



THE GROSSE POINTE ACADEMY **ARC OF DEVELOPMENT**

A Guide to Our Students' Educational Journey
Bridging the gap between established practices and innovative approaches



To Nurture...To Challenge...To Inspire



THE GROSSE POINTE ACADEMY ARC OF DEVELOPMENT



A Special Message from the Head of School

Dear GPA Families,

At The Grosse Pointe Academy, our mission is to nurture a holistic journey that builds essential knowledge and skills and empowers our students to discover their passions, maximize their potential, and recognize how their unique abilities can contribute to the world.

The Grosse Pointe Academy's Arc of Development is guided by five key learning domains: acquiring knowledge, connecting learning to real-world contexts, developing higher-order thinking skills, fostering habits for success, and promoting health and wellness.

It begins with Content Knowledge. Mastering core subjects is essential for any meaningful preparation for life success. Knowledge is the foundation upon which all further growth rests, and each student's journey at GPA is individualized to foster a deep understanding of these subjects.

Our Arc of Development thoughtfully bridges the gap between established practices and innovative approaches, ensuring that education remains relevant, meaningful, and responsive to the changing needs of our students and society. I strongly encourage you to take the time to review GPA's Arc of Development, as it offers valuable insight into the intentional journey we design for your child's growth and success.

Thank you for your continued support.

Warm regards,

Tommy Adams
Head of School





THE GROSSE POINTE ACADEMY ARC OF DEVELOPMENT



LEARNING DOMAINS



Foundation of content knowledge

Bodies of content across subject disciplines (reading, writing, arithmetic)



Connect learning to real-world contexts

Field trips, projects, internships, externships, guest instructors



Higher order thinking skills

Critical thinking, problem solving, collaboration, effective communication, active listening, creativity, wisdom, intellectual curiosity



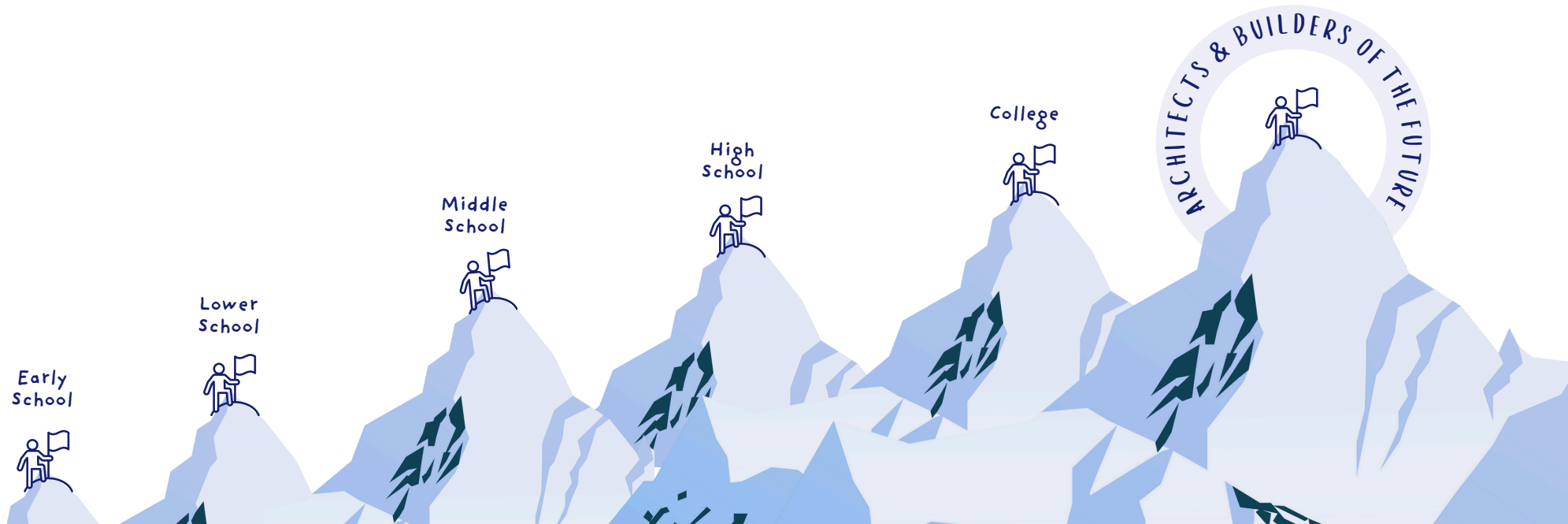
Habits of success

Executive function, growth mindset, grit, resilience, self-efficacy, self-awareness, independence



Health & Wellness

Athletics, mental wellness, mindfulness, interconnectedness



Our goal is for our students to develop a deeper understanding of what they are learning, discover their passions, maximize their potential, and recognize how their unique abilities can contribute to society, so they can become architects and builders of the future.



LEARNING DOMAINS



Foundation of content knowledge

- Language Arts
- Math
- Science
- Social Studies
- World Language
- Art
- Music
- Physical Education

See reverse page for specific details on the bodies of content across subject disciplines.



“Without knowledge, preparing students for life success is a nonstarter.”



Connect learning to real-world contexts

- Field Trips: Detroit Zoo, Greenfield Village, Henry Ford, Detroit Institute of Arts, National Parks
- Projects: Sea Life, Poetry Slam, Ducks & Butterfly Incubation, Volcano Eruption, Mock Trial, Capstone Project
- Middle School Electives:
 - Art
 - Financial Literacy
 - Farm to Table
 - Multimedia Production
 - STEM (Robotics)
- Contests: Amazing Shake, Spelling Bee, Grosse Pointe History Day, My Michigan Hero

“Why and what they are learning matters.”



Higher order thinking skills

- Leadership
- Critical thinking
- Problem solving
- Collaboration
- Effective communication
- Creativity
- Empathy
- Active listening
- Global citizenship

“Education is not the learning of facts, but the training of the mind to think.”



Habits of success

- Independence
- Self-awareness
- Self-regulation
- Stress management
- Grit
- Executive functions (*concentration, organization, time management, planning ahead*)
- Growth mindset
- Self-efficacy/self-confidence
- Intellectual curiosity
- Respect

“There is evidence that Habits of Success are measurable and teachable, align to the development of a learner, and impact academic success.”



Health & Wellness

- Physical Education
- Interscholastic Athletics
- Wellness Wednesdays
- Christian Life
- Mindfulness Activities
- Student Wellness Sessions
- Advisory
- Leader in Me
- Win at Social
- Family Time
- Buddy Program

“Mental wellness and physical education should not be treated as something independent from knowledge acquisition and skill development.”



LEARNING DOMAINS



Foundation of content knowledge

- Practical Life
- Sensorial
- Language Arts
- Math
- Science
- Cultural
- World Language
- Art
- Music
- Physical Education

See reverse page for specific details on the bodies of content across subject disciplines.



“The goal of early childhood education should be to activate the child’s own natural desire to learn.”



Connect learning to real-world contexts

- Practical life materials and experiences
- In-house field trips & guest speakers
- Gardening, food preparation
- Social and emotional development
- Show and tell
- Performing for an audience
- Care of self and care of environment
- Study different cultures/countries/art/music/geography

“The education of even a small child, therefore, does not aim at preparing him for school, but for life.”



Higher order thinking skills

- Leadership
- Critical thinking
- Problem solving
- Collaboration
- Effective communication
- Creativity
- Empathy
- Active listening
- Global citizenship

Words of Wisdom from Maria Montessori

“The development of language is part of the development of the personality.”



Habits of success

- Love of learning
- Sense of order
- Sense of self
- Order, coordination, concentration, and independence
- Problem solving
- Self correcting
- Intellectual curiosity
- Respect for self, others and the environment
- Understands and completes the work cycle

“The greatest gift we can give our children are the roots of responsibility and the wings of independence.”



Health & Wellness

- Grace and Courtesy
- ES Gym Class and Playground - Gross Motor Skills: *core strength, walking, running, climbing, balancing, jumping, throwing, spatial awareness*
- Fine Motor Skills: *Developing hand-eye coordination*
- Multi-Age Classroom

“Education is the best weapon for peace.”



FOUNDATION OF CONTENT KNOWLEDGE



Reading

- Associate phonetic sound with letter
- Spell phonetic words with alphabet
- Able to blend sounds
- Beginning to use phonetic readers and comprehension skills



Writing

- Can form upper and lower case letters on lined paper
- Can form numerals
- Compose phrases with moveable alphabet
- Beginning to write phrases and sentences independently



Math

- Sensorial materials
- Introduced to the decimal system using the golden bead materials
- Can associate quantity with numerals and recognize numbers up to 1,000
- Linear counting/skip counting
- Introduction to clock, calendar, and money
- Introduction to operations with the decimal system



Science

- Living/non-living
- Life cycles
- Animal classification: amphibian, reptile, fish, bird, mammal, insect
- Nomenclature of plants and animals
- Physical Science: three states of matter; magnets, measurement
- Planting/gardening



Cultural/Geography

- Cultural appreciation - People, cultures, and countries
- Geography: land, air, water; landforms; maps; Michigan
- Exploration of worlds

By the end of Kindergarten, students have been exposed to the following bodies of content across subject disciplines and have started their journey on becoming **architects and builders of the future**.



FOUNDATION OF CONTENT KNOWLEDGE



Reading

- Process a variety of texts (*short fiction texts, short informational texts and longer narrative texts*)
- Adjust reading strategies as needed to process different genres
- Process increasingly more complex sentences
- Quickly apply word-solving strategies for complex spelling patterns, multi-syllable words and words with inflectional endings, plurals, contractions and possessives
- Reads silently during independent reading time
- Oral reading reflects appropriate rate, stress, intonation, phrasing and pausing



Writing

- Demonstrate command of the conventions of standard English grammar and usage when writing or speaking
- Print upper & lower case
- Parts of speech: *nouns/pronouns; past; present; future verbs; adjectives; conjunctions; articles; prepositions*
- Types of sentences
- Use capitalization (*dates and names*), end punctuation, commas, and spelling when writing
- Determine or clarify the meaning of unknown and multiple-meaning words and phrases based on grade 1 reading and content
- Poetry Slam



Math

- **Operations & Algebraic Thinking:**
Addition facts 1-12; add/subtract one and two digit numbers; multiplication; division
- **Number and Operations in Base Ten:**
Skip counting; use place value to add and subtract
- **Measurement & Data:**
Tell time to the nearest hour and half hour; represent data using picture graphs and bar graphs; length, weight, capacity; coin identification
- **Geometry:**
Attributes of shapes



Science

- Sound
- Light
- Sea Life Research
- Sun/Moon/Stars
- Organisms

SEA LIFE PROJECT

Our first graders combine their skills learned in French, art, music, and science to create and present a Sea Life Project.



Social Studies

Families & Schools

- **What is a family?**
Family books
- **What is a citizen?**
Rules/responsibilities
- **How do we get what we need or want?**
Needs/wants; goods/services; producers/consumers; adaptations and modifications
- **How do we learn about places?**
Map of the classroom; map of the school
- **How do we learn about the past?** *Stories, artifacts, photos; GPA Alumni panel; GPA past presentation with Molly McDermott*

By the end of Grade 1, students have acquired the following bodies of content across subject disciplines and have started their journey on becoming **architects and builders of the future.**



FOUNDATION OF CONTENT KNOWLEDGE



Reading

- Know the characteristics of a range of genres
- Develop preferences for specific forms of reading (*mysteries, biographies*)
- Can understand and process narratives with elaborate plots and multiple characters that develop and change over time
- Identify and use organizational structures (*compare/contrast, problem and solution, cause and effect*) to help navigate a text
- Word solving is smooth and automatic
- Can read and understand descriptive words, some complex content-specific words and some technical words



Writing

- Demonstrate command of the conventions of standard English grammar and usage when writing or speaking
- Parts of speech: *Collective nouns + irregular plural nouns, reflexive pronouns, past and future tense, adjectives and adverbs*
- Simple and compound sentences
- Capitalization (*proper nouns*), punctuation (*commas in a greeting/letter closing/lists*), and contractions when writing
- Demonstrate understanding of word relationships and nuances in word meanings
- Use glossary/dictionary to clarify meaning



Math

- **Operations & Algebraic Thinking:**
Addition and subtraction with regrouping; finding the missing number; multiply and divide by 2s, 3s, 4s, 5s, and 10s
- **Numbers and Operations in Base Ten:** *Numbers to 1000 - hundreds, tens, and ones*
- **Measurement & Data:**
Dollars and cents; adding and subtracting money; telling time before and after the hour; comparing capacity: liters, gallons, quarts, pints, cups
- **Geometry:** *Flat and curved faces; making shapes*
- **Fractions:** *halves and quarters; writing fractions; fractions of a set*
- **Tables & Graphs:** *Picture and bar graphs*



Science

- Introduction into Science and Engineering
- Matter
- Ecosystems
- Earth Systems

DUCKS INCUBATION PROJECT

Our second graders are learning biology by incubating duck eggs.



Social Studies

**The Local Community
What is a Community?**

Urban, suburban, rural

**Where is My Community &
What is it Like?**

Map of GP, Me on the map, finding MI on a map

How Do Citizens Live Together?

Rules vs. laws, consequences for both

**How Do People Work Together
in a Community?**

Local government

How Do Communities Change?

Past and present GP

**How Can a Citizen Affect a
Community? Community service
project, community walk**

By the end of Grade 2, students have acquired the following bodies of content across subject disciplines and have started their journey on becoming **architects and builders of the future.**



FOUNDATION OF CONTENT KNOWLEDGE



Reading

- Identify the characteristics of a full range of genres
- Read a wide range of texts: chapter books, shorter fiction and informational text
- Identify and use organizational structures to help navigate a text
- Process lengthy, complex sentences containing prepositional phrases, introductory clauses
- Most word solving is unconscious and automatic
- Read and understand descriptive words, some complex content-specific words and some technical words
- Demonstrate all aspects of smooth, fluent processing



Writing

- Demonstrate command of the conventions of standard English grammar and usage when writing or speaking; use proper capitalization, punctuation, and spelling when writing
- Consult reference materials
- Determine or clarify the meaning of unknown and multiple-meaning words and phrases
- Choose words and phrases for effect
- Recognize and observe differences between spoken and written English
- Demonstrate understanding of word relationships and nuances in word meanings



Math

- **Operations & Algebraic Thinking:** *Multiplication facts 1-11, fact families, fact fluency*
- **Numbers and Operations in Base Ten:** *Understand and use math vocabulary appropriately while explaining processes step by step; create expressions from story problems; solve multi-step problems*
- **Measurement & Data:** *Convert between standard and metric units of measure*
- **Geometry:** *2D geometry and appropriate vocabulary; find area and perimeter of simple closed figures; identify angles as acute, right, or obtuse*
- **Fractions:** *Understand fractions represent division; long division; add and subtract fractions with same or different denominators*



Science

- Animal adaptations
- Electricity and magnets
- Force and motion
- Weather
- Life cycles and traits
- Engineering design

BUTTERFLY PROJECT

Our third graders are learning about how butterflies grow through a process called metamorphosis, which involves four stages: egg, caterpillar, chrysalis, and butterfly.



Social Studies

- **Michigan Studies**
What about MI history makes it special?
What about MI geography makes it special?
What about MI economy makes it special?
How can we protect what is special about MI?
- **Field trip to Greenfield Village**

By the end of Grade 3, students have acquired the following bodies of content across subject disciplines and have started their journey on becoming **architects and builders of the future.**



FOUNDATION OF CONTENT KNOWLEDGE



Reading

- Automatically read and understand a full range of genres
- Understand perspectives different from their own as well as settings and people
- Readers are challenged by many longer descriptive words
- Take apart multi-syllable words
- Most reading is silent, but fluency and phrasing in oral reading are well-established
- Read and understand texts in a variety of layouts and formats
- Consistently search for information in illustrations and increasingly complex graphics



Writing

- Demonstrate command of the conventions of standard English grammar and usage when writing or speaking; use of proper capitalization, punctuation, spelling when writing
- Write in complete sentences - correcting fragments & run-ons
- Correctly use frequently confused words
- Choose words and phrases for effect
- Demonstrate understanding of figurative language, word relationships, and nuances in word meanings



Math

- **Operations & Algebraic Thinking:** *Rounding; order of operations; factors and multiples; negative numbers*
- **Numbers and Operations in Base Ten:** *Place value - tenths, hundredths, and thousandths through millions*
- **Measurement & Data:** *Area and perimeter of rectangles, composite figures; organizing data; mean, median, mode; volume of rectangular prisms*
- **Geometry:** *Angles, quadrilaterals, triangles, circles, geometric solids; congruent figures, line/rotational symmetry*
- **Fractions:** *Making equivalent fractions; simplifying fractions; converting between decimals and fractions*
- **Tables & Graphs:** *Coordinate graph; line plots; bar/line graphs; changes in quantity*



Science

- Energy
- Earth Systems
- Waves
- Plants and Animals
- Robotics

SPHERO

Our fourth graders will use coding skills to program a robot to complete specific tasks.



Social Studies

- **United States Regions**
- **U.S. Physical and Political Map:** *States & capitals, physical features, bodies of water*
- **U.S. Regions Interactive Notebook:** *Northeast, Southeast, Midwest, West, Southwest*
- **At Home Mackinac Research Project and Visual Representation**
- **State Float Independent Project**

By the end of Grade 4, students have acquired the following bodies of content across subject disciplines and have started their journey on becoming **architects and builders of the future.**



FOUNDATION OF CONTENT KNOWLEDGE



Reading

- Automatically read and understand a full range of genres
- Read longer texts and remember information and connect ideas over many days of reading
- Read and interpret complex fantasy, myths, legends that contains symbolism
- Read and interpret more abstract forms of literature (satire)
- Understand settings and people far distant in time and space
- Use expression when presenting poetry or Reader's Theater
- Search for and use information in an integrated way, using complex graphics and texts



Writing

- **Overall:** Write a 5-paragraph essay with a introduction, three body paragraphs, and a conclusion paragraph
- **Opinion writing:** Know audience, referencing text, quoting/paraphrasing text, organization, transitions, revising & editing
- **Narrative Writing:** Sequencing, adding description, and using quotations within storytelling
- **Expository Writing:** Focus on writing a clear introductory paragraph, sequencing, and writing a concluding paragraph.
- **Persuasive Writing:** Questioning, making a claim, finding evidence to support claim



Math

- **Operations & Algebraic Thinking:** Multiply and divide whole numbers; decimal sense; properties of operations
- **Numbers and Operations in Base Ten:** Place value from the thousandths to billions; apply decimal sense to real world problem solving
- **Measurement & Data:** Use a conversion chart to convert standard and metric measurement units
- **Geometry:** Regular and irregular polygons; classify triangles, quadrilaterals, and other polygons; find area and perimeter of polygons
- **Fractions:** Find common denominators, write equivalent fractions; order fractions
- **Tables & Graphs:** Coordinate plane; plot points; make predictions



Science

- **Physics:** Properties of matter; particles of matter; conservation of matter; balanced and unbalanced forces
- **Earth Science:** Sun and other stars; earth's orbit and rotation; interaction with earth's spheres; food webs and how we use food, water quality and distribution, extreme weather and natural disasters
- **Robotics:** End of year exploration

VOLCANO PROJECT

Our fifth graders learn about geology and chemical reactions as they create volcanoes and simulate a volcanic eruption.



Social Studies

- **Integrated United States History:** Identify early U.S. colonial regions; understand the first Americans/explorers coming to America/founding the European colonies; road to U.S. independence; U.S. democratic system; American Civil War
- **Grosse Pointe/Michigan History Day competition**
- **Branches of government pamphlets**
- **Mapping projects**
- **Weekly current event presentations**
- **Possible Field Trips:** Greenfield Village and the Henry Ford Museum

By the end of Grade 5, students have acquired the following bodies of content across subject disciplines and have started their journey on becoming **architects and builders of the future.**



FOUNDATION OF CONTENT KNOWLEDGE



Reading

- Automatically read and understand a full range of genres
- Read longer texts and connect ideas over many days of reading
- Read and interpret complex fantasy, myths, legends
- Read and interpret more abstract forms of literature (satire) and literary devices
- Understand multidimensional themes on different levels
- Use expression when presenting poetry or Reader's Theater
- Apply background knowledge of historical events, archaic language and/or regional dialects when reading



Writing

- **Personal Narrative:** Write a narrative about a given topic, using sensory details and dialogue to develop your story
- **Literary Analysis/ Argumentative:** Write an essay analyzing the theme of a short story. Use evidence from the text to illustrate how the author develops this theme
- **Informational:** Write an essay about the history and culture of an ancient civilization (Greek, Roman, Egyptian, Chinese, Native American, etc.)



Math

- **Operations & Algebraic Thinking:** Positive/negative numbers; rational numbers; distributive property; variables; expressions; operations; substitution; inequality
- **Numbers and Operations in Base Ten:** Perform operations on multi-digit decimals using standard algorithms
- **Measurement & Data:** Variability of data; statistical questions; measure of center; summarize numerical data sets
- **Geometry:** Construct polygons; area of irregular polygons; apply formulas; represent three-dimensional figures
- **Fractions:** Quotients of fractions; concept of ratio; unit rate
- **Tables & Graphs:** Two dimensional graphing; number lines; dot plots; histograms; box plots



Science

- **Biology:** Scientific method; taxonomy; tools used in biology labs; microscopes; the chemistry of living things; different types of cells; viruses; bacteria; archaea; protists; fungi; plant structures and reproduction; photosynthesis; animal cells and structures; non-chordates; mammals and other chordates; human anatomy, and more

LEAF PROJECT

Our sixth grade students collect, identify the scientific names, and study the different leaf characteristics.



Social Studies

- **World Geography:** Longitude, latitude, maps, globes; five themes of geography (location, place, human-environment interaction, movement and region); understanding of the geography, culture and history of Mexico, Central America, South America, and Europe
- **Weekly current events**
- **Project on a Western Hemisphere City** (of their choice)

By the end of Grade 6, students have acquired the following bodies of content across subject disciplines and have started their journey on becoming **architects and builders of the future.**



FOUNDATION OF CONTENT KNOWLEDGE



Reading

- Understand and process a wide range of texts, including all genres
- Read very long texts with complex sentences and paragraphs with many multi-syllabic words
- Understand and respond to mature themes
- Read and interpret more abstract forms of literature (satire) and literary devices
- Read and understand texts with multidimensional characters
- Use context to define content-specific and technical words
- Apply prior understandings in a critical way when reading both fiction and nonfiction texts



Writing

- **Overall:** Produce clear and coherent writing, draw evidence from literary or informational texts
- **Narrative Writing:** Establish a context and point of view; organize an event sequence; write narratives to develop real or imagined experiences
- **Explanatory Writing:** Write informative/explanatory texts to examine a topic and convey ideas, concepts, and information
- **Argumentative Writing:** Write arguments to support claims with clear reasons and relevant evidence; use words, phrases, and clauses to create cohesion and clarify the relationships



Math

- **Operations & Algebraic Thinking:** Rational numbers; opposites; four operations; inequalities; write and solve algebraic expressions
- **Measurement & Data:** Statistics; random samples; measures of center and variability; probability models
- **Geometry:** Scale drawings of geometric figures; area and circumference; volume; two and three dimensional figures
- **Fractions:** Ratios of fractions; proportional relationships between quantities; multi-step ratio and percent problems
- **Tables & Graphs:** Probabilities of compound events using organized lists, tables, tree diagrams; graph solution set of an inequality and interpret in context of problem



Science

- **Physics:** Motion, forces, work and machines, energy, electricity, waves, sound and light. This course will rely on labs, research, and investigation. New formulas and theories will be learned, tested, and demonstrated.

SCIENCE FAIR

Students independently complete a science fair project and enter it in the Science and Engineering Fair of Metro Detroit.



Social Studies

- **World History & Geography:** Five themes of geography (location, place, human-environment interaction, movement and region); geography, culture and history of Africa, Asia and Oceania
- **Weekly current events**
- **Project on an Eastern Hemisphere City** (of their choice)
- **Speakers from Nigeria, Iraq, India, Hawaii and Israel**
- **The Great History Challenge** quiz competition

By the end of Grade 7, students have acquired the following bodies of content across subject disciplines and have started their journey on becoming **architects and builders of the future.**



FOUNDATION OF CONTENT KNOWLEDGE



Reading

- Use textual evidence to support analysis of what the text says explicitly
- Identify a theme and analyze text development and elements
- Analyze how particular lines of dialogue in a story propel the action, and reveal aspects of character
- Determine the meaning of words and phrases as they are used in a text
- Analyze the impact of specific word choices on meaning and tone
- Analyze how a modern work of fiction draws on themes, patterns of events rendered new
- Analyze how differences in the POV of the characters create such effects as suspense or humor



Writing

- **Personal Narrative:** Write a narrative about a time someone demonstrated qualities of a hero to be submitted to MY MICHIGAN HERO contest
- **CAPSTONE Research Paper:** Conduct research to answer essential questions, drawing on several sources, and generating additional related, focused questions that allow for multiple avenues of exploration
- **Literary Analysis - Poetry:** Compare the differences in structure of a pair of poems with similar themes



Math

- **Operations & Algebraic Thinking:** Squares and square roots; real numbers; cube roots; exponents; multi-step equations; slope & rate of change; slope-intercept form; functions; linear functions; algebraic expressions
- **Numbers and Operations in Base Ten:** Standard and scientific notation; powers of ten
- **Measurement & Data:** Trend line to make predictions; relative frequency
- **Geometry:** Pythagorean Theorem; transformations; parallel lines and angle relationships
- **Tables & Graphs:** Graph linear equation; create tables, graphs, and equations; identify functions from a table; construct scatter plots



Science

- **Chemistry:** Elements and the periodic table; atoms; molecules; types of bonds; chemical reactions; acids and bases; pH; mixtures and how they can be separated; energy molecules in food; and basic balancing of chemical equations

PERIODIC TABLE

Eight graders will create their own periodic table on a topic that interests them. They will analyze Mendeleev's table of elements and incorporate its essential elements into their periodic table.



Social Studies

- **Integrated United States History:** First 100 years of the United States -- revolution, government, territorial expansion, immigration patterns, conflict, democracy & reform
- **Daily Essay Questions**
- **Formal outlining and note taking skills**
- **The Great History Challenge** quiz competition

By the end of Grade 8, students have acquired the following bodies of content across subject disciplines and have started their journey on becoming **architects and builders of the future.**



THE GROSSE POINTE ACADEMY
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