

Fourth Grade Curriculum Handbook



Midland Public Schools
Inspiring Excellence





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MPS District Vision

Lead with respect, trust and courage. Ensure an equitable, collaborative and inclusive culture. Enable all to achieve success.

Welcome to Midland Public Schools

The Midland Public Schools is a school district that works together to provide a challenging, inquiry-based education that encourages all stakeholders to be internationally minded, lifelong learners who positively impact the world.

This handbook provides you with grade level information about the Midland Public Schools' (K-5) curriculum. Our curriculum was developed using the Michigan Academic Standards.

Written progress of achievement will be reported four times per year: November, January, April and June. Conferences are available in the fall and the spring to provide an opportunity to discuss your child's progress and an explanation of specific classroom learning. Progress reports and conferences are one of many ways through which we communicate your child's growth and learning. They provide information about areas of the curriculum assessed during a given period, including feedback about your child's successes in school, as well as areas for growth and improvement as we continue to reflect on the teaching-learning cycle within Midland Public Schools. Midland Public Schools' elementary assessment policy can be found at: <https://www.midlandps.org/parents/curriculum>

The International Baccalaureate (IB) - Primary Years Programme (PYP)

The Midland Public Schools follows the Primary Years Programme of the International Baccalaureate from preschool through grade five. The Primary Years Programme is a framework used with MPS curriculum. This research-based programme allows for the integration of broad areas of knowledge through the development of curriculum which students find relevant, engaging, significant and challenging. Learning, through inquiry and action, is the focus of the entire elementary school community. Using the Primary Years Programme framework, students are actively involved in their learning through an understanding of their own identity and are culturally aware, with the purpose of becoming responsible local, national and world citizens.

The PYP consists of five essential elements to guide student learning. These five essential elements are:

- **Approaches to Teaching** - which is both disciplinary, represented by traditional subject areas (language, math, science, social studies, arts, PSPE) and transdisciplinary

- **Concepts** - which students explore through structured inquiry in order to develop coherent, in-depth understanding, and which have relevance both within and beyond subject areas
- **Approaches to Learning** - which are the broad capabilities students develop and apply during learning and in life beyond the classroom
- **Attitudes** - which contribute to international-mindedness and the wellbeing of individuals and learning communities, and connect directly to the [IB learner profile](#)
- **Action** - which is an expectation in the PYP that successful inquiry leads to responsible, thoughtful and appropriate action.

Taken from

<https://www.ibo.org/programmes/primary-years-programme/how-the-pyp-works/>

The IB Primary Years Programme focuses on the development of the whole child as an inquirer, both in school and in the world around them. The programme uses structured, purposeful inquiry to gain more knowledge and a deeper understanding of content. Students study units of inquiry, which are organized by six transdisciplinary themes. They are:

- **Who We Are:** An inquiry into the nature of the self; beliefs and values; personal, physical, mental, social and spiritual health; human relationships including families, friends, communities, and cultures; rights and responsibilities; what it means to be human.
- **Where We Are in Place and Time:** An inquiry into orientation in place and time; personal histories; homes and journeys; the discoveries, explorations and migrations of humankind; the relationships between and the interconnectedness of individuals and civilizations, from local and global perspectives.
- **How We Express Ourselves:** An inquiry into the ways in which we discover and express ideas, feelings, nature, culture, beliefs and values; the ways in which we reflect on, extend and enjoy our creativity; our appreciation of the aesthetic.
- **How the World Works:** An inquiry into the natural world and its laws; the interaction between the natural world (physical and biological) and human societies; how humans use their understanding of scientific principles; the impact of scientific and technological advances on society and on the environment.
- **How We Organize Ourselves:** An inquiry into the interconnectedness of human-made systems and communities; the structure and function of organizations; societal decision-making; economic activities and their impact on humankind and the environment.
- **Sharing the Planet:** An inquiry into rights and responsibilities in the struggle to share finite resources with other people and with other living things; communities and the relationships within and between them; access to equal opportunities; peace and conflict resolution.

From International Baccalaureate document *Making the PYP Happen: A Curriculum Framework for the International Primary Education*, 2009

More information about the Primary Years Programme can be found at:

<http://www.ibo.org/en/programmes/primary-years-programme/>

IB Learner Profile

The aim of all IB programmes is to develop internationally minded people who, recognizing their common humanity and shared guardianship of the planet, help to create a better and more peaceful world. - IB learner profile statement

The learner profile is the heart of the PYP, and it defines a set of attributes for students to show they are developing lifelong learning and inquiry skills, and that they are aware of and sensitive to the experiences of others. The attributes described in the IB learner profile are appropriate to, and achievable by, all elementary students.

IB learners strive to be:

- **Inquirers:** They develop their natural curiosity. They acquire the skills necessary to conduct inquiry and research and show independence in learning. They actively enjoy learning and this love of learning will be sustained throughout their lives.
- **Knowledgeable:** They explore concepts, ideas and issues that have local and global significance. In so doing, they acquire in-depth knowledge and develop understanding across a broad and balanced range of disciplines.
- **Thinkers:** They exercise initiative in applying thinking skills critically and creatively to recognize and approach complex problems, and make reasoned, ethical decisions.
- **Communicators:** They understand and express ideas and information confidently and creatively in more than one language and in a variety of modes of communication. They work effectively and willingly in collaboration with others.
- **Principled:** They act with integrity and honesty, with a strong sense of fairness, justice and respect for the dignity of the individual, groups and communities. They take responsibility for their own actions and the consequences that accompany them.
- **Open-minded:** They understand and appreciate their own cultures and personal histories, and are open to the perspectives, values and traditions of other individuals and communities. They are accustomed to seeking and evaluating a range of points of view, and are willing to grow from the experience.
- **Caring:** They show empathy, compassion and respect towards the needs and feelings of others. They have a personal commitment to service, and act to make a positive difference to the lives of others and to the environment.
- **Risk-takers:** They approach unfamiliar situations and uncertainty with courage and forethought, and have the independence of spirit to explore new roles, ideas and strategies. They are brave and articulate in defending their beliefs.
- **Balanced:** They understand the importance of intellectual, physical and emotional balance to achieve personal well-being for themselves and others.
- **Reflective:** They give thoughtful consideration to their own learning and experience. They are able to assess and understand their strengths and limitations in order to support their learning and personal development.

From International Baccalaureate document *Making the PYP Happen: A Curriculum Framework for the International Primary Education*, 2009

Progress Report

Approaches to Learning

Approaches to Learning are a set of strategies and skills that promote inquiry and learning across all subject areas. Development of these skills supports life-long learning and assists students in learning and succeeding inside and outside of the school setting.

Indicators for Approaches to Learning:

Extending (EXT)	Exceeds expectations
Achieving (ACH)	Consistently and independently meets expectations
Developing (DEV)	Progressing toward expectations with support
Limited Development (LIM)	Does not yet exhibit the expected behaviors

Thinking Skills:

- **Critical-thinking skills** (analyzing and evaluating issues and ideas)
- **Creative-thinking skills** (generating novel ideas and considering new perspectives)
- **Transfer skills** (using skills and knowledge in multiple contexts)
- **Reflection/metacognitive skills** ((re)considering the process of learning)

Communication Skills:

- **Exchanging-information skills** (listening, interpreting, speaking)
- **Literacy skills** (reading, writing, and using language to gather and communicate information)
- **ICT skills** (using technology to gather, investigate and communicate information)

Self-Management Skills:

- **Organization** (managing time and tasks effectively)
- **States of mind** (mindfulness, perseverance, emotional management, self-motivation, resilience)

Social Skills:

- **Developing positive interpersonal relationships and collaboration skills** (using self-control, managing setbacks, supporting peers)
- **Developing social-emotional intelligence**

Research Skills:

- **Information-literacy skills** (formulating and planning, data gathering and recording, synthesizing, and interpreting, evaluating, and communicating)
- **Media-literacy skills** (interacting with media to use and create ideas and information)
- **Ethical use of media/information** (understanding and applying social and ethical technology)

Academic Indicators for the Progress Report:

Extending (EXT)	Exceeds expectations
Achieving (ACH)	Consistently and independently meets expectations
Developing (DEV)	Progressing toward expectations with support
Limited Development (LIM)	Learner is showing little or no progress
In Progress (IP)	Currently being taught
Not Assessed (NA)	Not assessed during this marking period

Literacy

Reading, writing, word study, listening, speaking, viewing, presenting, and literature are included in literacy instruction in all grades. Although each subject may be taught separately at times, they are integrated for learning and mutually reinforced across the curriculum. Standards can be found at:

[Michigan K-12 Standards: English Language Arts](#)

Reading

Reading is the process of constructing meaning from written language. Fourth graders will be expected to read both literature and informational text. Students will use the foundational skills and strategies introduced in previous grades to read fluently at grade level. Reading skills will be assessed through NWEA and a variety of formative assessments.

- 1. Literary Text: Key Ideas and Details**
- 2. Literary Text: Language, Craft, and Structure**
- 3. Informational Text: Key Ideas and Details**
- 4. Informational Text: Language, Craft and Structure**
- 5. Vocabulary: Acquisition and Use**

Writing

Writing is an essential form of communication. It is used across the curriculum. One way to foster development in writing is through the writing process. The writing process consists of prewriting, writing, revising, editing, and publishing. Children will be encouraged to write in a variety of genres.

Students will be responsible for:

- Narrative writing
- Informational writing
- Opinion writing
- Writing process and collaboration

Demonstrates knowledge and skills in narrative writing

- Writes narratives to develop real or imagined experiences or events using effective technique (dialogue, description, etc.)
- Incorporates well-chosen details
- Provides beginning, middle, end

Demonstrates knowledge and skills in informational writing

- Introduces a topic
- Logically organizes the information
- Includes relevant facts, concrete details, specific examples
- Includes a concluding statement

Demonstrates knowledge and skills in opinion writing

- Introduces a topic
- States an opinion
- Creates an organizational structure with logical ordered reasons
- Supports opinion with facts and details
- Includes a concluding statement

Uses writing process and collaboration

- Individually uses the writing process
- Works with others in the writing process

Fine Motor Skills

- Demonstrates fine motor skills
- Demonstrates fluency while writing cursive
- Accurately forms letters of the cursive alphabet

Mathematics

Mathematics is the science of patterns and relationships. It is the language and logic of our technological world. Mathematical power is the ability to explore, to imagine, to reason logically and to use a variety of mathematical methods to solve problems - all important tools for children's futures. A mathematically powerful person should be in the process of developing the following Standards for Mathematical Practice:

1. Make sense of problems and perseverance in solving them
2. Reason abstractly and quantitatively
3. Construct viable arguments and critique the reasoning of others
4. Model with mathematics

5. Use appropriate tools strategically
6. Attend to precision
7. Look for and make use of structure
8. Look for and express regularity in repeated reasoning

Demonstrates foundational skills

- Fluency of basic facts (addition, subtraction, multiplication, division)

Demonstrates knowledge and skills in concepts and procedures

- Use the four operations with whole numbers to solve problems
- Gain familiarity with factors and multiples
- Generate and analyze patterns
- Generalize place value understanding for multi digit whole numbers
- Use place value understanding and properties of operations to perform multi-digit arithmetic
- Extend understanding of fraction equivalence and ordering
- Build fractions from unit fractions by applying and extending previous understandings of operations on whole numbers
- Understand decimal notation for fractions, and compare decimal fractions
- Solve problems involving measurement and conversion of measurements from a larger unit to a smaller unit
- Represent and interpret data
- Geometric measurement: understand concepts of angle and measure angles
- Draw and identify lines and angles, and classify shapes by properties of their lines and angles

Uses problem solving strategies

- Solve real-world problems using a variety of methods

Understands and uses mathematical communication

- Use words, mathematical symbols, or pictures to explain mathematical thinking
- Solve problems collaboratively
- Write about the math used, in addition to providing an answer

Science

Students will be given opportunities to discover, reinforce, and apply scientific concepts. Concepts are determined by the Michigan Academic Standards. The engineering design process will be applied and extended through the use of Project Lead the Way modular units and grade level units.

1. **Demonstrates an understanding of Engineering, Technology, and Applications of Science**
2. **Demonstrates an understanding of Life Science**
3. **Demonstrates an understanding of Earth and Space Science**
4. **Demonstrates an understanding of Physical Science**

Project Lead the Way

Project Lead the Way is the STEM Curriculum for Midland Public Schools. Each grade level engages in four interdisciplinary units in the areas of life science, physical science, earth and space science, technology and engineering. The units are designed with compelling activities, projects, and problems that build upon each other and relate to the world around them.

Project Lead the Way Fourth Grade Modules:

- **Energy: Collisions**
- **Energy: Conversion**
- **Input/Output: Computer Systems**
- **Input/Output: Human Brain**

Cereal City

Cereal City Science is designed to allow students to build scientific knowledge by inquiring into real world situations. Throughout each unit, students will be asked to question, investigate, develop and refine models about scientific processes. Students are placed in the role of scientist and engineer to engage, explore, explain, elaborate, and evaluate on scientific content.

Cereal City Fourth Grade Module(s):

- **Processes that Shape the Earth**

Social Studies

The fourth grade theme for the Midland Public Schools' social studies program is U.S. Studies. Students will focus on social studies knowledge (history, geography, civics and government, economics, and public discourse, decision-making and citizen involvement) concepts and skills. These concepts will be integrated across disciplines using multiple strategies and resources to foster students' ability to become responsible and participating citizens.

Areas of Assessment:

1. **Demonstrates an understanding of history**
2. **Demonstrates an understanding of geography**
3. **Demonstrates an understanding of civics and government**
4. **Demonstrates an understanding of economics**
5. **Demonstrates an understanding of public discourse, decision-making, and citizen involvement**

Art

Art reflects vision, integrates knowledge, extends thinking, and creates standards of excellence.

Art instruction provides children with opportunities to develop their perceptions, appreciation and creative ability in the visual arts. Lessons and activities in fourth grade are designed to encourage creativity, self-expression, and commitment to quality. The art specialist and classroom teacher work cooperatively to teach art skills which are often applied in other curricular areas.

Students will be responsible for:

- Showing originality
- Respecting the work of others
- Developing an appreciation for visual arts
- Using supplies appropriately
- Understanding purpose and use of materials and tools
- Finishing projects independently
- Creating art that has personal meaning
- Creating art that has curricular meaning
- Acquiring a vocabulary to describe works of art
- Applying introduced skills and techniques
- Participating cooperatively as an individual and group member
- Following directions
- Developing self-discipline
- Committing to quality work
- Developing the attributes of the Learner Profile

1. Is a cooperative learner

EXT: Encourages others to follow directions, use supplies appropriately and respect the work of others

ACH: Follows directions, uses supplies appropriately, and respects the work of others

DEV: Follows directions, uses supplies appropriately, and respects the work of others, with reminders

LIM: Has difficulty following directions, respecting the work of others or using supplies appropriately

2. Acquiring skills in art techniques and concepts

EXT: Demonstrates self-motivation to expand concepts and techniques taught

ACH: Consistently demonstrates an understanding of concepts and techniques taught

DEV: Generally demonstrates an understanding of concepts and techniques taught

LIM: Has difficulty demonstrating an understanding of concepts and techniques taught

General Music

Music provides children opportunities for aesthetic expression and appreciation. The MPS elementary music curriculum provides experiences through listening, singing, movement, and the use of classroom instruments (e.g., mallet keyboards, etc.).

The curriculum is designed to provide increased awareness and appreciation of the elements of music. The music specialist and classroom teacher work cooperatively to complement other curricular areas where appropriate by integrating core concepts into a number of music activities. Classes meet for thirty-five minutes each week.

Fourth grade vocal and instrumental music students will be responsible for:

- Learning to match pitch vocally
- Learning to keep a steady beat
- Distinguishing between high-low, loud-soft, fast-slow AND will develop the appropriate vocabulary to describe the music
- Handling instruments with care, concern, and proper technique
- Participating cooperatively in a group, while making individual contributions as well
- Demonstrating an echoed rhythmic pattern
- Learning to read written pitches within a limited range
- Learning to read notated rhythms and accurately perform these rhythms
- Learning to appreciate music from various cultures
- Performing with their classmates in appropriate school events AND in class
- Developing the attributes of the Learner Profile

1. Is a cooperative learner

EXT: Demonstrates to other students the proper techniques for the use of instruments, consistently serves as a positive role model for other students, encourages other students to follow directions and value vocal music, participates with an enthusiasm and maturity beyond his/her age.

ACH: Shows care and concern for proper handling of instruments, works well with others, consistently follows directions, and participates with enthusiasm.

DEV: Demonstrates an understanding of the use of instruments but does not always use good judgment, learning to work with other students, generally follows directions, participates.

LIM: Misuses instruments, mistreats other students, does not follow directions, and does not participate.

2. Acquiring pitch skills

EXT: Is able to exceed grade level standard for pitch matching and reading tonal patterns

ACH: Is able to achieve the grade level standard for pitch matching and reading tonal patterns

DEV: Is able to achieve the grade level standard for pitch matching, but is not successfully reading tonal patterns

LIM: Is not yet able to match pitch and struggles in making progress toward this goal

3. Acquiring rhythm skills

EXT: Is able to exceed the grade level standard for reading and performing rhythm patterns

ACH: Is reading and performing rhythm patterns at grade level standard

DEV: Can successfully perform rhythm patterns, but is not yet reading the patterns

LIM: Is not yet able to perform rhythm patterns with a steady beat

Physical Education

Each week students develop sports related skills and maintain fitness with the help of the physical education specialist and the classroom teacher. During this time, students will participate in activities designed to introduce sport-specific skills, as well as refining such fundamental skills as skipping, throwing, catching and jumping. Students are expected to follow the rules of the games, demonstrate cooperative team effort, and sustain physical activity. Health topics are also a component of the physical education/development curriculum.

Students will be responsible for:

- Acquiring and maintaining physical fitness
- Sustaining physical activity
- Showing cooperative behavior
- Following directions of the game/activity/instructor
- Displaying good sportsmanship
- Using equipment appropriately
- Participating in physical activities
- Acquiring sport-specific skills
- Identifying ways to prevent transmission of germs that cause communicable diseases
- Developing a plan that incorporates exercise, sleep and rest in the daily routine
- Listing signs of stress and describing positive ways to handle stress
- Examining nutritional contents of snacks and selecting examples of healthy snacks
- Developing the attributes of the Learner Profile

1. Acquiring sports skills.

EXT: Exceeds expectations in cooperative team effort and sport-specific skills.

ACH: Consistently demonstrates cooperative team effort and sport-specific skills.

DEV: Inconsistently demonstrates cooperative team effort and sport-specific skills.

LIM: Has not demonstrated cooperative team effort or sport-specific skills.

2. Acquiring and maintaining fitness.

EXT: Exceeds expectations in both effort and sustained physical activity.

ACH: Consistently completes sustained physical activity.

DEV: Inconsistently completes sustained physical activity.

LIM: Tires easily during sustained physical activity.

3. Shows cooperative behavior.

EXT: Encourages others to follow directions and work with others, display good sportsmanship and use equipment appropriately.

ACH: Follows directions and works well with others, displays good sportsmanship and uses equipment appropriately.

DEV: Inconsistent in following directions and working with others, displaying good sportsmanship and/or using equipment appropriately.

LIM: Has difficulty following directions and working with others, displays poor sportsmanship or misuses equipment.

4. Participates.

EXT: Participates with enthusiasm.

ACH: Consistently involved in appropriate activities.

DEV: Inconsistently involved in appropriate activities.

LIM: Refuses to join in physical activities or shows little or no effort.

World Language

Children today learn a world language through an approach different from when their parents were in school. Language acquisition and learning about a different culture is much improved when students are taught in the language through a fun, meaningful and functional approach. A young learner is more apt to make the most of learning a world language when comprehension and flexibility in thinking skills (such as concept learning, problem solving, and critical and divergent thinking) can be developed over time.

The fourth grade world language program reinforces basic skill areas by offering children a range of experiences connecting with mathematics, global awareness, language arts, music, physical activities, technology, art and science.

The core of World Language instruction is made up of language skills (listening, speaking, reading, writing and viewing), as well as cultural appreciation and some connections to the basic skill areas (such as mathematics, global awareness, language arts, music, physical activities, technology, art and science). Activities take into account different learning styles and abilities and include cultural games, songs, rhymes, storytelling, physical expression, and drawing. Developing listening comprehension, speaking, storytelling and functional messages build the language base necessary for reading and writing.

At this level, reading and writing continue through the whole language approach as well as through exposure to phonics and sight words. Pair and group activities allow for extra practice and take place in a meaningful context. Listening, speaking, reading and writing are integrated into the instruction time throughout the year with one skill receiving more attention than others at various times.

Students will be responsible for:

- Applying knowledge of the world language through reading and writing in addition to listening and speaking
- Expressing likes/dislikes
- Identifying and comparing aspects of world culture(s)
- Expressing and/or asking permission for personal needs

- Responding to cues and directions
- Enjoying literature, cultural activities and music
- Recognizing cognates
- Developing the attributes of the Learner Profile and understanding of key concepts through the world language

1. Demonstrates listening comprehension in world language (following directions, repeating and responding)

EXT: Applies prior learning in new situations; follows verbal directions, repeats or responds consistently; responds accurately to verbal, total physical response or concrete clues; infers meaning by recognizing cognates, key words or phrases in limited unfamiliar contexts.

ACH: Follows verbal directions, repeats or responds; responds to simple verbal, total physical response or concrete clues; infers meaning by recognizing cognates, key words or phrases in familiar contexts.

DEV: Follows some general verbal directions with limited repeating or responding; responds to limited simple verbal, total physical response or concrete clues; infers meaning by recognition of limited cognates, key words or phrases in familiar contexts.

LIM: Is not able to follow, repeat or respond to verbal directions; is unable to respond to simple verbal, total physical response or concrete clues; is unable to infer meaning by recognition of cognates, key words or phrases in familiar contexts.

2. Uses content through speaking, reading, writing

EXT: Produces words that correspond to objects, visuals, gestures and illustrations spontaneously; uses words and phrases independently; begins to apply learned structures to new situations in speaking or reading; copies and spells with accuracy and begins to write on their own.

ACH: Produces words on familiar topics that correspond to objects, visuals, gestures or illustrations; imitates modeled words and phrases and uses them independently in speaking or reading; writes consistently with accuracy.

DEV: Produces some words that correspond to objects, visuals, gestures or illustrations in speaking; imitates some modeled words and phrases in speaking or reading; inconsistently writes with accuracy.

LIM: Is not able to produce words that correspond to objects, visuals, gestures or illustrations; is unable to imitate modeled words and phrases in speaking or reading; is unable to write with accuracy.

3. Demonstrates world language cultural awareness

EXT: Demonstrates a solid understanding of the world culture(s) through re-enactment, written activity or authentic materials (i.e. music, food, literature, crafts); shows exemplary awareness of differences and similarities between the world culture(s) and home cultures; independently applies cultural awareness.

ACH: Demonstrates a clear understanding of world culture through re-enactment,

written activity or authentic materials (i.e. music, food, literature, crafts); is in the process of discriminating differences and similarities between the world culture(s) and home cultures.

DEV: Hesitant, but occasionally demonstrates an understanding of the world culture(s) through re-enactment, written activity or authentic materials (i.e. music, food, literature, crafts); is in the process of discriminating differences and similarities between the world culture(s) and home cultures.

LIM: Does not demonstrate an understanding of the world culture(s) through re-enactment, written activity or authentic materials (i.e. music, food, literature, crafts); cannot discriminate differences and similarities between the world culture(s) and home cultures.

4. Is a cooperative learner

EXT: Serves as a positive role model for others, invites involvement of peers in the learning process, consistently demonstrates initiative, and shows consistent enthusiasm in classroom activities.

ACH: Makes eye contact with speaker and is an engaged listener, often demonstrates initiative, attempts new activities once introduced, volunteers often, contributes appropriately in learning activities.

DEV: Inconsistently makes eye contact with speaker, is hesitant but occasionally tries new activities with assistance and/or encouragement, contributes to learning activities with prompting.

LIM: Rarely makes eye contact with speaker, seldom contributes to learning activities even with prompting, and demonstrates uncooperative behaviors with teachers and classmates.

NWEA

NWEA MAP Growth - MAP tests are based on a continuum of skills in Mathematics and Reading from low skill levels to high skill levels. MAP assessments help teachers identify the instructional level of the student and also provide context for determining where each student is performing in relation to local or state standards and national norms. NWEA MAP Growth is utilized grades 1-8 for Reading and Math. MAP Reading Fluency is used in Developmental Kindergarten and Kindergarten.