Six Ten Total

Stage: 2 ★ ★

Take sixteen dice - six of one colour and ten of another.
Here we use blue and red.

Warm up: check the total of the faces showing is 84 when the dice are arranged as shown:

To play the Six Ten Total challenge:

- all the blue need to have the same number on the top
- all the red need to have the same number on the top
- there always needs to be six of one colour and ten of the other
- the red dice have to use a different number to the blue
- there is always a difference of two between the numbers on the blue and red dice.

THE MAIN CHALLENGE

What are the possible arrangements when you choose your own numbers for the dice using the rules above?
What is the total for each of these arrangements?
What do you notice about your arrangements and the

corresponding totals?
Explain what you notice. What else do you notice?