Year 3 - SCHOOL FAIR NECKLACES ANSWERS

On Friday we worked on the necklaces problem in our maths group.
We used some different coloured counting blocks (unifix) to make symmetrical patterns of eight blocks with two colours.
We figured out that with those blocks we could make six different combinations that were symmetrical (see picture). And then we figured out that it didn't matter if you cut half of it off because they are symmetrical, so the halves are exactly the same.
We found six different towers of four blocks, two of each colour (see at the bottom of the photo). So therefore there are six possible ways you can do it.



I started with nine beads and worked out that because it has to be symmetrical the bead at the bottom must be of one colour because the clue says four beads of one colour and five beads of the other colour. So I thought yellow could be at the bottom and my pattern was:
Y,G,Y,G,(Y),G,Y,G,Y.
Then I worked out 13 beads. I thought because it is another odd number the bead at the bottom must be the colour of bead with the most in it. So I worked out the pattern which was
Y,G,Y,G,Y,G,(Y),G,Y,G,Y,G,Y.
Then I tried to work out what 10 was. Then I tried it and thought that it wouldn't work because it was even but I was wrong. So I tried it again and got the pattern right which was:
Y,G,Y,G,(Y)(Y),G,Y,G,Y.
I then moved onto 12. Because 10 worked 12 MUST work so I worked out the pattern which was: Y,G,Y,G,Y,(G)(G),Y,G,Y,G,Y.
Finally, I did 11 beads. And worked out the pattern which was:
G,Y,G,Y,G,(Y),G,Y,G,Y,G.