICS)

Technology and project-based learning will be integrated across the first-grade curriculum. Using the engineering design process, students will approach a challenge by using the five key components of the process. These components include ask, imagine, plan, create, and improve. Children will engage in this process in the Lower School Workshop, as well as the classroom.

FIELD TRIPS

First graders take a variety of field trips as extensions and/or culminations of many of our academic units/topics. When students leave the school campus, they are a representative of Chapin School and are expected to dress and behave accordingly. Please refer to more detailed permission slips as they become available.

**All off-campus learning trips will be evaluated within health and safety guidelines throughout the school year.*

HOMEWORK

Our homework policy, as stated in the Chapin Handbook and Directory, is that first grade students begin their homework routine in January. Students are assigned short Language Arts and Math activities at the beginning of each week. The assignments should be worked on nightly to help encourage time management skills. At the end of each week, the homework will be returned to school in a special folder. The parent/grown-up role is to help students review and correct homework each night. Reading with your child nightly is a wonderful way to observe growth while sparking conversation about a variety of topics. Once homework begins, students will usually have ten minutes of homework, plus their shared reading time. This is a suggested guideline and will vary from night to night, and from teacher to teacher to a small degree. Our goal is not to standardize homework amount for our students because children vary in their abilities, focus, and motivation. Students are responsible for packing up necessary materials at the end of the day. Please help them to stay organized by going through their folders nightly.

CO-CURRICULARS

Students engage in co-curricular "intensive" rotations that change every three 6-day rotations and keeps teachers and students learning within a cohort model.

- Physical Education (PE) - 2x every six-day rotation
- World Language - 2x every six-day rotation (alternating semesters of Mandarin and Spanish)
- Music - 2x every six-day rotation
- Art - 2x every six-day rotation
- Library- 1x every six-day rotation
- Computer- 1x every six-day rotation
- Science/Social Studies- 3x every six-day rotation

GRADE 1 ACADEMIC SUBJECTS

LANGUAGE ARTS

Chapin School's Language Arts curriculum is a balanced program that fosters students' skills in listening, speaking, reading, and writing. Through active participation in small and large group instruction and discussions, students develop skills in critical-thinking and effective oral and written communication. Students are encouraged to think and then to express their ideas logically, critically, and creatively, as well as search for, organize, evaluate, and apply information. We place emphasis on the development of study skills and the integration of media in the communication process. Based on the understanding that literacy develops through proficiency in the areas of reading, writing, speaking, thinking, and listening, the language arts curriculum employs a sequential, developmentally appropriate focus, enabling students to become more effective communicators and to navigate the complexities of modern

media. Fundamental to our reading program are independent reading selections tailored to students' reading goals, interests, and ability level. Personalized reading goals are identified, recorded, and accessible to students during their reading sessions. As students demonstrate proficiency with strategies related to these goals, new goals are identified and related strategies presented, providing students with ongoing support, challenge, and purpose for their reading. It is our mission and purpose to present a curriculum that will foster in our students a lifelong love of reading. For fiction selections, group lessons center around sequencing, identifying beginning, middle, and end, retelling the story, detailed description of character and setting. For non-fiction selections, students develop techniques for recognizing text features, and demonstrating their understanding of new information.

The first grade Language Art program is comprised of three elements:

READING WORKSHOP

Students use mentor texts and shared read alouds and are exposed to literature on their own independent reading levels. They read both fiction and nonfiction literature in many different genres, learn core strategies for decoding unknown words, build stamina for independent reading, and apply fluency and comprehension strategies based on their individual goals. These goals are accomplished through whole group, small group, and one-to-one conferring.

Student objectives for Reading Workshop include:

- Develop a strong love of literature
- Develop stamina needed to build fluency and comprehension.
- Expand upon vocabulary to promote growth and understanding in independent texts
- Develop skills and strategies that promote fluency and accuracy when reading independently
- Develop word recognition skills to promote independent reading
- Build knowledge of word attack strategies when decoding unfamiliar text
- Comprehension of heard text
- Recall in both oral and written form of how a story progress, which includes identifying the key components of the beginning, middle, and end of a story
- Order key plot points (sequence) of a story
- Use information gained from the illustrations, characters, and plot to make predications
- Gather new information

WRITING WORKSHOP

Students learn to view themselves as writers. They move through the process of drafting revising, editing, and publishing with guided instruction at each step of the process, which promotes their understanding of the writing process, models the elements of good writing, and enables the students to make connections to personal experience. Students use shared mentor texts to learn different craft moves. Students benefit from working in small groups and having one-to-one conferring meetings with their teachers to grow as writers.

Student objectives for Writing Workshop include:

Personal Narrative/Small Moment

- Move through the writing process to develop small moment stories that reflect their life and experiences
- Learn to add dialogue, expression words, and ways to hook their reader
- Expand their use of description word
- Begin to revise their pieces to create a stronger visual representation in the reader's mind

Non-Fiction

- Learn how non-fiction writing and how it differs from fiction writing
- Write text responses and use read text to answer questions

Poetry

- Read and write both free verse and structured poetry
- Begin to describe the world around them in greater detail

<u>WORD WORK</u>

During Word Work, spelling words, grammar rules and phonics are incorporated into the learning process. Foundations provides the basis for learning decoding strategies. Additional phonics resources are used to support explicit phonics instruction. Students learn to spell high frequency words and phonetic patterns. The goal of this program is to learn common spelling patterns and rules so that they may be implemented independently by the student in their own spelling.

Student objectives for Word Work include:

- Distinguish between the long vowel and short vowel sounds
- Learn the common vowel patterns often seen in the written language
- Recall sight word vocabulary from memory for both reading and writing purposes
- Exposure to common blends in the English language and the rules that determine them. These include sh, th, wh, ch
- Begin to apply the basic rules for correct capitalization
- Review basic rules of punctuation and different types of sentences
- Work on handwriting skills and proper letter formation

Assessments and Curricular Shares

- Student Conferencing
- Writing Evaluations and Rubrics
- Written work samples
- Teacher observation/ Anecdotal Records
- Participation in classroom discussions

- Classwork / homework assignments
- Spelling Inventory
- Developmental Reading Assessment (DRA2)
- Writing Celebrations

MATHEMATICS

Chapin's mathematics program serves as a core context for developing skills in organizing and analyzing information, thinking critically, communicating logical reasoning, and solving problems. Chapin teaches lifelong strategies for accurate and efficient computation and application of concepts. This is accomplished in a manner that promotes problem-solving independently and collaboratively. Student levels of understanding of core concepts are continually evaluated and differentiation, extension, and challenge are provided as skills demonstrated. Our curriculum is focused on developing the students' ability to move from the concrete to pictorial to abstract stages. Students are taught how to solve complex problems in multiple ways. In first grade, students focus on developing a pictorial interpretation of a problem and solve for an unknown, demonstrate relative quantities, and provide an answer statement that correlates to the question in the problem.

Place Value and Numeration

- Understand numbers, ways of representing numbers, relationships among numbers, and number systems
    - Read and write numbers to 120
    - Understands that a numbers place determines its value
    - Compares and orders numbers to 120
    - Model, describe and extend basic patterns
    - Understand base ten operations through 20
- Uses logical thinking to make reasonable estimates pertaining to different disciplines of math to develop mental math skills.
    - Simple number bonds
    - Make reasonable estimates

Operations and Algebraic Thinking:

- Use of number bonds to solve addition and subtraction
- Correctly use the signs and language of addition and subtraction
- Understand meaning of addition and subtraction and how they relate to one another
- Use the commutative and associative properties to solve addition
- Write and solve addition and subtraction problem
- Solve word problems with objects, drawings, and equations

Fractions:

- Identify fractions in relation to the whole of the ¼, ½, ¾
- Use fraction vocabulary to describe whole, halves, equal parts, thirds, and fourths
- Use manipulatives to demonstrate fractions of set

- Show fractions of a circle and rectangle

Money:
- Identify quarters, dollars, nickels, and pennies as well as their values
- Compare and order money based on its value
- Add and subtract values of money

Time:
- Identification of the hands on the clock as well as their meanings
- Accurately tell time to the hour, half hour, and five minutes both digital and analog
- Identify days of the week, month of the year
- Understand and use all aspects of the calendar

Geometry:
- Identify, draw, describe and classify basic geometric shapes
- Analyze characteristics and properties of two- and three- dimensional geometric shapes and develop mathematical arguments about geometric relationships

Data Analysis and Probability:
- Formulate questions that can be addressed with data and collect, organize, and display relevant data to answer them
- Use tables, pictures, lists, Venn diagrams, charts, bar graphs, or pictographs to represent or interpret data
- Collect data and generate individual means of recording information
- Develop and evaluate inferences and predictions that are based on data
- Begin to make realistic estimations based on information and experience
- Understand and apply basic concepts of probability

Measurement:
- Understand measurable attributes of objects and the units, systems, and processes of measurement
- Use various tools to measure length, width, height, and weight
- Make reasonable estimates of measurement
- Apply appropriate techniques, tools, and formulas to determine measurements

Resources:
- *Math in Focus* – Singapore Math
- *Number Corner*
- Manipulatives
- Math journals
- Online resources

Assessments

- Teacher observation of assignments and activities
- Work in math journals
- Math in Focus evaluations
- Student work sample

SOCIAL STUDIES

The first-grade social studies curriculum emphasizes the need to develop an appreciation for a diverse society within a cooperative learning environment. It is the primary goal of Chapin's Social Studies Program to promote the intellectual and social growth of our students by presenting them with the opportunity to study a variety of topics and cultures to develop an understanding of themselves as individuals, members of a group within a society and members of the global community. The first-grade program fosters an appreciation of history, geography, economics, social responsibility, and the democratic traditions of our country. In addition to the content to be covered, certain subject-specific skills are emphasized, including mapping skills, note-taking, writing, research, and presentation skills. The program encourages citizenship, critical-thinking, and the use of technology to share thinking. During this process of learning, the development of opinions supported by evidence is encouraged, as is tolerance for the differing opinions of others.

Unit Objectives: Citizenship and Laws

- Students learn what it means to be a citizen of a community, and the rules that help people live together respectfully
- Students learn the meaning of citizenship and people's rights
- Understand the basic concepts and structures of democracy

Unit Objectives: Geography

- Students become exposed to key vocabulary associated with maps including land masses and bodies of water
- Students learn about the resources and weather of different climates
- Students learn about and compare plant and animal life in different regions

Unit Objectives: United State of America

- Students learn the foundational facts of the early years of America
- Students learn the symbols of the United States of America
- Students learn about the holidays and celebrations of their classmates

Unit Objectives: Our Changing World

- Students learn about cultures and celebrations around the world
- Students learn about families and ways of living around the world

Assessments

- Student participation
- Student classwork and notes
- Teacher observation and anecdotal notes
- In-class projects based on rubrics

SCIENCE

In a world filled with scientific achievements and rapid technological developments, science and scientific thinking play a vital role in the lives of students. Students need to be fully aware of and skilled in science and in related fields to succeed in their further endeavors in education, careers, and everyday life. Additionally, scientific reasoning remains the backbone of critical-thinking and analysis in many diverse areas of study besides science and applied science such as economics, sociology, and even in some forms of philosophy. The study of science contributes to a student's understanding of the diversity of all that exists and an appreciation of the balance and value of that diversity. To these ends, a program emphasizing scientific inquiry, STEAM (Science, Technology, Engineering, Art, and Mathematics) and design-thinking is at the core of the school's science curriculum.

The implementation of STEAM and design-thinking across the curriculum supports critical-thinking and problem-solving. The design process asks students to ask, imagine, plan, create, and improve a solution to a problem, whether it is an everyday problem or an invention. Students are then asked to reflect on their designs, celebrating what went well and discussing areas of improvement. This is where true learning occurs.

Chapin School's science curriculum has five major goals that encompass the program from preschool through eighth grade. The first is to introduce the scientific method and have students effectively implement it in investigations that they carry out themselves and with other students. The second is to foster curiosity and inquiry, which help to facilitate the active engagement of students in the subject matter. The third is to stimulate an interest in and excitement about science, specifically the areas of earth science, life science, and physical science. The fourth is to expose students to technology and scientific equipment and to train them in the appropriate use of these. The fifth is to promote an awareness of new developments in science, technology, math, and other related fields.

Unit Objectives: Earth's Place in the Universe

- Observe and record the cycles of the moon
- Understand orbit
- Distinguish between moon phases based on appearance and observable features
- Compare Earth and Moon scale models
- Learn about daytime and nighttime sky, moonlight and moon shadows, and lunar landforms

Unit Objectives: Solids and Liquids

- Identify solids and compare based on properties of color, shape, rolling, stacking, hardness, magnetism, density, and buoyancy
- Identify and compare solids and liquids based on the interaction with waxed and plastic surfaces
- Learn how to use hand lens to make observations
- Observe and describe interactions between water and varieties of liquids

Unit Objectives: Seashore Ecosystems

- Properties of sand
- Categorize living and non-living parts of sand
- Recognition different types of pollution affecting seashore ecosystems and learn ways to have a positive impact on pollution

Unit Objectives: Life Cycle of Plants and Animals

- Students learn the key structural components of flowering plants.
- Observe seed germination
- Compare growth of plants from seeds, cuttings, bulbs, and roots
- Describe parts of seeds, cuttings, bulbs, and roots
- Learn about animals native to New Jersey

GRADE 2

Second grade is a time of social, emotional, and cognitive growth. As children gain confidence in their abilities, they develop a greater sense of independence. They are more willing to take risks. Their peer relationships become increasingly important, and their circle of friends broadens. Second graders begin to solve problems without adult intervention and assume greater responsibility for their actions. As expectations increase, students realize the need for structure and self-discipline. Better organizational habits begin to develop. Students are also more observant and "tuned in" to the world around them. Their ability to make connections and to relate one concept or idea to another gradually evolves. In second grade, an effort is made to integrate curricular themes, providing opportunities for students to make connections and relate ideas. The goal for the school year is to have all second graders become excited about learning and to view their learning as an engaging and fun experience.

CLASSROOM EXPECTATIONS

Respect, Responsibility, Honesty, Kindness, and Perseverance are the shared virtues of Chapin School. These virtues are the framework of our second-grade expectations. Respect and kindness must be always shown to all students. Students' sense of responsibility and perseverance continues to develop as they are held increasingly accountable for their behavior, as well as their academic performance. We expect students to work hard and to do their best. Instilling a growth mindset leads to a greater ability to persevere. Second graders are expected to always treat their teachers and one another with respect. In addition, students should work

and play cooperatively with peers. They learn to problem solve independently by implementing the Chapin Choices.

FIELD TRIPS
Second graders take a variety of field trips as extensions and/or culminations of many of our academic units/topics. When students leave the school campus, they are a representative of Chapin School and are expected to dress and behave accordingly. Please refer to more detailed permission slips as they become available.

**All off-campus learning trips will be evaluated within health and safety guidelines throughout the school year.*

HOMEWORK
Our homework policy, as stated in the Chapin Handbook and Directory, is that second-grade students will usually have up to twenty minutes of homework a night, plus independent reading time. This is a suggested guideline and will vary from night to night, and from teacher to teacher to a small degree. Our goal is not to standardize homework amounts for our students because children vary in their abilities, focus, and motivation. Our focus is on providing a guideline for daily expectations. Children will have language arts and math homework most nights, Monday thru Thursday. Students should also be independently reading at home each evening for approximately 20 minutes. Addition and subtraction facts should be practiced on nightly basis until mastered. Math games, which reinforce the concepts and skills introduced in class, are sent home periodically.

Parent or adult assistance is requested in ensuring that homework has been completed and packed for the next day. We ask that parents, not correct students' homework; teachers need to know when students need more time and instruction on a topic. Homework provides some of that information to teachers. Please reach out if homework is far exceeding the twenty-minute limit. Please help them to stay organized by going through their folders nightly.

CO-CURRICULAR SUBJECTS
Students engage in co-curricular "intensive" rotations that change every three 6-day rotations and keeps teachers and students learning within a cohort model.

- Physical Education (PE) - 2x per six-day rotation
- World Language - 2x per six-day rotation (alternating semesters of Mandarin and Spanish) Music - 2x per six-day rotation
- Art - 2x per six-day rotation
- Library - 1x per six-day rotation
- Technology - 1x per six-day rotation
- Science/Social Studies - 6x per six-day rotation

GRADE 2 ACADEMIC SUBJECTS

LANGUAGE ARTS

Chapin School's Language Arts curriculum is a balanced program that fosters students' skills in listening, speaking, reading, and writing. Through active participation in small and large group instruction and discussions, students develop skills in critical thinking and effective oral and written communication. Students are encouraged to think and then to express their ideas logically, critically, and creatively, as well as search for, organize, evaluate, and apply information. We place emphasis on the development of study skills and the integration of media in the communication process. Based on the understanding that literacy develops through proficiency in the areas of reading, writing, speaking, thinking, and listening, the language arts curriculum employs a sequential, developmentally appropriate focus, enabling students to become more effective communicators and to navigate the complexities of modern media. Fundamental to our reading program are independent reading selections tailored to students' reading goals, interests, and ability levels. Personalized reading goals are identified, recorded, and accessible to students during daily independent reading sessions. As students demonstrate proficiency with strategies related to these goals, new goals are identified and related strategies presented, providing students with ongoing support, challenge, and purpose for their independent reading. It is our mission and purpose to present a curriculum that will foster in our students a lifelong love of reading. For fiction selections, group lessons center around the analysis of plot, character, and theme. For non-fiction selections, students develop techniques for organizing, critical questioning, and demonstrating their understanding of new information.

The second grade Language Art program is comprised of three elements:

<u>READING</u>

During Reading students are exposed to different genres of literature. These include fantasy, realistic fiction, and mysteries. Students learn core strategies for decoding unknown words, reading fluently, as well as a multitude of comprehension strategies based on a student's individual needs. This is done through small groups and one-to-one conferring.

Reading objectives include:

- Expand upon a student's vocabulary to promote growth and understanding in independent texts
- Develop a strong love for literature and the various genres it employs
- Develop skills and strategies that promote fluency and accuracy when reading independently.
- Increased confidence in oral reading to peers
- Develop word recognition skills to promote independent reading
- Build students' knowledge of word attack strategies when decoding unfamiliar text
- Answer questions about the characters, setting, problem, and solution to demonstrate a key understanding of important details in a text
- Recall in both oral and written form how a story progress. This includes identifying the key components of the beginning, middle, and end of a story

- Be able to order key plot points (sequence) of a story
- Use information gained from the illustrations, characters, and plot to infer opinions, key plot details, and character traits
- Interpret various structures of poetry and their meaning
- Make connections to oneself, the world around them, other texts, or various forms of media to the story that is being read
- Gather new information
- Use clues from the illustrations and plot details to make predictions about characters or key plot points
- Distinguish between facts and opinions
- Identify the main idea or moral/theme of a story

WRITING

During Writing, we use a workshop model that encourages students to view themselves as writers. They move through the process of drafting, revising, editing, and publishing independently. This structure promotes students' understanding of the writing process, models the elements of good writing and genres, and enables the students to make connections to personal experience. Students utilize mentor texts to evaluate important areas of a genres' craft. Students are then able to implement these crafts into their own writing. Also, through small groups and one-to-one conferring, students can experience growth in their writing.

Writing workshop objectives include:

Poetry

- Read and write structured poetry
- Make their poetry come alive through comparisons, line breaks, alliterations, and onomatopoeia
- Learn to use calculated word choices to create a mood or a feeling within their poem
- Begin to see the world and objects around them in a different way

Personal Narrative/Small Moment

- Move through the writing process to develop small moment stories that reflect their life and experiences
- Learn to add craft into their writing. This may include adding comparisons, quotations and conversations, and strong feelings of characters
- Learn to expand on their details while making characters think, move, and feel.
- Begin to revise their pieces to create a stronger visual representation in the reader's mind
- Expand on their written vocabulary while adding descriptive language to their writing samples while adding descriptive language to their writing samples

Informational

- Learn the dynamic of informational writing and how it differs from narrative writing

- Through mentor texts, students begin to add text features to their writing pieces such as labels, diagrams, captions, tables of contents, glossaries, and indexes
- Exposure to grouping their main ideas together into chapters
- Expand on their writing by asking the questions a reader might ask about their topic. These might include *who, what, where, when, why, and how*
- Expand on their written vocabulary while adding descriptive language to their writing samples

Opinion Writing (based on Literature)

- Learn the structure and key components of a friendly letter
- Formulate and express an opinion on a book, character, illustration, or plot point and support their opinion with text evidence
- Nominate books for awards while using text evidence on characters or plot points to support their opinion

<u>WORD WORK</u>

During Word Work, spelling words, grammar rules, and phonics are incorporated into the learning process. Students will work on making connections between sounds of letters with both regular and irregular spelling patterns. We will be using the Sitton Spelling Program, which is a skill-based and concept-based approach to learning. The focus will be on learning phonetic patterns. The goal of this program is to learn common spelling patterns and rules so that they may be implemented independently by the student in their own spelling. While many spelling programs promote weekly spelling lists, the Sitton Program is a spiraling curriculum - where keywords circulate through units. Core skills are presented with each unit and are repeatedly tested and reviewed.

Word work objectives include:

- Distinguish between the long vowel and short vowel sounds
- Learn the common long vowel patterns often seen in the written language
- Recall sight word vocabulary from memory for both reading and writing purposes
- Students learn the rules for making nouns plural, as well as the structure for irregular nouns.
- Learn rules for conjugating verbs into the present and past tense based on subject/verb agreement
- Exposure to common blends in the English language and the rules that determine them. These include sh, th, wh, ch, ow/ou, aw/au, oo, and r-controlled blends.
- Recall the basic rules for correct capitalization
- Review basic rules of punctuation, while also becoming exposed to correct comma and quotation usage
- Exposure to various forms of words; these include homophones, synonyms, antonyms, compound words, homographs (multiple meaning words), and contractions

Assessment and Curricular Shares

- Student Conferencing
- Writing Evaluations and Rubrics
- Written work samples
- Teacher observation and anecdotal records
- Participation in classroom discussions
- Classwork/homework assignments
- Sitton Spelling Assessment
- Developmental Reading Assessment (DRA2)
- Writing Celebrations

MATHEMATICS

Chapin's mathematics program serves as a core context for developing skills in organizing and analyzing information, thinking critically, communicating logical reasoning, and solving problems. Chapin teaches lifelong strategies for accurate and efficient computation and application of concepts. This is accomplished in a manner that promotes problem-solving independently and collaboratively. Student levels of understanding of core concepts are continually evaluated and differentiation, extension, and challenge are provided as skills demonstrated. Our curriculum is focused on developing the students' ability to progress through the concrete to pictorial to abstract stages. Students are taught how to solve complex problems in multiple ways including Model Draw Methods (Bar Modeling). In second grade, students focus on developing a pictorial interpretation of a problem and solve for an unknown, demonstrating relative quantities based on bar sizes and writing an answer statement that correlates to the question in the problem.

Whole Numbers and Operations:

Addition:

- Compute fluently, facts from 0-20.
- Compute 3-digit addition sentences with and without regrouping

Subtraction:

- Compute fluently, facts from 0-20
- Compute 3-digit subtraction sentences with and with regrouping
- Compute subtraction sentences across zeros

Multiplication:

- Introduction to multiplication through pictorial models, skip counting, arrays, and number lines while stressing the need for equal parts
- Exposure to facts 0-5 and 10

Division:

- Introduction to division through pictorial models, repeated subtraction, arrays, and number lines stressing the need for equal parts

- Exposure to facts 0-5 and 10/0-11

Fractions:
- Identify fractions in relation to the whole
- Compare and order fractions using a pictorial model and a number line
- Introduction to halves, thirds, and fourths

Money:
- Identify quarters, dollars, nickels, and pennies as well as their values
- Recognize and label the values of dollar bills up to $20.00
- Compare and order money based on its value
- Add and subtract values of money to determine total cost and change given

Time:
- Identification of the hands on the clock as well as their meanings
- Accurately tell time to the hour, half hour, and five minutes both digital and analog
- Distinguish between a.m. and p.m.
- Calculate elapsed time when starting on the hour or half hour

Geometry:
- Identify, draw, describe and classify two- and three-dimensional geometric shapes
- Manipulating shapes to create larger shapes and making patterns

Measurement:
- Understand measurable attributes of objects and the units, systems, and processes of measurement
- Use various tools to accurately measure and record length and width (inches, feet, yards, centimeters, and meters)

Place Value and Numeration:
- Understand numbers, ways of representing numbers, relationships among numbers, and number systems
    - Read and write numbers to 1,000/10,000 using standard, word, and expanded form
    - Understands that a numbers place determines its value
    - Compares and orders numbers
- Uses logical thinking to make reasonable estimates and develop mental math skills
    - Introduction to rounding
    - Introduction to estimation
    - Simple and extended number bonds

Assessment:
Formal:
- Chapter tests

- Students utilize their math journal to think critically and in multidimensional ways
- Students use their math journals to strengthen their math language, or math talk, to develop a deeper understanding of concepts

Informal:

- Teacher Observation
- Math Talk Conversations with peers

SOCIAL STUDIES

Our second-grade social studies curriculum emphasizes the need to develop an appreciation for a diverse society within a cooperative learning environment. It is the primary goal of Chapin's Social Studies Program to promote the intellectual and social growth of our students by presenting them with the opportunity to study a variety of topics and cultures to develop an understanding of themselves as individuals, members of a group within society and members of the global community. Throughout the second-grade units, the students hone map skills, critical assessment of information, compile information in written form, and present their findings to their classmates. In addition to acquiring factual knowledge, students learn to make connections between events of the past and present, and connections among people. Chapin's social studies curriculum fosters curiosity, respect, and the development of multiple perspectives. The program encourages critical thinking. During this process of learning, the development of opinions supported by evidence is encouraged, as is tolerance for the differing opinions of others.

Unit Objectives: Communities and Their Economies

- Students learn what it means to be a citizen of a community, while simultaneously learning the different communities they are a part of
- Students take an in-depth look at three types of communities: rural, suburban, and urban, and the characteristics that make up each community
- Students create an interactive representation of the different communities
- Students learn the basic definitions of producers and consumers and how that relates to the world around us
- Students learn about supply and demand while exploring how this affects the world, we live in
- Students learn how communities in other parts of the world are the same and different.
- Students work collaboratively on a STEAM project about communities

Unit Objectives: Map Skills and Geography

- Students become exposed to key vocabulary associated with maps including compass rose, key/legend, symbols, and scale
- Students can begin to distinguish between a country, continent, state, and city.
- Students learn the names and locations of the four main bodies of water on earth and the seven continents including their placement on a map and globe
- Students independently research and explore one continent, and then present their information to their peers

Assessment:

- Student participation
- Student classwork and notes
- Teacher observation and anecdotal notes
- In-class projects based on rubrics

SCIENCE

In a world filled with scientific achievements and rapid technological developments, science and scientific thinking play a vital role in the lives of students. Students need to be fully aware of and skilled in science and in related fields to succeed in their further endeavors in education, careers, and everyday life. Additionally, scientific reasoning remains the backbone of critical thinking and analysis in many diverse areas of study besides science and applied science such as economics, sociology, and even in some forms of philosophy. The study of science contributes to a student's understanding of the diversity of all that exists and an appreciation of the balance and value of that diversity. To these ends, a program emphasizing scientific inquiry, STEAM (Science, Technology, Engineering, Art, and Mathematics), and design-thinking is at the core of the school's science curriculum.

The implementation of STEAM and design-thinking across the curriculum supports critical thinking and problem-solving. The design process asks students to ask, imagine, plan, create, and improve a solution to a problem, whether it is an everyday problem or an invention.

Students are then asked to reflect on their designs, celebrating what went well and discussing areas of improvement. This is where true learning occurs.

Chapin School's science curriculum has five major goals that encompass the program from preschool through eighth grade. The first is to introduce the scientific method and have students effectively implement it in investigations that they carry out themselves and with other students. The second is to foster curiosity and inquiry, which help to facilitate the active engagement of students in the subject matter. The third is to stimulate an interest in and excitement about science, specifically the areas of earth science, life science, and physical science. The fourth is to expose students to technology and scientific equipment and to train them in the appropriate use of these. The fifth is to promote an awareness of new developments in science, technology, math, and other related fields.

Unit Objectives: Living things: Habitats and Adaptations

- Students learn the key structural components of insects, myriapods, and arachnids
- Explore the basic needs of an insect
- Students explore the life cycle of mealworms and painted lady caterpillars by taking responsibility of these creatures
- Document observations of how their insects are changing
- Students research an animal to learn about basic needs, habitat, and survival

Unit Objectives: Balancing and Weighing

- Explore a beam balance and evaluate fulcrum placement and its effects on balance
- Explore an equal arm balance and use it to give estimations of weight of object
- Compare and contrast equal arm balances and beam balances
- Compare and order the weight of objects using critical thinking skills and an equal arm balance
- Utilize an equal arm balance to determine the volume of unknown objects

Unit Objectives: Air and Weather

- Observe and record the changes in temperature on a line graph
- Draw conclusions and make observations based on the temperature
- Using a bar graph, record daily weather patterns while make observations and conclusions about the weather
- Develop a vocabulary for key weather instruments
- Explore the water cycle and how it relates to the world around us
- Distinguish between the seasons and the typical weather patterns important to each as based on New Jersey's weather patterns

Assessments:

- Teacher observations
- Performance assessments
- Lab write-ups, quizzes
- In-class project

GRADE 3

Third grade is a transitional year that sees children through huge leaps in physical, social, emotional, and cognitive growth. The third-grade curriculum allows children to expand their views through a Humanities based curriculum. Different perspectives are gleaned from third-grade literature that is thematically connected to the Social Studies curriculum. Children also have many opportunities to further develop their individual "voice" by writing narrative, informational, opinion, and persuasive pieces. Math builds on the concepts and skills presented in second grade with an emphasis on multiplication, division, fractions, and multi-step word problems.

CLASSROOM EXPECTATIONS

A strong commitment to Chapin's five virtues: respect, responsibility, honesty, kindness, and perseverance foster an environment for character development that complements our rigorous academic programs. These virtues are the framework of our third-grade expectations. Respect and kindness are values shown through our everyday interactions. Students' sense of responsibility and perseverance continues to develop as they are encouraged by dedicated

faculty who create environments where critical thinking, effective communication, creativity, and curiosity flourish.

FIELD TRIPS
Third graders take a variety of field trips as extensions and/or culminations of many of our academic units/topics, such as visiting the Sterling Mine Museum and Churchville Nature Center. When students leave the school campus, they are a representative of Chapin School and are expected to dress and behave accordingly. Please refer to more detailed permission slips as they become available.

STANDARDIZED TESTING
The ERB Standardized Test is administered during the spring. The battery of tests includes both verbal and quantitative reasoning sections, as well as achievements tests in auditory comprehension, reading comprehension, writing mechanics, writing concepts and skills, and mathematics. Results of this test, which include national, suburban, and independent school norms, are mailed to parents as soon as they are available to us, approximately one month after test administration. Students with a diagnosed and documented need for additional testing time or other testing accommodations will be tested in accordance with their needs. Please note that no more than time and a half will be given in any case. If you think your child needs special testing accommodations, please make an appointment to speak with the Assistant Head of School.

HOMEWORK
Our homework policy, as stated in the Chapin Student and Parent Handbook is that third-grade students will usually have twenty minutes of homework a night, plus independent reading time.

This is a suggested guideline and will vary from night to night, and from teacher to teacher to a small degree. Our goal is not to standardize homework amounts for our students because children vary in their abilities, focus, and motivation. Our focus is on providing a guideline for daily expectations. Children will have language arts and math homework most nights, Monday thru Thursday.

Parent or adult assistance is requested in ensuring that homework has been completed and packed for the next day. We ask that parents not “over-correct” students’ homework. Teachers need to know when students need more time and instruction on a topic. Homework provides some of that information to teachers. Please reach out if homework is far exceeding the twenty-minute guideline. Students are responsible for writing down their assignments and for packing up necessary materials at the end of the day. Some students need support with this skill at the beginning of the year, and we will provide the structure and support they need to be successful. We ask that you help them to become independent by not returning to school for books or folders that might have been left behind. Please help them to stay organized by going through their folders nightly.

CO-CURRICULAR SUBJECTS

Students engage in co-curricular “intensive” rotations that change every three 6-day rotations and keeps teachers and students learning within a cohort model.

- Physical Education (PE) - 2x per six-day rotation
- World Language - 2x per six-day rotation (alternating semesters of Mandarin and Spanish)
- Music - 2x per six-day rotation
- Art - 2x per six-day rotation
- Library - 1x per six-day rotation
- Technology - 1x per six-day rotation
- Science - 3x per six-day rotation
- Social Studies - 3x per six-day rotation

GRADE 3 ACADEMIC SUBJECTS

LANGUAGE ARTS

Chapin School’s Language Arts curriculum fosters students’ skills in listening, speaking, reading, and writing. Aligned with the Social Studies curriculum, students engage in a Humanities based approach throughout the year. Through active participation in small and large group instruction and discussions, students develop skills in critical thinking and effective oral and written communication. Students are encouraged to think and then to express their ideas logically, critically, and creatively, as well as search for, organize, evaluate, and apply information. Based on the understanding that literacy develops through proficiency in the areas of reading, writing, speaking, thinking, and listening, the language arts curriculum employs a sequential, developmentally appropriate focus, enabling students to become more effective communicators and to navigate the complexities of modern media. Fundamental to our reading program are independent reading selections tailored to students’ reading goals, interests, and ability levels. Personalized reading goals are identified, recorded, and accessible to students during daily independent reading sessions. As students demonstrate proficiency with strategies related to these goals, new goals are identified and related strategies presented, providing students with ongoing support, challenge, and purpose for their independent reading. It is our mission and purpose to present a curriculum that will foster in our students a lifelong love of reading.

Third graders are also provided with many tools that support their development as young writers. In addition to daily responses to literature, students compose extended narrative, persuasive, opinion, and informational writing pieces over the course of the year. Emphasis is also placed on utilization of the writing process including the use of graphic organizers during pre-writing, and conferencing with instructors during the revising and editing process. Foundational lessons in grammar and spelling also support students in their growth in this area.

<u>WRITING</u>

Writing objectives include:

- Demonstrate an ability to write a personal narrative, persuasive essay, poetry, and nonfiction writing
- Identify nouns, verbs, adjectives, adverbs, and pronouns
- Apply grammar rules and conventions related to capitalization and punctuation: period, question mark, exclamation point, quotation marks, apostrophe, and commas
- Identify and apply writing strategies according to purpose with emphasis on narrative persuasive, opinion, and informational pieces
- Utilize the writing process to develop the skills of prewriting, drafting, revising, editing, and publishing with an ability to proofread and edit own work
- Generate sufficient content and detail in written piece
- Use complete and varied sentences in written pieces
- Develop effective listening and oral communication skills using text evidence
- Improve cursive handwriting and typing skills

Units of study:

- Personal narrative
- Historical fiction
- Informational
- Opinion
- Persuasive writing

<u>READING</u>

Reading objectives include:

- Develop enthusiastic lifelong readers
- Identify and analyze literary genres including nonfiction, biographies, historical fiction, fiction, and poetry
- Develop an understanding of writer's craft and voice by reading a variety of authors
- Demonstrate literal comprehension by responding to literature
- Identify literary elements including plot, dialogue, setting, and characterization
- Develop and apply inferencing skills across subject areas
- Identify and apply reading strategies for learning new information: identifying the main idea, summarizing, skimming, and scanning for information
- Apply decoding strategies
- Demonstrate fluency in oral reading
- Demonstrate ability to select appropriate independent reading texts
- Learn and apply new vocabulary
- Respond to literature orally and in written form
- Identify and apply literature response strategies
- Develop effective listening and oral communication skills using text evidence

Assessment:

- Writing pieces
- Journal entries

- Quizzes/ tests
- Teacher observation
- Participation in classroom discussions
- Classwork / homework assignments
- Oral reading
- Oral presentations

MATHEMATICS

Chapin's mathematics program develops skills in organizing and analyzing information, thinking critically, communicating logical reasoning, and solving problems. Chapin teaches lifelong strategies for accurate and efficient computation and application of concepts. Students' growth is developed through a rigorous program enriched through differentiation and extension. Our curriculum is focused on developing the students' ability to progress through concrete, pictorial, and abstract concepts. Students solve complex problems using multiple strategies including, Model Draw Methods (Bar Modeling) and the standard algorithms. In third grade, students continue to develop skills learned in previous grades with an emphasis on multiplication, division, fractions, and multi-step problems.

<u>WHOLE NUMBERS AND OPERATIONS</u>

Place Value:

- Identifies the value of a number according to its place
- Writes, orders, and compares numbers through 10,000
- Rounds and estimates numbers

Addition:

- Properties: Uses and identifies commutative and associative properties of addition
- Solves multi-digit addition problems with and without regrouping

Subtraction:

- Solves multi-digit subtraction problems, without and regrouping, including across zeroes

Fractions:

- Finds simple equivalent fractions
- Compares and orders fractions
- Adds and subtracts fractions with common denominators

Data and Probability:

- Creates and interprets a pictograph, bar graph, and line graph
- Solves problems using information presented in a graph
- Determines the best way to represent a data set
- Uses math vocabulary to communicate probability
-

Decimals:

- Identifies the value of a decimal according to its place
- Solves decimal equations related to money amounts

Multiplication:

- Properties: Uses identity and zero properties of multiplication
- Become fluent in multiplication tables.
- Multiplies two and three-digit numbers by a one-digit number
- Identifies factors and multiples

Division:

- Divides two, three-digit dividends by one-digit divisors
- Solve one and two-step division problems
- Interprets remainders

Geometry:

- Differentiates between parallel and perpendicular lines
- Names angles as compared to right angle
- Identifies two-dimensional polygons
- Measure perimeter and the area of 2D shapes
- Recognizes transformations
- Recognize a line of symmetry

Measurement:

- Identifies time to the minute
- Calculates elapsed time
- Converts between minutes and hours
- Calculates distance using customary and metric units
- Convert among metric units of length

Assessment:

- Student classwork and homework
- Teacher observations
- Journals explaining mathematical thinking
- Applied math projects
- Tests/quizzes

SOCIAL STUDIES

Chapin's third grade Social Studies curriculum, aligned with Language Arts, comes together in a Humanities based curriculum. Focusing on North American regions and Indigenous populations and cultures, the curriculum connects how humans interact with the physical environment, geography, natural resources, and economies in particular regions. Throughout these units, the students hone map skills, note-taking methods, and critical assessment of information.

Students conduct research, compile information in written form, and participate in cross-curricular projects using a variety of skills.

In addition to acquiring factual knowledge, students learn to make connections between events of the past and present, and connections among people. Chapin's social studies curriculum promotes the intellectual and social growth of our students and fosters curiosity, respect, and the development of multiple perspectives. The program encourages critical thinking, civil discourse, and effective communication. During this process of learning, the development of opinions supported by evidence is encouraged, as is tolerance for the differing opinions of others.

Objectives:

- Identify and use primary and secondary sources effectively
- Read informational text closely to make logical inferences, determine central ideas
- Practice skimming and scanning to locate key information
- Develop the ability to problem solve individually and as part of a group
- Develop communication skills in discussion and collaborative groups
- Research and organize information for various types of presentations
- Demonstrate an understanding of the relationship between humans and the natural environment
- Understand the meaning of culture and its varied components
- Understand the resources and natural wonders of the United States
- Generate a global awareness of self as part of a town, state, country, continent, and world
- Develop knowledge of Indigenous cultures and traditions
- Identify all 50 states
- Distinguish between geographical and political features

Units of study:

- Indigenous communities and cultures
- The Fifty States by region
- Map Skills

Assessment:

- Student participation
- Student classwork and notes
- Teacher observation and anecdotal notes
- In-class projects based on rubrics
- Use iPads apps and robotics to demonstrate learned concepts and information
- Tests/quizzes

ACADEMIC INTEGRATION

Academic Integration (AI) occurs two times in a six-day rotation and is led by a third-grade classroom teacher in collaboration with co-curricular teachers, and the Academic Technologist. During AI, students learn to use the iPad as an academic tool to support their learning in other content areas. Students learn "core apps" that are used across the curricular areas. Digital Citizenship concepts are taught in tandem with skill development. Throughout the year, students learn how to divide long-term projects into smaller chunks, organize their time, use a rubric to self-monitor work quality, collaborate with others on project development, and apply skills across the content areas with greater levels of independence.
Students learn design processes as the AI teacher supports and guides students through the process of the short or long-term project. Throughout each project, students review the rubric and break a project down into manageable parts. Teachers support students as they start the task of working through the project with a focus on backward design to meet a deadline, as well as emphasizing the work habits and application of academic behaviors as written in the AI rubric. Hands-on, design projects are integral to the AI program. Through the application of the design-thinking process (Ask, Imagine, Plan, Create, Improve, Present), students work in small teams to complete specified design challenges and reflect on the process.

Organization and Study Skills:

- Identify and apply strategies for organizing school materials, managing large projects, time, and test preparation
- Develop goal-setting techniques
- Identify and apply routines for successful completion of projects
- Identify and apply strategies for the effective use of a rubric
- Identifying and utilizing proper resources for projects
- Introduce the concept of learning "how to learn" and study skills
- Encourage the use of techniques and processes so that students become more proficient learners
- Provide opportunities for immediate application of various study skills
- Teach strategies that can be used in other learning situations
- Identify and apply strategies for conducting research on a topic including:
    - identification of appropriate reference sources
    - identification of primary vs. secondary sources
- Develop and demonstrate oral presentation skills
- Learn strategies for following written, oral, multi-step directions
- Use diagrams, charts, and graphs to classify and synthesize information
- Develop and create cross curricular projects

Technology Integration Skills:

- Develop and apply skills in collaboration and design-thinking projects, time, and test preparation
- Utilize "Core Apps" and software applications to demonstrate understanding of content and present on a topic
- Apply the design-thinking process to complete select tasks

Assessment:

- Teacher observation
- Self-evaluation
- Student work
- In-class projects/rubric

SCIENCE

In a world filled with scientific achievements and rapid technological developments, science and scientific thinking plays a vital role in the lives of students. Students need to be fully aware of and skilled in science and in related fields to succeed in their further endeavors in education, careers, and everyday life. Additionally, scientific reasoning remains the backbone of critical thinking and analysis in many diverse areas of study besides science and applied science such as economics, sociology, and even some forms of philosophy. The study of science contributes to a student's understanding of the diversity of all that exists and an appreciation of the balance and value of that diversity. To these ends, a program emphasizing scientific inquiry, STEAM (Science, Technology, Engineering, Art, and Mathematics), and design-thinking is at the core of the school's science curriculum.

The implementation of STEAM and design-thinking across the curriculum supports critical thinking and problem-solving. The design process asks students to ask, imagine, plan, create, and improve a solution to a problem, whether it is an everyday problem or an invention. Students are then asked to reflect on their designs, celebrating what went well and discussing areas of improvement. This is where true learning occurs.

Chapin School's science curriculum has five major goals that encompass the program from preschool through eighth grade. The first is to introduce the scientific method and have students effectively implement it in investigations that they carry out themselves. The second is to foster curiosity and inquiry, which help to facilitate the active engagement of students in the subject matter. The third is to stimulate an interest in and excitement about science, specifically the areas of earth science, life science, and physical science. The fourth is to expose students to technology and scientific equipment and to train them in the appropriate use of these. The fifth is to promote an awareness of new developments in science, technology, math, and other related fields.

Objectives:

- Provide opportunities for students to use inquiry methods and collaborate
- Encourage the development of process skills through careful observation, inquiry, inferring, predicting, and testing
- Communicate a problem and design a solution
- Understand and use science tools with skill and knowledgeable application
- To use critical-thinking skills in hypothesizing, analyzing, and drawing conclusions based on evidence and data sets

- Practice measurement, classification, and applied math concepts
- Develop the ability to collect and record quality data
- Analyze and interpret data
- Gather and present information in multiple ways using math and technology skills
- Promote a positive attitude and respect for the scientific process and evidence-based thinking

Units of study

- **Scientific Tools**: thermometer, gram weights, measuring tape and meter stick, beakers, syringe, volume measurement tools
- **Measurement:** Standard metric units; volume in liters and ml; mass in grams and kg; length in cm, meter, decimeter, and km.
- **Motion and Design**: Principles of motion; investigate motion, force, stored energy; use the design process to build vehicles that meet specifications; explore simple machines
- **Rocks and Minerals**: Identify and organize earth materials; understand crystal formation; identify and use properties of rocks and minerals for
- classification; understand the rock cycle, classification of rocks, and fossil formation.
- **Human Body:** Understand how bones, muscles, ligaments, and tendons work together; study stimulus and response of the muscular system; learn how the skeletal system supports movement, provides structure and protection; identify major bones; identify stationary, movable, hinge, and rotating joints.

Assessments:

- Teacher observations
- Performance assessments
- Lab write-ups, quizzes
- In-class projects

GRADE 4

Fourth grade is the bridge year between childhood and preadolescence. Students go through many changes throughout the year and need to feel secure, confident, and comfortable with themselves, their peers, and their surroundings. They learn new strategies to negotiate, compromise, and mediate differences with their classmates. During the year, students are presented with a variety of opportunities to help them develop the social skills necessary to navigate social interactions more independently. Conversations with the Student Character Committee help guide their transition to 5th grade, while fostering a broader sense of community. Fourth graders have an irrepressible enthusiasm for learning. This is the time when key skills, such as organization and time management, develop for students to become self-directed learners.

The fourth-grade curriculum includes units of study which allow students to view the world through the eyes of another, usually someone their own age, but in a different time or place. Cooperative learning activities in social studies and science, whether working on a design challenge presentation with a partner or exploring the far reaches of the universe, encourage students to develop their critical-thinking and social skills that enhance their friendships and learning. The irrepressible enthusiasm that fourth graders have for learning is met with appropriately challenging work that is supported by incrementally increased demands and teacher guidance. Students leave their fourth-grade year confident that they have mastered many of the skills necessary for future success and for taking on greater levels of independence and complexity.

CLASSROOM EXPECTATIONS

Respect, Responsibility, Honesty, Kindness, and Perseverance are the shared virtues of Chapin School. These virtues are the framework of our fourth-grade expectations. Respect and kindness must be always shown to all students. Students' sense of responsibility and perseverance continues to develop as they are held increasingly accountable for their behavior, as well as their academic performance. The workload in fourth grade increases and we expect students to work hard and to do their best. Over the course of the school year, students develop strategies for organizing and maintaining their materials, completing, and turning in homework on time, and creating a positive school community. Instilling a growth mindset leads to a greater ability to persevere. The value of academic integrity develops through our focus on honesty. Fourth graders are looked up to as leaders of the Lower School and should strive to model the five virtues.

HOMEWORK

As stated in the Chapin Parent and Student Handbook fourth grade students usually have forty minutes of homework each school night, plus independent reading time. Homework provides additional practice with skills and strategies presented in class.

Adult assistance is requested to ensure that homework has been completed and packed for the next day. We ask that parents not "over-correct" homework, as mistakes inform the teacher of topics and skills that require further reinforcement.

STANDARDIZED TESTING

The CTP V, published by Educational Records Bureau, is administered in the spring. This battery of tests includes assessments of verbal and quantitative skills, as well as sections that evaluate vocabulary, reading comprehension, writing mechanics, concepts, and skills, and mathematics. Results of this test, which include national, suburban, and independent school norms, are provided to families as soon as they are available to Chapin. Students with a diagnosed and documented need for additional testing time or other testing accommodations will be tested in accordance with their prescribed accommodations. Please note that no more than time and a half will be given in any case. If you think your child needs special testing accommodations, please make an appointment to speak with Denee Dill, Director of Academics.

FIELD TRIPS

Fourth graders take a variety of field trips as extensions and/or culminations of select academic units/topics. When students leave the school campus, they are representatives of Chapin School. Please refer to more detailed permission documents as they become available.

**All off-campus learning trips will be evaluated within health and safety guidelines throughout the 2021-22 school year.*

CO-CURRICULARS

- Physical Education (PE) - 3x every six-day rotation
  **students should wear athletic shoes*
- World Language - 2x every six-day rotation (half of the year spent in Mandarin and the other half in Spanish)
- Music - 1x every six-day rotation
- Ensemble- 1x every six-day rotation
- Art - 2x every six-day rotation
- Library- 1x every six-day rotation
- Technology- 1x every six-day rotation
- Science- 3x every six-day rotation
- Social Studies- 3x every six-day rotation
- Academic Integration - 2x every six-day rotation

GRADE 4 ACADEMIC SUBJECTS

LANGUAGE ARTS

Chapin School's Language Arts program fosters students' skills in listening, speaking, reading, and writing. Through active participation in small and large group instruction and discussions, students develop skills in critical-thinking and effective oral and written communication. Our reading program features class novels selected around a particular theme (e.g., Chapin's five

virtues, multi-cultural experiences, and immigration). Often these themes tie directly to units presented in social studies. Also fundamental to our reading program are independent reading selections tailored to students' reading goals and interests. For narrative selections, group lessons center around analysis of plot, character, and theme. For informational selections, students develop techniques for organizing, critical questioning, and demonstrating their understanding of new information.

Fourth graders are also provided a host of tools to grow as young writers. In addition to daily responses to literature, students compose extended narrative and informational writing pieces over the course of the year. Emphasis is placed on utilization of the writing process, including the use of graphic organizers during pre-writing, and conferencing with instructors and peers during the revising and editing processes. Foundational lessons in grammar and spelling support students' growth in the mechanics and language use of written communication.

Writing objectives include:

- Demonstrate an ability to write personal narrative, persuasive essay,
- Identify and apply rules of grammar and conventions
- Apply rules related to capitalization, punctuation, and spelling
- Identify and apply writing strategies according to purpose, with emphasis on narrative, persuasive, and informational pieces
- Utilize the writing process to develop the skills of prewriting, drafting, revising, editing, and publishing
- Generate sufficient content and detail in written pieces
- Use complete and varied sentence structure in written pieces
- Effectively use transition words to promote flow in writing piece

Reading objectives include:

- Develop enthusiastic lifelong readers because of exposure to multiple types of genres poetry, and informational writing.
- Identify and analyze literary genres including informational, biographies, historical fiction, realistic fiction, folktales, and poetry.
- Identify literary elements, including plot, dialogue, setting, and characterization
- Develop and apply inferencing skills
- Identify and apply reading strategies for learning new information
- Apply decoding strategies
- Demonstrate fluency in oral reading
- Demonstrate ability to select appropriate independent reading texts
- Learn and apply new vocabulary
- Demonstrate literal and inferential comprehension of reading selections
- Identify and apply literature response strategies
- Respond to literature orally and in written form using specific text evidence

Units of Study:

- **Self and Others**: Personal narratives, character traits
- **Immigration**: Character's point of view, using text evidence, primary and secondary resources
- **Poetry**: Descriptive language
- **Symbolism:** Relationship between story elements and symbolism
- Informational writing and persuasive essay

Types of assessments

- Writing pieces
- Journal entries
- Rubrics
- Quizzes/ tests
- Teacher observation
- Participation in classroom discussions
- Classwork/homework assignments
- Oral reading
- Oral presentations

** Alternative ways to demonstrate mastery include, but are not limited to: BookCreator, choice boards, Explain Everything, etc.*

MATHEMATICS

Chapin's mathematics program serves as a core context for developing skills in organizing and analyzing information, thinking critically, communicating logical reasoning, and solving problems. Students learn lifelong strategies for accurate and efficient computation and application of concepts. This is accomplished in a manner that promotes independent and collaborative problem-solving. Teachers continually evaluate each student's level of understanding of core concepts and offer differentiation, extension, and challenge is provided on an individual basis. Our curriculum is focused on developing the students' ability to progress through concrete representation, then pictorial, and finally to the abstract. Students learn how to solve complex problems in multiple ways, which include the model draw method. This method focuses on developing pictorial interpretations to solve multi-step problems, solve for an unknown, demonstrate relative quantities based on bar sizes, and develop an answer statement that correlates to the question in the problem.

Whole Numbers and Operations:
Place Value:

- Identifies the value of a number according to its place
- Writes, orders, and compares numbers through millions
- Rounds and estimates numbers to the nearest million

Addition:

- Properties: Uses and identifies commutative and associative properties of addition
- Solves multi-digit addition problems to millions, with and without regrouping

Subtraction:

- Solves multi-digit subtraction problems, without and regrouping, including across zeroes

Fractions:

- Converts mixed numbers and improper fractions
- Finds equivalent fractions
- Compares and orders fractions
- Adds and subtracts fractions and mixed numbers with common denominators
- Finds common denominators to add and subtract fractions with unlike denominators
- Expresses answers in simplest form

Decimals:

- Identifies the value of a decimal according to its place
- Writes, orders, and compares decimal
- Rounds and estimates decimals to the nearest hundredth
- Understands the relationship between decimals and fractions
- Converts fractions and decimals

Multiplication:

- Properties: Uses and identifies commutative, identity, zero, and associative properties of multiplication
- Multiplies two and three-digit numbers by one and two-digit numbers
- Identifies factors and multiples
- Identifies greatest common factor for two or more numbers
- Identifies least common multiple for two or more numbers

Division:

- Divides two, three, and four-digit dividends by one and two-digit divisors
- Interprets remainders

Data and Probability:

- Creates and interprets a bar graph, line graphs, and plots stem and leaf plots
- Solves problems using information presented in a graph
- Identifies and calculates mean, mode, median, and range
- Determines the best way to represent a data set
- Uses math vocabulary to express probability

Measurement:

- Calculates distance using metric and standard measurements
- Understands the relationship of temperature measurement using Celsius and Fahrenheit degrees

Assessment:

- Student classwork and homework
- Teacher observations
- Journals explaining mathematical thinking
- Applied math projects
- Tests/quizzes

SOCIAL STUDIES

Chapin's fourth grade social studies curriculum incorporates the eight strands of social studies: history, geography, culture, government, citizenship, economics, science, technology, and use of social studies tools. Students learn to identify the strands as they study Early People of North America, Colonial America and the American Revolution, and Immigration to New York City from Europe and Russia (late 19th to early 20th century). Throughout these units the students hone map skills, note-taking methods, and critical assessment of information. They research historical topics, compile information in written form, and present their findings to their classmates.

ADD NEW JERSEY UNIT

In addition to acquiring factual knowledge, students learn to think critically and evaluate primary and secondary sources. They work to make connections between events of the past and present, and connections among people. Chapin's social studies curriculum promotes the intellectual and social growth of our students and fosters curiosity, respect, and development of multiple perspectives. The program encourages critical-thinking, civil discourse, and effective communication. During this process of learning, the development of opinions supported by evidence is encouraged, as is tolerance for the differing opinions of others.

Objectives:

- Identify and describe each of the eight strands of Social Studies (geography, economics, culture, citizenship, government, history, science, technology, and use of social studies tools).
- Identify and use primary and secondary sources effectively
- Read informational text closely to make logical inferences, determine central ideas, analyze how/why ideas develop, and evaluate specific claims made in a text
- Practice skimming and scanning to locate key information
- Compare/contrast two or more texts, cultures, places, or time periods
- Develop the ability to problem solve individually and as part of a group
- Develop communication skills in discussion and collaborative groups
- Research and organize information for various types of presentations.

- Demonstrate an understanding of the relationship between humans and the natural environment
- Understand the meaning of culture and its varied components
- Develop an appreciation for cultural differences, including basic ideas of major world religions, traditions, political systems, and social structures
- Develop greater self-awareness, including an individual's responsibility as a member of society

Assessment:

- Student participation, classwork, and notes
- Teacher observation
- In-class projects with rubrics
- Development of interactive immigration journal
- Group STEAM projects
- Tests/quizzes

ACADEMIC INTEGRATION

Academic Integration (AI) occurs three times a six-day rotation and is led by a fourth-grade classroom teacher in collaboration with other fourth grade curricular, co-curricular teachers, and the Academic Technologist. In AI, students develop strategies and apply tools to support their learning in other content areas. Through participation in varied and diverse activities, students develop skills in organization, test preparation, problem-solving, collaboration, and design-thinking. After a brief introduction on the theory of Multiple Intelligences as outlined by Howard Gardner, students complete a self-assessment to identify modalities most compatible with their learning style. Through the completion of an assessment survey, students identify those modalities (e.g., Visual, Bodily Kinesthetic). In subsequent lessons, student identify corresponding study strategies according to areas of relative strength. Subsequent lessons support students' utilization of Chapin's Core Apps and software applications (e.g., Google Classroom, Google Docs) to creatively demonstrate their understanding of presented and researched content across multiple subject areas. Hands-on, design projects are also integral to the AI program. Through application of the design-thinking process (Ask, Imagine, Plan, Create, Improve, Present), students work in small teams to complete specified design challenges (e.g., building a tower to support a load) and report upon their findings.

Organization and Study Skills

- Identify and apply strategies for organizing school materials, time, and test preparation
- Identify and apply routines for successful completion of homework
- Identify and apply strategies for effective use of a rubric
- Identify areas of relative strength with respect to multiple intelligence
- Identify and utilize study strategies according to individual's learning
- Develop and demonstrate skills in note taking and test taking
- Develop and demonstrate skills in the analysis and completion of analogies
- Identify and apply strategies for conducting research on a topic including:

    - identification of appropriate reference sources
    - identification of primary vs. secondary sources
    - application of procedures related to citation of a source
- Develop and demonstrate oral presentation skills

Technology Integration Skills

- Develop and apply skills in collaboration and design-thinking process
- Utilize "Core Apps" and software application to demonstrate understanding of content
- Utilize software applications including Google Classroom and Google Docs to present on a topic
- Apply the design-thinking process to complete team challenges

Assessment

- Teacher observation
- Self-evaluation
- Application of skills across classes
- Student work
- In-class projects/Rubrics

SCIENCE

In a world filled with scientific achievements and rapid technological developments, science and scientific thinking play a vital role in the lives of students. Students need to be fully aware of and skilled in science and in related fields to succeed in their further endeavors in education, careers, and everyday life. Additionally, scientific reasoning remains the backbone of critical-thinking and analysis in many diverse areas of study besides science and applied science such as economics, sociology, and even in some forms of philosophy. The study of science contributes to a student's understanding of the diversity of all that exists and an appreciation of the balance and value of that diversity. To these ends, a program emphasizing scientific inquiry, STEAM (Science, Technology, Engineering, Art, and Mathematics) and design-thinking is at the core of the school's science curriculum. The implementation of STEAM and design-thinking across the curriculum supports critical-thinking and problem-solving. The design process asks students to ask, imagine, plan, create, and improve a solution to a problem, whether it is an everyday problem or an invention. Students are then asked to reflect on their designs, celebrating what went well and discussing areas of improvement. This is where true learning occurs.

Chapin School's science curriculum has five major goals that encompass the program from preschool through eighth grade. The first is to introduce the scientific method and have students effectively implement it in investigations that they carry out themselves. The second is to foster curiosity and inquiry, which help to facilitate the active engagement of students in the subject matter. The third is to stimulate an interest in and excitement about science, specifically the areas of earth science, life science, and physical science. The fourth is to expose students to technology and scientific equipment and to train them in the appropriate use of these. The fifth

is to promote an awareness of new developments in science, technology, math, and other related fields.

Objectives:

- Provide opportunities for students to use the scientific method
- Encourage the development of process skills through careful observation, inquiry, inferring, predicting, and testing
- Understand and use science tools with skill and knowledgeable application
- To use critical-thinking skills in hypothesizing, analyzing, and drawing conclusions based on evidence and data sets
- Develop the ability to create experiments and control for variables
- Practice with measurement, classification, and applied math concepts
- Develop the ability to collect and record quality data, as well as analyze and interpret data
- Gather and present information in multiple ways
- Promote a positive attitude and respect scientific process and evidence-based thinking

Science Units of Study:

- **Digestive System**: understand voluntary and involuntary muscles; parts and functions; mechanical and chemical digestion
- **Astronomy**: study of day and night sky, sun, stars, moon, planets, comets, asteroids, and shadows; rotation and revolution of the Earth and moon; Solar System distances, size, star identification, and galaxies; biospheres; life beyond planet Earth.
- **Magnetism and Electricity**: permanent magnetism; electromagnetism; electric circuits; designs of telegraphs; observe and compare electric and magnetic phenomena; organize observation on a graph
- **Ideas and Inventions**: record and compare patterns; create inventions; use carbon printing, texture and patterns using rubbings; color tracing made by pigments in chromatography; symmetry of objects using mirrors and reflection
- **Variables**: identify and control variables; independent and dependent variables; predictions and relationships; controlled experiments using pendulums, airplanes, and boats

Assessments:

- Teacher observations
- Performance assessments
- In-class projects
- Lab reports, quizzes