

# Star Academy Elementary School Guide 2024/2025 PROGRAM AND SCHEDULE

# Capture Curiosity. Develop Potential.

# **Our Philosophy**

# The best for you & your growing child

Our goal is to maximize your children's academic opportunities during school time, so that families can have their evenings and weekends free to enjoy being together.

The Directors of Star Academy have the child's interests in mind, and also value the interests of the parents. Our extensive school curriculum exposes the children to many different spheres of knowledge and experiential learning during the daytime -- prime time for learning. As a result, many extraneous after school activities become unnecessary. However for those still looking for additional electives, the after school program has ample offerings all under one roof. Thus, we take away the burden of shuffling schedules, circuitous driving, and no family time or weekend time to yourselves.

# **Mission Statement**

The Star Academy's primary objective is to capture a child's natural curiosity and to develop his/her potential as a lifelong learner. Our educational goals are based on our thoughtfully planned recognition of what the parents need for their children and what children need to succeed.

# **Our Philosophy**

Each child carries tremendous potential within. Our goal at Star Academy is to gently lead each child to realize their innate potential at the highest degree. We teach children to problem solve, develop their social skills, and to steer their natural curiosity toward true knowledge.

We strive to accomplish this through:

- Adjustable lesson plans based on weekly teacher feedback
- Selecting superior faculty members
- Keeping small class sizes and teaching core subjects in subgroups, by levels
- Collaborating with the families and students to create an optimal plan for each child
- Balancing each day to minimize stress and maximize learning experiences
- Creating a pleasant environment and positive morale for the children and faculty

# **Academic Schedule**

Star Academy's Elementary School academic schedule has three trimesters: Trimester 1 (also called the Fall semester), Trimester 2 (Winter), and Trimester 3 (Spring). Each trimester includes the same classes and faculty members throughout the year. Topics within those classes will evolve as needed to fulfill the entirety of our substantial curriculum.

Star Academy's Elementary School consists of Grades 1, 2, 3, 4, and 5.

All Elementary School students take English, Math, Science, Social Studies, Technology, Russian and a World Language. All students also have a variety of visual or performing arts, physical education, and computer courses. In addition, our academic schedule contains a broad spectrum of afterschool activities including: community time, clubs and organizations, private tutoring, performing arts ensembles, sports, and study halls.

# Star Academy General Curriculum

Positive educational experiences at school and loving relationships at home provide a strong foundation for academic goals and objectives for the Star Academy for the Gifted and Talented. Teachers continually observe children and design lessons that both support their specific needs and aptitudes, and extend learning experiences in a safe and nurturing environment. In addition, our children are encouraged to explore materials at their own levels of interest and development.

The primary objective of our academic program is to capture a child's natural curiosity and to develop his/her potential as a lifelong learner. Children explore their world through active play, use of manipulatives, strong academic programs, and nurturing guidance. Thematic units are developed and supported through meaningful learning experiences, coupled with experiential activities. Opportunities for creative expression, exploration and teacher-guided experiences are provided in the following areas:

#### Literacy (Pearson Education: Scott Foresman Reading Street Grades K-8) <u>Reading:</u>

The reading program selected by the Star Academy for the Gifted and Talented includes a research-based, multi-sensory, language approach. Oral kinesthetic (mouth movement) cues, imagery, and mnemonics (memory tricks) are used to foster phonemic awareness, as well as reading and spelling skills in a structured format. Letters and sounds are introduced using colorful picture cards, imaginative stories, character letter songs and coloring activity pages. Reading readiness games and activities are designed by our teaching staff to reinforce concepts presented. Emergent reader series are enjoyed in both big book and individual book formats. In addition, children listen to carefully selected stories representing various literary genres. Our extensive collection of books, both in the classrooms and in our Russian/English library, enables children and teachers to select reading materials that meet learning objectives while facilitating individual preferences. Knowledgeable and enthusiastic teachers create an atmosphere that empowers children and encourages confident, lifelong reading.

#### Writing:

Written language skill development begins in our Preschool! Children develop strong foundation skills through experiencing the Handwriting School curriculum. Multi-sensory teaching tools and techniques in this program are planned to appeal to all learning styles critical to the skill of writing. Large wooden letter sets, Roll-A-Dough Letters, slate chalkboards, sing along recordings and Stamp-and-See screens enable children to vary activities using written symbols. Teachers assist children as they progress from simple hand/eye coordination activities including putting pegs in holes or elastics on Geo-boards, to more complex fine motor control such as drawing circles and lines. As the children progress through the Preschool levels, they are introduced to letter formation when they begin to write their names, label drawings and recognize the conventions of written language such as leaving spaces between words and using correct punctuation marks. Star Academy for the Gifted and Talented uses the Wilson Foundations Phonics and Spelling program to build phonological and phonemic awareness.

#### Communicating:

Communication skills are addressed by providing speaking, listening and performance opportunities throughout the program. Spontaneous conversations and self-expression enable children to communicate their needs and become more self-sufficient. Children use Circle Time to share relevant experiences and practice active listening skills. Teachers plan activities that expose the children to public speaking, improvisation and story interpretation. Weekly dramatic sessions and the spring performances contribute to awaken the children's innate sense of creativity while encouraging self-expression and the development of self-confidence.

# Math (Math Mammoth by Maria Miller for Grades K-8 with additional programming from Larisa Bankovsky: founder of Star Academy).

A numerically powerful child develops meaning and looks for relationships among numbers and operations in their very early years. Our teachers use manipulatives for these very early beginners in pre-kindergarten as well as carefully chosen games, activities and literature when teaching children to reason, calculate, estimate and problem solve. They then continue by being introduced to concrete mathematical materials that allow a progression from concrete to abstract concepts through play and experimentation. Problem-solving skills are continually being promoted and reinforced.

As children progress through the different levels, they explore the following curricular areas: Number Sense and Operations; Patterns, Relations and Algebra; Geometry; Measurement; Data Analysis, Statistics and Probability. Practical application of skills is embedded into applications, real life situations and songs. Math literature is selected to introduce, support and/or reinforce concepts taught. Teaching methods are blended with European and American standards of learning.

Science (Savvas, formerly Pearson, Elevate Science)



Science is all about exploration and discovery. Our hands-on investigations and experiments take us to the fields of Earth and Space Science, Life Science, Physical Science, Technology/Engineering as well as Health, Hygiene and Nutrition. As with all of our activities, a science activity can be sensorial, manipulative, promote math and language skills, and help the child experience the wonder of discovery! Some of our science projects include observing and recording the weather changes; learning about the characteristics of living things, how they grow, reproduce and need food, air, and water; exploring simple laws of physics while experimenting with simple machines; learning about the human body; or simply finding and studying objects collected during our nature walks.

Environmental awareness is not only an integral part of the science curriculum but also our core value. Our goal is to help our young students understand and respect all living things in our world. By targeting various elements of nature through monthly themes, and by exposing the children to appropriate and specific environmental problems and possible solutions, we encourage them to develop a sense of responsibility and involvement in their community and their planet.

#### Social Studies (Savvas, formerly Pearson, Elevate Social Studies)

Children are natural-born explorers! They begin to learn about their family, their community, their state, their country and their world. The children travel around the world and discover the wonders that our beautiful planet Earth has to offer. The children learn to use a globe, locate the continents and identify many countries and their flags. But more importantly, they become acquainted with other cultures, their traditions and languages. They acquire an awareness of the large multicultural world in which we live through stories, songs, artifacts and visitor presentations.

Diversity is celebrated at Star Academy for the Gifted and Talented in numerous ways. Children hail from local as well as international origins. Parents are encouraged to join their children in presenting special cultural traditions, foods and paraphernalia from their native countries. Celebrations of holidays from around the world enable all the children to recognize our diverse backgrounds.

The pages that follow contain detailed descriptions of each department's courses and program.

# English Language Arts: Reading & Writing

# <u>Grade One</u>

Publication: Scott Foresman Reading Street (Common Core, Savvas)Comprehension Skill:Making connections:

- Making Connections
- Compare
- Prediction
- Main idea/Details
- Questions

#### Theme:

- Visualize
- Sequence of Events
- Inference

- Compare
- Questioning
- Inference
- Conclusions
- Visualize
- Sequence of events
- Main Ideas/ Details

# Cause and effect

- Determine importance
- Main ideas/Details
- Inference

### Predictions

- Cause and effect
- Inference
- Questioning
- Sequence of Events

#### Conclusions

- Importance
- Synthesize
- Compare and Contrast
- Conclusions
- Importance
- Synthesize Text structure

# Phonics:

1st grade readers know and apply phonics and apply phonetic skills within our reading and literacy sessions. We will also be reviewing all phonemes, digraphs, triagraphs and blending skills.

Writing:

- Writing a variety of texts including, narratives, and explanatory/informational pieces.
- Writing with structure, including an introductory sentence, supporting or accurate details.
- Begin to use digital tools, including computers, to practice and "publish" writing on chrome books.
- Gather information as a class with the aid of a teacher, answer questions and/ or create shared writing pieces.

# Spelling:

Spelling and vocabulary words are taken from various engaging texts, common exception words and tricky words.

Reading:

- In first grade we will develop:
- Recognizing the features of a sentence (for example: first words, capitalization, and ending punctuation).
- Recognizing the spelling and sound of two letters that represent one sound, such as th, ch, wh (these are also known as digraphs).
- Learning to read regularly spelled one-syllable words.
- Understanding how an "e" at the end of a word changes a vowel within the word.
- Breaks up longer words into syllables in order to read them.
- Reads grade-level words that have "irregular" spellings.
- Knows the difference between and reads fiction texts (such as Baby Shark) and non-fiction texts (like LEGO Nonfiction: Super Sharks) with purpose and an understanding of the plot and important ideas and characters.
- Talk about and answer questions about the text they read.
- Reads texts aloud at an appropriate speed and with expression.
- Compares different characters, events, or texts.

#### <u>Grade Two</u>

Comprehension & Skills strategy Key ideas, details, integration of knowledge. Structure, retelling stories. Ask/Answer questions. Identifying the main topic of a multi-paragraph text. Describing connections. Know and use various text features. Identifying the main purpose of text. Compare contrast. Recount stories. Acknowledge differences in points and characters. Describing how characters in a story respond to major events and challenges.

#### <u>Standards</u>

#### Unit 1:

Writing (sentence structure, Alphabet recognition, letter sound recognition) "Letter of the week Reading aloud exercises"

Writing (upper and lower case letters, predictable charts, sentence structure)

High frequency word use and spelling

#### Unit 2:

Letter of the week, reading comprehension, circle maps, etc.

Word games, word finding, crosswords

High frequency words, reading comprehension, sentence building

ABCs, rhyming words, beginning sounds, word-building

#### Unit 3:

Letters of the week, word building, punctuation Punctuation—capitals, periods, semi-colons, colons, etc. High frequency words, spelling bee, reading aloud Handwriting, reading comprehension, sentence building

#### Unit 4:

Realism and fantasy, storytelling concepts, literary elements

Handwriting, word of the death, reading comprehension, sentence-building

Storytelling (have students craft their own stories) Word spacing, word circles, circle maps, story Describing overall structure in a story, including describing how the beginning introduces a story and the ending concludes the action. Identify the main topic of a multi-paragraph text as well as the focus of specific paragraphs within the text. Compare and contrast most important points presented by two texts on the same topic. Identify main purpose of text. Identify the main topics of a multi-paragraph including

what the author wants to answer, explain and describe. Compare and contrast the most important points presented by two texts on the same topic.

#### Unit 5:

Cause & effect, sentence sequencing, main ideas Handwriting, reading comprehension, quotation marks Storytelling, word building, and handwriting Blending/segmenting, blending phonemes, digraphs

#### Unit 6:

Words of the week, in-class reading and presentations Handwriting, reading comprehension, paragraph building Storytelling, sentence review Reviewing all letters, sounds, and punctuations

Unit 7: Writing prompts Writing first drafts Story creation Editing and correcting

Unit 8: Dictation Reading aloud, grammar review Phoneme substitution, story creation and comprehension, word trees Writing exercise (dictation), clarity of handwriting

Unit 9: Personal narratives Brainstorm personal narratives/stories Sentence trees featuring favorite word, brainstorming story prompts Present personal narratives

### **Phonics**

Second grade readers know and apply grade-level phonics and word analysis skills. They decode regularly spelled two- syllable words and recognize grade-appropriate high frequency words. They distinguish long and short vowels when read- ing regularly spelled one-syllable words. They know spelling-sound correspondences for common vowel teams and decode regularly spelled two-syllable words with long vowels. Second graders also decode words with prefixes and suffixes and can identify words with inconsistent but common spelling-sound correspondences.

### <u>Spelling</u>

Spelling words and vocabulary will be taken from various texts.

#### Writing

Writing a paragraph that introduces an idea and supports it with details. Writing ideas in an order that makes sense to the reader. Using time words to signal event order (during, meanwhile, before, soon, after). Using adjectives to make writing clear and interesting to the reader. Starting sentences in different ways. Connecting two ideas in one sentence (compound sentence) using and, but, or so. Using commas to separate words in a series. Making sure that nouns and verbs agree (ex. the dog is sitting on the bed; the two dogs are sitting). Correctly spelling grade level words using resources if needed. Capitalizing proper nouns.

#### <u>Reading</u>

Second grade readers self-select appropriate texts for independent reading across a variety of genres, cultures, and perspectives. They read appropriate texts with accuracy, fluency, and comprehension. Reading stories and poems aloud fluently, without pausing to figure out what each word means.

#### <u>Grade Three</u>

### <u>Standards</u>

Unit 1: Writing (sentence structure, Alphabet recognition, letter sound recognition)

- "Letter of the week
- Reading aloud exercises"
- Writing (upper and lower case letters, predictable charts, sentence structure)
- High frequency word use and spelling

Unit 2: Letter of the week, reading comprehension, circle maps, etc.

- Word games, word finding, crosswords
- High frequency words, reading comprehension, sentence building
- ABCs, rhyming words, beginning sounds, word-building

Unit 3: Letters of the week, word building, punctuation

- Punctuation—capitals, periods, semi-colons, colons, etc.
- High frequency words, spelling bee, reading aloud
- Handwriting, reading comprehension, sentence building

Unit 4: Realism and fantasy, storytelling concepts, literary elements

- Handwriting, word of the death, reading comprehension, sentence-building
- Storytelling (have students craft their own stories)
- Word spacing, word circles, circle maps, story

Unit 5:Cause & effect, sentence sequencing, main ideas

- Handwriting, reading comprehension, quotation marks
- Storytelling, word building, and handwriting
- Blending/segmenting, blending phonemes, digraphs

Unit 5: Words of the week, in-class reading and presentations

- Handwriting, reading comprehension, paragraph building
- Storytelling, sentence review
- Reviewing all letters, sounds, and punctuations

Unit 6: Writing prompts

- Writing first drafts
- Story creation
- Editing and correcting

#### Unit 7: Dictation

- Reading aloud, grammar review
- Phoneme substitution, story creation and comprehension, word trees
- Writing exercise (dictation), clarity of handwriting

Unit 8: Personal narratives

#### Grade Three Class Book Guided Reading Seminar

Book Title	AR Level	Grade
Sadako and the Thousand Paper Cranes	4.1	3
Sarah, Plain, and Tall	3.4	3
The Lion, The Witch, and the Wardrobe	4.9	3
Charlotte's Web	4.4	3
Stone Fox	4.0	3
Shiloh	4.4	3
Because of Winn-Dixie	3.9	3
Kneeknock Rise	4.4	3
Behind the Bedroom Wall	4.4	3
Helen Keller's Teacher	4.3	3

#### <u>Grade Four</u>

Reading Standards for Literature

- Key Ideas and Details
- Refer to details and examples in a text when explaining what the text states explicitly and when drawing inferences from the text. For example, students read Natalie Babbitt's novel Tuck Everlasting and select paragraphs and sentences in the novel in which the reader is given hints.
- Determine a theme of a story, drama, or poem from details in the text; summarize a text.
- Describe in depth a character, setting, or event in a story or drama, drawing on specific details in the text (e.g., a character's thoughts, words, or actions). Determine the meaning of words and phrases as they are used in a text, including those that allude to significant characters found in mythology (e.g., Herculean);
- Explain major differences among prose, poetry, and drama and refer to the structural elements of each (e.g., paragraphs and chapters for prose; stanza and verse for poetry; scene, stage directions, cast of characters for drama) when writing or speaking about a text.
- Compare and contrast the points of view from which different stories are narrated, including the difference between first- and third-person narrations.
- Make connections between a written story or drama and its visual or oral presentation, identifying where the presentation reflects specific descriptions and directions in the written text.
- Compare and contrast the treatment of similar themes and topics (e.g., opposition of good and evil) and patterns of events (e.g., the quest) in stories, myths, and traditional literature from different cultures.
- Independently and proficiently read and comprehend literary texts representing a variety of genres, cultures, and perspectives and exhibiting complexity appropriate for at least grade 4.

- Brainstorm personal narratives/stories
- Sentence trees featuring favorite word, brainstorming story prompts
- Present personal narratives

**Reading Standards for Informational Text** 

- Refer to details and examples in a text when explaining what the text states explicitly and when drawing inferences from the text.
- Determine the main idea of a text and explain how it is supported by key details; summarize a text. Massachusetts Curriculum Framework for English Language Arts and Literacy 59 For example, students read parts of I, Columbus, a retelling of entries from Columbus's journal of 1492-93.
- Explain events, procedures, ideas, or concepts in a historical, scientific, mathematical, or technical text, including what happened and why, based on specific information in the text.
- Determine the meaning of general academic and domain-specific words or phrases in a text relevant to a grade 4 topic or subject area. (See grade 4 Language Standards 4–6 on applying knowledge of vocabulary to reading.)
- Describe the overall structure (e.g., chronology, comparison, cause/effect, problem/solution) of events, ideas, concepts, or information in a text or part of a text.
- Compare and contrast a firsthand and secondhand account of the same event or topic; describe the differences in focus and the information provided.
- Interpret information presented visually, orally, or quantitatively (e.g., in charts, graphs, diagrams, timelines, animations, or interactive elements on webpages) and explain how the information contributes to an understanding of the text in which it appears.
- Explain how an author uses reasons and evidence to support particular points in a text.
- Integrate information from two texts on the same topic in order to write or speak knowledgeably about the subject. Independently and proficiently read and comprehend informational texts, including history/social studies, science, mathematical, and technical texts, exhibiting complexity appropriate for at least grade 4.

#### Foundational Skills

- Phonics and Word Recognition Know and apply grade-level phonics and word analysis skills in decoding words. a. Use combined knowledge of all letter-sound correspondences, syllabication patterns, and morphology (e.g., roots and affixes) to read accurately unfamiliar multisyllabic words in context and out of context.
- Phonics and Word Recognition 3. Know and apply grade-level phonics and word analysis skills in decoding words. a. Use combined knowledge of all letter-sound correspondences, syllabication patterns, and morphology (e.g., roots and affixes) to read accurately unfamiliar multisyllabic words in context and out of context.
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- Phonics and Word Recognition 3. Know and apply grade-level phonics and word analysis skills in decoding words. a. Use combined knowledge of all letter-sound correspondences, syllabication patterns, and morphology (e.g., roots and affixes) to read accurately unfamiliar multisyllabic words in context and out of context.
- Fluency 4. Read with sufficient accuracy and fluency to support comprehension. a. Read grade-level text with purpose and understanding. b. Read grade-level prose and poetry orally with accuracy, appropriate rate, and expression on successive readings. c. Use context to confirm or self-correct word recognition and understanding, rereading as necessary.
- Fluency 4. Read with sufficient accuracy and fluency to support comprehension. a. Read grade-level text with purpose and understanding. b. Read grade-level prose and poetry orally with accuracy, appropriate rate, and expression on successive readings. c. Use context to confirm or self-correct word recognition and understanding, rereading as necessary.

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Speaking and Listening/ Language Skills

- Comprehension and Collaboration
- Presentation of Knowledge and Ideas
- Knowledge of Language
- Vocabulary Acquisition and Use
- Conventions of Standard English

Class Book Guided Reading Seminar

Book Title	AR level	Grade
Night of the Twisters	4.7	4
Maniac Magee	4.7	4
Hatchet	5.7	4
Summer of the Swans	4.9	4
Snow Treasure	5.3	4
Frindle	5.4	4
A Wrinkle in Time	4.7	4
Summer of the Monkeys	4.8	4
Number the Stars	4.5	4
Orphan of Ellis Island	4.9	4
Where the Red Fern Grows	4.9	4
The Giver	5.0	4

# <u>Grade Five</u>

Strong reading, writing, and thinking skills are the focus of this course. Literature-based units are designed to help students make connections between texts and to think about the layers of meaning in complex stories. By using active reading strategies, students respond to literature and develop reading comprehension, interpretation, and analysis skills. Writing skills are developed through work in a variety of expository and creative forms. In responding to literature, students practice writing strong paragraphs and supporting opinions with specific details. Many creative writing opportunities, including a novel-writing and poetry unit, allow students to follow the steps of the writing process. Technology is a tool that students will use to communicate, collaborate, and create while developing their critical thinking skills.

**Reading Skills for Literature** 

• Quote or paraphrase a text accurately when explaining what the text states explicitly and when drawing inferences from the text. (See grade 5 Writing Standard 8 for more on paraphrasing.)

- Determine a theme of a story, drama, or poem from details in the text, including how characters in a story or drama respond to challenges or how the speaker in a poem reflects upon a topic; summarize a text.
- Compare and contrast two or more characters, settings, or events in a story or drama, drawing on specific details in the text (e.g., how characters interact).
- Determine the meaning of words and phrases as they are used in a text; identify and explain the effects of figurative language such as metaphors and similes. (See grade 5 Language Standards 4–6 on applying knowledge of vocabulary to reading.)
- Explain how a series of chapters, scenes, or stanzas fits together to provide the overall structure of a particular story, drama, or poem.
- Describe how a narrator's or speaker's point of view influences how events are described in a story, myth, poem, or drama. Analyze how visual and multimedia elements contribute to the meaning, tone, or beauty of a text (e.g., graphic novel; multimedia presentation of fiction, folktale, myth, poem).
- Compare and contrast stories in the same genre (e.g., mysteries or adventure stories) on their approaches to similar themes and topics.
- Compare and contrast stories in the same genre (e.g., mysteries or adventure stories) on their approaches to similar themes and topics. Independently and proficiently read and comprehend literary texts representing a variety of genres, cultures, and perspectives and exhibiting complexity appropriate for at least grade 5.

# Reading Standards for Information Text

- Quote or paraphrase a text accurately when explaining what the text states explicitly and when drawing inferences from the text. Determine one or more main ideas of a text and explain how they are supported by key details; summarize a text.
- Explain the relationships or interactions between two or more individuals, events, ideas, or concepts in a historical, scientific, mathematical, or technical text based on specific information in the text. For example, in a social studies unit, students examine the expedition of Lewis and Clark. They analyze primary and secondary sources to determine the historical importance of the journey of the Corps of Discovery, and to build understanding that there can be multiple perspectives on historical events. (RI.5.3, RI.5.6, RI.5.7)
- Determine the meaning of general academic and domain-specific words and phrases in a text relevant to a grade 5 topic or subject area. Describe how an author uses one or more structures (e.g., chronology, comparison, cause/effect, problem/solution) of events, to present information in a text.
- Analyze multiple accounts of the same event or topic, noting important similarities and differences among the points of view they represent.
- Draw on information from multiple print or digital sources, demonstrating the ability to locate an answer to a question quickly or to solve a problem efficiently. Connections to the Standards for Mathematical Practice 2. Reason abstractly and quantitatively.
- Attend to precision
- Explain how an author uses reasons and evidence to support particular points in a text, identifying which reasons and evidence support which point(s).
- Integrate information from several texts on the same topic in order to write or speak knowledgeably about the subject.
- Independently and proficiently read and comprehend informational texts, including history/social studies, science, mathematical, and technical texts, exhibiting complexity appropriate for at least grade 5.

# Foundational Skills and Writing Standards

- Phonics and Word Recognition
- Fluency
- Production and Distribution of Writing
- Research to Build and Present Knowledge
- Range of Writing
- Comprehension and Collaboration

- Presentation of Knowledge and Skills
- Conventions of Standard English
- Knowledge of Language
- Vocabulary Acquisition and Use

# Grade Five Class Book Guided Reading Seminar

Book Title	AR Level	Grade
Witch of Blackbird Pond	5.7	5
Island of the Blue Dolphins	5.4	5
The Giver	5.7	5
Big Wave	5.2	5
House of Dies Drear	4.8	5
My Brother Sam Is Dead	4.9	5
My Side of the Mountain	5.2	5
Missing May	5.3	5
Escape from Warsaw	5.5	5
Anne Frank: The Diary of a Young Girl	6.5	5

# MATHEMATICS

All students in Grade One through Grade Five have Math in homogeneously mixed groups.

As always, mathematics and all skills at Star Academy are taught to the students in the room, not based on the textbooks descriptions of when and how a student should learn the information. When the student is ready, the information will be taught to them regardless of grade level. These guidelines should be used as just that, guidelines.

# Grade One: all students will complete Grade Two Mathematics

The main areas of study in grade 2 curriculum are:

- Understanding of the base-ten system within 1000. This includes place value with three-digit numbers, skip- counting in fives, tens, and multiples of hundreds, tens, and ones (within 1000). (chapters 6 and 8);
- Develop fluency with addition and subtraction within 100, including solving word problems, regrouping in addition, and regrouping in subtraction (chapters 1, 3, 4, and 8);
- Using standard units of measure (chapter 7);
- Describing and analyzing shapes (chapter 5).
- Additional topics we study are time/clock (chapter 2), money (chapter 9), introduction to multiplication (chapter 10), and bar graphs and picture graphs (in various chapters).

# Grade Two: students will complete Grade Three Mathematics

The main areas of study in Math Mammoth Grade 3 are:

- Students develop an understanding of multiplication and division of whole numbers through problems involving equal-sized groups, arrays, and area models. They learn the relationship between multiplication and division, and solve many word problems involving multiplication and division (chapters 2, 3, and 9). They learn the multiplication tables, and learn how to use their knowledge of multiplication tables to solve basic division facts.
- Students develop an understanding of fractions, beginning with unit fractions. They use fractions along with visual fraction models and on a number line. They also compare fractions by using visual fraction models and strategies based on noticing equal numerators or denominators (chapter 10).
- Students learn the concepts of area and perimeter. They relate area to multiplication and to addition, recognize perimeter as a linear measure (in contrast with area), and solve problems involving area and perimeter (chapter 7).
- Students fluently add and subtract within 1,000, both mentally and in columns (with regrouping). They learn to add and subtract 4-digit numbers, and use addition and subtraction in problem solving (chapters 1 and 6).
- Additional topics we study are time (chapter 4), money (chapter 5), measuring (chapter 8), and bar graphs and pictographs (in various chapters).

Skills

Addition and Subtraction Multiplication Concept Multiplication Tables Telling Time Money Place Value With Thousands Geometry Measuring Division Fractions

#### Grade Three: students will complete Grade Four Mathematics

The main areas of study in Math Mammoth Grade 4 are:

- In the fourth grade, students focus on multi-digit multiplication and division, learning to use bigger numbers, solving multi-step word problems that involve several operations, and they get started in studying fractions and decimals. This is of course accompanied by studies in geometry and measuring.
- The year starts out with a review of addition and subtraction, patterns, and graphs. We illustrate word problems with bar diagrams and study finding missing addends, which teaches algebraic thinking. Children also learn addition and subtraction terminology, the order of operations, and statistical graphs.
- Next come large numbers—up to millions, and the place value concept. At first the student reviews thousands and some mental math with them. Next are presented numbers up to one million, calculations with them, the concept of place value and comparing. In the end of the chapter we find out more about millions and an introduction to multiples of 10, 100, and 1000.
- The third chapter is all about multiplication. After briefly reviewing the concept and the times tables, the focus is on learning multi-digit multiplication (multiplication algorithm). The children also learn why it works when they multiply in parts. We also study the order of operations again, touch on proportional reasoning, and do more money and change related word problems.
- The last chapter in part A is about time, temperature, length, weight, and volume. Students will learn to solve more complex problems using various measuring units and to convert between measuring units.
- In part B, we first study division. The focus is on learning long division and using division in word problems. In geometry, we first review area and perimeter, and then concentrate on the topic of angles. Students measure and draw angles, solve simple angle problems, and classify triangles according to their angles. They also study parallel and perpendicular lines.
- Fractions and decimals are presented last in the school year. These two chapters practice only some of the basic operations with fractions and decimals. The focus is still on conceptual understanding and on building a good foundation towards 5th grade math, where fractions and decimals will be in focus.

#### Skills

Addition and Subtraction Multiplication Concept Multiplication Tables Telling Time Money Place Value With Thousands Geometry Measuring Division Fractions

# Grade Four: will complete Grade 5

The main areas of study in Math Mammoth Grade 5 are:

- The fifth grade is time for fractions and decimals, in particular. We study fractions and decimals and operations with them in depth and with substantial detail. Students also deepen their understanding of whole numbers, learn much more problem solving, and get introduced to the calculator.
- The year starts out with a study of whole numbers and their operations. Students get to review multi-digit multiplication and learn long division with two-digit divisors. We also review divisibility and factors from fourth grade, and study prime factorization.
- In the second chapter, the focus is on large numbers and using a calculator. This is the first time a calculator is introduced in Math Mammoth's complete curriculum—thus far, all calculations have been done mentally, or with paper and pencil. I want students to learn to be critical in their use of the calculator and use it with good judgment. Every exercise where calculator use is to be allowed is marked with a little calculator symbol.

- The third chapter is about equations and problem solving. We study simple equations with the help of a balance and bar models. The main idea is to get students used to the idea of an equation and what it means to solve an equation. Students also do a fair amount of problem solving using the visual bar model.
- The fourth chapter is about decimals and some of the operations with decimals (the rest will be studied in chapter 6). Fifth grade is the time when students learn all the basic operations with decimals. In this chapter, we focus on place value with decimals, addition and subtraction of decimals, and multiplication and division of decimals by whole numbers. Multiplying decimals by decimals and dividing decimals by decimals is covered in chapter 6.
- In chapter 5 we study graphing in a coordinate grid, line and bar graphs, and average and mode. Today's world has become increasingly complex with lots of data presented in the media, so our children need a good grasp of statistical graphs to be able to make sense of all of that information.
- Chapter 6 continues our study of decimals. The focus is on multiplying decimals by decimals, dividing decimals by decimals, and conversions between measuring units.
- Chapter 7 covers the addition and subtraction of fractions another topic of focus for 5th grade, besides decimals. The most difficult topic of this chapter is adding and subtracting unlike fractions, which is done by first converting them to equivalent fractions with a common denominator.
- In chapter 8, we study the multiplication and division of fractions from various angles.
- Chapter 9 takes us to geometry, starting with a review of angles and polygons. From there, students will learn to draw circles, to classify triangles and quadrilaterals, and the concept of volume in the context of right rectangular prisms (boxes).

# Skills

Addition and Subtraction Patterns and Graphs Large Numbers and Place Value Multi-Digit Multiplication Money and Change Division Factors, Divisibility, Prime Numbers Geometry Fractions Decimals

# Grade Five Students will complete all of Grade 6 Math

Students study arithmetic using whole numbers, fractions, and decimals to understand concepts and strengthen skills. Manipulatives are used to help illustrate some concepts. Other topics include measurement, geometry, and estimation. Mental and written computation is emphasized, but calculators or computers are used for appropriate activities. Students work individually as well as in groups when appropriate.

Throughout the year, students move away from rote arithmetic to applications and problem solving. Learning how to apply skills, both in and out of the context in which they were taught, provides students with a deeper understanding of how and why they will use mathematics as a valuable tool in their lives. The Math mammoth program of study is used through Grade Three.

The main areas of study in Math Mammoth Grade 6 are:

- Review of the basic operations with whole numbers
- Beginning algebra topics: expressions, equations, and inequalities
- Review of all decimal arithmetic
- Introduction to ratios and percent
- Prime factorization, GCF, and LCM
- A review of fraction arithmetic from 5th grade, plus a focus on division of fractions
- The concept of integers, coordinate grid, addition & subtraction of integers

- Geometry: review of quadrilaterals & drawing problems; area of triangles & polygons; volume of rectangular prisms with fractional edge lengths; surface area
- Statistics: concept of distribution, measures of center, measures of variation, box plots, stem-and-leaf plots, histograms

The main areas of study in Math Mammoth Grade 7 are:

- Introduction to basic algebra concepts
- Integers and their operations
- Solving one-step equations, including with negative numbers
- Operations with negative rational numbers
- Solving linear equations and writing equations for word problems
- Graphing linear equations and an introduction to the concept of slope
- Ratios, rates, proportions, and percent
- Geometry: angle relationships, compass & ruler constructions, drawing problems, Pi and the area and circumference of a circle, cross-sections formed when cutting solids, surface area, and volume
- The Pythagorean theorem (optional)
- Probability
- Statistics

Skills

- The Four Operations
- Large Numbers and the Calculator
- Problem Solving
- Decimals Part 1
- Statistics and Graphing
- Decimals Part 2
- Metric and Customary Measurements
- Fractions: Add and Subtract
- Fractions: Multiply and Divide
- Geometry

# **Social Studies**

### Grade One: Civics

First Grade introduces the early concepts of Civics, Geography, and History

Civics: Communities, elections, and leadership Geography: places to explore History: unity and diversity in the United States Economics: resources and choices

#### Grade Two: Cultures

- Writing informational text and listening skills
- Geography and its effect on people
- History: Migrations and Culture
- Civics in the context of geography: countries and governments
- Economics: resources and choices

#### Grade Three: Our State, Our Country

- Massachusetts cities and towns today and in history
- The geography and Native Peoples of Massachusetts
- European explorers' first contacts with Native Peoples in the Northeast
- The Pilgrims, the Plymouth Colony, and Native Communities
- The Puritans, the Massachusetts Bay Colony, Native Peoples, and Africans
- Massachusetts in the 18th century through the American Revolution

#### Grade Four: The Birth of Modern Europe

Unit 1: Lessons 1-3 Families, homes, social activities

- Basic geography/maps
- rivers, countries, states, oceans
- Works, Jobs, Occupations
- Maps, signs, rules

#### Unit 2: Maps, history, culture

- Global maps, human geography, picture matching
- More global maps, regional maps
- Neighborhoods, community helpers, communities, celebrations

# Unit 3: Basic civics. leadership. elections

- Work, jobs then and now, political positions
- Structure of US government, local government
- History of US leaders, political parties, Constitution

#### Unit 4: Money, US currency—hard currencies

- US currency—paper money
- Banks, credit
- Jobs, how to make and save money

# Unit 5:Weather and Seasons. The seasons and their patterns (Winter-Spring)

- The seasons and their patterns (spring-fall)
- <u>Seasonal clothing, food, shelter, animals</u>
- <u>Needs vs. wants</u>

# Unit 5: Physical geography. Map exercises—finding and labelling oceans. rivers. and lakes

- Map exercises—finding and labelling mountains, deserts, and forests
- Map exercises—finding and labelling countries, languages, and flags
- Map reports

#### Unit 6: National symbols. explorers

- History of New World exploration
- Peoples and places, the building of the US
- Name that Flag game, discussions of American symbols

#### Unit 7: Travel, Urban growth

Growth of travel technology—planes, trains, and automobiles

- The creation of cities, how Boston grew
- Modes of travel, historical and contemporary

Unit 8: Celebrations, festivals, foods, etc.

- Family gatherings, rituals, etc.
- Food and folkways, favorite activities
- Worldwide festivals, their meaning and origins

Unit 8: Celebrations, festivals, foods, etc.

- Family gatherings, rituals, etc.
- Food and folkways, favorite activities
- Worldwide festivals, their meaning and origins

# Grade Five: Early American History

Grade Five History will introduce students to the early history of the United States and the dynamics involved in forging a young American nation. We will explore the question, "What does it mean to be an American?" as we study some of the people, events, values, and conflicts that shaped early America's sense of itself and that continue to define us as a nation today. The course will begin with the period of early American colonization, with a focus on the cooperation and conflict between the European settlers and Native Americans. Next, we will explore the political, religious, social, and economic institutions that defined the colonial era. We will then consider the causes and consequences of the American republic. An equally important aim of this course is to teach Star Academy girls to think and read like a historian. We hope to foster a variety of specific skills that make Star Academy students active and discriminating learners. In particular, we will emphasize how to analyze a historical source, how to craft a cohesive and persuasive argument (both orally and on paper), and how to contextualize a person or event in order to understand its importance fully.

# Science

### <u>Grade One</u>

Plants

- Students will be able to identify living and nonliving things.
- Students can state the needs and parts of a plant.

### <u>Animals</u>

- Students can tell how animals change and grow.
- Students can tell what type of animals live in a given habitat.

# Earth

- Students can identify natural resources
- Students can explain why we need to take care of the Earth and how.

# Seasons and Weather

- Students Week can state why the sun is important.
- Students can describe different types of weather.

# <u>Matter</u>

- Students will be able to identify the three stages of matter.
- Students can explain how water is used in each stage of water.

# <u>Grade Two</u>

# <u>Matter</u>

- Students can use evidence to prove that an item is made of matter.
- Students can describe the properties of matter and distinguish between types of matter.

# Changes in Matter

- Students can tell how matter can change.
- Students can identify reversible and irreversible changes in matter.

# <u>Plants</u>

- Students can plan and conduct an investigation to prove that plants need sunlight,
- water, and soil.
- Students can identify the needs of a plant.

# <u>Plant Life</u>

• Students can explain how plants fulfill their needs.

### <u>The Sun</u>

• Students can describe how to protect myself from the sun.

# Day and Night

- Students can identify the phases of our moon.
- Students can describe the effect our solar system has on my life.

# Simple Machines

- Students can identify different types of simple machines.
- Students can tell how simple machines make our life easier.

# The Five Senses

- Students Week can identify the five senses and which body part is associated with them.
- Students can tell how I use my senses to help me.

# <u>Forces</u>

- Students can identify forces of motion.
- Students can explain how we use force in our everyday lives.
- Students can build a model to demonstrate how animals help plants.

# <u>Ecosystems</u>

- Students can can compare animals and plants from different habitats
- Students can state what an ecosystem is and give examples

# <u>Biomes</u>

- Students can determine and explain how organisms are specially equipped to live in their habitat.
- Students can compare organisms from different habitats to explore the diversity of life.
- Earth's Systems
- Students can identify water sources on Earth.
- Students can describe events and how they change the Earth's surface.

#### Erosion

- Students determine and explain why it may be important to stop Earth's surface from changing.
- Students can compare multiple solutions to deter and stop erosion.

#### <u>Weather</u>

# <u>Grade Three</u>

#### Plant and Animal Life Cycles

• Students can analyze and interpret data from fossils to provide evidence of the organisms and the environments in which they lived long ago.

#### **Ecosystems**

• Students construct an argument that some animals form groups that help members survive.

#### Heredity: Inheritance and Variation of Traits

- Students analyze and interpret data to provide evidence that plants and animals have traits inherited from parents and that variation of these traits exists in a group of similar organisms.
- Students use evidence to support the explanation that traits can be influenced by the environment.

# Biological Evolution: Unity and Diversity

- Students can analyze and interpret data from fossils to provide evidence of the organisms and the environments in which they lived long ago.
- "Students can explain how the variations in characteristics among individuals of the same
- species may provide advantages in surviving, finding mates, and reproducing."
- Students can form an argument with evidence that in a particular habitat some organisms can survive well, some survive less well, and some cannot survive at all.
- "Students can make a claim about the merit of a solution to a problem caused when the environment changes and the types of
- plants and animals that live there may change."

#### Force and Motion: Newton's Laws

- "Students plan and conduct an investigation to provide evidence of the effects of balanced and unbalanced forces on the
- motion of an object."

- Students can determine and explain why it may be important to stop Earth's surface from changing.
- Students can compare multiple solutions to deter and stop erosion.
- "Students make observations and/or measurements of an object's motion to provide evidence that a pattern can be used to
- predict future motion."

#### <u>Magnets</u>

- "Students ask questions to determine cause and effect relationships of electric or magnetic interactions between two
- objects not in contact with each other."
- Students define a simple design problem that can be solved by applying scientific ideas about magnets.

#### Weather and Climate

- "Students can represent data in tables and graphical displays to describe typical weather conditions expected during a
- particular season."
- Students can obtain and combine information to describe climates in different regions of the world.

#### Earth and Human Activity

• Students can make a claim about the merit of a design solution that reduces the impacts of a weather-related hazard.

#### Simple Machines

- Understand what a simple machine is and how it would help an engineer to build something.
- Identify six types of simple machines.
- Understand how the same physical principles used by engineers today to build skyscrapers were employed in ancient times by engineers to build pyramids.
- Generate and compare multiple possible solutions to creating a simple lever machine based on how well each met the constraints of the challenge.

### Engineering Design

- "Students define a simple design problem reflecting a need or a want that includes specified criteria for success and
- constraints on materials, time, or cost."
- "Students generate and compare multiple possible solutions to a problem based on how well each is likely to meet the
- criteria and constraints of the problem."

#### <u>Grade Four</u>

#### <u>Energy</u>

- Students use evidence to construct an explanation relating the speed of an object to the energy of that object.
- "Students make observations to provide evidence that energy can be transferred from place to place by sound, light, heat, and
- electric currents."

# Collision and Conversion of Energy

- Students ask questions and predict outcomes about the changes in energy that occur when objects collide.
- Students apply scientific ideas to design, test, and refine a device that converts energy from one form to another

# Earth's Place in the Universe

- Use evidence from a given landscape that includes simple landforms and rock layers to support a claim about the role of erosion or deposition in the formation of the landscape over long periods of time.
- Analyze and interpret maps of Earth's mountain ranges, deep ocean trenches, volcanoes, and earthquake epicenters to describe patterns of these features and their locations relative to boundaries between continents and oceans.

#### Earth's Systems

- Make observations and collect data to provide evidence that rocks, soils, and sediments are broken into smaller pieces through mechanical weathering and moved around through erosion by water, ice, wind, and vegetation.
- Students evaluate different solutions to reduce the impacts of a natural event such as an earthquake, blizzard, or flood on humans.

 Students plan and carry out fair tests in which variables are controlled and failure points are considered to

identify aspects of a model or prototype that can be improved.

#### Earth and Human Activity

- Students obtain information to describe that energy and fuels humans use are derived from natural resources and that some energy and fuel sources are renewable and some are not.
- Students make observations to show that energy can be transferred from place to place by sound, light, heat, and electric currents.

#### <u>Ocean</u>

- Students can explain how waves, tides, and currents cause sea water motions.
- Students examine the ecosystem and typography of the ocean

#### Animal and Plant Structures

- Construct an argument that plants and animals have internal and external structures that function to support survival, growth, behavior, and reproduction.
- "Use a model to describe that animals receive different types of information through their senses, process the
- information in their brain, and respond to the information in different ways."

#### <u>Waves</u>

- Students develop a model of waves to describe patterns in terms of amplitude and wavelength and that waves can cause objects to move
- Develop a model to describe that light reflecting from objects and entering the eye allows objects to be seen.
- Applications of waves in Technologies for Information Transfer
- Students generate and compare multiple solutions that use patterns to transfer information.

### Engineering Design

- "Students define a simple design problem reflecting a need or a want that includes specified criteria for success and
- constraints on materials, time, or cost."

- "Students generate and compare multiple possible solutions to a problem based on how well each is likely to meet the
- criteria and constraints of the problem."

#### Grade Five

Close observation of the environment is the underlying theme of the year. Natural ecosystems and how they function are focal points that are enhanced by field work. Students become recorders of their environment by keeping a year-long nature journal as they learn to recognize the flora and fauna of Massachusetts. By partnering with conservation organizations, students collect data and participate in citizen science projects. Topics of study include: scientific classification, ecology, trees, fungi, birds, marine organisms, endangered species, and famous female naturalists. Experiments and activities form the backbone of the curriculum as students discover the diversity and interconnectedness of life on earth. Problem-solving skills are cultivated through small-scale engineering design challenges.

#### Skills

- Food Chain
- Ecosystems: Interactions, Energy, and Dynamics
- Water on Earth Earth and the Solar System
- The Universe and its Stars Earth and Human Activity
- Introduction to Chemistry
- Chemical Reactions
- Force, motion, & energy Engineering Design

# World Languages: Russian & Spanish Required

#### Russian: Required Yearly Grades K-8

#### Grade One Russian

First grade includes the following activities:

- Activation and consolidation of words
- grammatical forms
- samples of coherent speech learned in the Kindergarten
- Introduction to cursive
   writing
- Acquaintance with school supplies
- Family, home, school
- Acquaintance with cursive
   writing
- Sounds and letters
- Syllables
- Uppercase lowercase A K
- Animated and inanimate nouns
- Projects: laptop, school library
- Seasons, calendar, time of day, mode of the day
- Autumn holidays, harvest season
- Consonants
- Categories of the gender of nouns
- Number categories
- Phrases
- Uppercase lowercase Λ X
- Projects: laptop, nature observation calendar

- City, street, transport, traffic rules
- Colors, animals
- Uppercase lowercase Ц Я
  Rules for the use of hard and soft signs
- Transfer rules
- Simple sentences
- Projects: laptop, traffic alphabet, versification, acting out fairy tales
- House, room, furniture, homework
- Winter holidays
- Capital letters, their use
- Movement verbs
- Imperative mood
- Projects: international mail, greeting cards
- Shop, groceries, etiquette
- Coherent text rules, semantic sequences
- Adjectives, gender categories and numbers of adjectives
- Projects: student newspaper, school for young journalists
- Leisure and entertainment
- Circus, zoo, theater
- Ordinals
- Pronouns
- Declination of the studied parts of speech

- Projects: school for young critics, learning to write reviews
- Professions, crafts, clothing, appearance
- Stressed and unstressed syllables
- Prepositions and prefixes
- Roots of words
- Word formation
- Projects: detective stories, encrypted writing
- Spring Holidays
- Seasonal work, farm, plant world
- The human body
- Emotions, moods
- Endings of words, word formation
- Synonyms and antonyms
- Projects: writing a book
- Kitchen, dishes, cooking
- Travel, regional studies
- Wonders of the world
- Verb tenses
- The type of verbs
- Introduction to cases
- Projects: student newspaper, playing fairy tales
- Assessed Curriculum Continuance

# <u>Grade Two Russian</u>

How do careful observation and listening contribute to problem solving? How are problem-solving and language-learning connected? What can I learn from making a map of a city? What can a map tell us about a city's inhabitants? What do I learn about my classmates from the maps they create? Students in Russian 2 will engage with these essential questions throughout the year as they practice listening, speaking, reading, and writing and develop their cultural competency skills. In a joyful, vibrant and creative setting, students perform skits, sing, and create works of art as they continue the every use of the Russian language and develop the dispositions of effective, independent learners. Students begin the year in Russian 2 creating a map of a Russian-speaking city and considering what aspects of a city's structure are necessary for a culture to flourish. This consideration of city life will continue in the second semester, when students pursue a research project on a city from the Russian world. Throughout the year, students will continue to develop their mastery of the fundamentals of grammar and syntax and add to their vocabulary base. They will learn to express preferences, to



describe their family, school, and the world around them. As they do so, students will actively contribute to building the content and driving the curriculum of this course and will be encouraged to take charge of their learning, give themselves feedback, and develop personal strategies to achieve excellence.

#### Grade Three Russian

How do the patterns I observe in the language lead to understanding? Where is Russian spoken in the world? What does it mean to be a Russian speaker? What does it mean to me to be learning Russian? In Russian 3, students will actively engage with these questions as they continue to strengthen their listening, speaking, reading, writing and cultural competency. Students will continue to hone their critical thinking skills related to language learning and will be encouraged to actively reflect on who they are as a learner and how they learn best. In Russian 3, students will develop their research skills as they explore the wide range of cultures in the Francophone world. They will encounter new nuances of the language as they expand their vocabulary base, discover new verb families, and will be able to describe future events, form questions, and develop richer and more complex sentences. Using culturally authentic sources, students will learn to negotiate travel plans and consider differences and similarities in food culture. Students will also develop and extend their reading comprehension skills as they engage with reading Russian novels.

# Grade Four Russian

- "Review of what was learned in previous grades. Distinguish between language and speech, dialogue and direct speech.
- ""Magic"" words of Russian speech: words-greetings, words-farewells, words-requests, words-apologies, etc. Proposal. The composition of the word. Parts of speech. Noun - gender, number, declension."
- "Semantic unity of sentences in the text, the title of the text, theme, main idea, text plan.
- Text plan. Norms for constructing text (consistency, consistency, coherence, compliance). Adjective gender, number, case declension."
- Sentence as a unit of speech. Classification of a sentence by the purpose of the statement and by intonation. The use of punctuation marks at the end of sentences and a dash in dialogical speech. Drawing up sentences that differ in the purpose of the statement and in intonation.
- Pronoun. Declination, use in phrases, use with prepositions. Cases. Parts of a word. Word formation. The relationship between words in a sentence. The main members of the proposal. Logical (semantic) stress. Verbs. Undefined form. Verb tenses.
- "We learn to compare a sentence, a phrase and a word, explain their similarities and differences.
- Semantic questions. The relationship between words in a phrase. Major and minor members of the proposal. Faces of verbs. Conjugation of verbs."
- Homogeneous members of the proposal. Punctuation marks in homogeneous sentences. Types of phrases. Verb conjugation and tense category.
- Complex sentences. The relationship between simple sentences in a complex. Presentation of the narrative text. Antonyms and synonyms. Multiple words. Direct and figurative meaning of words.
- Direct speech. Homonyms. Numbers, ordinal and compound. Word formation. Single-root words. Formation of single-root words using suffixes and prefixes. Parsing the word composition.
- Parts of speech. Morphological signs of parts of speech. Adverb, the formation of adverbs from adjectives Spelling. Repetition of the material covered and verification work. Assessed Curriculum Continuance

# Grade Five Russian

Who am I as a learner? And who do I want to be? What does learning Russian look like and feel like? Learning in Russian 5 is guided by exploration of these questions. As we work on listening, speaking, reading, and writing skills, students develop the dispositions required of effective learners, including tenacity, resilience, receptivity to feedback, and careful observation skills. Students will explore the fundamentals of grammar and syntax: number (singular/plural), gender, verb conjugation, spelling, and pronunciation conventions. As students learn to describe themselves, their peers and the wider world in Russian, they will actively contribute to building their understanding of the Russian language. Emphasizing creativity,

communication, and cultural awareness, the Russian 5 curriculum encourages students to approach language learning from many angles and to discover which strategies and tools are best for them as language learners along the way.

#### Skills

- "We remember, we repeat, we study.
- Parts of a word. Separating b and b.
- Noun: three declensions, gender,
- case, number. Adjective: gender, case, number. Spelling of vowels in case endings.
- "Pronouns of 1st, 2nd and 3rd person. Verb: person, tense, number, gender (in the past tense); spelling of vowels in personal endings of the most common verbs I and II conjugation. Spelling not with verbs.
- Text. The subject of the text. The main idea of the text. Oral composition."
- "Basic syntactic concepts (units): phrase, sentence, text. Phrase: the main and dependent word in a phrase.
- Sentence. Simple sentence; types of simple sentences for the purpose of the statement. Punctuation marks."
- The grammatical basis of the sentence. The main members of the proposal, minor members of the proposal: addition, definition, circumstance. Uncommon and common suggestions. Parsing phrases and sentences.
- "Address, punctuation marks when handling. Introductory words and phrases. Difficult sentence. Complex sentences with unions.
- Direct speech. Dialogue."
- "Sound as a unit of language. Speech sounds; vowels and consonants. Accent in the word. Percussion and unstressed vowels. Hard and soft
- consonants. Phonetic parsing of the word. Indicates the softness of consonants.
- Spelling parsing."
- Narration. Multiple and unambiguous words. Direct and figurative meaning of words. Homonyms. Synonyms. Antonyms. Change and formation of words. Single-root words. The role of endings in words. Root, suffix, prefix, their purpose in the word. Morphemic parsing of words.
- "Spelling of vowels and consonants in different parts of words.
- Complete and short adjectives. Change of full adjectives by gender, cases and numbers, and short by gender and numbers. Three declensions of nouns: changing nouns in cases and numbers."
- "Verb as part of speech. Spelling not with verbs. Spelling in prefixes and in the roots of words. Spelling checked and
- unverifiable vowels and consonants at the root of the word. Independent and service parts of speech. Minor members of the proposal: addition, definition, circumstance."
- Assessed Curriculum Continuance

# Spanish: Language Track

# <u>Grade One Spanish</u>

Students learn a basic introduction to Spanish. We use personal words, colors, shapes, numbers, and more. Students advance at their own level. This is a very basic Spanish class that includes no homework outside the class work.

# Grade Two Spanish

What do I learn from making the map? What do I learn about the other map-makers from the maps they have created? How does careful observation and listening lead to problem solving? These essential questions guide student learning throughout the year as they practice listening, speaking, reading, writing and cultural competency skills, and develop the dispositions of an effective, independent learner. Focusing on expressing preferences, negotiating life in a community, and describing the world around them in Spanish, students actively contribute to building the content and driving the curriculum of this course. In a joyful, vibrant and creative setting, students perform skits, sing, and create works of art as they acquire the basics of Spanish language. In this class, students are always encouraged to take charge of their learning, give themselves feedback, and develop personal strategies to achieve excellence.

This is the first year of a three year program. Students are introduced to the Spanish language and to the culture of the people who speak it. They learn basic vocabulary for everyday application and the rules for gender/number agreement of

nouns and adjectives. The tools for written and oral expression in the language are introduced in the concept of verb conjugation in the present tense for ar verbs and subject/verb agreement. The class is conducted largely in Spanish with the emphasis placed on developing strong speaking and listening skills. Cooperative learning and interactive classroom activities are reinforced by daily homework assignments that emphasize the improvement of writing and reading abilities. Videos, computer programs, visual materials, games, and audio tapes complement the learning process. Students experience the cultural richness and diversity of Spanishspeaking countries by participating in activities involving music, dance, and food. Students learn useful and often humorous quotes and songs from a variety of countries.

Themes: School, weekend activities, likes and dislikes, family

Vocabulary: Subjects, classroom, greetings, numbers 030, descriptive adjectives, days of the week, months of the year, seasons, weather, weekend activities, family, question words, body parts, and personality traits

#### Grade Three Spanish

- Greetings; names; family members; numbers from 1 to 10; colors
- ABC; Vowels; body parts; fruits
- more fruits; extended family members; holidays; some grammar definite and indefinite articles.
- talk about how different countries celebrate the holidays; make a "Holiday Booklet"
- words of things we have at school; weather words; learn how to say how is the weather.
- musical instruments; farm animals;numbers from 11 to 20;subject pronouns breakfast vocabulary; utensils and plates; introduce regular AR verbs
- vocabulary: things in a household; Introduce regular ER verbs. introduce the indirect subject pronouns with the verb "to like" Talk about "5 de Mayo"; Learn capitals of all the Spanish speaking countries; introduce regular IR verbs; numbers to 100. review all what they have learned during the year.
- Themes: Food, travel/vacations, school
- Vocabulary: school items, class subjects, time, countries, nationalities, numbers 1001,000,000, currency, means of transportation, items for traveling, food, meals, food stores, and irregular adjectives.
- Grammar: present tense of regular and irregular verbs, the imperative, prepositions of place, giving directions, the near future, expressions with the verb to have, expressions of quantity, and direct object pronouns.

#### Grade Four Spanish

- Greetings; names; family members; numbers from 1 to 10; colors
- ABC; Vowels; body parts; fruits
- more fruits; extended family members; holidays; some grammar definite and indefinite articles.
- talk about how different countries celebrate the holidays; make a "Holiday Booklet"
- words of things we have at school; weather words; learn how to say how is the weather.
- musical instruments; farm animals;numbers from 11 to 20;subject pronouns breakfast vocabulary; utensils and plates; introduce regular AR verbs
- vocabulary: things in a household; Introduce regular ER verbs. introduce the indirect subject pronouns with the verb "to like" Talk about "5 de Mayo"; Learn capitals of all the Spanish speaking countries; introduce regular IR verbs; numbers to 100. Review

# Themes: Autobiography/famous people, home, future

Vocabulary: review vocabulary of family, places, nationalities, and countries, adjectives, professions, rooms and furniture of the house, household activities, pets,

hobbies, musical instruments, celebrations, comparative and superlative adjectives.

Grammar: Past tense, indirect object pronouns, reflexive verbs, imperfect, future, and conditional

### Grade Five Spanish

Who am I as a learner? And who do I want to be? What does it mean to me to be excellent? What will I do to achieve excellence? Exploration of these questions guides student learning in Spanish. While working on listening, speaking, reading, and writing skills, students also develop the dispositions required of effective learners, including tenacity, resilience, receptivity to feedback, and careful observation skills, among others. Focusing on describing themselves, their peers and the wider world in Spanish, students actively contribute to building the content and driving the curriculum of this course. Emphasizing creativity, spontaneity, and the Arts, students approach language learning from many angles, discovering which strategies and tools are best for them along the way.

#### Skills

- Greetings; names; family members; numbers from 1 to 10; colors
- ABC; Vowels; body parts; fruits
- more fruits; extended family members; holidays; some grammar definite and indefinite articles.
- talk about how different countries celebrate the holidays; make a "Holiday Booklet"
- words of things we have at school; weather words; learn how to say how is the weather.
- musical instruments; farm animals;numbers from 11 to 20;subject pronouns breakfast vocabulary; utensils and plates; introduce regular AR verbs
- vocabulary: things in a household; Introduce regular ER verbs. introduce the indirect subject pronouns with the verb "to like" Talk about "5 de Mayo"; Learn capitals of all the Spanish speaking countries; introduce regular IR verbs; numbers to 100. review all what they have learned during the year.

# Visual and Performing Arts

#### Grade One, Two, Three, Four

All Grades One through Four students study Visual Arts, Russian Music, and American Music each once per week.

#### <u>Grade Five</u>

All Grade Five students begin the year with a focus on singing, dancing, and learning to be part of an ensemble theater production, culminating in full class participation in the Winter and Spring shows. Students in Grade Five spend the year studying visual arts, Russian Music, and American Music. In addition, all Grade Five students will build a foundation in music performance to prepare them for the Grade Six Performing Ensemble tracks. All students will have a combination of visual art, dance, singing, and performance theatre on a rotating basis.

#### Visual Art: once per week

Shapes Marks and Lines

- Exploring mark making in monoprints
- Drawing animals in a setting
- Self Portrait collage
- Drawing: mark making landscape, blind contour studies of objects and figures

#### <u>Color</u>

- Balancing color in self portrait collage
- Matching observed colors in a large scale sculpture
- Sequencing colors in a block printing project
- Exploring color and mood in a landscape painting
- Monoprint derived from earlier landscape study
- Painting: still life based on careful observation and techniques of color mixing

#### Texture and Pattern

- Surface texture in clay canopic jar construction
- Exploring texture and pattern in a monoprint process
- Carving into a block in a printmaking process 3D Form
- Building large scale representations of objects Clay canopic jar construction

• 3D: creation of an egg drop vehicle from a variety of materials, experimenting with various methods of attaching, shaping, gluing, coloring

- Modeling in clay:
- Sculpture based on the dimensional properties of shoes and footwear

#### Russian Music: once per week

In sixth grade, students continue to study traditional Russian music through the culture of Russia. They will expand skills of creative musical participation through singing, playing instruments, and composition. Students explore sound and composition through the use of both original and "junk" instruments. They learn about musical theater, developing their presence and confidence onstage. They continue to practice basic notation and reading skills, and learn about the elements of Russian cultural music.

# **Physical Education**

Each year, students are required to participate in diverse instructional physical education daily. Students practice motor and sports skills throughout these activities. Students develop sports skills through movement exploration, specific skill work and playing games.

#### All students participate in the following units:

#### Karate: Twice per week

Karate, the art of self defense, is also a very practical life skill. The life lessons taught within our Karate units extend far beyond the realm of the physical and into the world of the mental. We tackle obstacles in everyday life including rage, sadness, and our physical bodies. Discipline is at the core of all Karate technique. Students learn the art of self defense through safe, engaging practicum. Students may earn Karate belts as they progress through our program which begins in Kindergarten.

#### Dance: Once per week

In this class, students will learn set repertory (existing dances), experiment with movement improvisation, create their own compositions and choreography, and perform in class for each other. The class allows students to take risks, try new things, and see what it is like to create their own dances. It is not focused on performance in order to allow for creative exploration and risk taking.

#### Gymnastics: Twice per week

Students tackle flexibility, body movement and comfort, as well as basic level gymnastics technique. Students are encouraged to create their own routines that range from physical gymnastics to rhythmic gymnastics. This class is taught in tandem with yoga and pilates technique for whole body wellness.

#### Skills

- Locomotor Movements: Walk, Run, Hop, Slide, Jump, Crawl, Roll
- NonLocomotor Movements: Swing, Bend, Stretch, Twist, Turn, Dodge, Push, Pull
- Sports Skills: Throw, Dribble, Kick, Bat, Catch, Shoot (basketball), Volley

# **STEM Technology**

The technology program at Star Academy starts with the why – why should we teach technology at all? The answer is we don't teach "technology " we teach self reflection, empathy, and problem solving (know themselves, understand others, and shape the future). The medium we work within to accomplish this is digital tools, and we teach students both existing skills and how to learn new technology on their own. While the process of learning new tools is inherently valuable (growth mindset, exploration, logic, sequential thinking, curiosity), ultimately we teach technology because of the opportunities it can provide for students to improve themselves and make a positive impact on the world.

We approach this through focusing on four main curricular categories that spiral throughout all grades (PreK - 8):

- Engineering & Design Thinking
- Multimedia Production
- Programming & Robotics
- Publishing

#### Engineering & Design

How does it work? Why did they build it like that? What happens if I do this....?

Harnessing and developing children's natural curiosity is one of our main goals, and the engineering and design aspects of the technology curriculum are essential components. In the early childhood years, this means taking apart computers in PreK with real tools to see how they work, learning to create circuits and simple sound machines in Kindergarten to create custom electronics, and lighting up entire model cities with LED "street lights" to represent turn of the century technology.

In the elementary years, the engineering and design challenges focus more on solving real world problems using more sophisticated tools. We begin to introduce 3D printing and design in our studies of assistive technology, crafting architectural models for civil engineering exercises, and designing novel human/computer interface devices. By the upper elementary and Elementary School years, students become their own project leads, choosing for themselves what challenges to take on and learning to use new tools independently.

#### Programming & Robotics

Programming and robotics lessons are integrated into classroom math and science activities, and taught as stand-alone topics in technology classes. We begin as early as PreK, where the focus is on physical movement, directionality, and learning to sequence a set of instructions. Children will "program" their teachers and classmates to move around a room, program simple robots to move through block mazes constructed by their classmates, and learn to "debug" simple sequences.

As children advance in grade levels, we begin to incorporate concepts such as variables, loops, and function calls to write more complex code. In the elementary grades this means constructing and programming Lego Mindstorm robots to solve engineering challenges, and creating programs in Scratch to solve mathematical equations. By the Elementary School years, students are writing much more complex code and building robots with basic AI routines in simulation scenarios such as search and rescue operations, agriculture, and environmental cleanup.

#### Publishing (desktop & web)

Who is my intended audience? What is my message? How can I best convey it?

These questions are our constant guide in teaching students the tools and techniques of desktop and web publishing. From basic skills such as keyboarding and word processing to more advanced blogging and website creation, our goal is to give students a wide array of tools and experiences in communicating their thoughts and ideas. We also cover topics such as

social media and online portfolios, focusing not just on how to use these tools, but when and why to use them, and how to protect your privacy.

#### Grade One:

- Intro to computers
- Lego
- Introduction to Typing

#### Grade Two STEM (this programming is progressive and builds upon what is taught in prior years)

- Intro to computers
- Lego
- Introduction to Coding
- Coding using Scratch
- Digital Citizenship 3.0
- Using Google Docs Introduction
- Using Slides to tell about Computers
- Tech Career Google Docs Books Maker Unit!
- Students use what they know to make their own computer project.
- Typing

# Grade Three STEM (this programming is progressive and builds upon what is taught in prior years)

- Intro to computers
- Lego
- Introduction to Coding
- Coding using Scratch
- Digital Citizenship 3.0
- Using Google Docs Introduction
- Using Slides to tell about Computers
- Tech Career Google Docs Books Maker Unit!
- Students use what they know to make their own computer project.
- Typing

#### Grade Four STEM Studios (this programming is progressive and builds upon what is taught in prior years)

- Intro to computers
- Lego
- Introduction to Coding
- Coding using Scratch
- Digital Citizenship 3.0
- Using Google Docs Introduction
- Using Slides to tell about Computers
- Tech Career Google Docs Books Maker Unit!
- Students use what they know to make their own computer project.
- Typing

# Grade Five: Typing, Robotics, and Coding For Embedded Systems

In this twice-weekly, hands-on course, students learn how to program a computer to create dynamic multimedia output using the Processing language (Java-based) and to write code for microchips embedded within electronics using the Arduino language (C-based). Students develop the skills of text-based syntax and gain experience with various data types, conditionals, functions, user inputs, graphics, physical computing, and more. They are introduced to making video games, apps, and interacting with electronics to automate robots. Students continue Keyboarding Without Tears and additional Computer Science Training. In the sixth grade, we focus on taking greater personal responsibility for learning and applying new skills, preparing for the transition to Elementary School. There is a greater focus on digital citizenship and online publishing, we introduce a 1:1 computer program and school email account, and focus on long term projects that require integrating multiple skills and group collaboration. Examples include coding and electrical wiring for the interactive media project "Evoking Autumn", using digital tools for classwork and homework workflows, video and audio editing clips for world language weather reports, digital photography editing and manipulation techniques, graphic design, and animated superhero trope takedowns

# Star Academy Aftercare

Aftercare programming is available every day for an additional charge. Every day as part of the aftercare program your child receives:

3:10 - 4:15pmActive Tutoring in Academic Subjects<br/>Independent Study Hall with Help4:15 - 4:45pmAfternoon Snack and Free play/ Open conversation4:45 - 5:45pmContinued Study Hall or Outdoor Play if all work is complete5:45 - 6:00pmPickup

In addition to our thorough academic-based aftercare program we also offer the following activities for students. These will require monthly charges.

Some Examples: Private Piano Lessons Private Singing Lessons Academic Tutoring of more than 15 minutes per student per evening Group Theatre Club

# **Star Academy Additional Courses**

#### Chess

#### Grade One through Grade Five

For entry level: how to move the pieces; what is a checkmate and how to checkmate the enemy king; special moves and other rules; how chess notation works; what should you do in the beginning of the game; basic tactics in chess

### Home Economics (Grades 1-5 learn progressively through these topics)

Child Development/Education Personal/Interpersonal/Family relationships Introducing Yourself Role play Stress management Career study Social relationship/Friendship/Respect How to interact with same age and adults Team building/Building trust

# Home management and design

Taking care of your house Cleaning/Household tasks/Laundry **Budgeting and Economics** Money management Cooking breakfast/lunch/dinner Budgeting/Saving

# **Celebration/Traditions**

New years Christmas Valentine's Day Project Thanksgiving Halloween Craft Project My planet/Basics of life safety **Emergency Situation** Calling 911 Fire Health emergency Gas leak Personal safety On the street, Strangers Natural disaster response

Community Awareness/Social Life skills Manners/Etiquette Everyday life/School Personal Hygiene Spa day Physical Exercise Morning routine Our planet/Recycling

#### Arts and crafts

Arts and craft in different cultures Types of stitches Sewing buttons Ironing **Embroidery Project** 

Food science

Healthy nutrition Cooking Russian cuisine Mexican cuisine English high tea Dramatic play Restaurant American cuisine

# Who do i want to be

My future job Professions Resume/Job interview

#### <u>Hospitality</u>

Hosting/Outing Setting table Visiting a friend's house Going gift shopping Healthy eating **Diet Pros/Cons** Eating at home Kitchen tools Measurement Eating out