

Binary Search Cards

Version 6: 16 numbers
In order on 4 by 4 cards
with an attached base card

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Cards: There are 3 squares with small sized number on one side only. There is a master card with all 16 numbers in squares on one side of the card. The other side of the master card has the 16 numbers in 2 groups of 8 in a small size.

Procedure:

Ask the student to pick a number from 1 to 16 inclusive (includes 16). Place one of the **squares** on a desk in front of the student. Ask them to rotate the card until the number they selected reads correctly (not sideways or upside down). Hand them a second square card and have them place this card on top of the first card so that the number they selected reads correctly. Hand them the third square card and have them place this card on top of the first two cards so that the number they selected reads correctly.

Hand them the master card with the side that has 2 sets of small numbers facing up and have them place this card on top of the three square cards already on the desk so that the number they selected reads correctly.

Pick the the entire stack and turn the pack so that the **top of the stack faces the student and the bottom of the stack faces you**. Read the number in the square opening. It will be their number. Put the cards on the table separately so they do not see the number in the square. You can repeat this trick immediately with any other student.

Preparation:

1. Print the cards on the next 3 pages
2. Cut out the large rectangle. Fold the rectangle at the center line shown. Tape the open sides together along the edges. This will be called the **master card**.
3. Cut out each of the 3 large squares. Cut out each of sections marked "cut out this part"

Note: You could have 4 hole cards and a separate base card if you reworked the cards. That would make this trick just like the other ones. The hole cards and the base cards work in a different way in this version. The four hole cards are placed on the desk face up. The base card is beneath the last hole card put down. You must turn the stack over to see the number on the base card. The nice part of this effect is that the selected number is the only number seen.

Cut out the large rectangle. Fold the rectangle at the center line shown. Tape the open sides together along the edges. This will be called the **master card**.

Master card

5, <u>6</u> , 7, 8 11, 12, 14, 15					
1, 2, 3, 4 9, 10, 13, 16					
Fold here -----> and tape the back to the front	8	14	<u>9</u>	16	<----- Fold here and tape the back to the front
	7	12	2	1	
	10	13	<u>6</u>	11	
	4	3	5	15	

Cut out each of the 3 large squares. Cut out each of sections marked "cut out this part"

1 , 2 , 3 , 4 , 5 , <u>6</u> , 7 , 8	
Cut out this part	
15 , 16	
12 , 13 , 14	
<u>9</u> , 10 , 11	Cut out this part

	Cut out this part	2 , 4 , <u>6</u> , 8
		<u>9</u> , 10 , 11 , 14
		Cut out this part
12 , 13 , 15 , 16		
1 , 3 , 5 , 7		

3 , 4 , 7 , 8

10 , 12 , 13 , 14

9 , 11 , 15 , 16

1 , 2 , 5 , 6

Cut out

this

part