

BOT BASICS

UPPER GRADES MATH



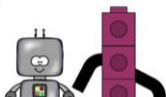
**SIMPLE MATH
ROBOTICS
CHALLENGES
FOR
3RD-5TH GRADE**

CREATED BY BROOKE BROWN

10 MATH CHALLENGES

ROUND UP

- 1) Mix up the cards and place them face down in a stack.
- 2) Flip over the top card. Use the snap cubes to build equal towers for the amount in each group.
- 3) Program your robot to circle around each of the equal group towers.



MULTIPLICATION MATCH

- 1) Connect the number mats to make a large hundreds grid.
- 2) Use the spinners, a pencil, and paper clip to determine the two factors. Multiply the factors together.
- 3) Program your robot to move to the matching product on the hundreds mat.

1	2	3	4	5	6	7	8	9	0
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	00

MULTIPLICATION MATCH

SUPER SOLIDS

- 1) Create a path or maze with straight edges. You may use wooden planks, popsicle sticks, base ten rods, or construction paper to make your maze.
- 2) Spread the 3D solid pictures throughout the maze. Mix up the word cards and place face down in a stack.
- 3) Flip over the top word card. Program your robot to move to the matching 3D solid. Use only ONE sequence of code.
- 4) Flip over the next word card and repeat. Continue with all word cards.

BOY BASICS (MATH)

DIVISION DASH

- 1) Fold all the number cards in half like tents and spread them out. If you have larger robots, use chairs or tunnels built with blocks and place the tents on top.
- 2) Use a pencil and paperclip to spin a two-digit dividend. Find that dividend on the multiplication and division chart. If the number is a PRIME NUMBER, Program your robot to take a matching tunnel for the quotient or prime number.



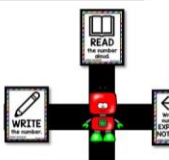
COIN CRASH

- 1) Choose 10 mini coin cups and build a tower.
- 2) Drive or program your robot to crash through the cups.
- 3) Count the total amount of dollars and coins that fall over. This is the cost of the toy you're purchasing.
- 4) Calculate the amount of change you would receive if you paid for the toy.



NUMBER CROSSROADS

- 1) Create a four-way intersection using wooden planks, popsicle sticks, base ten rods, or construction paper. Place your robot at the center of the intersection and the number question cards at the end of each path.
- 2) Put all the digit cards in a baggie and pull out 6-10 digits without looking. Line them up to create a multi-digit number.
- 3) Program your robot to move forward and "tag" the dominoes that are factors of that number. You may use a multiplication chart to help you.



SHAPE MAKER

- 1) Place the stack of Shape Maker property cards and/or picture cards face down.
- 2) Flip over the top property card. Program your robot to make the path of any shape that has those given properties.
- 3) Flip over the next property or picture card and repeat.

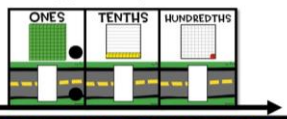


FACTOR TAG

- 1) Set up dominoes with the numbers 2-12 and spread them out.
- 2) Use a pencil, paperclip, and spinner to spin a two-digit number. If you spin a prime number, spin again.
- 3) Program your robot to move forward and "tag" the dominoes that are factors of that number. You may use a multiplication chart to help you.

DECIMAL DRIVE

- 1) Connect the decimal mats to make a path.
- 2) Spread out all the digit cards face down. Choose two cards and put them together to make a number with a decimal.
- 3) Use base ten blocks to build each part of the number (tens, units, tenths, hundredths.) After building, program your robot to the matching spot on the path and read the number aloud.

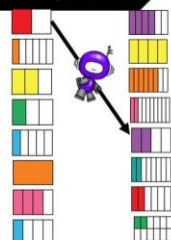


BOY BASICS (MATH)

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FRACTION FINDER

- 1) Cut out the "A" and "B" Fraction cards and place them in two columns with a larger space between them.
- 2) Make equivalent fractions by programming your robot to move from an "A" fraction card to an equivalent "B" fraction card.
- 3) Program as many different equivalent fractions as you can.



BOY BASICS (MATH)

BOY BASICS (MATH)

USE WITH ANY DRIVING BOT!

The collage features a variety of educational worksheets for children, including:

- ROUND UP**: A worksheet for rounding numbers to the nearest hundred.
- MULTIPLICATION MATCH**: A worksheet for matching multiplication problems with their products.
- COIN CRASH**: A worksheet for identifying and counting coins.
- FRACTION FINDER**: A worksheet for finding equivalent fractions.
- SHAPE MAKER**: A worksheet for identifying and drawing various shapes.
- NUMBER CROSSROADS**: A worksheet for identifying numbers and their properties.
- ONE'S, TENTHS, HUNDREDTHS**: Worksheets for understanding decimal place value.
- DECIMAL DR.**: A worksheet for drawing decimal points.
- FACTOR TAG**: A worksheet for identifying factors.
- SUPER SOLIDS**: A worksheet for identifying and drawing 3D shapes.
- does not roll, circular base, 8 vertices, not a polyhedron**: A worksheet for identifying and drawing 3D shapes.
- WRITE the number, READ the number, ROUND the number**: Worksheets for writing, reading, and rounding numbers.
- 5 6 7 8 9**: A worksheet for identifying and counting the numbers 5 through 9.

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