



New Jersey Department of Education

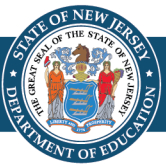


Overview of the Proposed 2023 New Jersey Student Learning Standards for Mathematics

Office of Standards

Division of Teaching and Learning

April 5, 2023





Agenda



- Structure of the Standards
- Reorganization of the Standards
- Summary of Revisions and Examples
- Next Steps



Structural Terms



DOMAIN: A category of related standards within Mathematics. Domains are larger groups of related standards.

CLUSTER: Groups of related standards within a grade level.

STANDARD: Performance expectations to be met by the end of a grade level or a grade band.

How Standards Are Coded



6 = Grade 6

SP = Statistics and Probability

6.SP.B.4 Display numerical data in plots on a number line, including dot plots, histograms, and box plots.

B = Cluster B. Summarize and describe distributions.

4 = Performance Expectation #4





Structural Revision



2016 K-5 Domains

- Measurement and Data
- Geometry
- Counting and Cardinality
- Number and Operations in Base Ten
- Number and Operations – Fractions
- Operations and Algebraic Thinking

Proposed 2023 K-5 Domains

- **Measurement**
- **Data Literacy**
- Geometry
- Counting and Cardinality
- Number and Operations in Base Ten
- Number and Operations – Fractions
- Operations and Algebraic Thinking



Data Literacy Standards, Grades 2-5



The 2023 NJSLS-M propose expanding instruction about data that lays the foundation for current middle grades' statistics expectations.

Examples of new data literacy standards are:

- 2.DL.A.1 Understand that people collect data to answer questions. Understand that data can vary.
- 5.DL.A.3 Collect and clean data to be analyzable (e.g., make sure each entry is formatted correctly, deal with missing or incomplete data).



Money Revisions, Grades K-1



Expectations for understanding coins, dollars, and their respective values are proposed.

Examples of new standards addressing money are:

- K.M.B.3 Understand that certain objects are coins and dollars, and that coins and dollars represent money. Identify the values of all U.S. coins and the one-dollar bill.
- 1.M.C.4. Know the comparative values of coins and all dollars (e.g., a dime is of greater value than a nickel). Use appropriate notation (e.g., 69¢, \$10).

Fluency Revision, Grades K-7



Accuracy and efficiency, as opposed to speed, are the most essential aspects of fluency.

2016 NJSLS-M	Proposed 2023 NJSLS-M
K.OA.A.5 Demonstrate fluency for addition and subtraction within 5.	K.OA.A.5 Demonstrate <u>accuracy and efficiency</u> fluency for addition and subtraction within 5.
5.NBT.B.5 Fluently multiply multi-digit whole numbers using the standard algorithm	5.NBT.B.5 <u>With accuracy and efficiency,</u> Fluently multiply multi-digit whole numbers using the standard algorithm.



Radicals Revision Example A, Grade 8



Foundational work simplifying numerical radicals is proposed in grade 8.

2016 NJSLS-M	Proposed 2023 NJSLS-M
<p>8.EE.A.2 Use square root and cube root symbols to represent solutions to equations of the form $x^2 = p$ and $x^3 = p$, where p is a positive rational number. Evaluate square roots of small perfect squares and cube roots of small perfect cubes. Know that $\sqrt{2}$ is irrational.</p>	<p>8.EE.A.2 Use square root and cube root symbols to represent solutions to equations of the form $x^2 = p$ and $x^3 = p$, where p is a positive rational number.</p> <p><u>a.</u> Evaluate square roots of small perfect squares and cube roots of small perfect cubes. Know that $\sqrt{2}$ is irrational.</p> <p><u>b.</u> <u>Simplify numerical radicals, limiting to square roots (i.e., nonperfect squares). For example, simplify $\sqrt{8}$ to $2\sqrt{2}$.</u></p>

Radicals Revision Example B, High School

Foundational work simplifying radicals, including algebraic radicals, is proposed in high school.

2016 NJSLS-M	Proposed 2023 NJSLS-M
n/a	<u>N.RN.A.3 Simplify radicals, including algebraic radicals (e.g. $\sqrt[3]{54} = 3\sqrt[3]{2}$, simplify $\sqrt{32x^2}\sqrt{x^2}$)</u>

Statistics Revision, High School



Statistics standards were clarified to define specific skills.

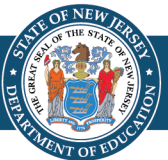
2016 NJSLS-M	Proposed 2023 NJSLS-M
S.IC.B.6 Evaluate reports based on data	S.IC.B.6 Evaluate reports based on data <u>(e.g., interrogate study design, data sources, randomization, the way the data are analyzed and displayed, inferences drawn and methods used; identify and explain misleading uses of data; recognize when arguments based on data are flawed).</u>



Plus Standards Revision and Expansion



- Select high school standards have been designated as plus (+) standards since 2010, which specify the knowledge and skills necessary to take advanced courses.
- The proposal to designate additional standards as plus standards will allow for a more robust treatment of trigonometry and statistics in Precalculus, Statistics, Data Science or other advanced mathematics courses.



Climate Change in the NJSLS-Math



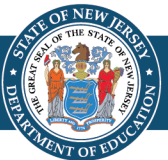
- The 2020 NJSLS prepare students to understand how and why climate change happens, the impact it has on our local and global communities and to act in informed and sustainable ways.
- The 2023 NJSLS – Mathematics develop students’ ability to critically develop data-supported claims and present evidence in order to take action against climate change and other significant issues is paramount.
- The green icon encourages educators to utilize specific NJSLS-Math in interdisciplinary units focused on climate change that include authentic learning experiences, integrate a range of perspectives and are action oriented.



Next Steps: Resources



- The proposed NJSLS – Mathematics Technical Revisions document can be found on the NJDOE website at <https://www.nj.gov/education/standards/>.
- Please note the document follows the NJDOE Style Guide with respect to structuring Administrative Code rulemakings and related content.
- Presentations from the March and April State Board of Education meetings can be found at <https://www.nj.gov/education/sboe/meetings/>





Next Steps: Public Comment Period



- The public may submit comments on the proposed NJSLS for Mathematics is from April 5 through June 7, 2023.
- Comments may be emailed to:
njstandardscomments@doe.nj.gov
- Written comments may also be accepted during one of the three Regional Public Hearings.

Next Steps: Public Comment Locations



- **Southern Region**

- Thursday, April 13, 2023
- 11:00 am – 1:00 pm
- Camden County College
Connector Building
Rm 105, Civic Hall
200 College Drive
Blackwood, NJ 08012

- **Northern Region**

- Monday, April 24, 2023
- 6:00 pm 8:00 pm
- Warren County Technical School
The Theater
1500 Route 57
Washington, NJ 07882

- **Central Region**

- Wednesday, May 3, 2023
- 2:00 pm – 4:00 pm
- NJDOE
Judge Robert L. Carter Building
1st Floor
100 River View Plaza
Trenton, NJ 08625-0500

Register to attend a public hearing at: <https://homerom5.doe.state.nj.us/events/>





Thank You!



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