**7(3) NUMBER into ALGEBRA**

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| **Title** | Describing Sequences |
| **Hours** | 1 |
| **Aims** | * Find a term to term rule * Finding an nth term rule * Using an nth term rule to find any term in a sequence. |
| **Pedagogy** | * Fluency |
| **Activity**  **(details)** | Starter  Show pupils the sequences, give them the opportunity to think / pair /share ways in which they could describe the sequences. You may need to give them a visual representation of the triangle numbers.  Main Activity  Show pupils the sequence created out of Numicon. These have been used to provide a visual representation of why the sequence is increasing by 2 each time, as two blue circles are added each time. Draw out from pupils that the blue circles represent the two times table but there are also three yellow circles in each diagram, the number of yellow circles does not change. Draw out through discussion the concept of pattern number x 2 + 3 and explain how this can be expressed as 2n + 3. Pupils then choose an appropriate level of challenge to work on.  Plenary  Ask pupils to explain their rules to the class. |
| **>H** | **To begin to explore quadratic sequences.** |
| **H** | To describe a sequence using a position to term rule / nth term rule and use it to find any term in the sequence. |
| **M** | **To describe the sequence using a term to term rule and use the term to term rule to predict the 6th and 7th pattern in each sequence.** |
| **L** | **Be able to count the number of squares in each sequence.** |
| **<L** | Be able to draw the next two diagrams for each sequence. |