## Numeracy Gr 3 January 25

## Activity 2: Making a Rule for Growing Patterns

## Materials Needed:

- Pencil and paper, small objects to make patterns with or coloured pencils.


## Task Instructions:

Now we are going to move from extending growing patterns to describing a general rule for how the patterns are growing.

For each of these tables of values, have your child fill in the missing numbers.

| Term \# | 1 |  | 3 |  | 5 | 6 | 10 | ANY <br> NUMBER |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| \# of <br> Parts | 1 | 3 | 5 | 7 |  |  |  |  |


| Term \# | 1 | 2 |  | 4 | 5 | 6 | 10 | ANY <br> NUMBER |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| \# of <br> Parts | 1 | 4 | 6 | 8 |  |  |  |  |


| Term \# | 1 | 2 | 3 | 4 | 5 | 6 | 10 | ANY <br> NUMBER |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| \# of <br> Parts | 5 | 10 | 15 | 20 |  |  |  |  |



After they can do and understand these tables, have them create their own patterns, make a table of values for it, and then make a rule for the pattern. For example the bricks in the picture below are arrange as $5,10,15 \ldots$.the rule is to go up by 5 each time. Repeat.

## Parent Tips:

These patterns will be easier for the student to understand if you use blocks or draw diagrams.

| Term <br> $\#$ | 1 | 2 | 3 | 4 | 5 | 6 | 10 | ANY <br> NUMBER |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| $\#$ of <br> Parts | 1 | 3 | 5 | 7 | 9 | 11 | 19 | Add 2 to the <br> previous <br> number |


| Term <br> $\#$ | 1 | 2 | 3 | 4 | 5 | 6 | 10 | ANY <br> NUMBER |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| \# of <br> Parts | 1 | 4 | 6 | 8 | 10 | 12 | 20 | Double the <br> number |


| Term <br> $\#$ | $\mathbf{1}$ | $\mathbf{2}$ | $\mathbf{3}$ | $\mathbf{4}$ | 5 | 6 | 10 | ANY <br> NUMBER |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| \# of <br> Parts | 5 | 10 | 15 | 20 | 25 | 30 | 50 | Multiply by 5 <br> for each <br> number |

If you would like to check on your child's understand of patterns, look at the series of questions here.

