SPIRAL
Specialized Math Intervention to Reach All Learners

Base-Ten Blocks

Grade-Level Recommendation: 1 - 6

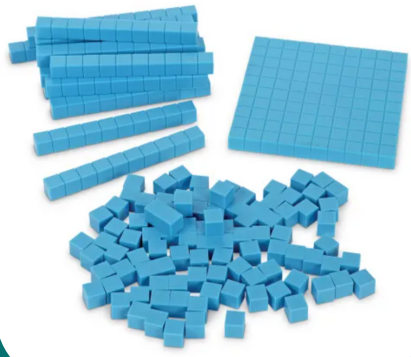
Cubes, flats, rods, and units can represent 1,000, 100, 10, and 1 or 10, 1, 0.1, and 0.01.

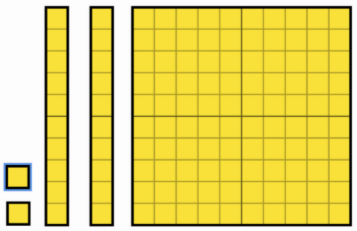
Mathematics Content

- Whole Numbers (e.g., thousands, hundreds, tens, ones)
- Decimals (e.g., tenths, hundredths)

In the Classroom

- Use base-ten blocks to help students understand the place value of numbers (e.g., 319 or 2.37).
- Students also can use base-ten blocks to solve problems with addition, subtraction, multiplication, or division.





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Place Value Disks

Grade-Level Recommendation: 2 - 6

Each colored disk represents a different place value, from 1,000,000 to 0.001.

Mathematics Content

- Whole Numbers (e.g., thousands, hundreds, tens, ones)
- Decimals (e.g., tenths, hundredths)

In the Classroom

- Use place value disks as students learn to represent numbers (e.g., 495 or 1.95).
- Students also can use place value disks to solve problems with addition, subtraction, multiplication, or division.

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Hundred Board

Grade-Level Recommendation: PK - 5

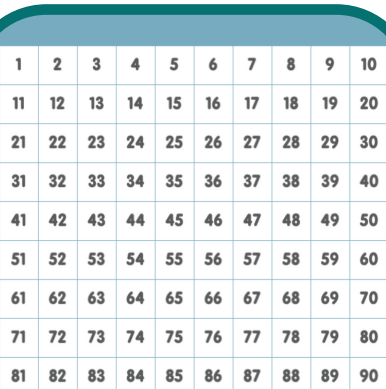
The numbers 1 through 100 are presented in sequential order in rows of 10.

Mathematics Content

- Place Value
- Operations

In the Classroom

- A hundred board is helpful as students learn to count from 1-100.
- Students can practice counting by 2s, 5s, or 10s.
- Students also can use the hundred board to add and subtract.
- A hundred board also is helpful for counting the value of a set of coins.



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Pop-It Hundred Board

Grade-Level Recommendation: PK - 5

The numbers 1 through 100 are presented in sequential order in rows of 10.

Mathematics Content

- Place Value
- Operations

In the Classroom

- A hundred board is helpful as students learn to count from 1-100.
- Students can practice counting by 2s, 5s, or 10s.
- Students also can use the hundred board to add and subtract.
- The pop-it board (unmarked side) can be used for multiplication and division.

1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100

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Fraction Tiles

Grade-Level Recommendation: 3 - 6

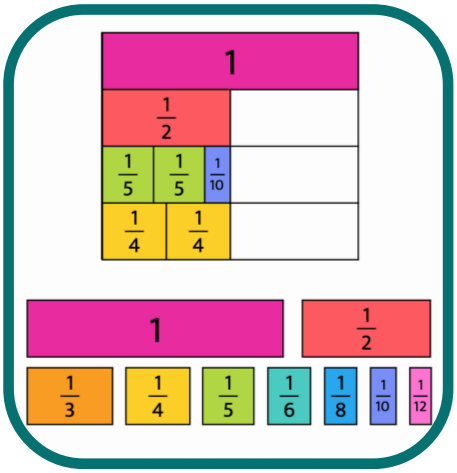
Each colored rod represents a whole, 1/2, 1/3, 1/4, 1/5, 1/6, 1/8, 1/10, or 1/12.

Mathematics Content

- Fractions
- Decimals
- Percentages

In the Classroom

- Use fraction tiles as students learn the value of fractions, emphasizing the length of the fraction.
- Students also can use fraction tiles to compare fractions, order fractions, or compute with fractions.



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Cuisenaire® Rods

Grade-Level Recommendation: K - 8

Each colored rod represents a fraction, from 1/10 to a whole.

Mathematics Content

- Fractions
- Interpret Decimals (i.e., tenths)

In the Classroom

- Use Cuisenaire® Rods as students learn the value of fractions, emphasizing the length of the fraction.
- Students also can use Cuisenaire® Rods to interpret tenths within decimals.
- Cuisenaire® Rods are helpful for understanding the numbers 1-10.

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Number Lines

Grade-Level Recommendation: PK - 6

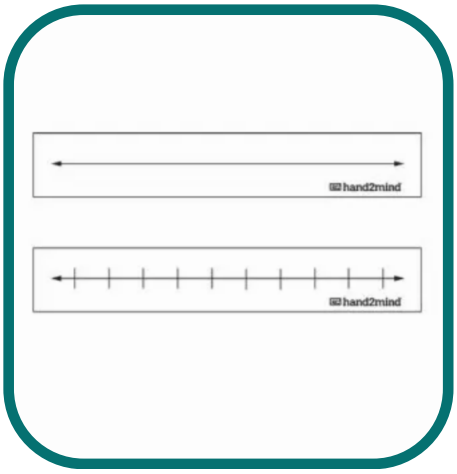
Number lines can be used to learn about whole numbers, fractions, decimals, and percentages.

Mathematics Content

- Whole Numbers
- Fractions, Decimals, and Percentages

In the Classroom

- Use a number line as students learn the value of fractions, emphasizing the length of the fraction.
- Use marked number lines, then transition to open number lines.
- Use a number line to compare and order numbers.
- Number lines also are helpful for addition and subtraction.



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Fraction Circles

Grade-Level Recommendation: 3 - 6

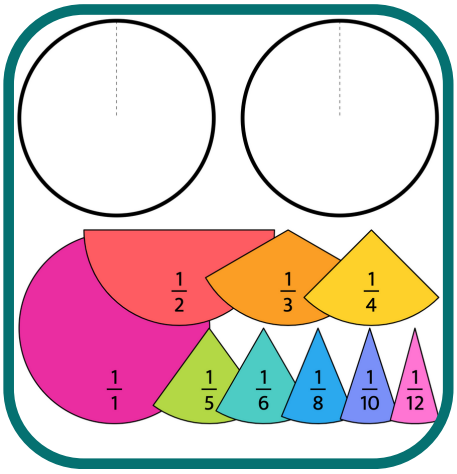
Each colored part represents a whole, 1/2, 1/3, 1/4, 1/5, 1/6, 1/8, 1/10, or 1/12.

Mathematics Content

- Fractions
- Decimals
- Percentages

In the Classroom

- Use fraction circles as students learn the value of fractions, emphasizing the area of the fraction.
- Students also can use fraction circles to compare fractions, order fractions, or compute with fractions.



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Geoboards

Grade-Level Recommendation: 4 - 12

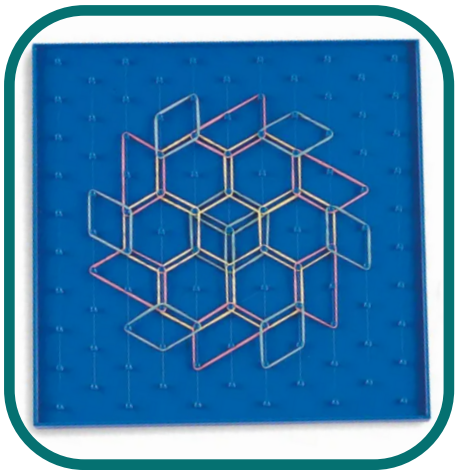
For fractions, one rubber band can show the area of a fraction with another rubber band showing the parts.

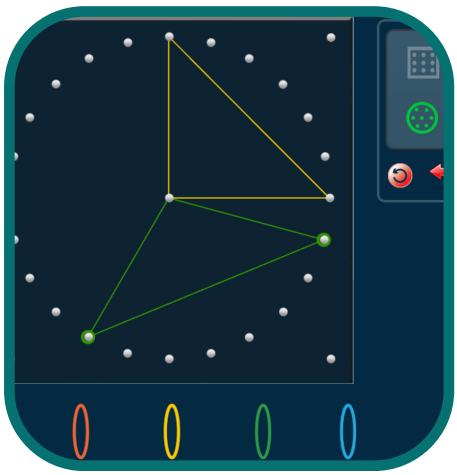
Mathematics Content

- Fractions
- Geometry

In the Classroom

- Use a geoboard to show a fraction's area of the whole (i.e., denominator) and parts (i.e., numerator).
- Students also can use a geoboard to show knowledge of shapes, like triangles, quadrilaterals, and other polygons.
- Geoboards can be used to explore right, acute, and obtuse angles.





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Pattern Blocks

Grade-Level Recommendation: PK - 8

For fractions, one shape can show the area of a fraction with other shapes showing the parts.

Mathematics Content

- Fractions
- Geometry

In the Classroom

- Use a pattern block to show a fraction's area of the whole (i.e., denominator). Then use other shapes to show the parts within the whole (i.e., numerator).
- Students also can use pattern blocks to demonstrate knowledge of shapes.
- Pattern blocks are helpful for creating tessellations.

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Two-Color Counters

Grade-Level Recommendation: K - 8

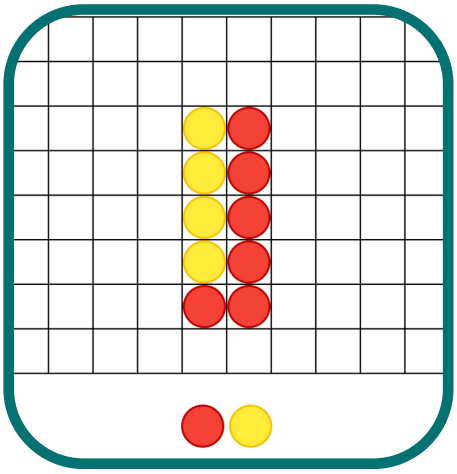
For fractions, yellow counters can show the denominator and red counters can show the numerator.

Mathematics Content

- Fractions
- Integers

In the Classroom

- Use two-color counters to create a set that shows a denominator (e.g., 6), then flip some counters over to show the numerator (e.g., 5/6).
- Students also can use yellow counters to represent positive integers and red counters to represent negative integers.



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Math Links

Grade-Level Recommendation: PK - 5

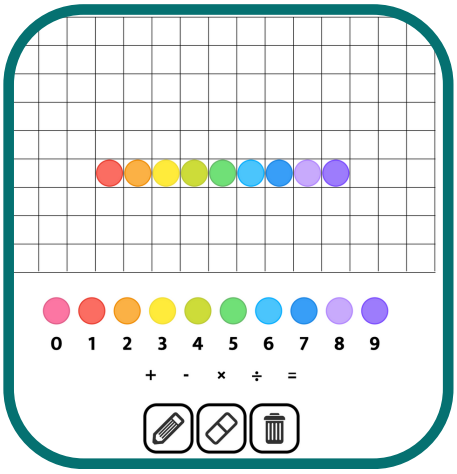
For fractions, one color can show the denominator and another color can show the numerator.

Mathematics Content

- Fractions
- Place Value

In the Classroom

- Use links to create sets of fractions (e.g., with 3 yellow links and 2 blue links, 3/5 of the set is yellow and 2/5 is blue).
- Students also can use links to create sets of 10 (e.g., how many sets of 10 are in the number 34?).



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Snap Cubes

Grade-Level Recommendation: PK - 8

For fractions, one color can show the denominator and another color can show the numerator.

Mathematics Content

- Fractions
- Place Value

In the Classroom

- Use cubes to create sets of fractions (e.g., with 3 green cubes and 1 orange cube, 3/4 of the set is green and 1/4 is orange).
- Students can also use cubes to create sets of 10 (e.g., how many sets of 10 are in the number 27?).

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Coins

Grade-Level Recommendation: 1 - 5

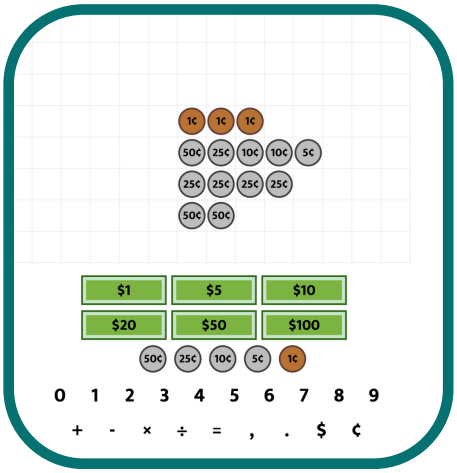
Coins show quarters, dimes, nickels, and pennies.

Mathematics Content

- Money
- Place Value

In the Classroom

- Use coins to understand the value of money.
- Students also can use coins (and a hundred board) to count the value of sets of coins.
- Coins are helpful for comparing and ordering amounts or solving computation problems.



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AngLegs®

Grade-Level Recommendation: 3 - 8

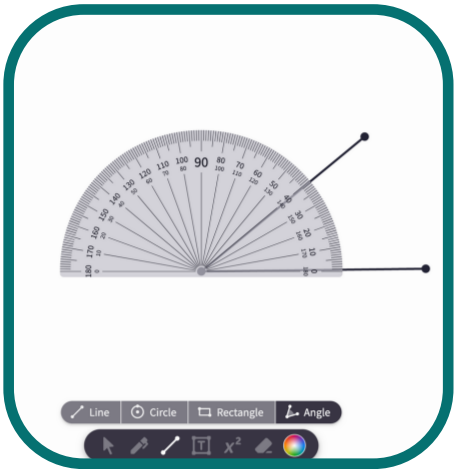
Plastic sticks can be pinned together to create angles and shapes.

Mathematics Content

- Geometry
- Fractions

In the Classroom

- Use sticks to create angles (e.g., right, acute, obtuse). Use the protractor to measure the degrees of the angle.
- Also create different types of triangles, quadrilaterals, and other polygons.
- AngLegs® can be used to show the area model of fractions.



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