

Dodgy Dice



You need: a red dice labelled 0, 1, 7, 8, 8, 9; a blue dice labelled 5, 5, 6, 6, 7, 7; a yellow dice labelled 3, 4, 4, 5, 11, 12; a classmate

ACTIVITY

1. Look at the three dice. Think about which would be the best dice to use in a competition based on the highest points rolled. Why have you chosen that particular dice?
2.
 - a. Keep for yourself the dice you chose in question 1. Get your classmate to pick one of the other dice. Each player rolls their dice. The player whose dice shows the highest number gets 1 point. Which colour dice is the first to win 3 points? What about 5 points?
 - b. The loser swaps their dice with the winner, and they play again. Which dice is first to 5 points this time?
 - c. Continue playing until you have found the best dice. Explain what you found out.
 - d. Try increasing the number of points you need to win (for example, to 10 points). Does this make a difference to which dice is best?

3.
 - a. Complete this table so that it shows which dice wins for each combination of blue and red numbers:



		RED DICE					
		0	1	7	8	8	9
BLUE DICE	5	B	B	R	R		
	5						
	6						
	6						
	7						
	7						

- b. What information does the table give you?
 - c. Draw results tables for the blue dice versus the yellow dice and the yellow versus the red.
 - d. What would you expect to happen when the blue dice competes with the yellow dice?
 - e. What would you expect to happen when the yellow dice competes with the red dice?
4.
 - a. Invent a fourth dice. If possible, it should beat one of the three dice and be beaten by another.
 - b. Make results tables that show that your new dice can beat and be beaten by one of the other dice.