

Second Grade Curriculum Handbook



Midland Public Schools
Inspiring Excellence



Midland Public Schools

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Mission Statement

The Midland Public Schools, in partnership with our community, prepares students as knowledgeable, self-reliant, cooperative and ethical learners who are contributing citizens.

Vision Statement

Midland Public Schools provides a dynamic world class education that develops the unique talents of all students in a safe, secure and healthy environment.

- We commit ourselves to world class standards for student performance.
- We are agile and flexible so that we are able to adapt to new challenges and opportunities in this rapidly changing world.
- We are strong and financially stable. To sustain the organization, we effectively and efficiently use new and existing resources.
- We are effective partners with families, businesses and higher education, collaborating with diverse organizations to promote student 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 School's (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 School's elementary assessment policy can be found at: <http://midps.org/pyp-policies>

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 program 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:

- **Knowledge** - 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
- **Skills** - 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 <http://www.ibo.org/en/programmes/primary-years-programme/curriculum/written-curriculum/>

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 program 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 life-long 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

Indicators for the Progress Report:

Extending (EXT)	Exceeds expectations
Achieving (ACH)	Consistently and independently meets expectations
Developing (DEV)	Inconsistently and/or with reminders progressing toward expectation
Not Yet (NY)	Does not yet exhibit the expected behavior

Literacy Learning

Reading

Reading is a process of constructing meaning from written language. Learning to read is an active process involving interaction between the child and print, enabling the reader to build meaning. Through instruction, students learn a variety of strategies to derive meaning from print, to value reading as a learning tool and to view reading as pleasurable.

Students will:

- **Use a variety of strategies to unlock meaning**
 - Meaning clues (RF.2.3)
 - Context clues (L.2.4)
 - Phonics (sound/symbol) (RF.2.3)
 - Recognize sight words
 - Apply knowledge of word families and chunks to unfamiliar words (L.2.4)
 - Determine the meaning of unknown words using prefixes, suffixes, root word, etc. (L.2.4)
 - Use several strategies concurrently
- **Read fluently**
 - At an appropriate rate (RF.2.4)
 - With phrasing reflecting attention to language and meaning
 - With expression and accuracy (RF.2.4)
 - Attend to punctuation so phrases and sentences are heard smoothly
- **Construct meaning from a variety of narrative text**
 - Make sense of the story by asking and answering questions (RL.2.1)
 - Retell a story to determine central message, lesson, or moral (RL. 2.2); (SL.2.4)
 - Describe how characters in a story respond to major events and challenges (RL.2.3)

- Describe the overall structure of a story including sequence of events (RL.2.5)
- Use information from illustrations or text to describe characters, setting and plot (RL.2.7)
- **Understand craft and structure of narrative text**
 - Describe how words and phrases supply rhythm and meaning in stories, poems, etc. (RL.2.4)
 - Acknowledge differences in points of view of characters (RL.2.6)
 - Demonstrate understanding of figurative language, word relationships and nuances in word meanings (L.2.5)
- **Construct meaning from a variety of informational text**
 - Identify key ideas and details (RI.2.1); (RI.2.2)
 - Describe how reasons support specific points the author makes in a text (RI.2.8)
 - Use text and images to clarify meaning, to make inferences and draw conclusions (RI.2.7)
 - Use non-fiction text features to enhance learning (RI.2.8)
 - Analyze how two or more texts address similar topics or themes (RI.2.3)
- **Understand craft and structure of informational text**
 - Determine meaning of words and phrases (vocabulary) (RI.2.4)
 - Identify the author's main purpose (RI.2.6)
 - Know and use text features to locate key facts (RI.2.5)
- **Compare and contrast texts within and across genres to foster deeper understandings**
 - Compare and contrast two or more versions of the same story by different authors or from different cultures (RI.2.9)
- **Read at grade level**
 - By the end of the year, read and comprehend literature, including stories and poetry, in the 2-3 text complexity, with scaffolding in the higher end of range (RI.2.10)

Foundational Skills

1. Use a variety of strategies to unlock meaning (sound/symbol, context clues, sight words)

Ext	Use a variety of strategies and be able to evaluate their effectiveness in any given situation
Ach	Has knowledge of strategies and can independently select appropriate strategies to unlock meaning
Dev	Has some knowledge of strategies, but needs prompting to apply strategies to unlock meaning
NY	Has little or no knowledge of strategies or is unable to apply strategies even with assistance

2. Reads Fluently (smoothness, rate, accuracy and expression)

Ext	Reads with great expression in a smooth and meaningful manner when reading text above grade level
Ach	Reads with expression in larger meaningful phrases; with a few word by word slow-downs for problem solving; expressive interpretation is evident at places throughout the reading; attention to punctuation; rereading for problem solving may be present but reading is generally smooth while reading grade level text
Dev	Reads with a mixture of word by word and semi-fluent phrasing, there is some evidence of attention to punctuation; rereading for problem solving may be present, reading is often slower in rate, has more errors and is low in expression
NY	Reads mostly word by word or all word by word with some long pauses between words; almost no recognition of phrasing; little evidence of awareness of punctuation; some awkward word groupings or choppy reading

Reading: Literature

3. Constructs meaning from a variety of narrative texts

- Ext Retell the story in a logical sequence with a clear statement of all story elements and how they are connected. Retelling also demonstrates an understanding of the plot, main idea, and the lesson learned, as well as an elaborate and personal understanding of the story. They are able to ask and/or answer questions to further understanding
- Ach Retell the story mostly in appropriate sequence and contains a clear statement of most story elements. Retelling also demonstrates a solid understanding of the plot, main idea, and lesson learned. They are able to answer questions as prompted by teacher
- Dev Retell the story out of sequence but contains some statement of the story elements
Retelling may show a limited understanding of the plot, main idea, and lesson learned
They are able to answer some of the questions as prompted by teacher
- NY Unable to supply a retelling of the story, events are out of sequence and/or inaccurate.
Retelling shows misunderstanding and/or leaves out the plot, main idea, and lesson learned.
Unable to answer questions as prompted by teacher

4. Understands craft and structure of narrative text

- Ext Analyze the effectiveness of words and phrases within text they have read in order to deepen understanding of meaning and tone while being able to explore many differences in the points of view of characters
- Ach Interpret words and phrases within text they have read in order to deepen understanding of meaning and tone while being able to acknowledge the differences in the points of view of characters
- Dev Notice words and phrases within text they have read in order to generally understand the meaning and tone while not being totally aware of the differences in the points of view of characters
- NY Not notice words and phrases within text they have read that allow them to understand meaning and tone while also not being aware of the differences of the points of view of characters

5. Compare and contrast two reading texts within and across genres

- Ext Compare and contrast two or more texts with a wide variety of comparisons, give complex and well substantiated reasoning and have deep connections to other areas
- Ach Independently compare and contrast two texts giving solid supporting reasons and connect across genres
- Dev Frequently need assistance to compare and contrast two texts with a limited number and/or inaccurate reasons with no evidence of cross genre connections
- NY Does not compare and contrast two reading selections and/or has limited to no supporting reasons and no cross genre connections

Reading: Informational Text

6. Constructs meaning from a variety of informational text

- Ext Retelling indicates a clear and elaborate understanding of the selection's purpose and a strong understanding of the information presented. It also contains a clear and accurate restatement of the important and supporting elements which are stated in a logical and connected order. Student is also able to use images in order to deepen understanding.
- Ach Retelling indicates a basic understanding of the selection's purpose and a solid understanding of the information presented. It also contains an accurate restatement of most of the important and supporting elements which are stated in a logical order. Student is able to use images in order to gain better understanding.
- Dev Retelling indicates an incomplete or inaccurate understanding of the selection's purpose and a superficial understanding of the information presented. It also lacks the important and supporting elements and /or restated in a random or disconnected order. Student is sometimes able to use images in order to gain understanding.
- NY Retelling indicates no understanding of the selection's purpose and has limited understanding of the information presented. It also contains minimal and/or inaccurate restatement of the important and supporting elements. Student is unable to use images in order to gain understanding.

7. Understands craft and structure of a variety of informational text

- Ext Analyze the effectiveness of words and phrases within text to deepen understanding of the author's main purpose, and is able to use multiple text features to locate key facts
- Ach Interpret words and phrases within text in order to gain an understanding of author's main purpose; is independently able to use text features to locate key facts
- Dev Use words and phrases within text but may misunderstand the author's main purpose; is able to use text features to locate key facts with support

NY Use words and phrases within text but lacks an understanding of the author's main purpose; is unable to use text features to locate key facts even with support

8. Reads at grade level (RI.2.10)

Ext Read well above grade level benchmark
Ach Read at or above grade level benchmark
Dev Demonstrate steady progress toward reading at grade level benchmark
NY Read well below grade level and show little or no progress toward grade level benchmark

Writing

Writing is a means of thinking and communicating. It also serves as a mode of learning in all curricular areas. It can be a means of self-discovery while exploring what children understand and believe.

Students will work toward:

- Independently choosing a topic
- Using written language to communicate a message
- Organizing ideas in a logical sequence
- Including details to enhance meaning
- Adding individual voice to written work
- Evaluating and revising written work
- Using conventional spelling of known words
- Editing written work
- Writing with an audience in mind

Narrative Writing

Students will write broad types of narratives to develop real or imagined experiences or events using effective technique, well-chosen details, and well-structured sequences. Individual pieces will be scored using the 6+ 1 Writing Rubrics.

1. Narrative Writing

Ext Independently write narratives in which they recount well-elaborated events including relevant details to describe actions, thoughts and feelings
Ach In collaboration with others, will write narratives in which they recount events including some details to describe actions, thoughts, and feelings
Dev Write narratives in which they recount events that may include some missteps, and/or may lack details to describe actions, thoughts and feelings. Student may need moderate support from others.
NY Limited attempt at writing narrative pieces, unable to sequence events; writing includes little to no details or feelings. Student needs significant support.

Informative/Explanatory Writing (Shared Research)

Students will write informative/explanatory texts in which they introduce a topic, use facts and definitions to develop points, and provide a concluding statement.

2. Informative/explanatory writing

Ext Write well-elaborated informative/explanatory texts in which they convey complex ideas on topics, present many relevant facts and definitions to support in depth thinking and provide strong conclusions
Ach Write informative/explanatory texts in which they develop topics, use facts and definitions to support thinking and provide conclusions
Dev Write informative/explanatory texts in which they make an attempt to introduce topics, use limited facts and definitions to support thinking and may not provide conclusions
NY Write informative/explanatory text in which they make little to no attempt to introduce topics, use limited and/or inaccurate facts to show thinking and do not provide conclusions

Opinion Writing

Students will write arguments to support claims in analysis of topics or texts, using valid reasoning and relevant and sufficient evidence.

3. Opinion Writing

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| Ext | Write opinion pieces that are well developed, state clear and concise topics and opinions, supply valid reasoning and sufficient evidence to support the opinions, and provide strong conclusions |
| Ach | Write opinion pieces in which they introduce topics, state opinions, and supply reasons to support the opinions, and provide conclusions |
| Dev | Write opinion pieces in which they make an attempt to introduce topics, state opinions, but may lack reasons to support opinions, and may not provide conclusions |
| NY | Write opinion pieces in which they make little or no attempt to introduce topics, lack reasons to support opinions and/or write off topic, and does not provide conclusions |

Production and Presentation

Students will work toward independently revising and editing in order to produce best quality writing by making choices to present their work to an audience.

4. Production and presentation

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| Ext | In collaboration with others, will revise and edit writing in order to improve organization, interest and ease of reading and use a variety of tools to publish. Student may need minimal or no teacher support. |
| Ach | In collaboration with others, will revise and edit writing in order to improve organization, interest and ease of reading and use a variety of tools to publish. Student may need moderate teacher support. |
| Dev | In collaboration with others, will revise and edit writing in order to improve organization, interest and ease of reading and use a variety of tools to publish. Student needs high level of teacher support. |
| NY | Student is not yet showing the ability to revise and edit, collaborate with others on writing and/or use a variety of tools to publish even with high teacher support. |

Fine Motor Skills

1. Demonstrates fine motor skills

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| Ext | Cuts out and/or draws intricate forms smoothly and prints fluently with precision |
| Ach | Cuts out and/or draws simple forms smoothly and prints legibly and fluently |
| Dev | Demonstrates inconsistent ability to cut out and/or draw simple forms and/or print legibly and fluently |
| NY | Has difficulty cutting and/or drawing simple forms and prints illegibly and less fluently |

Mathematics

The learning of mathematics in second grade is an active process that allows children to develop confidence in their ability to think and communicate mathematically. Instruction that builds an understanding of mathematics is based on sound foundation of concrete experiences. Second grade students will be using base ten blocks, cubes, pattern blocks, geoboards, and a variety of other tools to acquire mathematical concepts. While it is appropriate for second grade children to manipulate physical objects to gain understanding, it is also appropriate to practice some skills for fluency (memory). Being fluent with basic facts enables students to apply number sense more efficiently to solve problems.

Operations and Algebraic Thinking

- Represent and solve one and two step problems involving addition and subtraction within 100 (2.OA.A.1)
- Fluently add and subtract within 20 using mental strategies (2.OA.B.2)
- Work with equal groups of objects to gain foundations for multiplication (2.OA.C.3)
- Use repeated addition to find total number of objects in arrays up to 5 rows and 5 columns (2.OA.C.4)

Number and Operation in Base Ten

- Understand that the 3-digits of a 3-digit number represent amounts of hundreds, tens and ones (2.NBT.A.1)
- Understand place value when skip counting by 5s, 10s, and 100s within 1,000 (2.NBT.A.2)
- Read/write numbers using numerals, words, and expanded form to 1,000 (2.NBT.A.3)
- Compare/order up to 3-digit numbers based on meanings of hundreds, tens, and ones digits, using $<$, $>$, $=$ (2.NBT.A.4)
- Add and subtract with 100 using strategies based on place value and properties of operations and/or the relationship between addition and subtraction (2.NBT.B.5)
- Add up to four 2-digit numbers using strategies based on place value and properties of operations (2.NBT.B.6)
- Add and subtract within 1000 using concrete models, drawings and strategies based on place value, property of operations, and related to a written equation (2.NBT.B.7)
- Mentally add and/or subtract 10 to 100 to a given number 100-900 (2.NBT.B.8)
- Explain why addition and subtraction strategies work, using place value and properties of operation (2. NBT.B.9)

Measurement and Data

- Estimate/measure lengths in standard units using the appropriate tools (2.MD.A.1); (2.MD.A.3)
- Compare lengths to determine how much longer one object is than the other, expressing the length difference in standard units (2.MD.A.4)
- Relate addition and subtraction to length when given an unknown number by using a ruler or number line (2.MD.B.5)
- Represent whole numbers on a number line to represent whole number sums and differences within 100 (2.MD.B.6)
- Tell time on an analog clock to the nearest 5 minutes using a.m. and p.m. (2.MD.C.7)
- Solve word problems using money involving dollar bills, quarters, dimes, nickels and pennies, using \$ and ¢ symbols appropriately (2.MD.C.8)
- Represent and interpret data using line plots (2.MD.D.9), pictographs and bar graphs (2.MD.D.10)

Geometry

- Recognize and draw shapes having specified attributes, such as number of angles or equal faces (2.G.A.1)
- Find area and perimeter of given shapes
- Work with fractions (halves, thirds, fourths, whole)

1. Counts, writes and orders whole numbers (Numbers & Operations in Base Ten)

Ext	Counts, writes, and orders whole numbers beyond 1,000
Ach	Counts, writes, and orders whole numbers to 1,000
Dev	Inconsistently counts, writes, and orders whole numbers to 1,000
NY	Is unable to determine the relationship between whole numbers to 1,000

2. Demonstrates understanding of place value (Numbers and Operations in Base Ten)

Ext	Extends the concept of place value beyond 1,000
Ach	Builds and writes numbers through 1,000 and states the value of each digit
Dev	Inconsistently builds and writes numbers through 1,000 and/or inconsistently states the value of each digit
NY	Does not understand the concept of ones, tens, hundreds, and thousands

3. Adds and subtracts numbers without regrouping (Operations and Algebraic Thinking)

Ext	Consistently and accurately adds and/or subtracts beyond 3 digit numbers without regrouping
Ach	Consistently and accurately adds and/or subtracts numbers without regrouping through 1,000
Dev	Inconsistently adds numbers without regrouping
NY	Unable to add and/or subtract numbers without regrouping

4. Adds numbers with regrouping (Operations and Algebraic Thinking)

Ext	Consistently and accurately adds beyond 3-digit numbers with regrouping
Ach	Consistently and accurately adds 3-digit numbers with regrouping
Dev	Inconsistently adds 2-digit and 3-digit numbers with regrouping
NY	Unable to add two digit numbers with regrouping

5. **Subtracts numbers with regrouping (Operations and Algebraic Thinking)**
 - Ext Consistently and accurately subtracts beyond 3-digit numbers with regrouping
 - Ach Consistently and accurately subtracts 3-digit numbers with regrouping
 - Dev Inconsistently subtracts 3-digit numbers with regrouping
 - NY Unable to subtract 2 digit and 3-digit numbers with regrouping
6. **Solve problems involving addition and subtraction (Operations and Algebraic Thinking)**
 - Ext Consistently and accurately identify and apply a variety of strategies to solve multiple-step word and number sentence problems
 - Ach Consistently and accurately identify and apply an appropriate strategy to solve word problems and number sentences
 - Dev Inconsistently identify and apply an appropriate strategy to solve word problems and/or number sentences
 - NY Does not attempt to use problem solving strategies
7. **Identify, explore, and classify plane and solid geometric shapes, figures and attributes (Geometry)**
 - Ext Apply knowledge of geometric shapes and their attributes to solve complex problems without using manipulatives
 - Ach Identify, describe and compare geometric shapes, figures and attributes
 - Dev Inconsistently identify geometric shapes, figures and attributes
 - NY Unable to identify geometric shapes, figures and attributes
8. **Understand concepts of money (Measurement and Data)**
 - Ext Able to solve complex multiple step word problems involving mixed units of money
 - Ach Count, read, write and solve word problems using mixed units of money using decimal notations
 - Dev Inconsistently count, read, write and solve word problems using mixed units of money using decimal notations
 - NY Unable to count, read, and/or write amounts of money
9. **Demonstrate understanding of fractions (Geometry)**
 - Ext Apply knowledge of fractions to solve complex problems
 - Ach Name, write, represent, and compare halves, thirds, fourths, and whole ($\frac{2}{2}$) using models, diagrams, and symbols
 - Dev Inconsistently name, write, and represent fractions
 - NY Unable to identify fractions
10. **Measures and compares: length, perimeter and area (Measurement and Data)**
 - Ext Measure lengths and compute perimeter and area using standard measure (cm, m, in, ft, yd) to the nearest fractional unit
 - Ach Measure lengths and compute perimeter and area using standard measure (cm, m, in, ft, yd) to the nearest whole unit
 - Dev Measure accurately with assistance or measures inconsistently
 - NY Not measure accurately and/or does not attempt to measure
11. **Understands concepts of time (Measurement and Data)**
 - Ext Read an analog clock to the nearest minute and solve problems using elapsed time
 - Ach Consistently read an analog clock to the nearest five minutes
 - Dev Inconsistently read an analog clock to the nearest five minutes
 - NY Will not read an analog clock, or can only read a clock to the nearest hour or half hour
12. **Uses data analysis to solve problems and create graphs (Measurement and Data)**
 - Ext Create and use a variety of graphs to make inferences and draw conclusions
 - Ach Create and read graphs (including bar graphs and pictographs) using a key where symbols equal one or more than one
 - Dev Inconsistently create and/or read graphs using symbols that equal one or more than one
 - NY Will not use data to create and/or read a graph
13. **Understands the meaning of multiplication (Operations and Algebraic Thinking)**
 - Ext Understand and use multiplication in complex problems
 - Ach Understand and represent basic multiplication by drawing arrays, pictures and number sentences
 - Dev Inconsistently represent multiplication knowledge
 - NY Does not understand the concepts of multiplication

Science

In second grade, students will be actively involved in scientific experiences. Through these activities, they will be working to attain the knowledge and process skills they need to make sense of the world around them. Students will study life, earth, and physical science through the following units: Plants in our World, A Drop of Water, and Measurement & Properties.

Scientific Processes

Students will work towards making purposeful observations in order to generate questions, conduct investigations, and develop solutions to problems and are able to communicate their findings.

- Make purposeful observations of the natural world using appropriate senses (S.IP.02.11)
- Generate questions based on observations (S.IP. 02.12)
- Plan and conduct simple investigations (S.IP. 02.13)
- Manipulate simple tools that aid in observation and data collection (S.IP. 02.14)
- Construct simple charts and graphs from data and observations (S.IP. 02.15)
- Share ideas through purposeful conversation and present findings supported by evidence (S.IA. 02.12); (S.IP. 02.13); (S.RS.02.15)
- Reflecting on knowledge gained in order to apply learning to new and different situations (S.RS.02.13)

1. Uses scientific processes effectively.

Ext	Make purposeful observations in order to independently generate questions, conduct investigations, and develop solutions to complex problems, and are able to communicate their findings and also integrate new knowledge into their daily lives
Ach	Work towards making purposeful observations in order to generate questions, conduct investigations, and develop solutions to problems, and are able to communicate their findings
Dev	Work towards making purposeful observations in order to generate questions, conduct investigations, and may be able to develop solutions to problems, and are able to communicate their findings with some guidance
NY	Be unable to make purposeful observations, lack questioning and investigation skills and may also need significant support to develop solutions and communicate findings

Physical Science

In the Measurement and Properties Unit, students will understand that all objects and substances have physical properties that can be measured.

- Measure the length of objects using rulers (cm) and meter sticks (P.PM.02.13)
- Measure the volume of liquids using common measuring tools (P.PM.02.14)
- Compare the weight of objects using balances (P.PM.02.15)
- Recognize single substances versus mixtures (P.PM.02. 41)

2. Demonstrates an understanding of Physical Science concepts.

Ext	Independently applies/explores concepts of measurement to deepen own learning
Ach	Understand that all objects and substances have physical properties that can be measured, selects the appropriate tool to measure and also measures accurately
Dev	Show misunderstandings that objects and substances have physical properties that can be measured, and may not be able to select the appropriate tool to measure and also measures with some inaccuracies
NY	Have limited to no understandings that objects and substances have physical properties that can be measured, and/or will be unable to select the appropriate tool to measure and also measurements are inaccurate

Life Science

In the Plants in Our World unit, students will understand organisms have basic needs. Animals and plants need air, water and food. Plants also require light. Plants and animals use food as a source of energy and sources for survival and life cycles.

- Identify needs of plants (L.OL.02.14)
- Describe the life cycle of familiar flowering plants including the following stages: seed, plant, flower and fruit (L.OL.02.22)
- Identify characteristics of plants that are passed on from parents to young (L.HE.02.13)

3. Demonstrates an understanding of Life Science concepts.

Ext	Independently applies/explores concepts of plant knowledge to deepen own learning
Ach	Understand organisms have basic needs. Plants need air, water, light and food for energy and survival
Dev	Show misunderstandings and/or leaves out some of an organism's basic needs and may not be able to explain all the steps necessary for plants growth and survival
NY	Show little to no understanding of an organism's basic needs and will be unable to explain all the steps necessary for plants growth and survival

Earth Science

In the Drop of Water unit, students will understand that water is a natural resource that is found everywhere, exists in three states, and is part of a continuous cycle. Students will also understand how the surface of the earth changes through various processes.

- Identify and describe water sources (E.FE.02.11); (E.FE.02.22)
- Identify household uses of water (E.FE.02.12)
- Describe the properties of water in different states (E.FE.02.13); (E.FE.02.14)
- Describe rain collects on the surface of the Earth and flows downhill into bodies of water or soaks into the ground (E.FE.02.21)
- Describe the major landforms of the Earth's surface (E.SE.02.21)

4. Demonstrates an understanding of Earth Science concepts.

Ext	Independently applies/explores concepts of earth science knowledge to deepen own learning
Ach	Understand that water is a natural resource that is found everywhere, exists in three states, and is part of a continuous cycle. Students will also understand how the surface of the earth changes through various processes.
Dev	Show misunderstandings and/or leave out some of the water concepts such as: water is a natural resource is found everywhere, exists in three states, and is part of a continuous cycle. Students may also have limited understanding of how the surface of the earth changes through various processes.
NY	Show little to no understanding of water concepts and will lack understanding of how the surface of the earth changes through processes

Social Studies

Students will explore the relationships between people and the environment, the connections of causes and consequences, how and why communities organize themselves, and will create maps to understand the world spatially.

Ext	Elaborates and relates to other areas of study
Ach	Consistently demonstrates a solid understanding of key unit concepts
Dev	Demonstrates of some key unit concepts
NY	Lacks many and/or all key unit concepts

1. Recognize the relationships between people and the environment

This broad concept may include ideas relating to historical and geographical concepts. The big idea is interdependence between people and their community. The following ideas may be covered across several units:

- Creating timelines of local events
- Seeing one event from multiple points of view
- Comparing one community to another for both physical and human characteristics
- Using culture and diversity elements to describe a community
- Exploring land use for homes, services and products and how goods and people are transported
- Examining how a local community is part of a larger region (rural, suburban, urban, state, country)
- Construct maps of the local community that contain symbols, labels, and legends denoting human and natural characteristics of a place
- Use maps to describe the spatial organization of the local community by apply concepts including relative location and using distance, direction and scale

2. Recognizes the connections between causes and consequences

This broad concept may include ideas relating to historical, geographical, economical, and public discourse, decision making, and citizenship. The big ideas are conservation of resources and responsible actions by people when dealing with public policy issues. The following ideas may be covered across several units:

- Use examples to describe the role of an individual in creating history
- Describe changes in a local community over time

- Describe a past problem in a community and how it was resolved
- Suggest ways people can responsibly interact with the environment in the local community
- Describe positive and negative consequences of changing the physical environment of the local community
- Identify the opportunity cost in a consumer decision
- Identify public issues in the local community that influence the daily lives of its citizens
- Use graphical data and other sources to analyze the information about a public issue in the local community and evaluate alternative resolutions
- Give examples how conflicts over core democratic issues lead people to disagree on resolutions to a public policy in the local community
- Compose a statement expressing a position on a public policy issue in the local community and justify the position with a reasoned argument
- Develop and implement an action plan to address or inform others about a public issue

3. **Understand how and why communities organize themselves**

This broad concept may include ideas relating to concepts on civics looking at government versus individual responsibilities. The big idea is the creation of government and other systems to allow people in a community to get along peacefully. The following ideas may be covered across several units:

- Explain why people form governments
- Distinguish between government action and private action and explain why both are important in community life
- Explain how local governments balance individual rights with the common good to solve local community problems
- Describe how the Pledge of Allegiance reflects the core democratic value of patriotism

4. **Understand how communities make decisions**

This concept focuses on how the local government functions.

- Give examples of how local governments make, enforce and interpret laws in the community
- Use examples to describe how local government affects the lives of its citizens
- Identify services commonly provided by local governments (e.g. police, fire departments, schools, libraries, and parks)
- Identify ways citizens participate in community decisions
- Design and participate in community improvement projects that help or inform others

Art

Art instruction provides children with opportunities to focus on their natural ability to express their perceptions through activities for creating and appreciating the visual arts. Lessons are designed to encourage the second grade child's creativity and self expression. The art specialist and the classroom teacher work cooperatively to teach art skills which may be applied to other curricular areas.

Students will work toward:

- showing originality by adding details
- respecting the work of others
- developing an appreciation for the visual arts
- using supplies appropriately
- building skills in the use of materials and tools
- understanding the purpose of materials and tools
- finishing projects independently
- creating art that has personal meaning acquiring a vocabulary to describe works of art

1. Shows cooperative behavior

Ext	Encourages others to follow directions, use supplies appropriately and respect the work of others
Ach	Follows directions, uses supplies appropriately, respects the work of others
Dev	Follows directions, uses supplies appropriately, respects the work of others, with reminder
NY	Has difficulty following directions, respecting the work of others or using supplies appropriately

2. Acquiring skills 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
NY	Rarely demonstrates an understanding of concepts and techniques taught

General Music

Music provides children opportunities for aesthetic expression and appreciation. The curriculum provides experience with listening, singing, movement and musical instruments.

The curriculum is designed to provide an awareness and knowledge of musical elements. The music specialist and the classroom teacher work cooperatively to complement other curricular areas and to develop a level of competence.

Students will work toward:

- matching pitches
- keeping a steady beat
- distinguishing between high - low
- distinguishing between loud - soft
- distinguishing between fast - slow
- handling instruments with care and concern
- participating cooperatively as an individual
- participating cooperatively in a group

1. Shows cooperative behavior

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, 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.
NY	Misuses instruments, mistreats other students, does not follow directions, does not participate.

2. Acquiring pitch skills

Ext	Is able to exceed the grade level standard for pitch matching and can make proper adjustments to intonation errors.
Ach	Is able to achieve the grade level standard for pitch matching.
Dev	Shows an understanding of the challenges in pitch matching and is working toward achieving the grade level standard.
NY	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 keeping a steady beat and can make proper adjustments to tempo/pulse errors. May also indicate comfort with compound rhythmic figures and subdivisions beyond grade level standard
Ach	Is able to achieve the grade level standard for keep a steady beat and rhythmic subdivision
Dev	Shows an understanding of the challenges in keeping a steady beat and is working toward achieving the grade level standard
NY	Is not yet able to keep a steady beat and struggles in making progress toward this goal

Physical Education

Although gross motor skills are developed throughout the second grade program, time is set aside each week to develop gross motor skills with the physical education teacher. During this time, students will participate in group games and individual activities designed to further develop large and small muscle groups. Children are expected to follow the rules of the game, put forth effort, display good sportsmanship and work well with teammates. Students will be assessed by the physical education teacher based on skills such as:

- acquiring gross motor skills
- skipping smoothly
- galloping smoothly
- balancing on a beam
- hopping alternately on one foot
- jumping vertically (rope)
- throwing with accuracy
- catching consistently showing dexterity
- demonstrating body control
- moving with assurance
- following the rules of a game
- displaying good sportsmanship
- participating in physical activities
- forming healthy habits: exercising, eating nutritious snacks
- acquiring knowledge about the effects of caffeine, alcohol and tobacco
- building safety habits when on a bicycle, in water and in the sun

1. Acquiring gross motor skills

Ext	Moves with assurance while skipping, galloping, hopping, jumping, balancing, throwing, catching and kicking
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Ach	Demonstrates the ability to skip, gallop, hop, jump, balance, throw and catch with consistency
Dev	Inconsistently demonstrates skipping, galloping, hopping, jumping, throwing and catching
NY	Has difficulty skipping, galloping, hopping, jumping, throwing and catching

2. Demonstrates body control

Ext	Demonstrates body control in space while moving at various speeds, changing directions, climbing or balancing
Ach	Demonstrates an understanding of the concept of space (own, other, room)
Dev	Inconsistent in judging space; collides with others or objects
NY	Slides, falls, trips or bumps into others or objects

3. Shows cooperative behavior

Ext	Exceeds expectations in following directions and working with others, displays good sportsmanship and uses 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, displays good sportsmanship and uses equipment appropriately
NY	Has difficulty following directions and working with others, displays poor sportsmanship and misuses equipment

4. Participates

Ext	Participates with enthusiasm
Ach	Consistently involved in appropriate activities
Dev	Inconsistently involved in appropriate activities
NY	Refuses to join in physical activities or shows little or no effort

Spanish

The second grade Spanish program continues to foster an understanding of a second culture and 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. Activities take into account different learning styles and abilities and include cultural games, songs, rhymes, story telling, physical expression and drawing.

Developing listening comprehension in second grade is a very important part of the communication process. Listening comprehension, speaking and functional messages build the language base necessary for reading and writing. At this level, reading and writing are introduced 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.

Students will work toward:

- demonstrating listening comprehension in developing a Spanish dictionary
- using the Spanish alphabet and vowels for sound recognition
- developing booklets about various topics for their Spanish portfolio
- using written language to describe people, animals and objects
- naming, classifying, sorting, comparing, graphing and describing: pets, farm and zoo animals, family, clothing, weather, food, shapes, colors and numbers
- asking permission for personal needs
- using some authentic music instruments to explore rhythm from the Hispanic culture

1. Demonstrates listening comprehension (following directions, repeats and responds)

Ext	Applies prior learning in new situation; 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
NY	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; writes with accuracy when copying written language and begins to use own spelling when writing on their own
Ach	Produces words on familiar topics that correspond to objects, visuals, gestures and illustrations; imitates modeled words and phrases and uses them independently in speaking or reading; writes consistently with accuracy when copying written language
Dev	Produces some words that correspond to objects, visuals, gestures and illustrations in speaking; imitates some modeled words and phrases in speaking or reading; writes with accuracy inconsistently when copying written language
NY	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 when copying written language

3. Demonstrates Hispanic cultural awareness

Ext	Demonstrates a solid understanding of Hispanic culture through re-enactment, written activity or authentic materials (i.e. music, food, literature, crafts); shows exemplary awareness of differences and similarities between the Hispanic and home cultures; independently applies cultural awareness
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Ach	Demonstrates a clear understanding of Hispanic 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 Hispanic and home cultures
Dev	Hesitant, but occasionally demonstrates an understanding of Hispanic 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 Hispanic and home cultures
NY	Does not demonstrate an understanding of Hispanic culture through re-enactment, written activity or authentic materials (i.e. music, food, literature, crafts); cannot discriminate differences and similarities between the Hispanic 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, 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 to 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
NY	Rarely makes eye contact with speaker, seldom contributes to learning activities even with prompting, demonstrates uncooperative behaviors with teacher and classmates