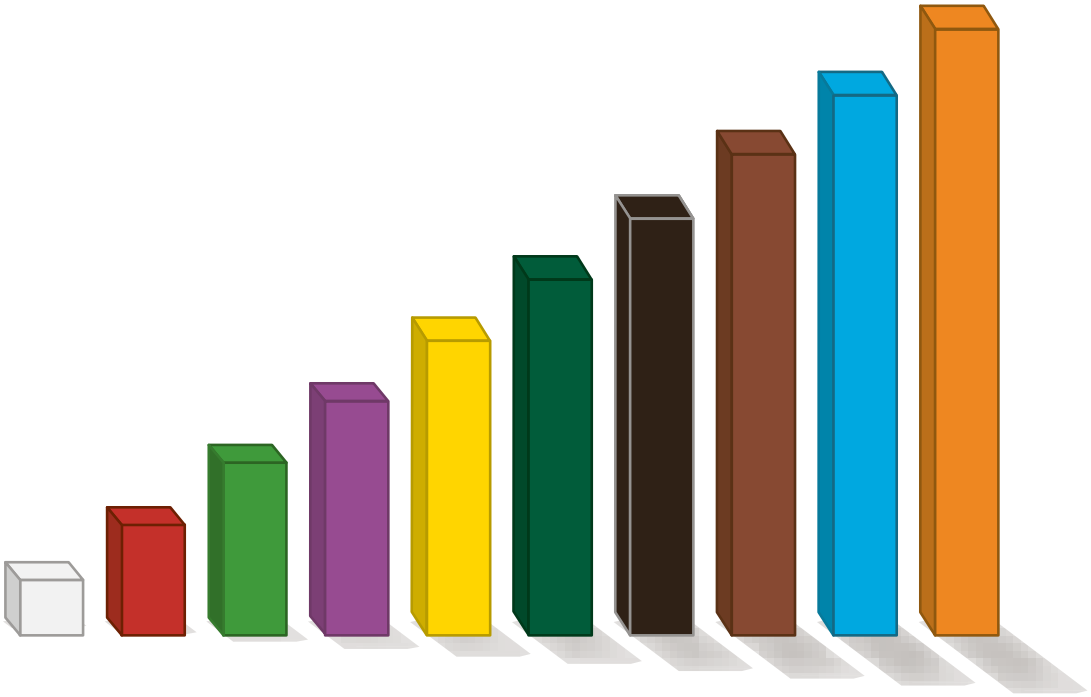
Math Tasks
with Cuisenaire® Rods



Alignments

ETA hand2mind®

ACTIVITIES - 86587

Page	Activity Name	Description	Math Strand	Topics
12	**Building Pyramids**	Students use Cuisenaire® Rods to build models of pyramids. They record data about each structure, look for patterns, and make conjectures.	Problem Solving, Communication, Reasoning, Connections, Geometry, Logic, Patterns/Functions	Interpreting Data, Looking for Patterns
16	**Color Changes**	Based on the number of light green Cuisenaire Rods that can be placed end-to-end across a desk, students figure out the width of the desk in terms of other rods.	Problem Solving, Communication, Reasoning, Connections, Measurement, Number	Deductive Reasoning, Estimation, Ratio and Proportion
20	**Rods and Absolute Value**	In this activity, the students have the opportunity to collect and analyze data, understand the concept of absolute value, and determine which number has the greater absolute value.	Problem Solving, Communication, Reasoning, Connections, Number	Number, Patterns, Counting
24	**Filling Boxes**	Students explore surface area and volume by building open-top boxes and determining how many Cuisenaire Rods fit into each. They investigate the dimensions to determine the affect on volume and surface area.	Problem Solving, Communication, Reasoning, Connections, Geometry, Measurement	Estimation, Multiplication, Surface Area, Volume
28	**Growing Every Day**	Students build, extend, and analyze growth patterns made with Cuisenaire Rods. They use their analyses to make predictions about future growth of these patterns.	Problem Solving, Communication, Reasoning, Connections, Number, Patterns/Functions	Comparing, Looking for Patterns, Spatial Visualization
32	**What Do You Mean?**	Students use Cuisenaire Rods to visually represent data sets and then use the rods to find the range and mean of each data set.	Problem Solving, Communication, Reasoning, Connections, Probability/Statistics	Analyzing Data, Measure of Center Data, Average
36	**Train Riddles**	Students write and solve riddles about Cuisenaire Rod trains. The students will think proportionally, and use ratios to solve riddles.	Problem Solving, Communication, Reasoning, Connections, Logic, Number	Deductive Reasoning, Spatial Visualization, Ratio and Proportion
40	**The Souped-Up Hot Rod!**	In this two-player game, students work together with Cuisenaire Rods to create equations of the form, $x + p = q$ and $px = q$, and use the rods to solve.	Problem Solving, Communication, Reasoning, Connections, Expressions, Equations	Equations, Writing Equations, Algebraic Expressions, Computation
44	**White-Rod Stamping**	Students use the white Cuisenaire Rod as a rubber stamp. They "stamp" bigger and bigger one-color rod structures in an effort to find a relationship between the number of stamps and the number of rods in the structure.	Problem Solving, Communication, Reasoning, Connections, Measurement, Number, Patterns/Functions	Looking for Patterns, Ratio and Proportion, Spatial Visualization, Surface Area

CHALLENGE ACTIVITIES - 86587

Page	Activity Name	Description	Math Strand	Topics
48	**Rooftop Triangles**	Students investigate combinations of three Cuisenaire Rods that can be placed corner-to-corner to form triangles.	Problem Solving, Communication, Reasoning, Connections, Geometry, Measurement	Data Collection and Organization, Properties of Triangles, Triangle Inequality Theorem
54	**Sandboxes**	Students investigate area and perimeter by modeling different-shaped sandboxes using Cuisenaire Rods.	Problem Solving, Communication, Reasoning, Connections, Geometry, Measurement, Number	Area, Perimeter, Spatial Reasoning
60	**Storage Boxes**	Students investigate volume and surface area by modeling arrangements of shoeboxes using Cuisenaire Rods.	Problem Solving, Communication, Reasoning, Connections, Geometry, Measurement, Number	Spatial Visualization, Surface Area, Volume
66	**Yack in the Box**	Students use a combination of two Cuisenaire Rods to form a longer rod segment. Assuming that this rod represents one whole unit, students form addition and subtraction sentences involving the fractional lengths of the other rods.	Problem Solving, Communication, Reasoning, Connections, Number	Equivalence, Fractions, Writing Equations
72	**Playground Equipment**	Students use Cuisenaire Rods to investigate the balance point on a seesaw when unequal weights are placed on either end. They then determine how many rods of a given length would be needed to build a balance beam.	Problem Solving, Communication, Reasoning, Connections, Measurement, Number, Probability/Statistics	Equivalence, Fractions, Graphs, Organizing and Interpreting Data
78	**Farmer John**	Students use Cuisenaire Rods and their given percentage values to determine possible whole number bases. They build models representing the given percentages in order to find the one with the smallest perimeter.	Problem Solving, Communication, Reasoning, Connections, Geometry, Number	Factors, Percents, Perimeter, Spatial Visualization
84	**From Head to Toe**	Students measure various lengths of the human body using Snap Cubes and Cuisenaire Rods. They also set up ratios and compare their measurements to the Golden Ratio.	Problem Solving, Communication, Reasoning, Connections, Geometry, Measurement, Number	Decimals, Estimation, Ratio and Proportion
90	**How High? How Long**	Students build Cuisenaire Rods into towers to generate data. Then they record, graph, and analyze the data.	Problem Solving, Communication, Reasoning, Connections, Measurement, Probability/Statistics	Normal Distribution, Graphing and Analyzing Data
96	**Half Chance**	In this activity, two players use spinners to determine the color and number of Cuisenaire Rods to place on a rectangular grid in an effort to cover one-half the grid.	Problem Solving, Communication, Reasoning, Connections, Probability/Statistics	Chance, Spatial Visualization, Game Strategies