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| --- | --- | --- | --- | --- | --- | --- |
| Size of Cube | | Total number of small cubes | 3 faces painted yellow | 2 faces painted yellow | 1 face painted yellow | 0 faces painted yellow |
| 2³ | 2x2x2 | 8 | 8 | 0 | 0 | 0 |
| 3³ | 3x3x3 | 27 | 8 | 12 | 6 | 1 |
| 4³ | 4x4x4 | 64 | 8 | 24 | 24 | 8 |
| 5³ | 5x5x5 | 125 | 8 | 36 | 54 | 27 |
| 6³ | 4x4x4 | 216 | 8 | 48 | 96 | 64 |
| Patterns we discovered:  We found the patterns for the 3 yellow faces and the 2 yellow faces columns but needed some help from our teacher to find the patterns for the last 2 columns | | | Always 8 because there are always 8 vertices however big the cube is | This number goes up in 12s as each of the 12 edges gains a new cube each time | This is a little square in the middle of each face. Each number is a square number X 6 | These are the cubes inside where the paint doesn’t reach. They make up a smaller cube and are all cube numbers.  (Look how they link to total number of cubes) |