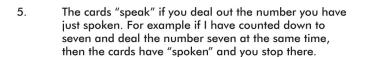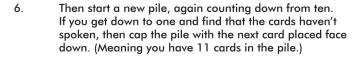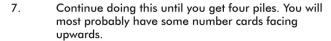# Johnny Ball's favourite **Card Trick**

1. Make sure you have a complete set of 52 cards without the jokers.

2. Deal out nine cards. Get a pupil to select a card from these nine and show it to the class, but make sure you don't see it.

3. Put their selected card on the top of the other eight cards. Put the nine cards on the bottom of the pack. As you can see, the special card is now in the 44th position.

4. Now start dealing out the pack, counting down from ten. You are waiting for the cards to "speak" to you. With younger pupils it is probably a good idea to make a bit of a show of this.

5. The cards "speak" if you deal out the number you have just spoken. For example if I have counted down to seven and deal the number seven at the same time, then the cards have "spoken" and you stop there.

6. Then start a new pile, again counting down from ten. If you get down to one and find that the cards haven't spoken, then cap the pile with the next card placed face down. (Meaning you have 11 cards in the pile.)

7. Continue doing this until you get four piles. You will most probably have some number cards facing upwards.

Ask the class what you could do with these numbers. (Hopefully after some directed prompting the class will suggest you add these numbers and maybe even that you deal out that number of cards from the remainder of the pack.) In the example, the upturned numbers add up to 17. Now deal out 17 cards and turn over the 17th card. Miraculously, this will be the card chosen at the beginning.

8. **On the very rare occasion that the cards don't speak, turn over the card that you are capping the fourth pile with. This will be the special card.**

Explanation: Get the pupils to notice where you put the special card. (It is always in the 44th position.) This trick is all about a special way of counting to 44.

Imagine if no cards spoke. Then you would find that you would have four piles of eleven cards and the 44th card would cap the final pile.

However if the cards do speak, then notice what happens. If the card speaks on "seven", then you have counted out four cards and are seven cards short of eleven. If the cards speak on "five", then you have counted out six cards and are five cards short of eleven. The upturned cards are telling you how many cards you need to make piles of eleven. So overall, if you add up the numbers on the upturned cards, it will tell you how many cards you need to count out in order to make 44 cards.