



Needham Public Schools

KINDERGARTEN CURRICULUM SUMMARY

September 2023

Mathematics

The big ideas in kindergarten include: representing and comparing whole numbers, initially with sets of objects; understanding and applying addition and subtraction; and describing shapes and space. More time in kindergarten is devoted to numbers than to other topics.

- Math in Our World
- Numbers 1–10
- Flat Shapes All Around Us
- Understanding Addition and Subtraction
- Composing and Decomposing Numbers to 10
- Numbers 0–20
- Solid Shapes All Around Us

Throughout these units Kindergarten students will engage in mathematical practices—making sense of problems, reasoning abstractly and quantitatively, making arguments and critiquing the reasoning of others, modeling with mathematics, making appropriate use of tools, attending to precision in their use of language, looking for and making use of structure, and expressing regularity in repeated reasoning.

Reading

- Show an interest in books
- Participate in book discussion with partners, small groups, and whole class
- Use comprehension strategies when listening to books read aloud or when reading independently
- Begin to understand different genres
- Read pictures using story language
- Demonstrate understanding of basic concepts of print
- Begin to identify high frequency words
- Identify letters by name and sound when seen in upper and lower case
- Rhyme, blend, and segment sounds heard in words

Writing

- Use stages of the writing process including drafting and publishing
- Use oral storytelling to plan writing
- Use pictures to tell a story
- Begin to label pictures and write simple stories
- Begin to explore ending punctuation
- Use phonetic spelling
- Spell identified high frequency words
- Begin to write with voice
- Begin to add sentences to stories
- Experiment with writing in different genres and for different purposes

Handwriting

- Form upper and lowercase letters

Science

We have completed aligning Needham's elementary & science curriculum with the MA science & technology/ engineering framework. Standards for science skills/practices will be on the progress report.

K Students explore science through integrated centers, focused around four thematic units:

- Properties in Our Community (Physical Science)
- Animals & Their Needs (Life Science)
- Construction (Physical Science)
- Our Earth (Earth Science)

Social Studies

Students engage in inquiry-based social studies as they study geography and apply thinking skills (including comparing/contrasting, observing, classifying, etc.) to the following units:

- Self Awareness/Uniqueness
- Rules and Routines
- Family and Community
- Recognize Similarities and Differences Among Various Cultures of the American People

Spanish Language & Culture

Novice Range Skill Development

Using practiced or memorized words and phrases, and with the help of gestures or visuals, students will be able to:

- Introduce oneself
- Understand memorized or familiar words, phrases and questions in conversations
- Provide information by answering a few simple questions on very familiar topics
- Express basic preferences (likes and dislikes)
- Express feelings
- Interact at a survival level in some familiar everyday contexts
- Demonstrate awareness, curiosity and appreciation for different cultures

Sample Topics and Themes:

- Greetings and polite expressions
- Numbers 0-10
- Colors
- Weather and springtime
- The school day and school supplies
- Birthday celebrations
- Farm animals

Art

- Engage in exploration and play with materials
- Create art that tells a story about a life experience
- Recognize that people represent their experiences and traditions through artistic expression
- Collaborate in art making and sharing materials
- Connect with art in other settings
- Solve artistic problems and think critically and creatively
- Use materials safely
- Focus on and pursue a process or idea to completion during experimentation with a variety of media and tools.

Music

- Demonstrate melodic direction
- Recognize the difference between a speaking and singing voice
- Use Echo and simple songs to develop singing skills
- Recognize and move to a steady beat
- Express music through movement
- Song Tales-experiencing stories through music

Physical Education

- Experience the joy of movement with self and others
- Learn movement concepts and skills that will lead to enjoyable participation in activities, games and sports
- Understand the concepts of personal & general space
- Demonstrate skills of turning, stretching, curling, and rolling sideways
- Understand the directions up/down and forward/backward
- Demonstrate relationships with objects and people (over/under, on/off, around)
- Understand and travel in 3 different pathways (straight, curved, zigzag)
- Follow directions in group settings
- Shares equipment and space with others

Media & Digital Learning

- Identify areas of media center
- Locate picture books and fiction areas
- Locate the nonfiction section and recognize it is organized by topic
- Demonstrate active listening skills and listen to literature for pleasure and information
- Use tools in painting/drawing programs or apps
- Demonstrate basic routines, like the safe handling of devices, when using technology
- Program a robot to move among various objects
- Work cooperatively with others and share resources
- Learn cyberbullying vocabulary
- Use cloud-based learning systems to access and complete assignments and collaborate online

Social & Emotional Learning

Social and emotional learning (SEL) is the process through which children acquire and effectively apply the knowledge, attitudes, and skills necessary to understand and manage emotions, set and achieve positive goals, feel and show empathy for others, establish and maintain positive relationships, and make responsible decisions. SEL is more than just a program or lesson. It is about how teaching and learning happens, as well as what you teach and where you learn. There are a variety of approaches used to teach SEL including:

- Free-standing lessons designed to enhance students' social and emotional competence explicitly.
- Teaching practices such as cooperative learning and project-based learning, which promote SEL.
- Integration of SEL and academic curriculum such as language arts, math, social studies, or health.
- Organizational strategies that promote SEL as a schoolwide initiative that creates a climate and culture conducive to learning.

At the elementary level, the Responsive Classroom Approach is used to promote well-designed practices intended to create safe, joyful, and engaging classroom and school communities. The emphasis is on helping students develop their academic, social, and emotional skills in a learning environment that is developmentally responsive to their strengths and needs.

Students develop their SEL skills across five competencies:

- Self Awareness
- Self Management
- Social Awareness
- Relationship Skills
- Responsible Decision Making

Kindergarten Racial Literacy

The Physical World Around Us: A Celebration of Skin Color

Students explore skin color and function. In a spirit of promoting inclusivity and fostering curiosity, they discuss why we have different skin colors.