English-Language Arts & Literacy
Mathematics
Science

Standards Implementation Webinars August 2022

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Today we will . . .

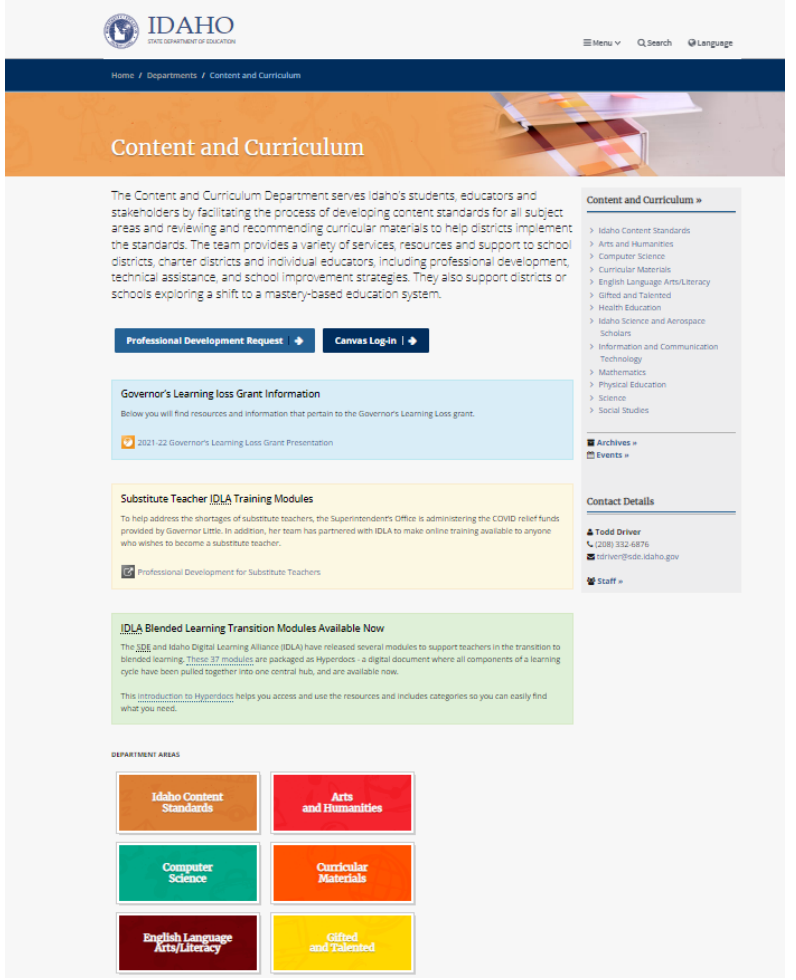
- Review documents to support educators implementing the 2022 standards in language arts & literacy, mathematics, and science
- Walk-through specific changes by subject aligned to the specific recommendations from legislators
- Answer questions

Standards Documents

Document	Audience & Purpose
2022 Standards Highlights	Superintendents and Stakeholders Clarify how intentions of legislative requests were met and provide a high level overview of changes for district leaders.
2022 Standards Reference	Instructional Leaders and Teachers Show how the new standards can be translated to standards used in the majority of textbooks.
2022 Standards Progressions	Instructional Leaders and Teachers Show how a concept unfolds through the grades to show vertical alignment of concepts and guide intervention.
2022 Standards Booklets	Instructional Leaders and Teachers Printed copies of the standards Order at https://www.sde.idaho.gov/academic/standards/

SDE Website – Content and Curriculum

https://www.sde.idaho.gov



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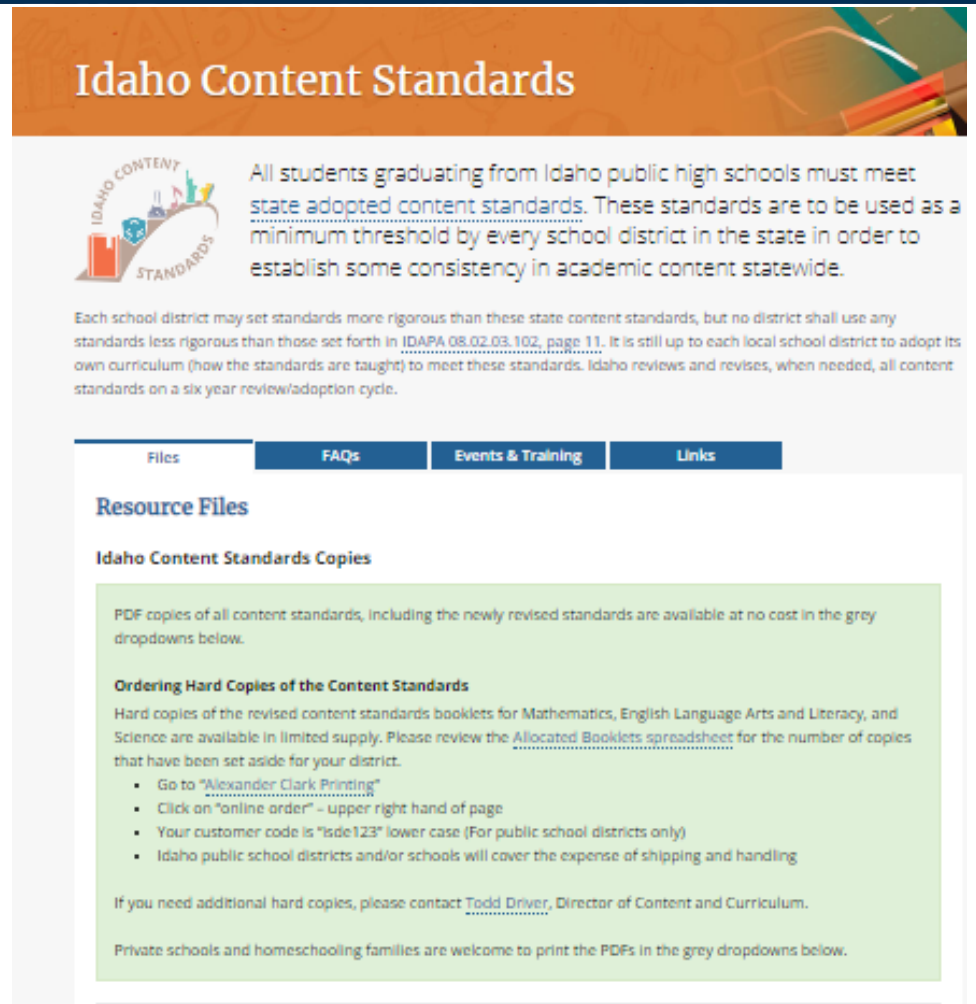
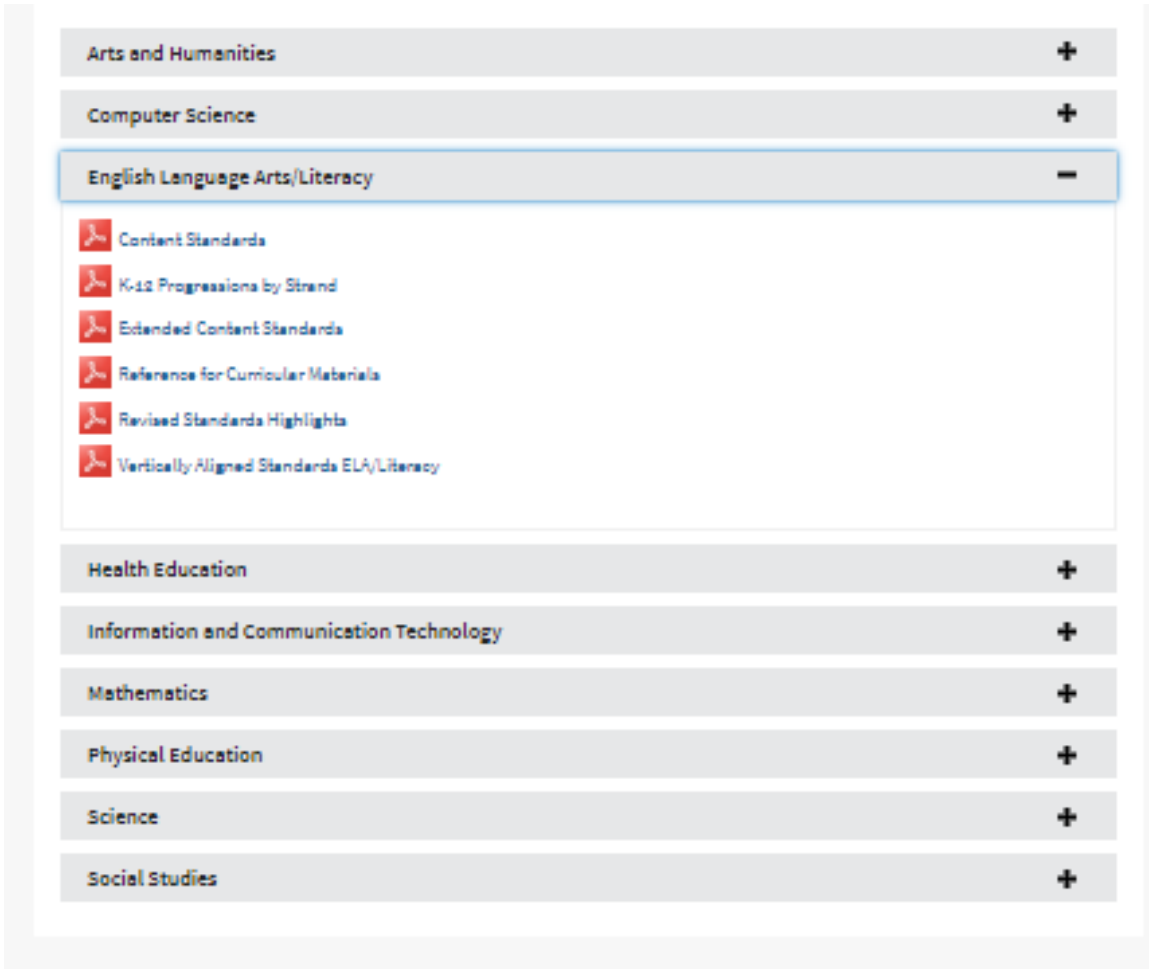




https://www.sde.idaho.gov/academic/standards/

English Language Arts/Literacy

ELA Standards Highlights

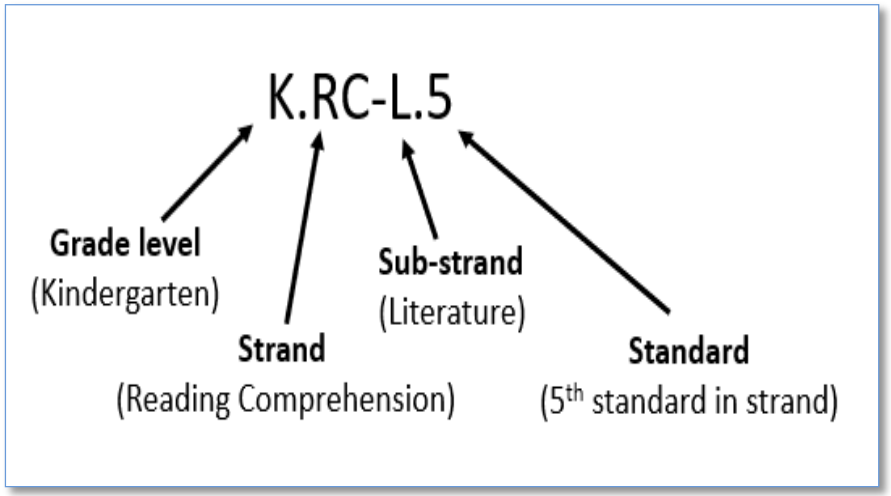
RECOMMENDATION	NEW STANDARDS APPLICATION
Ensure that explicit, systematic, and sequential approaches to teaching phonemic awareness, phonics, vocabulary, fluency, and text comprehension	• Aligned foundational reading standards to the state Comprehensive Literacy Plan • Changed phonological awareness to phonemic awareness to align with current research
Prioritize the basics of reading and writing, with less emphasis on analysis, style, and complex writing forms in lower grades.	• Continued the progression of phonemic awareness standards into grade 2 • Reduced K-2 writing standards
Balance fiction and non-fiction reading materials	• Reading lists were removed from standards and all appendices
Reduce the number of standards, lessen complex verbiage, and prioritize the more important concepts	• Reduced total number of standards • Verbiage changes to most all standards • Reorganization of strands (foundational skills to reading comprehension to vocabulary development)

ELA Standards Highlights (cont.)

RECOMMENDATION	NEW STANDARDS APPLICATION
Review classifications of literature and informational text	• Sub strands were re-named literature and non-fiction
Comprehensive review of the College and Career Readiness Anchor (CCRA) standards	• CCRA were removed
Reevaluate the categories of reading, writing, speaking, listening. Combine some standards in reading, listening, writing, speaking	• New strands and sub strands were developed
Remove or move the standards for Literacy in History/Social Studies, Science, and Technical Subjects	• Standards for literacy in content areas were removed.
Ensure adequacy and progression of cursive writing	• Cursive standard was carried through grade 6
Review of Standards for Conventions to ensure adequacy	• Grammar and Conventions strand was added • Subs strands K-12 for grammar & usage and mechanics to ensure adequacy

ELA Standards Reference

2022 ELA/L Content Strands	2017 Idaho Content Standards
Foundational Reading Skills (K-5)	Reading Foundational Skills (K-5)
Reading Comprehension (K-12)	Reading Literature (K-12)
	Reading Informational Text (K-12)
Vocabulary Development (K-12)	Language (K-12)
Research (1-12)	Writing (K-12)
Writing (K-12)	Writing (K-12)
Oral and Digital Communications (K-12)	Speaking and Listening (K-12)
Grammar and Conventions (K-12)	Language (K-12)
	Handwriting (K-6)



Strands	Code	Sub-Strand(s)	Grade(s)	Code
Foundational Reading Skills	FR	Print Concepts	K	PC
		Phonemic Awareness	K-2	PA
		Phonics and Decoding	K-5	PH
Reading Comprehension	RC	Text Complexity	2-12	TC
		Volume of Reading to Build Knowledge	K-12	V
		Textual Evidence	K-12	TE
		Reading Fluency	K-12	RF
		Literature	K-12	L
		Nonfiction Text	K-12	NF
Vocabulary Development	VD	Word Building	K-12	WB
		Academic Vocabulary	K-12	AV
Research Strand	RS	Inquiry Process to Build, Present, and Use Knowledge	1-12	IP
		Deep Reading of Topics to Build Knowledge	K-12	DR
Writing	W	Range of Writing	K-12	RW
		Handwriting and Keyboarding (begins in grade 3)	K-12	HWK
Oral and Digital Communications	ODC	Oral Communications	K-12	OC
		Digital Communications	3-12	DC
Grammar and Conventions	GC	Grammar and Usage	K-12	GU
		Mechanics	K-12	M

K-12 Content Standards Progressions

Textual Evidence (TE)

Standards	
K.RC-TE.3	Ask and answer questions about key details in texts heard.
1.RC-TE.3	Ask and answer questions about key details in texts heard or read.
2.RC-TE.3	Ask and answer such questions as *who, what, where, when, why,* and *how* to demonstrate understanding of key details in grade-level texts heard or read.
3.RC-TE.3	Ask and answer questions to demonstrate understanding of grade-level texts, referring explicitly to textual evidence as the basis for the answers.
4.RC-TE.3	Refer to details and examples in grade-level texts when explaining what texts say explicitly and when drawing inferences from texts.
5.RC-TE.3	Draw evidence from grade-level texts to explain what is said explicitly and when drawing inferences, including quoting from texts accurately.
6.RC-TE.3	Draw several pieces of evidence from grade-level texts to support claims and inferences, including quoting and paraphrasing from texts accurately.
7.RC-TE.3	Regularly engage in a volume of reading, independently, with peers, or with modest support related to the topics and themes being studied to build knowledge and vocabulary.
8.RC-TE.3	Draw several pieces of evidence from grade-level texts that strongly supports both what is said explicitly and what is implied, including quoting, and paraphrasing from relevant sections and accurately and citing textual references.
9/10.RC-TE.3	Draw ample evidence from grade-level texts to support claims and inferences, attending to the precise details of the authors' descriptions or explanations through quoting, paraphrasing, and citing textual references.
11/12.RC-TE.3	Draw and cite strong and thorough evidence from grade-level texts to support claims and inferences, attending to important distinctions authors make and how those are supported, as well as any gaps or inconsistencies in accounts offered.

Volume of Reading to Build Knowledge (V)

Standards	
K.RC-V.2 1.RC-V.2	Regularly engage in listening to a series of texts related to the topics and themes being studied to build knowledge and vocabulary.
2.RC-V.2	Regularly engage in reading and listening to a series of texts, independently, with peers, or with modest support related to the topics and themes being studied to build knowledge and vocabulary.
3.RC-V.2 4.RC-V.2 5.RC-V.2 6.RC-V.2 7.RC-V.2 8.RC-V.2	Regularly engage in a volume of reading (independently, with peers, or with modest support) related to the topics and themes being studied to build knowledge and vocabulary.
9/10.RC-V.2	Regularly engage in a volume of reading related to the topics and themes being studied to build knowledge and vocabulary. (These texts can include a range of genres and should be at a range of complexity levels so students can read the texts independently, with peers, or with modest support.)
11/12.RC-V.2	Regularly engage in a volume of reading, texts independently, with peers, or with modest support related to the topics and themes being studied to build knowledge and vocabulary.

ELA/L Questions and Discussion

Mathematics

Math Standards Highlights

RECOMMENDATION	NEW STANDARDS APPLICATION
Mastery of Basic Facts	• Mastery Standards identified for each grade level K-6 on Grade Level Overview page
Real-life problem solving	• Examples in blue boxes throughout document • Emphasis on application of concepts • Added Idaho based scenarios
Number of standards	• Fewer standards was not accomplished – this interest conflicted with adding clarity. • Added more subpoints for standards with complex verbiage and syntax • Numbering maintained as much as possible to align to curriculum resources used nationally • Teachers on groups did not feel there were too many standards.

Math Standards Highlights (cont.)

REQUEST	SOLUTION
Complex verbiage	• Vocabulary and sentence structure changed throughout document to be more understandable for all stakeholders. • Much discussion about mathematical vocabulary used when considered essential to the concept. • Examples and clarifications pulled out of standards and put into blue text boxes.
Prioritized concepts	• Mastery standards identified for each grade level • K-8 Coding at Cluster Level – Major Work(o). Supporting Work(r) , Additional Work (○) • 9-12 Coding - (+) Advanced Standards ★ Modeling Standard • Coding is explained in all grade level or conceptual category introductions.

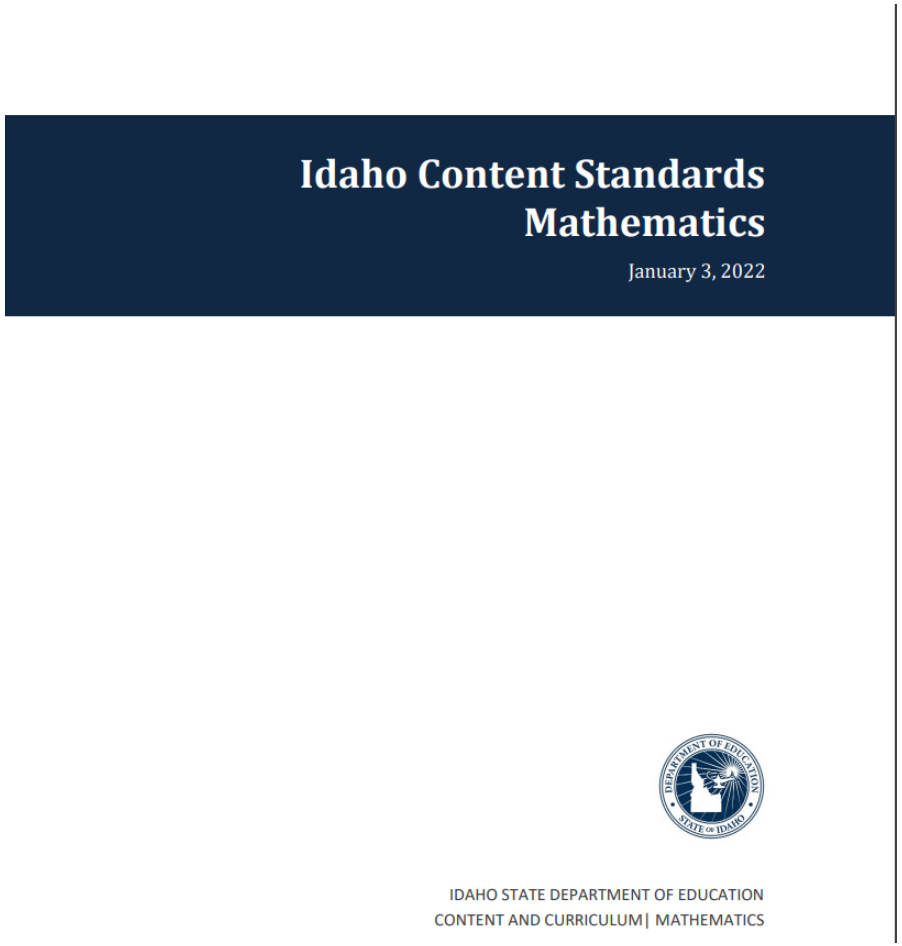
Math Standards Highlights (cont. 2)

REQUEST	SOLUTION
Age and grade-level appropriateness	• Standards for Mathematical Practice rewritten for each grade level with age and content of grade in mind. • Learning progressions from multiple sources consulted • Studied standards from other states. • Much discussion in small grade level teams and with whole team. • How a concept flows through the grades was carefully considered

Walk-Through
Idaho Content Standards Mathematics

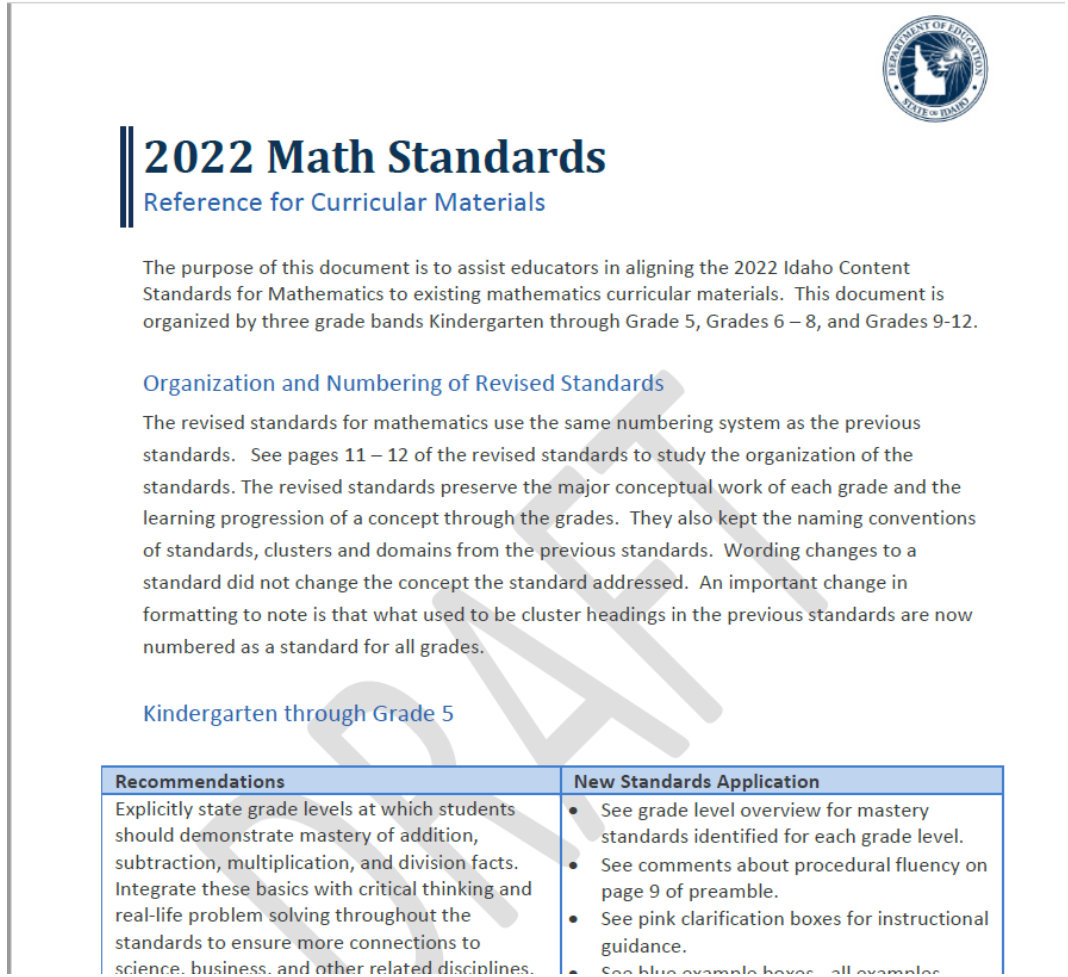
Standards Walk-Through

- Page 11 Progression of K-8 Domains
- Page 12 Format for each grade level
- Grade level introductions
- Grade level overviews – Major work of the grade
- Standards for Mathematical Practice by grade level
- High school coding (+) see page 118
- High school coding (★) see page 145



Math Standards Reference

READ



2022 Math Standards

Reference for Curricular Materials

The purpose of this document is to assist educators in aligning the 2022 Idaho Content Standards for Mathematics to existing mathematics curricular materials. This document is organized by three grade bands Kindergarten through Grade 5, Grades 6 – 8, and Grades 9-12.

Organization and Numbering of Revised Standards

The revised standards for mathematics use the same numbering system as the previous standards. See pages 11 – 12 of the revised standards to study the organization of the standards. The revised standards preserve the major conceptual work of each grade and the learning progression of a concept through the grades. They also kept the naming conventions of standards, clusters and domains from the previous standards. Wording changes to a standard did not change the concept the standard addressed. An important change in formatting to note is that what used to be cluster headings in the previous standards are now numbered as a standard for all grades.

Kindergarten through Grade 5

Recommendations	New Standards Application
Explicitly state grade levels at which students should demonstrate mastery of addition, subtraction, multiplication, and division facts. Integrate these basics with critical thinking and real-life problem solving throughout the standards to ensure more connections to science, business, and other related disciplines.	• See grade level overview for mastery standards identified for each grade level. • See comments about procedural fluency on page 9 of preamble. • See pink clarification boxes for instructional guidance. • See blue example boxes – all examples

Math Standards Learning Progressions

Progression of K–8 Domains

	Grade Level								
Domain	K	1	2	3	4	5	6	7	8
Counting and Cardinality	x								
Operations and Algebraic Thinking	x	x	x	x	x	x			
Number and Operations in Base Ten	x	x	x	x	x	x			
Number and Operations – Fractions				x	x	x			
The Number System							x	x	x
Ratios and Proportional Relationships							x	x	
Expressions and Equations							x	x	x
Functions									x
Measurement and Data	x	x	x	x	x	x			
Geometry	x	x	x	x	x	x	x	x	x
Statistics and Probability							x	x	x

Math Standards K-8 Progressions by Domain

TABLE OF CONTENTS

OPERATIONS: MULTIPLICATION AND DIVISION GRADES 2 – 8

Second Grade Standards: Multiplication and Division

△ **2.OA.C. Work with equal groups of objects to gain foundations for multiplication.**

3. Determine whether a group of objects (up to 20) has an odd or even number of members and write an equation to express an even number as a sum of two equal addends.

   Clarification: *Students may pair objects or count them by twos.*

4. Use addition to find the total number of objects arranged in rectangular arrays with up to 5 rows and up to 5 columns; write an equation to express the total as a sum of equal addends.

   Example*: The total number of objects arranged in a* 2×5 *rectangular array can be found by adding* $2 + 2 + 2 + 2 + 2$.

Third Grade Standards: Multiplication and Division

☐ **3.OA.A. Represent and solve problems involving multiplication and division.**

12. Interpret a product of whole numbers as a grouping of sets, e.g., 5×7 as five groups of seven objects each.
13. Interpret a quotient of whole numbers as equal sharing, e.g., $56 \div 8$ as the number in each share when 56 objects are split into 8 equal shares, or as the number of shares when 56 objects are split into equal shares of 8 objects each.
14. Use multiplication and division within 100 to solve word problems involving equal groups, arrays, and measurements by using visual and symbolic representations, with a symbol for an unknown number.
15. Determine the unknown whole number in a multiplication or division equation relating three whole numbers.

    Example*: Determine the unknown number that makes the equation true in each of the equations:* $8 \times ? = 48$, $5 = ? \div 3$, $6 \times 6 = ?$.

☐ **3.OA.B. Understand properties of multiplication and the relationship between multiplication and division.**

16. Apply the properties of operations to multiply and divide.

Math Questions and Discussion

Science

Science Standards Document Walk Through

RECOMMENDATION	SOLUTION
Supporting content	All supporting content was returned to the standards so that each standard has both a performance expectation and one or more content expectations.
Balance on politicized content	Standards were rewritten to avoid politicized content or to focus on positive aspects rather than negative aspects
Age appropriateness	Standards were moved to ensure age appropriateness, assessment limits and additional information were added, teachers from all grade bands reviewed the standards to ensure that material is appropriately placed.

Science Standards Supporting Content

- Old Version:

ESS2-2 Earth's Systems

Performance Standards

Students who demonstrate understanding can:

ESS2-2-1. Compare multiple solutions designed to slow or prevent wind or water from changing the shape of the land.

- Further Explanation: Examples of solutions could include different designs of dikes and windbreaks to hold back wind and water, and different designs for using shrubs, grass, and trees to hold back the land.

ESS2-2-2. Develop a model to represent the shapes and kinds of land and bodies of water in an area.

- Content Limit: Assessment does not include quantitative scaling in models.

ESS2-2-3. Obtain information to identify where water is found on Earth and that it can be solid, liquid or gas.

Supporting Content

ESS2.A: Earth Materials and Systems

- Wind and water can change the shape of the land. (ESS2-2-1)

ESS2.B: Plate Tectonics and Large-Scale System Interactions

- Maps show where things are located. One can map the shapes and kinds of land and water in any area. (ESS2-2-2)

ESS2.C: The Roles of Water in Earth's Surface Processes

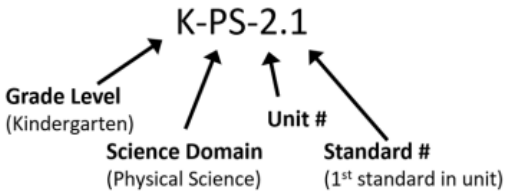
- Water is found in the ocean, rivers, lakes, and ponds. Water exists as solid ice and in liquid form. (ESS2-2-3)

ETS1.C: Optimizing the Design Solution

- Because there is always more than one possible solution to a problem, it is useful to compare and test designs. (ESS2-2-1)

Science Standards Supporting Content

- New Version:



2-ESS-2 – Earth's Systems

2-ESS-2.1 Students who demonstrate understanding can:
Compare multiple solutions designed to slow or prevent wind or water from changing the shape of the land.

Supporting Content ESS2.A: Earth Materials and Systems
- Wind and water can change the shape of the land. (2-ESS-2.1)

Supporting Content ETS1.C: Optimizing the Design Solution
- Because there is always more than one possible solution to a problem, it is useful to compare and test designs. (2-ESS-2.1)

Further Explanation: Examples of solutions could include different designs of dikes and windbreaks to hold back wind and water, and different designs for using shrubs, grass, and trees to hold back the land.

2-ESS-2.2 Students who demonstrate understanding can:
Develop a model to represent the shapes and kinds of land and bodies of water in an area.

Supporting Content ESS2.B: Plate Tectonics and Large-Scale System Interactions
- Maps show where things are located. One can map the shapes and kinds of land and water in any area. (2-ESS-2.2)

Assessment Limit: Assessment does not include quantitative scaling in models.

2-ESS-2.3 Students who demonstrate understanding can:
Obtain information to identify where water is found on Earth and that it can be solid or liquid.

Supporting Content ESS2.C: The Roles of Water in Earth's Surface Processes
- Water is found in the ocean, rivers, lakes, and ponds. Water exists as solid ice and in liquid form. (2-ESS-2.3)

Science Standards: Balance Solutions Focused

- ***OLD:*** ESS3-HS-4. Evaluate or refine a technological solution that reduces impacts of human activities on natural systems

- Further Explanation: Examples of data on the impacts of human activities could include the quantities and types of pollutants released, changes to biomass and species diversity , or areal changes in land surface use (such as for urban development, agriculture and livestock, or surface mining). Examples for limiting future impacts could range from local efforts (such as reducing, reusing, and recycling resources) to large-scale geoengineering design solutions (such as altering global temperatures by making large changes to the atmosphere or ocean).

- ***NEW:*** HS-ESS-3.4 Evaluate or refine a scientific or technological solution that mitigates or enhances human influences on natural systems.

- Further Explanation: Examples of data on the influences of human activities could include the quantities and types of pollutants released, changes to biomass and species diversity, or changes in land surface use (such as for urban development, agriculture and livestock, or surface mining). Examples of human contributions could range from local efforts (such as reducing, reusing, and recycling resources) to large-scale geoengineering design solutions (such as cloud seeding).

Science Standards: Balance Continued

- Throughout the grade levels wording has been changed to emphasize that humans can both help and harm the environment.
- Solutions minded.
- Make sure students understand that humans can (and do) have positive impacts on the Earth.

Science Standards: Age Appropriateness

- ***OLD:*** PS1-K-1. Plan and conduct an investigation to compare the effects of different strengths or different directions of pushes and pulls on the motion of an object.
- ***NEW:*** K-PS-1.1 With guidance and support, plan and conduct an investigation to compare the effects of different strengths or different directions of pushes and pulls on the motion of an object.

Science Standards: Movement for Age Appropriateness

- Moved from K to 1st: 1-LS-1.3 Use classification supported by evidence to differentiate between living and non-living items.
- Moved from 1st to 3rd: 3-LS-1.1 Develop models to demonstrate that living things, although they have unique and diverse life cycles, all have birth, growth, reproduction, and death in common.
- Moved from 4th to 5th: 5-LS-2.4 Develop a model to describe the movement of matter among plants, animals, decomposers, and the environment.
- Moved from 5th to 3rd: 3-LS-3.3 Construct an argument with evidence that in a particular habitat some organisms can survive well, some survive less well, and some cannot survive at all.

- Committee looked at what skills are needed.
- What other content outside of science is being taught at that grade level that could connect.
- How it flows with the other science content at that grade band.

Science Standards Learning Progression

	K-2	3-5	6-8	9-12
Life Science **From Molecules to Organisms: Structure and Processes**	All organisms have external parts that they use to perform daily functions. Parents and offspring show patterns of behavior that help the offspring survive. Living organisms have characteristics that are different from non-living objects.	Organisms have structures that allow for growth, survival, behavior, and reproduction. Different kinds of organisms have unique life cycles. Food provides animals with the materials and energy they need for growth, warmth, and motion. Plants acquire material for growth chiefly from air, water, and acquire energy from sunlight. Sense receptors are specialized for different kinds of information; Animals use this input to guide their actions.	All living things are made of one or more cells. This is one way to determine if an organism is living or nonliving. Cells work together to form tissues and organs that are specialized for particular body functions. Plants use the energy from light to make sugars through photosynthesis. Animals break down food through a series of chemical reactions that rearrange molecules to release energy.	Specialized cells help perform essential functions of life. Any one system in an organism is made up of numerous parts. Feedback mechanisms maintain an organism's internal conditions. Growth and division of cells in organisms occurs by mitosis and differentiation. The hydrocarbons produced through photosynthesis are used to make amino acids and other molecules that can be assembled into proteins or DNA. Through cellular respiration, matter and energy flow through an organism; elements are recombined to form new products and transfer energy.
Standards	• K-LS-1.1 • 1-LS-1.1 • 1-LS-1.2 • 1-LS-1.3	• 3-LS-1.1 • 4-LS-1.1 • 4-LS-1.2 • 5-LS-1.1	• MS-LS-1.1 • MS-LS-1.2 • MS-LS-1.3 • MS-LS-1.4 • MS-LS-1.5 • MS-LS-1.6	• HS-LS-1.1 • HS-LS-1.2 • HS-LS-1.3 • HS-LS-1.4 • HS-LS-1.5 • HS-LS-1.6 • HS-LS-1.7

Science Standards Quick Reference

We have matched the Idaho Standards to National Standards so when you are looking at curriculum or online materials it's easy to know if the Idaho Standard is covered.

MS Life Science

Idaho Standard	National Standard	Idaho Performance Standard	Practice	CCC
MS-LS-1.1 Cell Theory	LS 1-1	Conduct an investigation to provide evidence that living things are made of cells; either one cell or many different numbers and types of cells.	Planning and Carrying Out Investigations	Scale, Proportion, Quantity
MS-LS-1.2 Cell Parts and Function	LS 1-2	Develop and use a model to describe the function of a cell as a whole and ways parts of cells contribute to the function.	Developing and Using Models	Structure and Function
MS-LS-1.3 Interacting Body Systems	LS 1-3	Make a claim supported by evidence for how a living organism is a system of interacting subsystems composed of groups of cells.	Engaging in Argument from Evidence	Systems & System Models
MS-LS-1.4 Characteristics of Life		Construct a scientific argument based on evidence to defend a claim of life for a specific object or organism.	Engaging in Argument from Evidence	Structure and Function
MS-LS-1.5 Photosynthesis - Matter Cycling and Energy Flow	LS 1-6	Construct a scientific explanation based on evidence for the role of photosynthesis in the cycling of matter and flow of energy into and out of organisms.	Constructing Explanations and Designing Solutions	Energy and Matter

Science Questions and Discussion

Additional Standards Resources – Planned

- Standards Instructional Guidance Documents
- Parent Resource Toolkit (PRT)
  - prtoolkit.org

Questions and Comments

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