

HARTFORD PUBLIC SCHOOLS
2007 School Design Specifications:
The Core Knowledge Academy at Thirman L. Milner School

Overview of School Model

- School type, accreditation & affiliations, theme/content focus, grade configuration, size, major school partner(s)

The Core Knowledge Academy at Milner School

The Core Knowledge Academy at Thirman L. Milner Elementary School will serve as a PRE-K-8 school, offering a unique school option for neighborhood students through the Hartford All-Choice System of Schools plan. The Academy design will focus on three key components for success:

1. The Core Knowledge Sequence and Curriculum
2. Saxon Math – a core math program recommended by Core Knowledge
3. Project ACHIEVE’s Positive Behavioral Self-Management System

A key to the design of the Core Knowledge Academy will be the adoption of the Core Knowledge philosophy which states, *“We can and must establish high expectations for all young children, recognizing that the rates and approaches to learning may vary among individuals.”*

The Academy staff will make the experiences offered to children count by:

1. Planning educationally meaningful experiences
2. Starting where each child is
3. Guiding learning step by step

The Core Knowledge curriculum addresses the fairness gaps in American education by developing a curriculum based on principles of cognitive science of how people learn. The Core Knowledge curriculum is research-based and was developed collaboratively by teachers nationally. These teachers believe schools need to provide a foundation of cultural literacy and develop students’ ability to use information and skills required in a complex world. Teachers who teach at the Core Knowledge Academy must believe in and commit to the Core Knowledge philosophy and curriculum design.

What is the Core Knowledge Sequence?

- Core Knowledge provides students with a rich and broad knowledge base on which future instruction can build.
- The ultimate goal is to ensure all children are given access to the same knowledge base that assures educational success.
- The Core Knowledge sequence provides a detailed, explicit and systematic sequence of grade-specific content taught consistently year after year.
- This core content is organized to spiral through the grade levels, becoming more sophisticated and detailed in each successive grade.
- Students retain information much longer and skills more easily when meaningful content is combined with the teaching of skills.

THE BENEFITS OF CORE KNOWLEDGE

For Students

- Provides a broad base of knowledge and a rich vocabulary
- Motivates students to learn and creates a strong desire to learn more
- Provides the knowledge necessary for higher levels of learning and helps build confidence

For Parents and the Community

- Provides a clear outline of what children are expected to learn
- Encourages parents to participate in their children's education both at home and in school
- Provides opportunities for community members to help obtain and provide instructional resources

For the School

- Provides an academic focus and encourages consistency in instruction
- Provides a plan for coherent, sequenced learning from grade to grade
- Promotes a community of learners including both adults and children
- Becomes an effective tool for lesson planning and communication among teachers and with parents
- Guides thoughtful purchases of school resources

The use of the Core Knowledge Sequence:

- Maximizes learning time
- Sets clear procedures
- Establishes daily routines
- Is framed around project-based and inquiry-based learning
- Is student-centered
- Provides opportunities for cooperative learning
- Scaffolds information
- Utilizes formative and summative assessments
- Aligns with state standards

Project ACHIEVE Positive Behavioral Support System

As recommended by Core Knowledge, the Design Team is pursuing a relationship with Dr. Howie Knoff, Director of Project ACHIEVE, in order to put systems in place to ensure school redesign efforts are fully implemented and that support is provided at every level of the Academy's operation. Project ACHIEVE's evidence-based model uses seven interdependent components that focus the school on the academic achievement and social-emotional/behavioral development of all students. These components are:

1. Strategic Planning and Organizational Analysis
2. Problem Solving, Teaming and Consultation
3. Effective School, Schooling and Professional Development
4. Academic Instruction Linked to Academic Assessment, Intervention and Achievement
5. Behavioral Instruction Linked to Behavioral Assessment, Intervention and Achievement
6. Parent and Community Training, Support and Outreach
7. Data Management, Evaluation and Accountability

Project ACHIEVE's school-wide Positive Behavioral Self-Management System (PBSS) is a whole school approach that involves students, staff, administration, and parents to build and reinforce:

- (a) students' interpersonal, problem-solving, and conflict resolution skills and interactions;
- (b) positive, safe, supportive, and consistent school climates and settings; and
- (c) school capacity in that the entire process becomes an inherent part of the system and its ongoing

school improvement process. Thus, “Self-Management” occurs at three levels: student, staff, and school.

Project ACHIEVE is recommended by and works closely with the Core Knowledge foundation, and therefore teacher training is designed to complement the Core Knowledge training.

School Mission & Vision

- School purpose

The Core Knowledge Foundation Mission is: “To offer all children a better chance in life, and create a fairer and more literate society by educating America’s youth in a: Solid, Specific, Sequenced and Shared curriculum.”

In alignment with the Foundation, The Core Knowledge Academy at the Thirman L. Milner School defines its purpose as “To offer and expose the children of Hartford to an array of life choices by preparing them through a solid, specific, sequenced and shared curriculum. Our students will attain superior levels of academic performance and literacy skills through the use of a rigorous Core Knowledge curriculum, which will prepare them for college preparatory high school courses of study. They will learn and contribute to learning within a safe learning environment. In addition, the students, parents and staff will commit to the success of every student through the creation of a positive, supportive learning environment.”

Governance Structure

- Leadership model, decision-making approach, school council role, school *Compact*

- **The Core Knowledge Academy Governance Team** will include representation of all stakeholders: parents, community members, major school partners, students and school staff. This team will be responsible for working with the principal to monitor student achievement and make school-based decisions. The board will also assess and monitor the effectiveness of extended day activities, parent and community engagement as well as other programming as it affects student achievement.
- **Principal:** The principal of the Core Knowledge Academy at Thirman Milner School should have knowledge of the Core Knowledge Sequence and will have the following leadership qualities:
 - Decision-maker who puts students first
 - Demonstrated, strong instructional leadership skills
 - Demonstrated ability to create and maintain community partnerships aligned with the school improvement plan
 - Commitment to enforcing the School Compact between parents, students and staff
 - Demonstrated ability to set high learning expectations for staff, students, parents and community
 - Demonstrated ability to interact effectively with parents and community members
 - Knowledge of and commitment to the Milner community
 - Visionary, with a personal goal to create an outstanding school
- **Three Core Knowledge Curriculum Coordinators** for PRE-K-2, 3-5 and 6-8 will assist teachers in maintaining fidelity to the Core Knowledge Curriculum, assist in the creation and sharing of lesson plans and ensure that plans created reflect the cultural diversity of the students. The Curriculum Coordinator for PRE-K-2 will be an early childhood expert. The Coordinator for 6-8 should have significant teaching experience and demonstrated expertise/success in the middle

school year. Curriculum Coordinators are expected to model strategies through demonstration lessons on an on-going basis.

- **Grade Level Teams:** Teachers will work in Grade Level Teams and teams will be accountable to each other, to the curriculum and to all of the students in that grade and their parents. Grade level teams will annually assess the percentage of the Core Knowledge curriculum that was implemented, and will create lesson units for those areas that need to be improved upon the following year. Teams will also be responsible for displays and presentations of grade level projects.
- **Teacher Learning Teams** will allow teachers the opportunity to demonstrate to students that they are continuously learning through their own participation on teacher-led professional development teams. The Teacher Learning Team will involve an experienced, mentor teacher who presents a strategy that has been implemented in the classroom with supporting data demonstrating success. The others on the team then implement the strategy, while the mentor teacher observes at a mutually agreed upon time. The team re-meets to share its successes after trying out the strategy, and collecting student work samples and data. The mentor teacher should provide critical feedback that will ensure future success of the strategy.
- A **Student Council** will be formed in order to give all students the opportunity to have a voice and to learn about participatory governance. A class officer will be elected in each class and one student leader per grade level will sit on the Academy's student council. Student Council representation will be structured for grades 3-8 and will interact with the School Governance Council.

Student Body

- Student profile, student roles and responsibility, homework expectations, student voice and leadership

The Core Knowledge Academy at Thirman Milner School will promote and foster student accountability and ownership for the learning community.

Student Profile

- Approximately 66 students per grade; 3 classes at 22 students each.
- Total school PRE-K-8: 604 students

| | | 08-09 |
|--------------|------------|-------|
| | Class Size | |
| PRE-K | 3*18 | 54 |
| K | 3*22 | 66 |
| 1st | 3*22 | 66 |
| 2nd | 3*22 | 66 |
| 3rd | 3*22 | 66 |
| 4th | 3*22 | 66 |
| 5th | 3*22 | 66 |
| 6th | 4*16/17 | 66 |
| 7th | 4*16/17 | 66 |
| 8th | 4*16/17 | 66 |
| Total | | 604 |

Student Roles and Responsibilities

- Students will participate in the creation of data binders to promote awareness and ownership of academic growth.
- Students in grades 6-8 will be able to conduct conferences, presenting their academic growth including strengths and weaknesses.
- Students are expected to become the essential home-school link to ensure both academic and responsible behaviors.
- Students will share information about projects with a sister Core Knowledge school in another state (possibly Atlanta).

Homework Expectations

- All students will be assigned homework and projects that are aligned with the Core Knowledge sequence.
- Students will complete all project-based homework assignments using rubrics created in the classroom.
- Students (along with parents) are responsible for keeping track of homework assignment schedules provided at the beginning of each month.

Student Voice and Leadership

- Students will participate in Class Council meetings to foster academic and social awareness and ownership
- Students will actively develop and participate in grade level events, which reflect specific units of curriculum.
- Grade-specific, content-based traditions will be developed by students and staff to extend the curriculum, involve parents and community members, and promote excitement in areas studied throughout the school, on every grade level.
- Students will be given opportunities to develop their leadership skills, and they will be taught to be peer leaders and peer educators.
- Students in grade eight will serve as peer mentors to students in the primary grades.

Parental Role

- Parent commitment, opportunities for parents, parent voice

The Core Knowledge Parent Institute

Core Knowledge provides a clear outline of what children are expected to learn in school. Therefore, parents will know what their children are learning in school and will be able to participate in their children's education both at home and at school. Parent involvement is further increased through participation in content-focused traditions that are unique to each grade. Core Knowledge provides a common ground for communication, and increases teacher, student and parent engagement.

The Core Knowledge Parent Institute will provide ongoing opportunities for parents to become engaged with and knowledgeable about current curricular expectations for their children. There will be parent sessions prior to the beginning of each trimester. Through participation in the parent institute:

- Parents are provided with a **scope and sequence** that clearly outlines academic expectations for all grade levels as well as the learning expectations for planned units of instruction.
- Parents are provided with easy to follow resources to work with children at home.
- Parents will have access to copies of “What Your __ Grader Needs to Know” in order to provide them with background knowledge and a resource for supporting the curriculum at home. They will be expected to attend a workshop on how to use the books in order to receive a copy at no cost.
- Parents will have the opportunity to learn about, discuss and possibly add to content-specific topics.
- Parents of students in grades 3-5 will receive a copy of “Listen, My Children” along with a parent workshop series on how to keep children excited about learning through literature.
- Parents become involved through content-related fundraisers, project-based activities, and field studies.

In addition to the Parent Institute, parents will be actively and integrally involved in the following ways:

- Parents will participate in open house and parent information night.
- Parent involvement and academic awareness is promoted by a School Compact in which parents along with teachers and students sign an agreement. The compact will be developed between the principal, design team and advisory board.
- Parents will receive monthly syllabi that detail the topics or themes to be taught in the month, a list of nightly homework assignments with due dates, and a schedule of quizzes and tests.
- Parents will receive rubrics, developed by students and teachers that provide clear expectations for projects and other assessments.
- In addition to conference night, parents are continuously informed by the school of current and upcoming curriculum-based studies to continue academic dialogue at home.
- The academy will send all school correspondence home on the same day of the week, every week for consistency. This envelope should be signed by a parent and returned every Monday.
- Parents are expected to complete and sign an End of Unit assessment with their child. (i.e. A student answers specific explicit vocabulary and content area questions, and the parent notes this on a sheet.)
- Open communication between parents and teachers is established through regular telephone conferences and/or e-mail.
- Parents are expected to read information about current curricular expectations, which will be posted in an easy to access area.
- Parents are highly encouraged to participate in morning meetings, which will be held at the beginning of the school day, once a week in order to develop a stronger relationship between the parents and the school.
- Classroom student work demonstrations will increase the number of parent-teacher contacts.

Teacher Capacity

- Pre-certification and training, professional development, collaborative planning process, C&I expectations and roles such as joint interdisciplinary unit development and team teaching

The Core Knowledge Academy at Thirman L. Milner Elementary School needs dedicated and experienced teachers who are committed to and have an understanding of the needs of the students and families in the Milner Community.

Teachers who wish to apply to work at the Academy should have:

- A demonstrated understanding of urban education in high-poverty communities.
- A demonstrated sensitivity to the needs of students and families.

- A demonstrated ability to challenge all students, while providing them with rigorous, exciting lessons and high expectations for success.
- A demonstrated commitment to providing extended day activities that are both educational and engaging.
- A demonstrated commitment to learning through ongoing professional development and a high level of implementation.
- A demonstrated knowledge of standards-based lesson planning, differentiated instruction, formative assessments and using data to drive instruction.
- Commitment to the thorough implementation of the Core Knowledge Curriculum.
- Commitment to the full implementation of the Positive Behavioral Support System.
- Commitment to full participation in all professional development and curriculum development activities.
- An understanding that with the right instruction, every child can achieve at high levels.
- A commitment to continuously developing lesson units with the grade level team aligned with the Core Knowledge sequence.
- A commitment to the development of Core Knowledge unit lessons that represent the cultural backgrounds of the Academy's students.
- A commitment to sharing academic information with parents through the Parent Institute.

Teachers at the Core Knowledge Academy will be expected to:

- Collaborate to plan standards-based units that are aligned with the Core Knowledge Sequence.
- Use differentiated instruction.
- Attend all Core Knowledge professional development workshops including up to one week in the summer.
- Collect student data and use it to drive instruction.
- Maintain updated displays of student work in classrooms and hallways.
- Use common planning time to discuss student data and instructional strategies.
- Send home monthly syllabi that detail the topics or themes to be taught in the month, a list of nightly homework assignments with due dates, and a schedule of quizzes and tests.
- Actively and positively contribute to the development and implementation of the Positive Behavioral Support System.

Professional Development

Once the Core Knowledge Academy becomes a "Friend of Core Knowledge" by establishing the school's commitment to use Core Knowledge, a Core Knowledge consultant will assess the needs of the academy and assist in the planning and implementation of Core Knowledge training. A separate Pre-K consultant will assist in Pre-K setup and training.

Introduction to Core Knowledge is a two-hour session that provides teachers, parents and community participants with an overview of Core Knowledge. This will be scheduled for late Spring 2008.

Core Knowledge Leadership Institute is a two-day training for school leaders, specifically, the school principal and Core Knowledge Coordinator, which gives an overview of how to get started with Core Knowledge.

Overview and Getting Started (summer 2008) at the end of this three-day professional development, the school is ready to send an initial draft of the typed curriculum plan indicating when each of the Core Knowledge topics will be covered.

Teaching Core Knowledge is a two-day session where teachers review curriculum, assessment and instruction, and complete lessons based on Core Knowledge concepts that are aligned with state standards.

Follow Up Visits are two-day sessions that ensure schools are getting the support they need to stay on track.

Ongoing:

- Teacher Learning Teams
- Annual 3-5 day summer PD set one year in advance; includes annual curriculum coverage assessment and collaborative unit development. In year one of implementation, teachers are expected to participate in a five-day summer training session.
- Each year, new hires should attend the annual Core Knowledge conference with the Principal or one of the CK Coordinators.
- The Academy will annually assess the level of implementation of the Core Knowledge Sequence by grade level and school-wide. The best units of instruction will be shared and units that were not as successful will be improved upon or replaced.

Curriculum & Instruction

- Pedagogical approach, curriculum design, learning environment & classroom design, field trips & extended classrooms, language requirements, technology

Curriculum Approach

Key Principles

- What children are able to learn at any given moment depends on what they already know
- What they already know is a function of their previous experiences
- Rich background knowledge and superior vocabulary go hand in hand
- Background knowledge and vocabulary are prerequisites to literacy
- Background knowledge correlates with excellent problem solving skills

The Core Knowledge Foundation is a nonprofit educational organization that provides a grade-by-grade sequenced curriculum around a body of knowledge that they believe should form the core of a Pre-K-8 curriculum. This body of knowledge was determined by working teams of teachers from the highest performing elementary schools around the world in collaboration with parents, scientists and professional curriculum organizations. The curriculum provides a common ground around four key aspects:

1. **The curriculum is Solid**

- The curriculum defines a body of lasting knowledge that exists despite the fast changing pace of information, current events and technology. The solid knowledge base includes concepts of constitutional government, important events of world history, essential elements of mathematics, structures of oral and written expression, the periodic table of elements, masterpieces of art and music, and stories and poems passed down from generation to generation.

2. **The curriculum is Sequenced**

- Research shows that students with limited family resources in urban areas have knowledge gaps that make it much more difficult to learn higher level skills and concepts

as they proceed up the grades. The Core Knowledge curriculum is sequenced so knowledge builds on knowledge. The CK curriculum clearly defines knowledge and skills required to participate in each successive grade. Therefore, not only are students assured to receive the prior knowledge they need as they are promoted from grade to grade, but each grade level team of teachers have a clearly defined curriculum they are responsible for fully covering in order for their students to see success in each subsequent grade. Unnecessary repetition of units is eliminated.

3. The curriculum is **Specific**

- The Core Knowledge curriculum goes one step further than typical broadly-defined state curriculum frameworks by answering *What specifically do our children need to know within those broad concepts, i.e. which specific people, events, places, movements?* Therefore, the curriculum clearly identified specific important knowledge in language arts, history and geography, math, science and the fine arts.

4. The curriculum is **Shared**

- The goal of the Core Knowledge Foundation is to provide all children, regardless of background, with the shared knowledge they need in order to take part in our national literate culture. Whether in the newspaper, in school textbooks, or in sportscaster announcements there are terms, stories, historical events, places and other references that these information sources assume their audience already knows.

Developing Core Knowledge Units

The Core Knowledge Foundation clearly delineates in its program six steps to developing units. During a five-day professional development session, teams are guided to utilize a variety of resources to create a unit, which aligns with state standards. Teachers are also encouraged to utilize the Core Knowledge Units posted on the Web site.

Six Exposures to Content:

1. Enthusiastic introduction
2. Spiraling homework
3. Review before assessment
4. Review after assessment
5. Assess
6. Review Assessment (provide students with a copy of the test and answer key)

Core Knowledge at a Glance: Major Topic Headings, K–2

| | Kindergarten | First Grade | Second Grade |
|-----------------------------|---|---|---|
| Language Art/English | I. Reading and Writing II. Poetry III. Fiction IV. Sayings and Phrases | I. Reading and Writing II. Poetry III. Fiction IV. Sayings and Phrases | I. Reading and Writing II. Poetry III. Fiction (Stories; Greek Myths; Greek and Roman Myths) IV. Sayings and Phrases |
| | | | |

| | | | |
|------------------------------|---|---|--|
| History and Geography | World I. Spatial Sense II. Overview of the Seven Continents American I. Geography II. Native Americans III. Early Exploration and Settlement (Columbus, Pilgrims, Independence Day) IV. Presidents, Past and Present V. Symbols and Figures | World I. Geography II. Early Civilizations (Mesopotamia, Ancient Egypt, History of World Religions) III. Mexico American I. Early People and Civilizations (Maya, Inca, Aztec) II. Early Exploration and Settlement III. American Revolution IV. Early Exploration of the American West V. Symbols and Figures | World I. Geography II. Early Civilizations: Asia (India, China) III. Modern Civilization and Culture: Japan IV. Ancient Greece American I. American Government: The Constitution II. War of 1812 III. Westward Expansion IV. Civil War V. Immigration and Citizenship VI. Civil Rights VII. Geography of the Americas VIII. Symbols and Figures |
| Visual Arts | I. Elements of Art II. Sculpture III. Looking at and Talking About Art | I. Art from Long Ago II. Elements of Art III. Kinds of Pictures: Portrait and Still Life | I. Elements of Art II. Sculpture III. Kinds of Pictures: Landscapes IV. Abstract Art V. Architecture |
| Music | I. Elements of Music II. Listening and Understanding III. Songs | I. Elements of Music II. Listening and Understanding (Composers; Orchestra; Opera; Ballet; Jazz) III. Songs | I. Elements of Music II. Listening and Understanding (Orchestra; Keyboards; Composers) III. Songs |
| Mathematics | I. Patterns and Classification II. Numbers and Number Sense III. Money IV. Computation V. Measurement VI. Geometry | I. Patterns and Classification II. Numbers and Number Sense III. Money IV. Computation V. Measurement VI. Geometry | I. Numbers and Number Sense II. Fractions III. Money IV. Computation V. Measurement VI. Geometry |
| Science | I. Plants and Plant Growth | I. Living Things and Their Environments | I. Cycles in Nature (Seasonal Cycles; |

| | | | |
|--|---|---|--|
| | <ul style="list-style-type: none"> II. Animals and Their Needs III. Human Body (Five Senses) IV. Introduction to Magnetism V. Seasons and Weather VI. Taking Care of the Earth VII. Science Biographies | <ul style="list-style-type: none"> II. Human Body (Body Systems) III. Matter IV. Properties of Matter: Measurement V. Introduction to Electricity VI. Astronomy VII. The Earth VIII. Science Biographies | <ul style="list-style-type: none"> Life Cycles; Water Cycles II. Insects III. Human Body (Cells; Digestive and Excretory Systems) IV. Magnetism V. Seasons and Weather VI. Simple Machines VII. Science Biographies |
|--|---|---|--|

©2005 Core Knowledge Foundation

Core Knowledge at a Glance: Major Topic Headings, 3–5

| | Third Grade | Fourth Grade | Fifth Grade |
|------------------------------|---|---|---|
| Language Art/English | <ul style="list-style-type: none"> I. Reading and Writing II. Poetry III. Fiction (Stories; Norse Myths; Greek and Roman Myths) IV. Sayings and Phrases | <ul style="list-style-type: none"> I. Writing, Grammar, and Usage II. Poetry III. Fiction (Stories; Legends of King Arthur) IV. Sayings and Phrases | <ul style="list-style-type: none"> I. Reading and Writing II. Writing, Grammar and Usage III. Poetry IV. Fiction (Stories; Shakespeare; Myths and Legends) V. Sayings and Phrases |
| History and Geography | <p>World</p> <ul style="list-style-type: none"> I. World Geography (Spatial Sense; Canada; Important Rivers) II. Ancient Rome (Geography of Mediterranean Region; Roman Empire, “Decline and Fall”) III. Vikings <p>American</p> <ul style="list-style-type: none"> I. The Earliest Americans II. Early Exploration of North America III. The Thirteen Colonies: Life and Times Before the Revolution | <p>World</p> <ul style="list-style-type: none"> I. World Geography (Spatial Sense; Mountains) II. Europe in the Middle Ages III. Spread of Islam and “Holy Wars” IV. Early and Medieval African Kingdoms V. China: Dynasties and Conquerors <p>American</p> <ul style="list-style-type: none"> I. American Revolution II. Making a Constitutional Government III. Early Presidents and Politics | <p>World</p> <ul style="list-style-type: none"> I. World Geography (Spatial Sense; Lakes) II. Meso-American Civilizations III. European Exploration, Trade, and Clash of Cultures IV. Renaissance and Reformation V. England from the Golden Age to the Glorious Revolution VI. Russia: Early Growth and Expansion VII. Feudal Japan <p>American</p> |

| | | | |
|--------------------|---|--|--|
| | | <ul style="list-style-type: none"> IV. Reformers V. Symbols and Figures | <ul style="list-style-type: none"> I. Westward Expansion II. Civil War: Causes, Conflicts, Consequences III. Native Americans: Cultures and Conflicts IV. U.S. Geography |
| Visual Arts | <ul style="list-style-type: none"> I. Elements of Art II. American Indian Art III. Art of Ancient Rome and Byzantine Civilization | <ul style="list-style-type: none"> I. Art of the Middle Ages II. Islamic Art and Architecture III. Art of Africa IV. Art of China V. Art of a New Nation: The United States | <ul style="list-style-type: none"> I. Art of the Renaissance II. American Art: Nineteenth-Century United States III. Art of Japan |
| Music | <ul style="list-style-type: none"> I. Elements of Music II. Listening and Understanding (Orchestra; Composers) III. Songs | <ul style="list-style-type: none"> I. Elements of Music II. Listening and Understanding (Orchestra; Vocal Ranges; Composers) III. Songs | <ul style="list-style-type: none"> I. Elements of Music II. Listening and Understanding (Composers; Connections) III. American Musical Traditions (Spirituals) IV. Songs |
| Mathematics | <ul style="list-style-type: none"> I. Numbers and Number Sense II. Fractions and Decimals III. Money IV. Computation V. Measurement VI. Geometry | <ul style="list-style-type: none"> I. Numbers and Number Sense II. Fractions and Decimals III. Money IV. Computation V. Measurement VI. Geometry | <ul style="list-style-type: none"> I. Numbers and Number Sense II. Ratio and Percent III. Fractions and Decimals IV. Computation V. Measurement VI. Geometry VII. Probability and Statistics VIII. Pre-Algebra |
| Science | <ul style="list-style-type: none"> I. Introduction to Classification of Animals II. Human Body (Muscular, Skeletal, and Nervous Systems; Vision and Hearing) III. Light and Optics | <ul style="list-style-type: none"> I. Human Body (Circulatory and Respiratory Systems) II. Chemistry (Atoms; Matter; Elements; Solutions) III. Electricity | <ul style="list-style-type: none"> I. Classifying Living Things II. Cells: Structures and Processes III. Plant Structures and Processes IV. Life Cycles and |

| | | |
|--------------------------|------------------------------------|--|
| IV. Sound | IV. Geology: Earth and Its Changes | Reproduction |
| V. Ecology | V. Meteorology | V. Human Body (Endocrine and Reproductive Systems) |
| VI. Astronomy | VI. Science Biographies | VI. Chemistry: Matter and Change |
| VII. Science Biographies | | VII. Science Biographies |

©2005 Core Knowledge Foundation

Core Knowledge at a Glance: Major Topic Headings, 6–8

| | Sixth Grade | Seventh Grade | Eighth Grade |
|------------------------------|---|---|---|
| Language Art/English | I. Writing, Grammar, and Usage II. Poetry III. Fiction and Drama (Stories; Shakespeare; Classical Myths) IV. Sayings and Phrases | I. Writing, Grammar, and Usage II. Poetry III. Fiction, Nonfiction, and Drama IV. Foreign Phrases Commonly Used in English | I. Writing, Grammar, and Usage II. Poetry III. Fiction, Nonfiction, and Drama IV. Foreign Phrases Commonly Used in English |
| History and Geography | World I. World Geography (Spatial Sense; Deserts) II. Lasting Ideas from Ancient Civilizations (Judaism, Christianity; Greece and Rome) III. Enlightenment IV. French Revolution V. Romanticism VI. Industrialism, Capitalism, and Socialism VII. Latin American Independence Movements American I. Immigration, Industrialization, and Urbanization | World I. America Becomes a World Power II. World War I, “The Great War” III. Russian Revolution IV. America from the Twenties to the New Deal V. World War II VI. Geography of the United States | World I. Decline of European Colonialism II. Cold War III. Civil Rights Movement IV. Vietnam War and the Rise of Social Activism V. Middle East and Oil Politics VI. End of the Cold War: Expansion of Democracy and Continuing Challenges VII. Civics: The Constitution — Principles and Structure of American Democracy VIII. Geography of Canada and Mexico |

| | II. Reform | | |
|--------------------|---|--|---|
| Visual Arts | I. Art History: Periods and Schools (Classical; Gothic; Renaissance; Baroque; Rococo; Neoclassical; Romantic; Realism) | I. Art History: Periods and Schools (Impressionism; Post-Impressionism; Expressionism and Abstraction; Modern American Painting) | I. Art History: Periods and Schools (Painting Since World War II; Photography; 20th-Century Sculpture) II. Architecture Since the Industrial Revolution |
| Music | I. Elements of Music II. Classical Music: From Baroque to Romantic (Bach, Handel, Haydn, Mozart, Beethoven, Schubert, Chopin, Schumann) | I. Elements of Music II. Classical Music (Romantics and Nationalists (Brahms, Berlioz, Liszt, Wagner, Dvorak, Grieg, Tchaikovsky) III. American Musical Traditions (Blues and Jazz) | I. Elements of Music II. Non-Western Music III. Classical Music: Nationalists and Moderns (Sibelius, Bartok, Rodrigo, Copland, Debussy, Stravinsky) IV. Vocal Music (Opera; American Musical Theater) |
| Mathematics | I. Numbers and Number Sense II. Ratio and Percent III. Computation IV. Measurement V. Geometry VI. Probability and Statistics VII. Pre-Algebra | I. Pre-Algebra (Properties of the Real Numbers; Polynomial Arithmetic; Equivalent Equations and Inequalities; Integer Exponents) II. Geometry (Three-Dimensional Objects; Angle Pairs; Triangles; Measurement) III. Probability and Statistics | I. Algebra (Properties of the Real Numbers; Relations, Functions, and Graphs; Linear Equations and Functions; Arithmetic of Rational Expression; Quadratic Equations and Functions) II. Geometry (Analytic Geometry; Introduction to Trigonometry; Triangles and Proofs) |
| Science | I. Plate Tectonics II. Oceans III. Astronomy: Gravity, Stars, and Galaxies IV. Energy, Heat, and Energy Transfer V. Human Body (Lymphatic and Immune Systems) | I. Atomic Structure II. Chemical Bonds and Reactions III. Cell Division and Genetics IV. History of the Earth and Life Forms V. Evolution VI. Science | I. Physics II. Electricity and Magnetism III. Electromagnetic Radiation and Light IV. Sound Waves V. Chemistry of Food and Respiration VI. Science Biographies |

Literacy

A balanced literacy program will be used to ensure all students are able to read on grade level by the end of grade two. The program will be research-based, assessment-based, comprehensive, integrated and dynamic. A balanced approach to literacy empowers teachers and specialists to respond to the individual assessed literacy needs of children, as they relate to their appropriate instructional and developmental levels. The overarching purpose of learning to read is to gain meaning, increase understanding and develop a love of reading.

The program will include the following components:

- authentic, real literature, including nursery rhymes, fairy tales, anthologies, novels and poems that provide students with opportunities to read and enjoy a variety of genres (fiction, nonfiction, and themes), including a rich assortment of multicultural resources
- a comprehensive writing process program that engages students in daily writing
- peer editing and publishing activities
- an integrated language arts and phonics skills-development approach that requires skills to be taught from the context of real literature as well as from student writing
- attention to the three cueing systems—semantics, syntactic and graph phonics—to give students the required blend of skills, enabling them to read texts meaningfully and with understanding
- meta-cognitive, self-monitoring, fix-up, and scaffolding strategies to support student word recognition and reading comprehension
- opportunities to develop learning strategies to use in new situations and to acquire new information to develop higher order thinking skills
- ongoing assessment for continuous progress that engages students at the independent or instructional reading level and avoids reading materials at their frustration reading level; using an assessment-to-instruction model of teaching
- oral storytelling, dictation, and other listening activities, including phonological and phonemic awareness development at the primary level
- an interdisciplinary content area reading approach, stressing the use of a wide variety of trade books as well as textbooks
- shared reading, guided reading, independent reading, and one-on-one instruction, particularly for struggling readers
- time commitment to on-task reading, writing, and related language arts activities
- reading/learning centers for exploration and discovery in all areas of the language arts, and for managing individual and differentiated instruction
- opportunities for developing and maintaining a language-rich environment; respecting children's backgrounds, language, interests and abilities
- a supportive, nurturing classroom that meets the diverse needs of students and that also promotes listening, speaking, reading, writing, and viewing as joyful experiences
- promotion of ongoing family involvement in a children's literacy development, using information about the learners' culture, values, knowledge, and interests to plan instruction

Mathematics

Students will develop numeracy skills in order to successfully master state standards through a hands-on, problem-solving approach. Students will investigate, ask questions and think critically about math as a part of their everyday lives. Computer software and on-line programs will be used to reinforce skills and emphasize having fun with math.

The Core Knowledge Academy at Thirman Milner School will implement Saxon Math beginning in the Fall of 2009. The implementation of Saxon Math will occur one year after the initial Core Knowledge curriculum training to ensure teachers have had a full year of Core Knowledge curriculum experience and training first.

Saxon Math is a structured math learning program that aligns with national math standards. Saxon introduces new math skills then scaffolds back. Students learn new skills and continuously revisit previously learned skills. A problem solving component that addresses national standards is also included in the program.

First in Math program will be utilized as a supplement to the current research based curriculum. *First in Math* is an online math program that promotes healthy competition and enhances basic computation skills.

Technology

- The Academy will explore the addition of computers in every classroom.
- The Academy will explore the possibility of placing a SMART Boards in every classroom to allow for interactive learning experiences, presentations and demonstration.
- Students will use the Internet to communicate with Core Knowledge “sister” schools to talk about current class projects.
- Students will use computers and the Internet to assist with research projects and PowerPoint presentations.
- Computer classes will emphasize research skills including:
 - PowerPoint Presentations
 - Acceptable use of the Internet
 - Graphing data using Excel
 - Writing reports as Word Documents

Optional Programming

- The early violin program will provide Pre-K students with instruction in violin, including proper bow hold, posture, vocabulary about the instrument, following directions, generating a longer attention span, ensemble playing, and a myriad of other child-centered activities. Students will continue lessons under the Instrumental Music Teacher in alignment with the Core Knowledge curriculum sequence to build musical knowledge and to develop an appreciation and understanding of music and the art.

Curriculum Resources

Curriculum Resources include:

1. **Core Knowledge Curriculum Sequence** for each teacher grades Pre-K-8.

2. **Teacher Handbook** for each teacher grades Pre-K-5 that includes: Language Arts, History and Geography, Math, Science, and the Fine Arts.

The Teacher Handbooks serve as curriculum guides, and are divided by subject and then by units. Within each unit, teachers will have:

- The Big Idea,
- What Students Should Already Know,
- What Students Need to Learn
- What Students Will Learn in Future Grades,
- Vocabulary, and
- Cross-curricular Connections.

In addition, the Handbook includes “What Teachers Need to Know” [to teach this unit]. The margin includes text resources and ideas for activities to build the lesson plan. Review questions and ideas for assessment are also included per learning unit. The most powerful component in building teacher knowledge is the background knowledge information geared for teachers in each unit of study.

3. **The Teacher Handbook and the Day-by-Day Planner**, i.e. pacing guide, includes the percentage of time that should be spent on each unit within the particular subject area. This assists teachers in appropriate pacing. The Handbook acts as a curriculum guide and provides a wealth of information that will allow grade level teams to design lesson units. A lesson unit template is available through the Day-by-Day Planner.
4. **End-of-year assessments** in history and geography directly aligned with Core Knowledge and end-of-year-only assessments for K-5 that are also aligned directly with Core Knowledge.
5. **Grader Books** are books originally designed as a resource to parents, but are helpful resources to teachers as well. They outline the skills and knowledge students should have at each grade, and provide reading materials and activities for parents to do with their children. Each book is titled, “What Every ____ Grader Should Know.”

Community Partnerships

- Internships, job shadows, mentoring, after-school and weekend programming, job placements, college sponsorships, interdisciplinary community experiences

The Academy will seek community support through area colleges, cultural venues and business partners for tutoring, mentoring and providing content-based enrichment activities for our students through a well-defined partnership process driven by the School Improvement Plan. The School Governance Council will play a role in ensuring partnerships are fully aligned, first with the instructional goals of the school. For example, the design team would like to identify a corporate sponsor to purchase *Grader Books* for parents and to sponsor parent curriculum workshops.

Learning Outcomes and Assessment Design

- By grade, by grade grouping, readiness for feeder school

Student assessment, in addition to district and state mandates, will be both formative and summative. A variety of assessments will be implemented to address all the learning modalities of students.

Teachers will provide opportunities for students to demonstrate what they know through:

- Research Reports
- Oral Presentations
- Showcase Portfolios
- Grade team displays

Assessment rubrics will be created by teachers and students to be used to set clear expectations for students, parents and teachers.

Assessment data will be used to drive instruction, and address academic weaknesses and strengths. The goal is to ensure all students are reading on grade level by the end of second grade.

College Readiness

- Career explorations, *Plan of Study*, college visits, mentoring programs, dual credit opportunities, AP courses, college advisory, college partnerships, workplace readiness

Core Knowledge will serve as a good preparation for a variety of high school choices. The broad base of knowledge students acquire will be an excellent foundation for students who follow a college preparation or gifted track. Students who have learned the Core Knowledge content in grades Pre-K–8 will be able to read newspapers and understand current events, understand important documents, and participate in democratic political processes. The whole point of the *Core Knowledge Sequence* is to provide to students with the core background knowledge needed by *every* adult for full participation in the general American society and culture. This is the great democratic ideal that rests at the core of Core Knowledge.

Beginning at grade five, students will visit college campuses in order to provide motivation and enthusiasm for college attendance. Middle school students will experience guest presenters and virtual field trips to colleges in the local area and nation. These visits will include:

- Virtual field trips to colleges using computers and SMART board technology.
- Visits from students from local colleges to discuss student life, academic experience and choice of majors
- College visits that allow students exposure to the arts, lectures and campus activities

School Culture and Climate

- Code of conduct and behavior expectations, orientation and bridge programs, learning expectations, school uniform

The most productive research-based determinants of academic achievement:

1. Positive classroom climate that is conducive to learning
2. Collaborative culture that effectively supports academic achievement
3. Cooperative interactions that produce positive and productive student and teacher interactions
4. Effective classroom management in which students are engaged in intellectually-challenging curriculum (90-95% of the time).
5. Students understand the meta-cognitive process of learning
6. Teachers teach management skills that produce independent learners

The Academy will fully implement the “Stop and Think” program component of Project ACHIEVE. This program is designed based on student’s developmental level from Preschool to eighth grade. At a primary prevention level, the “Stop & Think” social skills are taught to all students, focusing on practical skills that help all students to be successful in most situations and settings. Among these skills are: Listening, Following Directions, Asking for Help, Ignoring Distractions, Dealing with Teasing, Accepting a Consequence, Dealing with an Accusation, Setting a Goal, and Understanding Your Own or

Someone Else's Feelings.

The "Stop & Think" social skills program is an evidence-based program through the U.S. Department of Health & Human Service's Substance Abuse and Mental Health Administration (SAMHSA). It is also the official social skills process of Core Knowledge, and it anchors Core Knowledge's social competence, positive behavioral support, and school safety approaches at the preschool through 8th grade levels.

Schools that have used the "Stop & Think" process have significantly decreased discipline referrals to the Office, suspensions and expulsions, and special education referrals and placements (particularly for behaviorally challenging students). These schools have also increased academic engaged time and student learning in the classroom, increased staff consistency in how to deal with behavior problems, and linked the process to existing parent training programs.

School Schedule

- Length of day, co-curriculum, Saturday academies, optional programming, Summer School

The academic school day will be extended by one hour to maximize learning time and provide additional literacy experiences in the content areas.

- All service providers will align programming with the Core Knowledge Curriculum and State standards.
- All Extended Day programs will build on and support the academic curricula being implemented throughout the school day.
- After the school day, there will be one hour for tutoring or monitored homework time based on student need. Students will also have opportunities for organized sports (grades 4-8) and enrichment activities (all grades).
 - drama
 - technology
 - service learning club
- Saturday academies will supplement and extend the Core Knowledge curriculum for students in the upper grades who are new to Core Knowledge.
- A facilitator or agency will be selected to facilitate and coordinate the extended day services, thereby insuring there be one point of contact and point of accountability for these activities. The CBO/Agency should have the capacity, infrastructure and ability to leverage additional resources for these purposes.

Summer Learning Experiences

The academy will provide summer learning experiences that enhance the Core Knowledge curriculum. The summer learning experience will also provide additional opportunities such as

- Enrichment in visual arts and music
- Sports activities
- Weekly trips to prepare for the fall curriculum or reinforce curriculum from the spring.

Support Services

- Tutoring, special education, community services, parent support programs

Tutoring

- Tutoring services will be provided at least four days a week.
- There will be tutoring provided by the regular classroom teacher at least once a week for 30 minutes.
- The school will seek community support through area colleges, cultural venues and business partners for tutoring, mentoring and providing content-based enrichment activities for students.
- The academy will develop a strong, research-based tutoring program.
- Technology will be used for online practice activities to supplement and reinforce student learning i.e. First in Math.

Students without Core Knowledge Experience

Weekend/extended day programming will provide enrichment activities and opportunities to build background knowledge for students who have not been exposed to the Core Knowledge curriculum in previous school years, particularly in grades 3 and above.

Community Services

The academy welcomes the continued support from community and state agencies that can provide services that support our children and families.

Special Education

- Special education services will be provided in accordance with HPS policy and program standards, and State/Federal Mandates.
- A comprehensive support services process that defines internal resources and external resource partnerships will be developed with the new Principal in partnership with the Assistant Superintendent for Support Services.
- Special Education services will be delivered through a co-taught inclusion classroom at each grade level.
- Special education teachers will be fully-trained in Core Knowledge and will be key to lesson unit development.
- A behavioral specialist will provide support and strategies to students with behavior issues, and their teachers. A structure needs to be defined that best works with the Pre-K-8 grade configuration.
- Special Ed support staff is needed to work with SPED teachers to facilitate IEP documentation and maintain computer data base.

Parent Institute

- Parent support activities will assist parents in learning curriculum content and provide them with ideas for using the Grader books with their children.
- Parents as Teachers Seminars can be provided, where parents are trained in areas such as:
 - Talking with children and practicing using language;
 - Getting students excited about learning;
 - Teaching children responsibility for what they say and do;
 - Finding healthy alternatives to TV, computer and video games;
 - Understanding the importance of rituals in light of child development;
 - Giving children a balanced diet and plenty of exercise;
 - Giving children a place to do their homework quietly;

- How to navigate the school system;
 - Contacting the school early when there is a concern.
-
- A comprehensive Parent Training Institute is an important component to develop a partnership learning community.
 - Develop a comprehensive Student and Parent Handbook with information about curriculum, the School Compact, school and community resources, a phone directory, Parent Institute information, as well as student information.

Application Process

- Process, timeline, and requirements
-
- District Choice application process with neighborhood preference.