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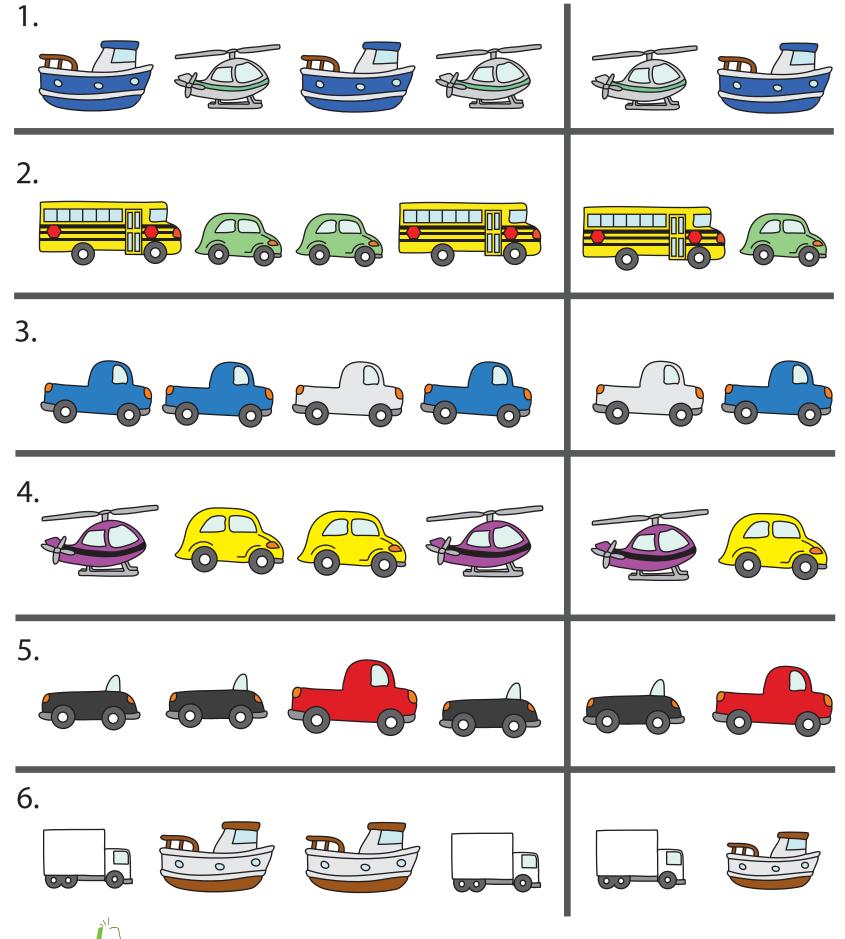
Finish the Pattern Copy the Colors Copy the Pattern Cars on the Road What Kind of Pattern? Boats on the Water Patterns and Traffic Lights Finish the Race Tricky Train Traffic Jam Name That Pattern #1 Name That Pattern #2 Name That Pattern #3 Name That Pattern #4 Patterns on a Hundreds Chart: Rows #1 Patterns on a Hundreds Chart: Rows #2 Patterns on a Hundreds Chart: Columns **Driving in All Directions Playing with Patterns Cereal Patterns** Nuts and Bolts Sorting Activity

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## Finish the Pattern

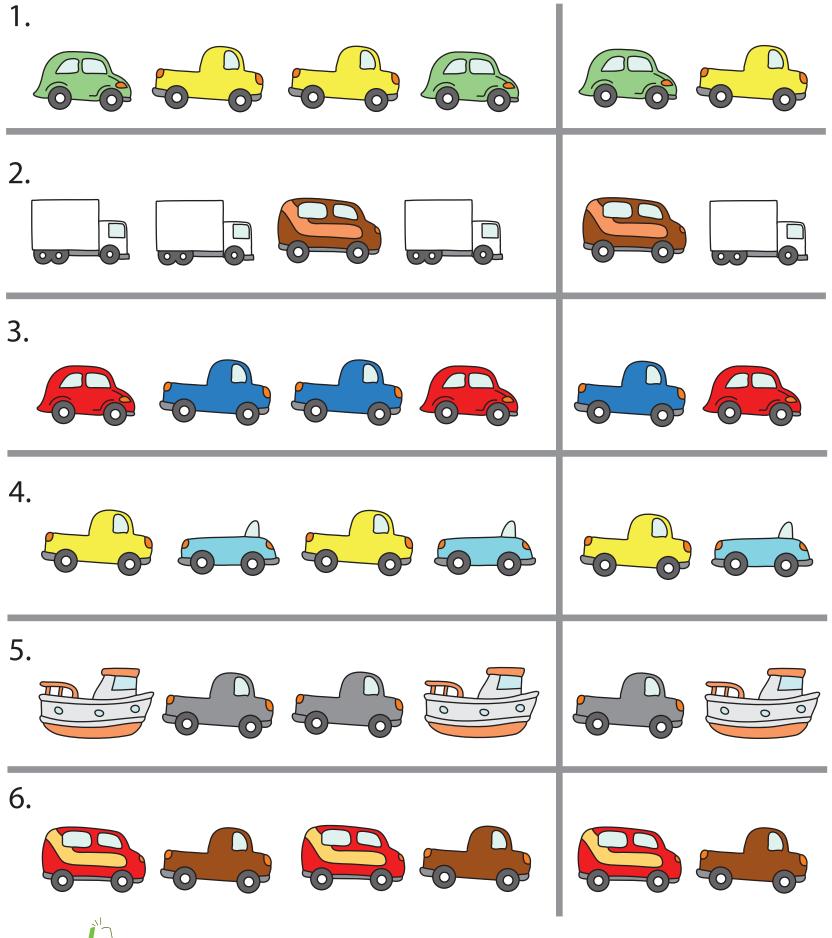
Which vehicle comes next? Circle the correct answer.

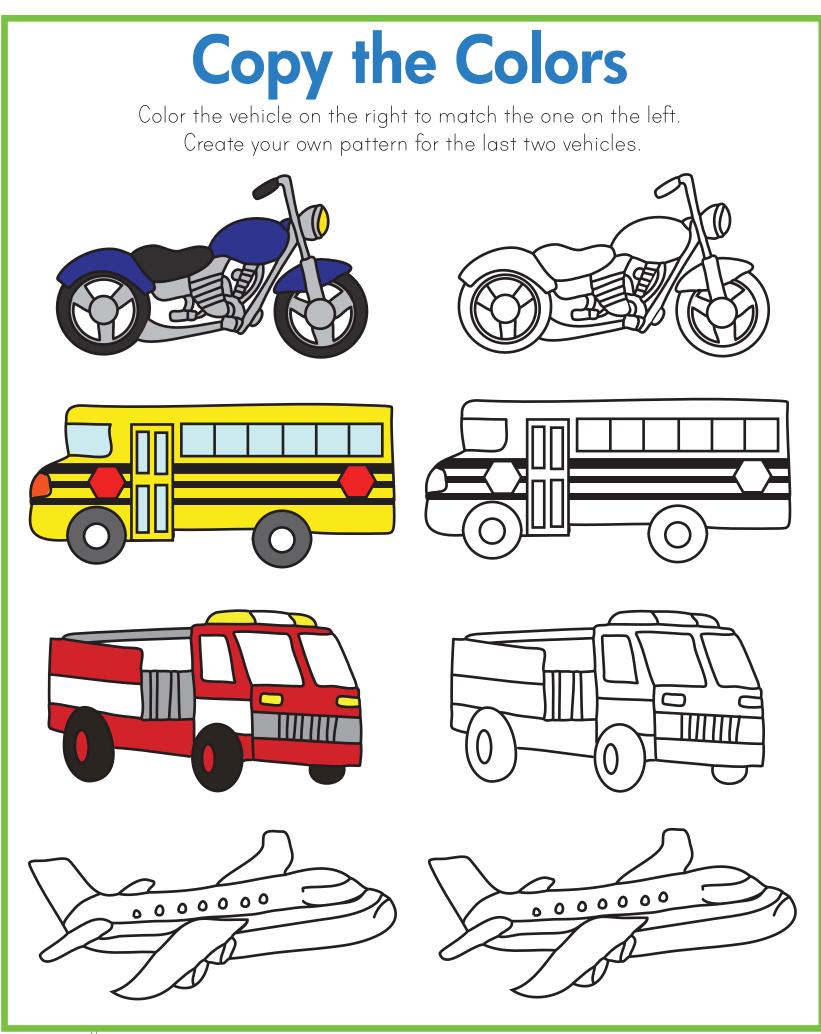


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## Finish the Pattern

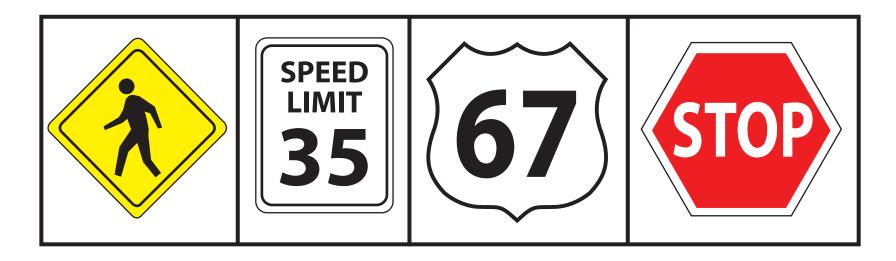
Which vehicle comes next? Circle the correct answer.

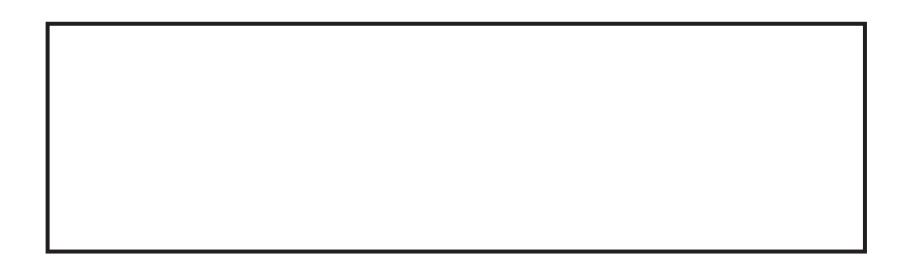




# **Copy the Pattern**

Cut out the traffic signs. Look at the pattern below. Paste the traffic signs in the same order.



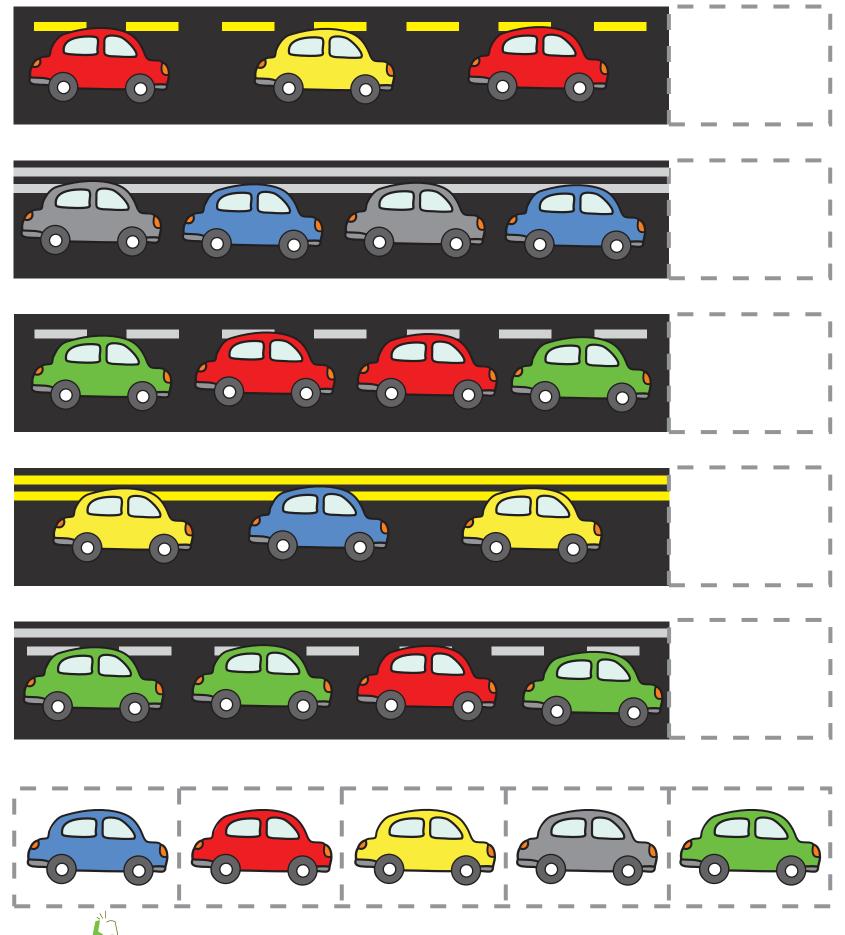




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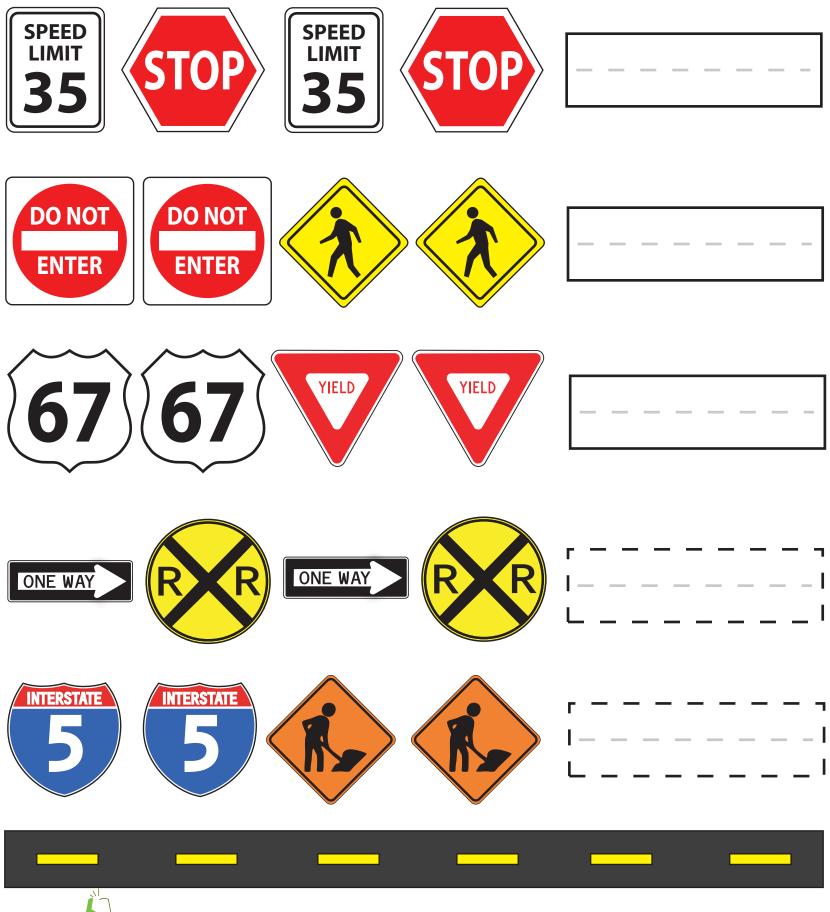
## **Cars on the Road**

Which car comes next? Cut out the cars below. Paste them where they belong.



## What Kind of Pattern?

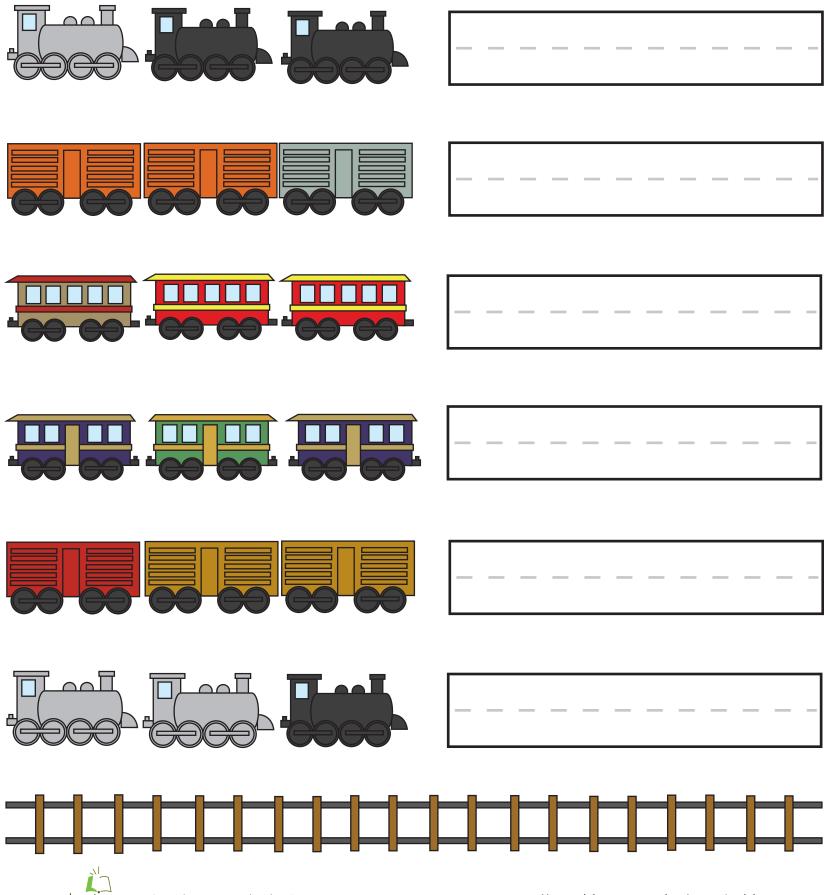
Look at the patterns below. Write whether they are ABAB or AABB.



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## What Kind of Pattern?

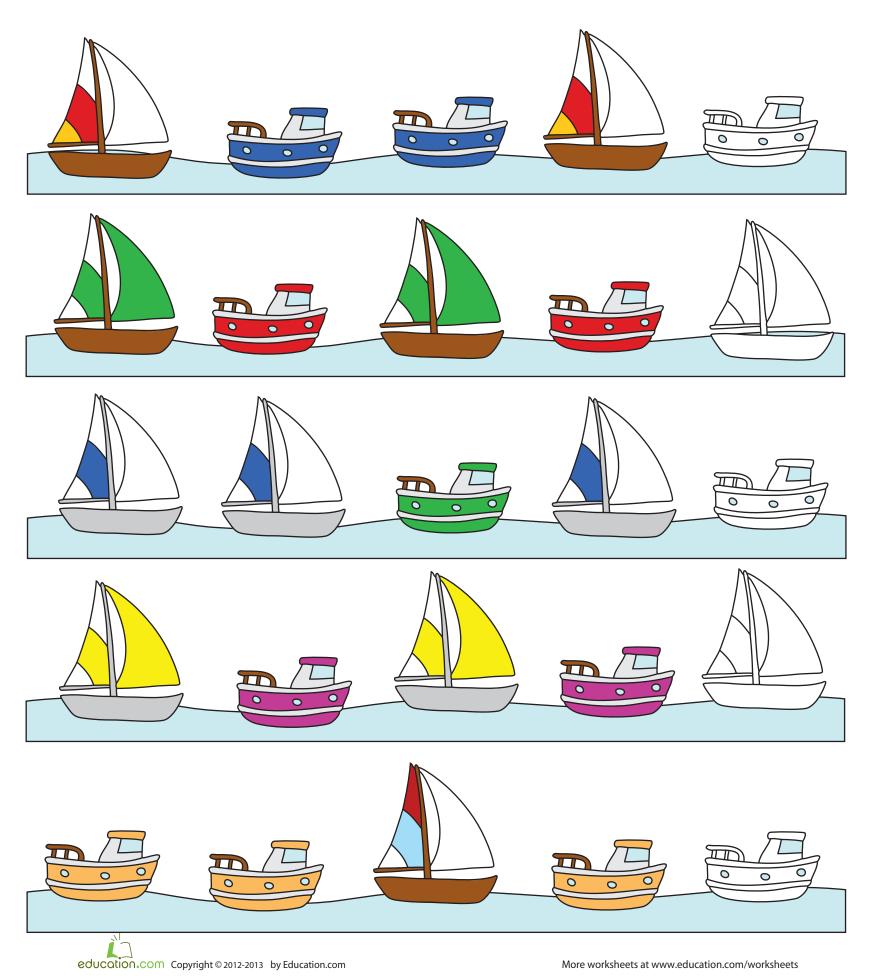
#### Look at the patterns below. Write whether they are ABA, AAB or ABB.

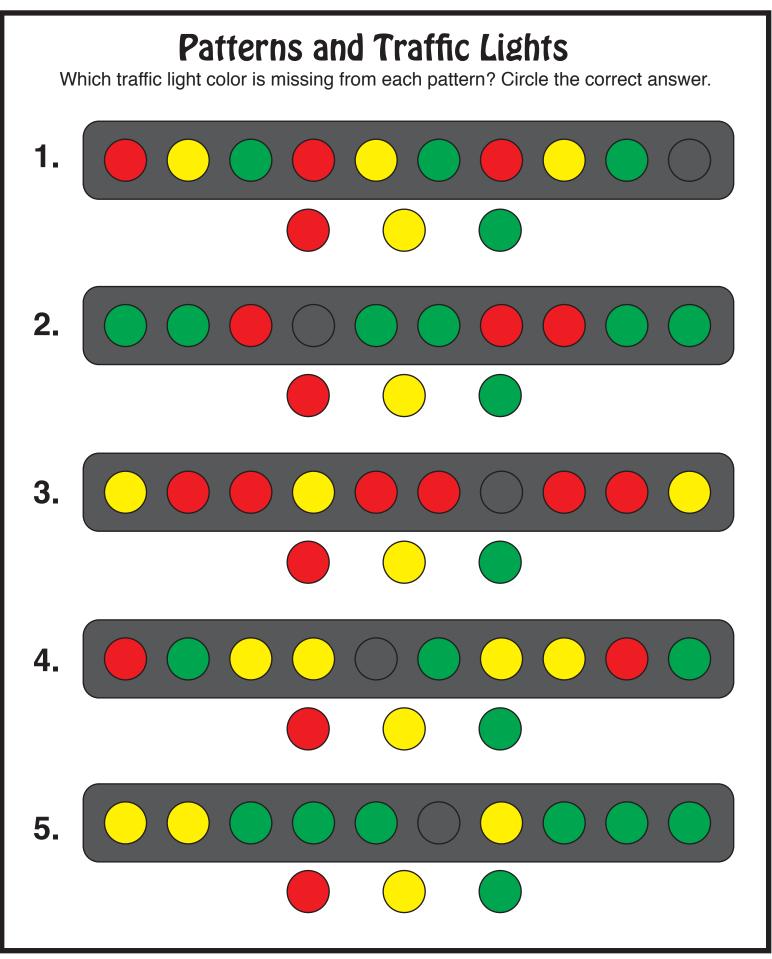


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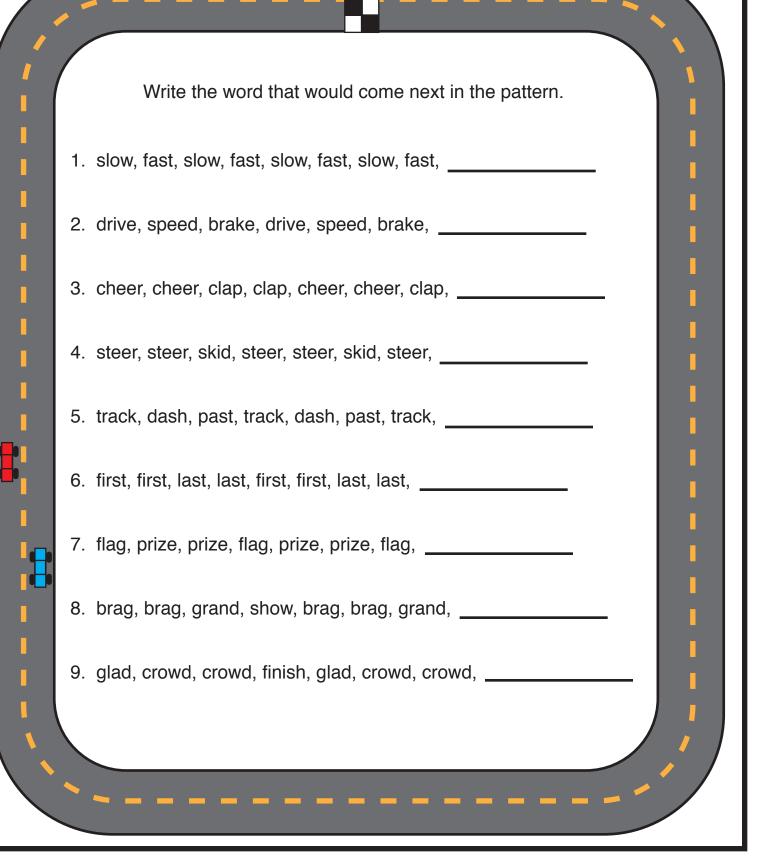
## **Boats on the Water**

Color the last boat on the water to complete the pattern.

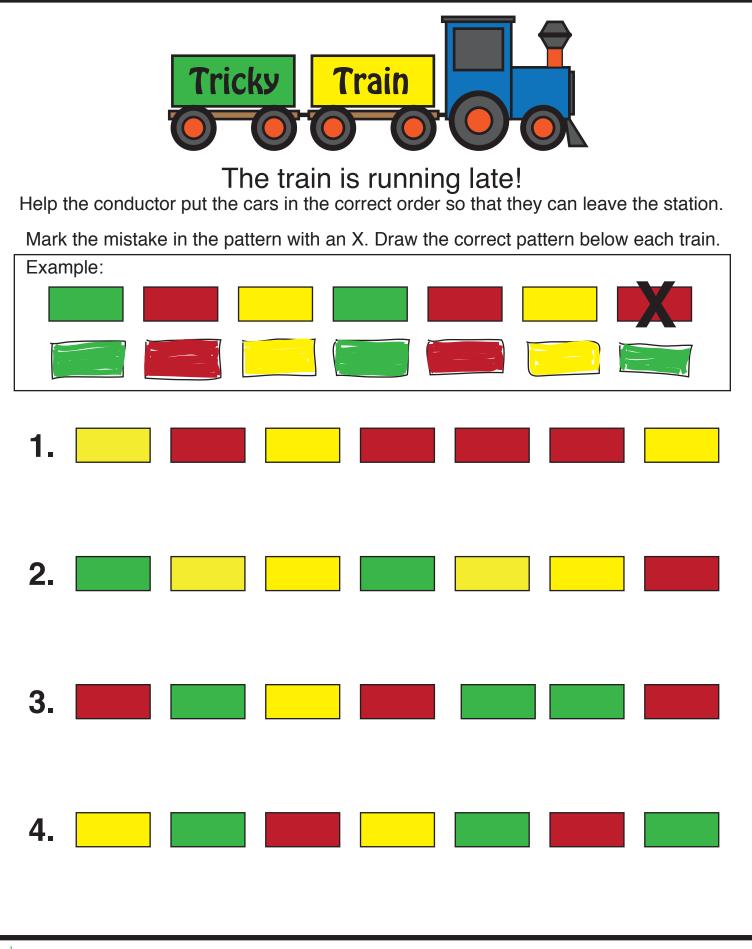




### Finish the Race



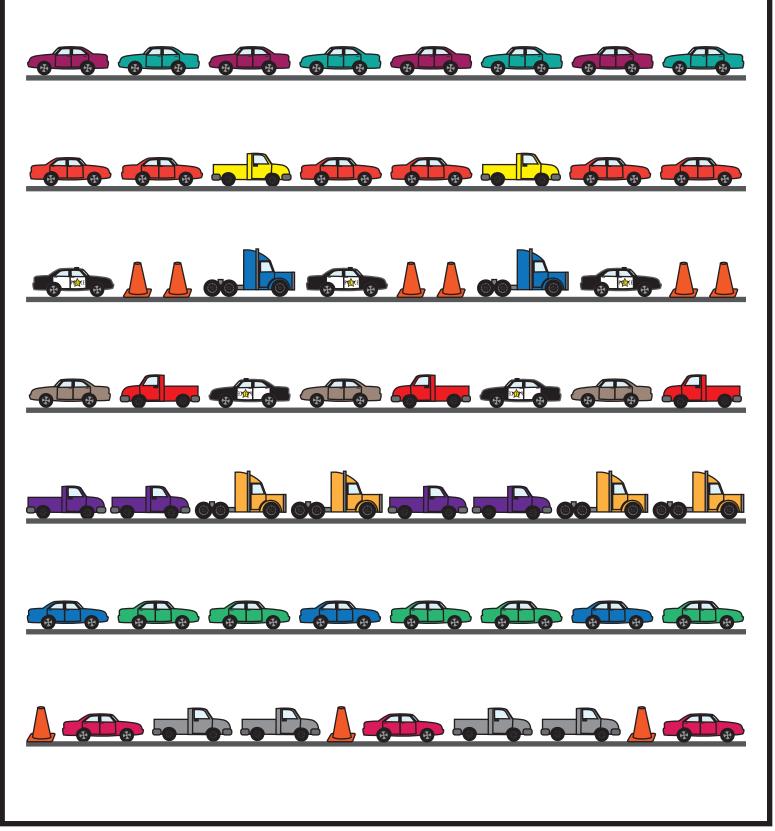
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#### **Traffic Jam**

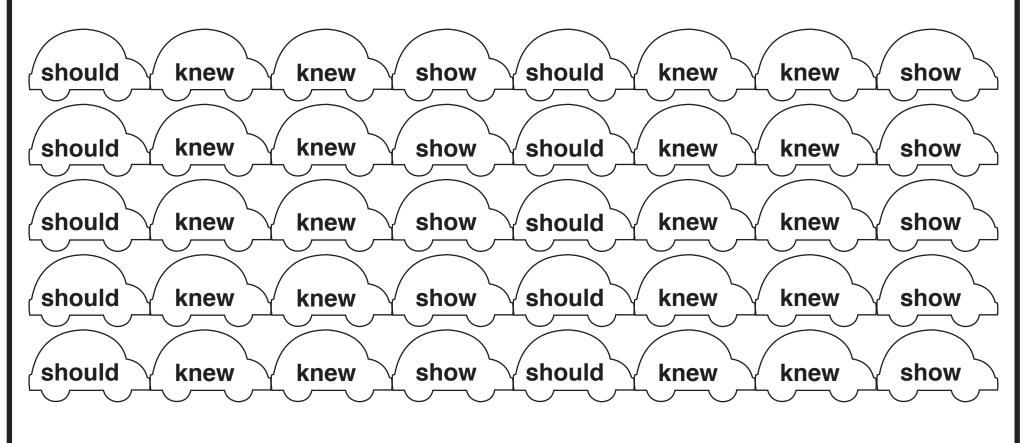
Main Street is super busy! Circle the part that repeats in each pattern.



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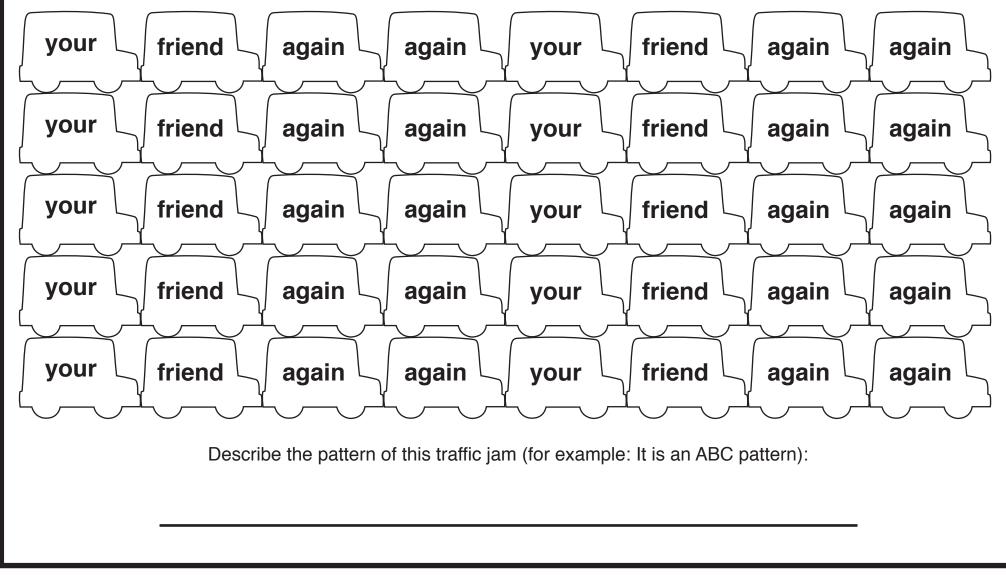
Look at all these cars! Color all the "knew" cars blue. Color all the "show" cars red. Then color all the "should" cars green.



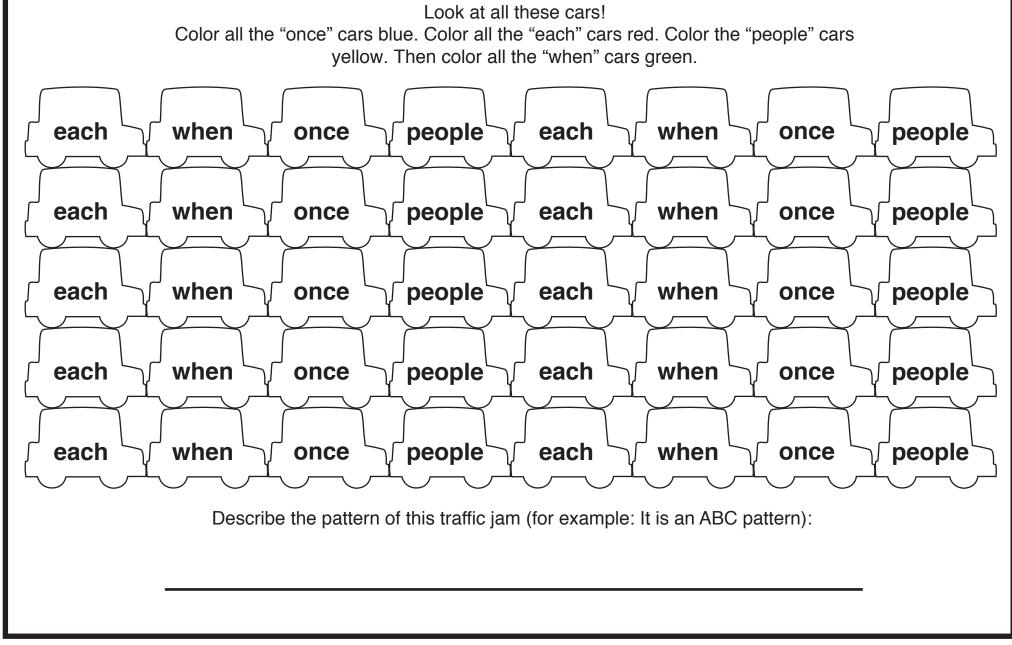
Describe the pattern of this traffic jam (for example: It is an ABC pattern):



Look at all these cars! Color all the "again" cars purple. Color all the "your" cars pink. Then color all the "friend" cars yellow.



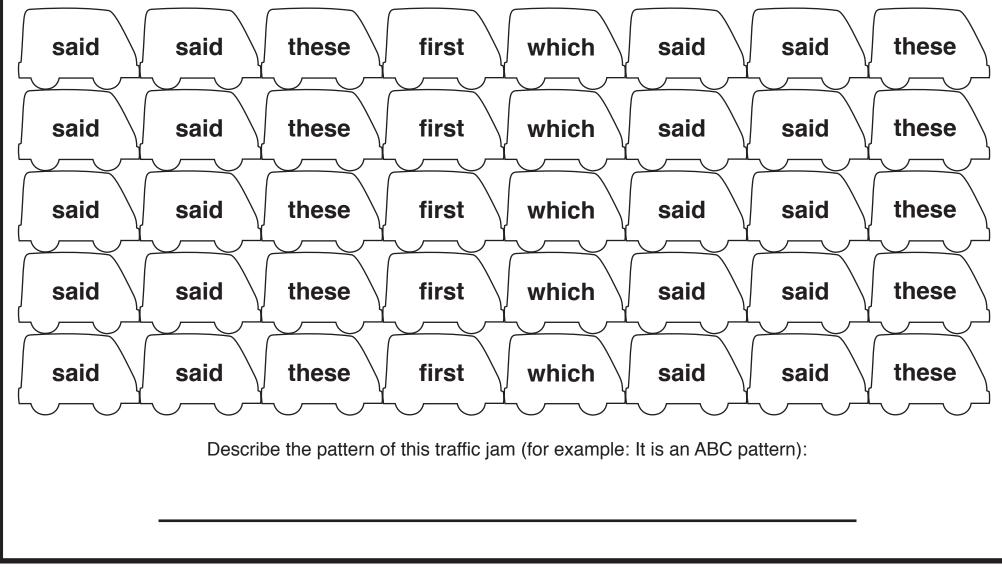






Look at all these cars!

Color all the "these" cars purple. Color all the "which" cars pink. Color all the "said" cars green. Then color all the "first" cars yellow.





### Patterns on a Hundreds Chart: Rows

When we look at rows, we are looking at the numbers that go across the chart.



Look at each row and find the number that repeats. Write the number on the line at the end of each row.

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

### Patterns on a Hundreds Chart: Rows

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

Look at the numbers highlighted in yellow.

What do these numbers have in common?

Which number in the second row does not belong?\_\_\_\_\_

Now look at the numbers highlighted in orange.

What do these numbers have in common?

Which number in the third row does not belong?\_\_\_\_\_



### Patterns on a Hundreds Chart: Columns



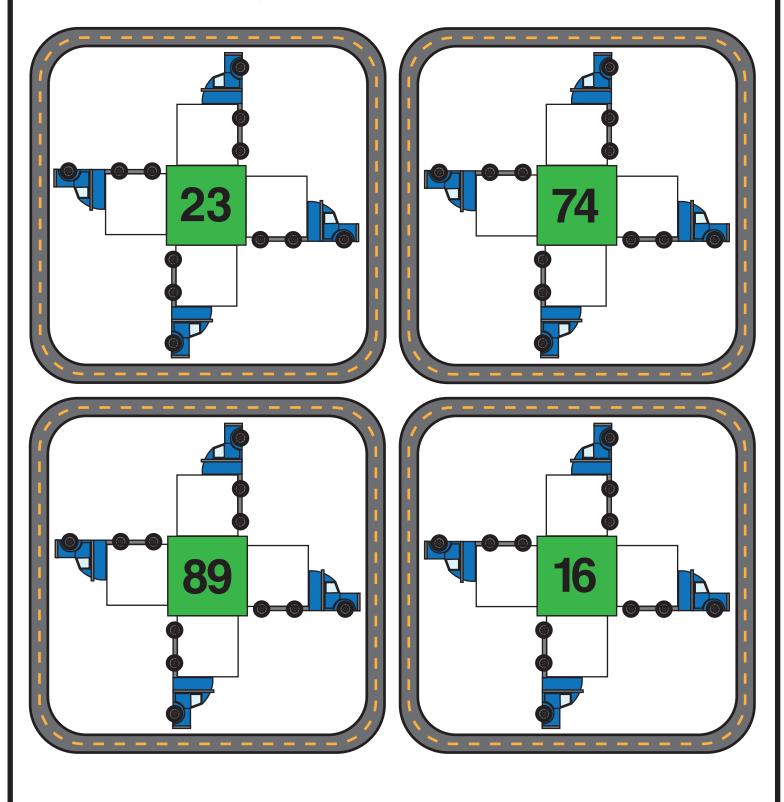
When we look at columns, we are looking at the numbers that go down the chart.

Look at each column and find the number that repeats. Write the number on the line underneath the column.

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

### **Driving in All Directions**

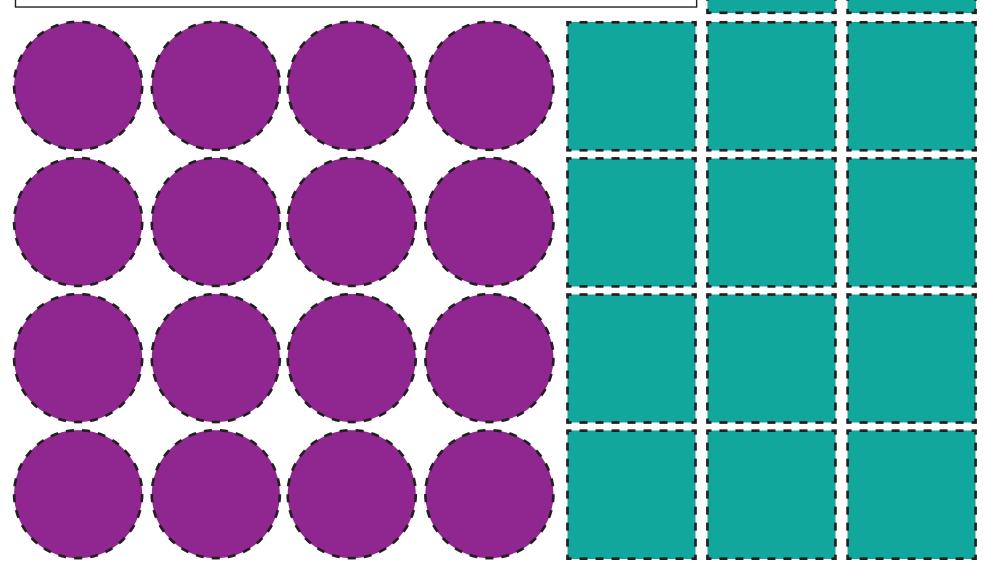
Find the number in the box on a hundreds chart. Fill in the number that is above it, below it, and to the left and right of the number. Tell your grown-up about any patterns that you see.

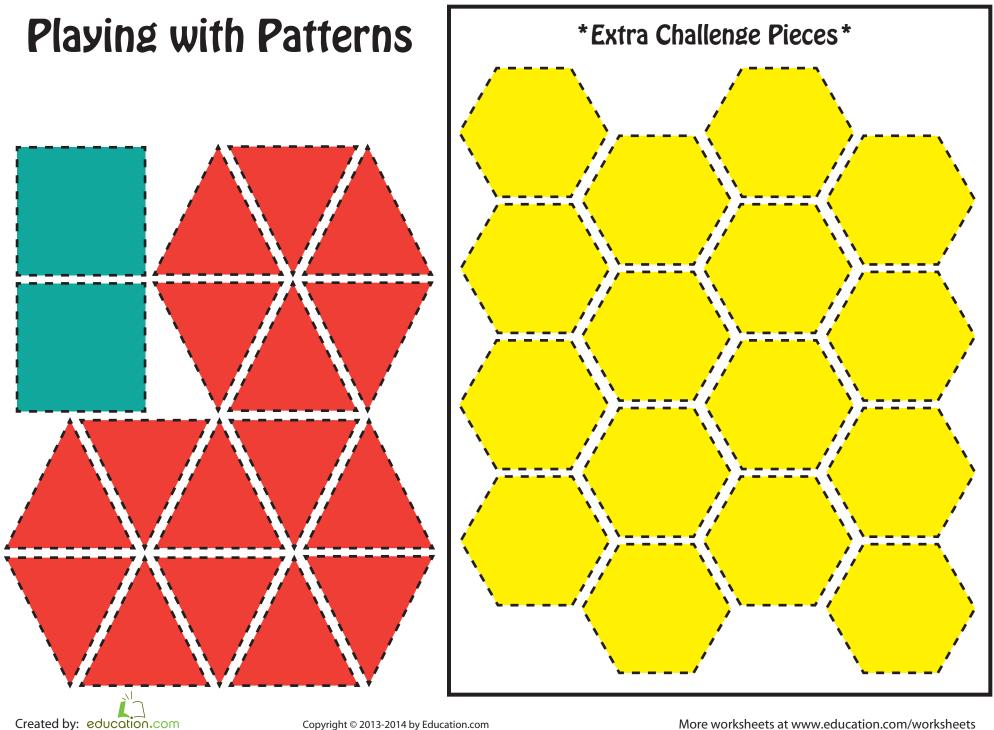


Set Up (2-4 Players): ~ Cut out the cards and pieces. Place the cards face down. Each player gets 4 of each shape.

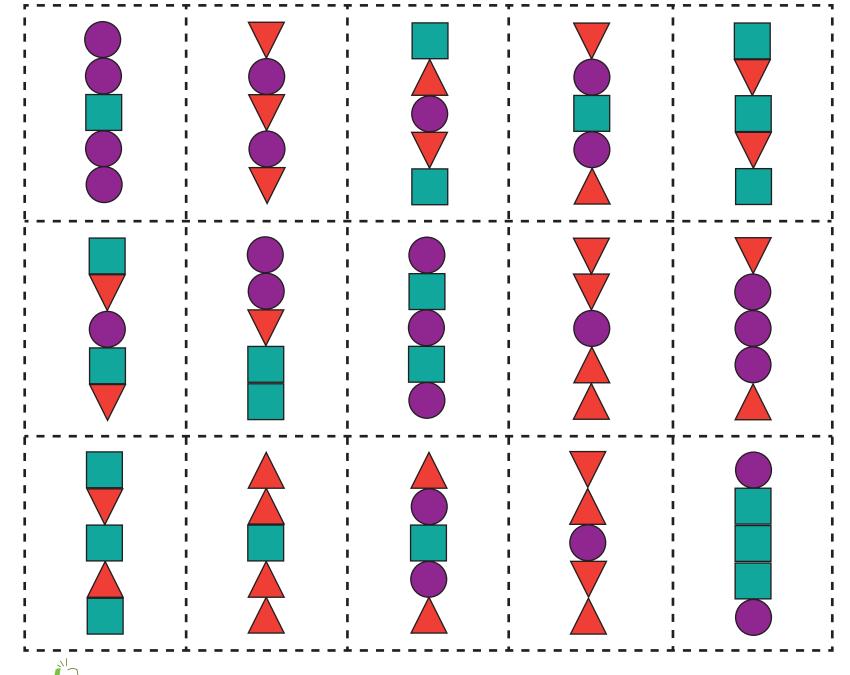
#### To Play:

- Flip over a card. The first player to duplicate the pattern gets the card.
   Whoever collects the most cards wins!



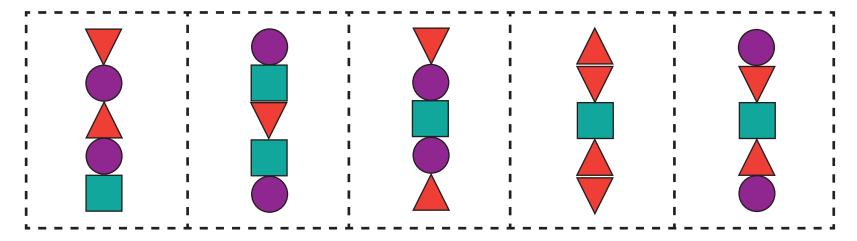


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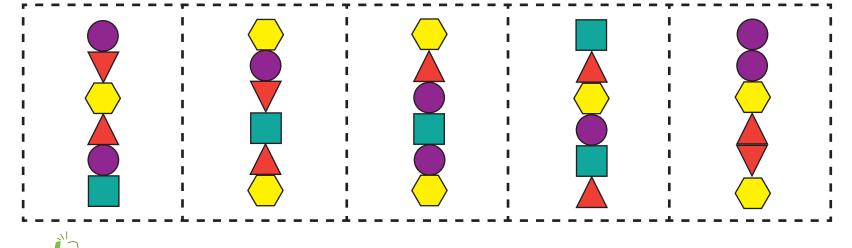
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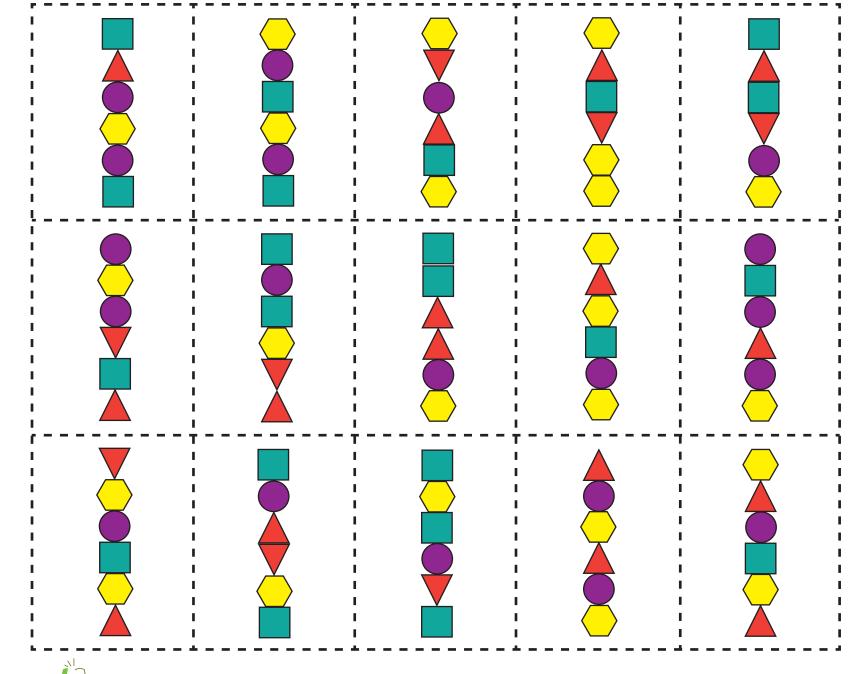
#### \*Extra Challenge

Are you ready for more of a pattern challenge? Then cut out the extra challenge pieces and the rest of the cards!



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#### **Cereal Patterns** by Sue Bradford Edwards

Practice patterning the fun way—by playing with your food! Using colorful cereal and pipe cleaners, you can help your child create crunchy, edible patterns. Start with a simple ABC pattern and advance to more complicated ones as she works on her fine motor skills and understanding of patterns. Plus, she can nibble while she works.

#### What You Need:

- Fruit Loops or other O-shaped cereal in a variety of colors
- Small bowls or cups
- Scissors
- Pipe cleaners
- Masking tape

#### What You Do:

- 1. Have your child sort some of the cereal by color, putting each color in a separate bowl or cup. She can also do this on a plate or cutting board.
- 2. Help her twist two or three pipe cleaners together at the ends to reach just over one foot long. Do this two more times so that she has three foot-long strings.
- 3. Have her gather groups of cereal pieces in three different colors. Can she lay out an ABC pattern on the table? Get her started threading this pattern onto the string. Encourage her to thread at least six repeats.
- 4. If necessary, sort more cereal!
- 5. What other patterns can she make? Ask her to again choose three colors of cereal. Now have her string an AA BB CC on the next string, again making several repeats.
- 6. Now it's your turn! Choose four different cereal pieces. On the table, lay out an A BB CCC DDDD pattern. Ask your child to describe the pattern to you. Now have her string an A BB CCC DDDD pattern of her own.

When you're all done, the cereal can be hung outside for birds or unstrung to make a snack for your young pattern maker.



#### Nuts and Bolts Sorting Activity by Gina Dal Fuoco

Does Dad's toolbox need to be tidied up? Get your child to help you clean while sneaking in a little math along the way. Sorting objects by size, color, shape, or function is an important concept in mathematical reasoning, and it's the perfect excuse for a little housekeeping!

#### What You Need:

- Various small objects found in a toolbox (screws, nuts, bolts, nails, washers, etc.)
- A sandwich bag

#### What You Do:

Give your child a sandwich bag full of nuts, bolts, screws, and washers. Tell her that you need her help. Together you're going to organize these objects and clean up the toolbox or drawer. Now let the sorting begin!

Several key skills make up the nuts and bolts of early math. Here are three ideas for using your actual nuts and bolts (and screws!) to give your child some practice.

**Sorting**: Give your child the bag and ask her to organize the contents into groups. When she's finished, ask her why she chose to group them in that way. Then challenge her to find another way to group the objects. For example, she might put the screws and nails together because they're all the same length, or the washers and bolts together because they are round. Another way to sort might be screws and nails together because they're silver, and other pieces because they're brass.

**Creating Sets**: Can your child match things up that work together? Talk to her about the way in which the objects in the toolbox are used. For example, screws and bolts work together as a pair. Ask her to group them. Then ask some questions like "Are there enough of each?" "Which one has more or less?" and "How many more do you need to have equal groups?" This will help your child to see the relationship between the sets, which will serve her well as she begins to move onto more abstract math concepts.

**Patterning**: When many parents think of patterning practice, they think of beads. But kids can practice patterning with other objects, too! Ask your child to dump out her bag of materials on a table and show her how to create what teachers call an AB pattern. For example, washer, bolt, washer, bolt. Ask your child if she can add to the pattern. What comes next? Once she's comfortable with the AB pattern, challenge her to create her own pattern for *you* to extend. Can she trick you with more and more intricate patterns? Let her try! And be sure to play along. Building patterns teaches children to look for relationships, which will help them later with number combinations.

Math experts agree that young children need many opportunities to practice their math knowledge. Playing "Nuts and Bolts" with your child gives her the opportunity to work on three of them. And you might even get the toolbox or junk drawer cleaned up, too!



