

Recommended Common Core State Standards Topics for the Focus of Instructional Time and Resources by grade Level (Hawaii Department of Education, 2012).

Grade Level	Focus of Instructional Time and Resources
Kindergarten	Instructional time should focus on two critical areas: (1) representing and comparing whole numbers, initially with sets of objects; (2) describing shapes and space.
Grade 1	Instructional time should focus on four critical areas: (1) developing understanding of addition, subtraction, and strategies for addition and subtraction within 20; (2) developing understanding of whole number relationships and place value, including grouping in tens and ones; (3) developing understanding of linear measurement and measuring lengths as iterating length units; and (4) reasoning about attributes of, and composing and decomposing geometric shapes.
Grade 2	Instructional time should focus on four critical areas: (1) extending understanding of base-ten notation; (2) building fluency with addition and subtraction; (3) using standard units of measure; and (4) describing and analyzing shapes.
Grade 3	Instructional time should focus on four critical areas: (1) developing understanding of multiplication and division and strategies for multiplication and division within 100; (2) developing understanding of fractions, especially unit fractions (fractions with numerator 1); (3) developing understanding of the structure of rectangular arrays and of area; and (4) describing and analyzing two-dimensional shapes.
Grade 4	Instructional time should focus on three critical areas: (1) developing understanding and fluency with multi-digit multiplication, and developing understanding of dividing to find quotients involving multi-digit dividends; (2) developing an understanding of fraction equivalence, addition and subtraction of fractions with like denominators, and multiplication of fractions by whole numbers; (3) understanding that geometric figures can be analyzed and classified based on their properties, such as having parallel sides, perpendicular sides, particular angle measures, and symmetry.
Grade 5	Instructional time should focus on three critical areas: (1) developing fluency with addition and subtraction of fractions, and developing understanding of the multiplication of fractions and of division of fractions in limited cases (unit fractions divided by whole numbers and whole numbers divided by unit fractions); (2) extending division to 2-digit divisors, integrating decimal fractions into the place value system and developing understanding of operations with decimals to hundredths, and developing fluency with whole number and decimal operations; and (3) developing understanding of volume.
Grade 6	Instructional time should focus on four critical areas: (1) connecting ratio and rate to whole number multiplication and division and using concepts of ratio and rate to solve problems; (2) completing understanding of division of fractions and extending the notion of number to the system of rational numbers, which includes negative numbers; (3) writing, interpreting, and using expressions and equations; and (4) developing understanding of statistical thinking.
Grade 7	Instructional time should focus on four critical areas: (1) developing understanding of and applying proportional relationships; (2) developing understanding of operations with rational numbers and working with expressions and linear equations; (3) solving problems involving scale drawings and informal geometric constructions, and working with two- and three-dimensional shapes to solve problems involving area, surface area, and volume; and (4) drawing inferences about populations based on samples.
Grade 8	Instructional time should focus on three critical areas: (1) formulating and reasoning about expressions and equations, including modeling an association in bivariate data

Source: Mathematics, The Common Core State Standards and RTI: An Integrated Approach to Teaching in Today's Classroom (Burton & Kappenberg, 2013)

	with a linear equation, and solving linear equations and systems of linear equations; (2) grasping the concept of a function and using functions to describe quantitative relationships; (3) analyzing two- and three-dimensional space and figures using distance, angle, similarity, and congruence, and understanding and applying the Pythagorean Theorem.
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Standards for Mathematical Practice Checklist Grade 7 Unit Lesson Plan

Standard	My lesson Plan
Make sense of problems and persevere in solving them	Student Friendly Objectives: Using hands-on inquiry, students will discover the rule for finding the probability of a single event and two independent events.
Reason abstractly and quantitatively	Mini Lesson 3: Give each group of students a cardboard box representing a “dresser draw” with blue, green, red, white and black paper “socks”. Each pair is paper clipped together in a matching set. Have students reach into the sock drawer and choose a pair of socks without looking. Have them replace this pair and then choose another pair of socks. What is the probability that you will choose the red pair of socks both times?
Construct viable arguments and critique the reasoning of others	Each student is given a different task in the group based on preferences and ability; scribe to record the outcomes of the sock experiment using the mathematics vocabulary for the lesson, a “sock picker” to reach into the box with eyes closed to pick a pair of socks, the facilitator to lead the discussion of the group as they calculate the probability of picking each color after 10 events (the sock is replaced after each event), and the reporter that reports out to the class at the end of the experiment and how the group arrived at the answer. In this lesson, students use a hands-on approach to explore the probability of choosing a particular color pair of socks. Each student has an active role in the inquiry process.
Model with mathematics	Mini Lesson 2: [Have] students pick a marble from a clear glass bowl containing 5 different color marbles and demonstrate how to calculate the probability of drawing a specific color marble. Then tell a story about the electricity going out and needing to take a pair of socks out of a draw to where with your green dress (or pants) without being able to see what color the socks are.
Use appropriate tools strategically	Assessment: Have students flip a coin 20 times independently and calculate the probability of landing on heads.
Attend to precision	Mini Lesson 4: What is the probability (P) of choosing a green and then a yellow marble? $P(\text{green}) = 1/5$ $P(\text{yellow}) = 1/5$

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	$P(\text{green and yellow}) = P(\text{green}) \times P(\text{yellow})$ $1/5 \times 1/5 = 1/25 \quad 1/25 = .04$ The probability of choosing a green marble and a yellow marble is $1/25$ or $.04$.
Look for and make use of structure	Students examine multiple experiments and create a rule for finding probability of multiple events.
Look for and express regularity in repeated reasoning	Mini Lesson 5. Demonstrate one more example: The probability of landing on heads after tossing a coin AND rolling a 5 on a single 6-sided die.

Introduction to the Common Core Video

<https://www.teachingchannel.org/videos/teaching-math-ccss?fd=1>

Common Core Shifts in Mathematics

<http://engageny.org/sites/default/files/resource/attachments/common-core-shifts.pdf>

The Mathematics for English Language Learners (MELL) project <http://www.tsusmell.org/index.htm>

Why RTI Works for Sanger

<http://www.rtinetwork.org/voices-archives/entry/2/150>

This article describes a RTI, Inclusion, Mathematics and Reading project for 10,500 students in Sanger School District, Fresno County, California. Over 76% of students here are eligible for free or reduced-price lunch and 25% are English language learners (ELLs). After this initiative, Sanger had 48% of students with disabilities score proficient in Mathematics above the state average for similar schools.

Sorting and Classifying Equations Overview Video, Grade 8, Math, Collaboration Common Core Standard

<https://www.teachingchannel.org/videos/sorting-classifying-equations-overview?fd=1#>

This 9:50 minute video describes a lesson on equations guided by the common core standard Math.8.EE.7a

Give examples of linear equations in one variable with one solution, infinitely many solutions, or no solutions. Show which of these possibilities is the case by successively transforming the given equation into simpler forms, until an equivalent equation of the form $x = a$, $a = a$, or $a = b$ results (where a and b are different numbers).

National Center on Response to Intervention

<http://www.rti4success.org>

This website includes information on resources, research and literature; tools and interventions; training and events; and professional development and technical assistance opportunities, as well as links to state-related RTI resources.

National Center on Student Progress Monitoring

<http://www.studentprogress.org>

Funded by the US Department of Education, this website includes a resource library, a technical review of PM tools, and general information on the role PM plays in successful schools and data systems.

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