



# Iles Middle School

## Curriculum Information

Iles Middle School provides students with a safe, individualized environment taught by dedicated, Gifted Education Seminar (GES) trained teachers. The environment is diverse and challenging, yet focuses upon the unique intellectual, social and emotional needs of the students.

The instructional program includes depth and acceleration to meet the academic needs of students who have been identified with gifted potential. This is accomplished by providing a nurturing environment that respects the individuality of each child, challenges each to achieve his or her potential, provides emotional and social support, and values diversity.

### *Beyond Academics*

In addition to Language Arts, Science, Literature, History and Mathematics, all students participate in the following year-round classes:

- Visual Arts
- Music Composition/Theory
- Technology
- Daily Mandarin Chinese
- Daily Physical Education
- Theatre workshops, craft and career exploration through Student Support

Opportunities for intramural and extramural activities are provided:

- Cooperative athletics - basketball, cross-country, track
- IMSA Fusion
- Scholastic Bowl
- FIRST LEGO League Robotics
- Chess Club
- Speech Team
- Show Choir
- Jazz Band
- Yearbook

# 6th grade curriculum

## Literature and Language Arts

In literature students will read and analyze a variety of classic and contemporary, complex texts. There is an emphasis on looking at fiction and nonfiction texts with a critical eye in order to determine what and how it communicates ideas, messages, and information. Students examine how an author develops and crafts a story through language and use of key literary elements, compare and contrast written work to a multimedia version, and examine how authors use history and how history impacts fiction.

In language arts students engage in a variety of writing (narrative, informative, and argumentative). Students work through the writing process to ensure that their pieces of writing are clear, coherent, and cohesive, that body paragraphs are focused with relevant details, and that introductions and conclusions are effective and developed.

In both courses students work on public speaking, listening, and note taking skills. Grammar and vocabulary instruction are integrated into the literature and language arts curriculum to improve comprehension, support critical reading, and add variety and interest to speaking and writing. Sixth graders will participate in a literature fair in which they research an author, study his or her writings, and emulate the writer's style. Their work will be presented to the school and parents.

## Science

The sixth grade science course has a curriculum that is based on higher level thinking that includes topics such as the scientific method, measurement, erosion, oceans, exploring space, the solar system, matter and changes, atoms and elements, motion and simple machines, energy, waves and earth's resources. Each unit includes hands-on experiments, group activities, student-led activities, and inquiry projects. Most units will have a special project such as making models, creating iMovies, designing a space colony on a specific planet, or presenting a keynote. Students will work on their investigation, experimentation, researching, and inquiry skills through all activities and projects in this course. In third quarter, 6th grade takes an annual field trip to Busch Stadium for their Cardinals Academic Program. There is also an integrated unit that deals with astronomy and rockets that the math, science and literature classes work on together. There is a culminating project for this unit where students get to shoot off rockets.

## History - World History

Units include: Geography, The First Civilizations, Egypt, Greece & Rome, India, China, Japan, Europe, The Americas and Modern Times. Throughout the school year, students keep a Civilization Chart that logs the key components of all of the civilizations learned and a Geography Folder to keep track of our travels through each unit. As we travel around the world and through time, the students explore the mathematics that were used, and discuss how the math and science advancements have affected us today. Assessments alternate between tests, quizzes, essays, presentations, poster boards, Keynotes, iMovies, journal writings, skits, drawings, and stories.

The common theme throughout the school year is perspective—learning the facts from all points of view. Students learn to approach class discussions with an open mind, learning to avoid biases by participating in Elbow Talks and healthy debates.

## Mathematics - Pre-Algebra

Students are expected to know skills taught at the 6<sup>th</sup> grade level. The school year begins with topics such as classifying numbers, using variables, powers and exponents, order of operations and negative numbers. The Pre-Algebra units include: Variables, Expressions & Integers; One-Step Equations; Multi-Step Equations & Inequalities; Factors, Fractions & Exponents; Rational Numbers & Equations; Percents; Area & Volume; Ratios, Proportions & Probability; Transformations & Angles; Functions; Real Numbers & Right Triangles and Data & Probability.

Students learn to go beyond knowing how and when to apply concepts. From the first chapter students begin working on modeling situations using variables. They work on higher level thinking and discover why it is important to be able to make connections and understand why concepts are applied. Lessons are enriched with challenge problems. Algebra tiles, graphing calculators, elbow partner collaboration, whiteboard work, online resources, and other hands-on activities are used to enrich the lessons. Applied mathematical problems are included with each lesson to help students connect the course with mathematics in the real world. Students will not only learn the mathematical skills taught throughout each unit, but will also begin to develop other important skills such as analyzing, making connections and predictions, problem solving, and critical thinking.

In addition to the compacted and accelerated curriculum, students receive individualized differentiated support and enrichment (including an extra Pre-Algebra class on Fridays).

# 7th grade curriculum

## Literature and Language Arts

In literature students will read and analyze a variety of classic and contemporary, complex texts. There is an emphasis on looking at fiction and nonfiction text with a critical eye in order to determine what and how it communicates ideas, messages, and information and how these details interact with and establish other literary elements. Students examine how an author develops and crafts a story through language and use of a variety of literary elements, analogies, and allusions. They compare and contrast texts to determine how textual structure establishes meaning and style, evaluate the effectiveness of a written work portrayed on film or live, and analyze how modern work is inspired or influenced by traditional, mythical, and religious works.

In language arts students engage in a variety of writing (narrative, informative, and argumentative). Students work through the writing process to ensure that their pieces of writing are clear, coherent, and cohesive, that body paragraphs are focused with well-chosen, meaningful details, and that introductions and conclusions are impactful and well developed.

In both courses students continue to improve public speaking, listening, and note taking skills. Grammar and vocabulary instruction are integrated into the literature and language arts curriculum to improve comprehension, support critical reading, and add variety and interest to speaking and writing.

## Science

The seventh grade science course has a rigorous curriculum that includes topics such as atmosphere, weather, climate, interactions of living things, conserving resources, life's structure and classification, cell processes, cell reproduction, and heredity. Each unit includes hands-on experiments, group activities, student-led activities and inquiry projects. Most units will have a special project such as creating iMovie's, making board games, giving keynote presentations, and designing ships to hold a certain amount of cargo. Students will use technology, experimentation, and inquiry skills to delve deeper into each subject. In third quarter, 7th grade takes an annual field trip to the University of Illinois Engineering Open House. Second semester, seventh grade students participate in a science fair where their work is presented to the school and parents.

## History - U.S. History

The seventh grade U.S. history course moves through the early portion of our nation's history, ranging from the first Native Americans all the way through the Civil War. Through their studies of these different time periods, students learn more about the events that have shaped our country and put themselves in the shoes of those who helped create it. In addition to using the history book, we also do extended activities using current events. The 7th grade also studies and takes their Constitution test. Students will complete different activities such as speeches, keynote presentations, creating iMovies and posters, looking at political cartoons, discussions with special guest speakers, using technology to better understand the content, and will spend time researching specific events that interest them throughout this course.

## Mathematics - Algebra I

Students are expected to know skills taught in Pre-Algebra. The Algebra I units include: Expressions; Modeling; Solving; Graphing Two-Variable Equations; Systems of Equations; Polynomials and Exponents; Functions; Exponential Functions; Statistics; Graphing Quadratics; Solving Quadratics.

Each lesson surpasses just knowing how and when to apply mathematical concepts. Students engage in higher level thinking, learning why it is important to make connections and understand why concepts are applied. Algebra tiles, graphing calculators, elbow partner collaboration, whiteboard work, online resources, and other hands-on activities are used to enhance the lessons. Lessons are enriched with challenge problems. Applied mathematical problems are implemented into each lesson to allow students to connect the course with mathematics in the real world. Students will not only learn the mathematical skills taught throughout each unit, but will also continue to develop other important skills such as analyzing, making connections and predictions, problem solving, and critical thinking. Second semester, eighth grade students participate in a math fair where their work is presented to the school and parents.

In addition to the compacted and accelerated curriculum, students receive individualized differentiated support and enrichment.

# 8th grade curriculum

## Literature and Language Arts

In literature students will read and analyze a variety of classic and contemporary, complex texts. There is an emphasis on looking at fiction and nonfiction texts with a critical eye in order to determine central ideas and themes and analyze how specific details develop, shape, and refine these concepts and messages. Students continue to explore the reciprocal relationship among literary elements, plot, and characters while studying how an author develops and crafts a story through language and the use of a variety of literary elements, analogies, allusions, and cultures. They examine how subjects and key scenes are represented through multiple artistic mediums and analyze how source and primary materials influence literature.

In language arts students engage in a variety of writing (narrative, informative, and argumentative). Students work through the writing process to ensure that their pieces of writing are clear, coherent, and cohesive, that body paragraphs are focused with carefully selected, thought provoking details, and that introductions and conclusions are sophisticated and significant.

In both courses students continue to refine public speaking, listening, and note taking skills. Grammar and vocabulary instruction are integrated into the literature and language arts curriculum to improve comprehension, support critical reading, and add variety and interest to speaking and writing.

## Science

The eighth grade science curriculum focuses on advanced content that includes topics such as the periodic table, atomic structure, chemical reactions, motion and momentum, plate tectonics, earthquakes, volcanoes, clues to earth's past, geologic history, the solar system, stars and galaxies, electricity and magnetism. Each unit includes hands-on experiments, group activities, student-led activities and inquiry projects. Most units will have a special project such as research projects, creating iMovies, presenting Keynotes, and creating egg cars that can withstand an impact. Students will follow a hands-on approach in a lab setting where they can complete different inquiry projects based on the curriculum.

## History - U.S. History

The eighth grade U.S. history course includes the Civil War Reconstruction all the way through current times and uses a range of activities to help students understand the historical events and connect with the people involved in them. Students will learn about these people and events through different activities such as doing keynote presentations, researching, creating movie trailers for events, making a Holocaust scrapbook, writing narratives and plays, looking at political cartoons, participating in debates about controversial issues and listening to special guest speakers. Technology is integrated into each unit and students will spend time researching specific events that interest them throughout this course. In addition to using the history book, we also do extended activities using current events.

## Mathematics - Algebra II

Students are expected to know skills taught in Algebra I. The school year begins with Algebra I Review. Other units covered include: Quadratics; Rational Exponents; Parents Functions; Functions; Logarithmic Functions; Polynomials; Graphing Polynomials; Solving Radical and Rational Functions; Statistics; Sequences; Probability; Trigonometry.

The focus of lessons is not only on when and how to apply concepts—it includes advanced thinking such as recognizing the importance of making connections and understanding why concepts are applied. Algebra tiles, graphing calculators, elbow partner collaboration, whiteboard work, online resources, and other hands-on activities are used to enrich the lessons. Applied mathematical problems are integrated into each lesson as students make connections between materials taught in the course and mathematics in the real world. Students will not only learn the mathematical skills taught throughout each unit, but will also enhance their ability to analyze, make connections and predictions, think critically and solve complex problems.

Assessments are at the Honors Algebra level. In addition to the compacted and accelerated curriculum, students receive individualized differentiated support and enrichment.