

With the adoption of the [2021 Oregon Math Standards](#), attention is now turning to implementation and alignment work needed to bring these standards to life for Oregon students. Our hope is that answers to these frequently asked questions (FAQ) will continue to provide support to districts, schools, educators, and families embarking on this implementation. Please send additional questions to ODE’s [Math Team](#).

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### Q1: Why did the Oregon math standards change?

A1: Oregon statutes direct ODE to “regularly and periodically review and revise” the common curriculum goals and performance indicators, which include mathematics (ORS 329.045). The Oregon State Board of Education has the authority to adopt statewide standards. State administrative rules direct ODE to review instructional materials on a seven-year cycle (OAR 581-011-0070), and this time cycle has typically guided standards revision prior to a materials review.

Adoption of the Common Core State Standards (2010) was unique in that the State Board adopted more than two content areas the same year and neither were on the previous revision schedule. A new seven-year adoption cycle began for Language Arts in 2013, and for Mathematics in 2015 ([link to adoption cycle](#)). The onset of COVID-19 delayed the Language Arts materials review to 2021, but Mathematics is on schedule to review instructional materials in 2022 following standards adoption in Fall 2021.

### Q2: What is the same between the 2010 and 2021 versions of Oregon Mathematics Standards?

A2: **Review of standards does not imply that standards have to change.** The members of the Math Content Panel intended to maintain the focus, coherence, and rigor of the 2010 standards, while adding improvements to clarity and relevance that have come to light over the past decade. The 2021 standards will continue the instructional shifts and pursuit of equitable outcomes called for by the 2010 standards into this next cycle. Several elements of the previous standards remain in 2021, notably:

- The Standards for Mathematical Practice (SMPs) remain unchanged as a central component of Oregon’s system of standards, instructional materials, and assessment.
- In Grades K - 8, the cluster headings (and, hence, assessment targets) also carry over unchanged to provide a similar framework between 2010 and 2021 standards.
- Overall, 11% of previous standards did not change at all. In 25% of previous standards, eight or fewer words were changed. Generally, these changes serve to provide greater clarity, while at the same time maintaining the intent of the 2010 standards as much as possible.

### Q3: What is different between the standards?

A3: The revision of Oregon’s mathematics standards was done as part of a continuous improvement process. The members of the Math Content Panel intended to maintain the focus, coherence, and rigor of the 2010 standards, while adding improvements to clarity and relevance that have come to light over the past decade. For example, Student Achievement Partners’ [Coherence Map](#) was created after the publication and widespread adoption of the Common Core State Standards as a tool to use to evaluate the connections and progressions among standards. Key changes to the 2021 standards include:

- Addition of a K-12 Data Reasoning Domain
- Merging of Measurement content with Geometry content
- Revision of K-12 domains to reflect the learning pathways of Algebraic Reasoning, Numeric Reasoning, Geometric Reasoning & Measurement, and Data Reasoning
- Identification of a core two-credit requirement in high school that aligns to the Oregon 2+1 course design

A side by side comparison of the 2010 and 2021 standards can also be found in this [crosswalk document](#) to help analyze other changes between versions.

**Q4: What should I look for when reading? Where do I start?**

A4: **Notice and Wonder!** A good place to start would be to read the standards at your grade level (i.e., with which you are likely already familiar) through the lens of looking for what is similar and provides continuity between 2010 and 2021. This could include the SMPs and the overall organization of domains, clusters, and standards, while noticing that clusters have remained the same in K - 8. Also pay attention for evidence that focus, coherence, and rigor remain at the heart of the work. Resources such as the [shifts in mathematics](#) from Student Achievement Partners could help ground this conversation.

Use the crosswalk document to compare the 2010 and 2021 versions noting, among other aspects:

- (1) where standards are the same;
- (2) where examples are moved out of standards and into guidance documents;
- (3) where standards use fewer words but maintain the intent of the original standards; and
- (4) where a standard is new and has been added in the revised version only.

An example of an unchanged standard is K.NCC.C.7. Note that the letter “N” has been added to the 2021 version to denote this standard as part of the K-12 Numeric Reasoning progression.

OR Math Index (2021)	OR Math Standard (2021)	CCSS Index (2010)	CCSS Standard (2010)
K.NCC.C.7	Compare two numbers between 1 and 10 presented as written numerals.	K.CC.C.7	Compare two numbers between 1 and 10 presented as written numerals.

An example of a standard for which focus was improved is 3.OA.A.2. The clarifications and examples included within the 2010 version are moved to a guidance document to accompany the standards (but which does not require adoption by the State Board of Education).

OR Math Index (2021)	OR Math Standard (2021)	CCSS Index (2010)	CCSS Standard (2010)
3.OA.A.2	Represent and interpret whole-number quotients as dividing an amount into equal sized groups.	3.OA.A.2	Interpret whole-number quotients of whole numbers, e.g., interpret $56 \div 8$ as the number of objects in each share when 56 objects are partitioned equally into 8 shares, or as a number of shares when 56 objects are partitioned into equal shares of 8 objects each. For example, describe a context in which a number of shares or a number of groups can be expressed as $56 \div 8$ .

An example of a standard that went through a significant reduction in wording is 7.NS.A.2. Unlike the 2010 standards, sub-standards (e.g. 2a, 2b, 2c,..) are not used in the 2021 standards. Standards statements themselves were written to be one or two sentences that could be comprehensible to a wide range of readers. The intent of the standards, in this case multiplication and division of rational numbers and use in authentic contexts, was maintained in the revision.

OR Math Index (2021)	OR Math Standard (2021)	CCSS Index (2010)	CCSS Standard (2010)
7.NS.A.2	Apply and extend previous understandings of multiplication and division and of fractions to <b>multiply and divide rational numbers</b> . Interpret operations of rational numbers <b>solving problems in authentic contexts</b> .	7.NS.A.2	Apply and extend previous understandings of multiplication and division and of fractions to <b>multiply and divide rational numbers</b> . --(2.a) Understand that multiplication is extended from fractions to rational numbers by requiring that operations continue to satisfy the properties of operations, particularly the distributive property, leading to products such as $(-1)(-1) = 1$ and the rules for multiplying signed numbers. Interpret products of rational numbers by describing <b>real-world contexts</b> . --(2.b) Understand that integers can be divided, provided that the divisor is not zero, and every quotient of integers (with non-zero divisor) is a rational number. If $p$ and $q$ are integers then $-(p/q) = (-p)/q = p/(-q)$ . Interpret quotients of rational numbers by <b>describing real-world contexts</b> . --(2.c) Apply properties of operations as strategies to multiply and divide rational numbers. --(2.d) Convert a rational number to a decimal using long division; know that the decimal form of a rational number terminates in 0s or eventually repeats.