





Numeracy Blockers

| Blocker | Example | | | | |
|--|--|---|---|----|--|
| <p>➤ The 5 counting principals:</p> <ol style="list-style-type: none"> 1. Each object must be counted once. 2. Each number is said only once in a set pattern. 5. The last item touched tells 'how many' are in the collection. 3. The items counted can be 'touched' in any order, and where you start or the order you count in does not change how many there are. 4. The arrangement of the items does not change the total amount. | <p>(in this order, as they are <u>generally</u> the order in which they are learnt)</p> | | | | |
| <p>➤ Subitising: 1-6 and then beyond. (knowing how many there is in a pattern without counting)</p> | <div style="display: flex; justify-content: space-around; align-items: center;">     </div> | | | | |
| <p>➤ More/less, same/different</p> | <p>A pile or row of 10 items is less than 15 A pile of 10 'units' is the same as a row of them, or as a 'long'</p> | | | | |
| <p>➤ Before and after without starting at one.</p> | <p>What number comes one before eleven? What number comes ten after one hundred?</p> | | | | |
| <p>➤ Mental and concrete number lines.</p> | <p>Using whole numbers to start with, then using decimal numbers, fractions and negative numbers. Number lines can be horizontal and/or vertical, calibrated or not</p> | | | | |
| <p>➤ Part, Part, Whole: start unknown, change unknown, answer unknown</p> | <table border="1" style="width: 100%; text-align: center;"> <tr> <td style="width: 50%;">3</td> <td style="width: 50%;">7</td> </tr> <tr> <td colspan="2">10</td> </tr> </table> <p>___ + 5 = 10, 5 + ___ = 10, 5 + 5 = ___</p> | 3 | 7 | 10 | |
| 3 | 7 | | | | |
| 10 | | | | | |

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|---|--|-------------|-------------------|--------------|----------------|-----|---|--|--|--|-------------------|--|--|---------------|---------------|-------------|------------|--------------|----------------|
| <ul style="list-style-type: none"> ▪ A known bank of mental number facts: 'rainbow numbers' <ul style="list-style-type: none"> • Doubles • Halves • Skip counting ➤ Place Value partitioning strategies. ➤ Mental and concrete arrays. ➤ Multiplicative sense of place value and the repetition of the one, ten, hundred pattern. ➤ The repetitive PV pattern is symmetrical at the 'ones' or 'units' column, not the decimal point. | <p>3+7=... 4+6=... leading into 28+2= and 60+40= etc</p> <p>2+2=... 4+4=...</p> <p>Half of 2 is 1, half of 10 is 5, leading into half of 3 is 0.5, etc</p> <p>By 2, 3, 5, 10, etc, leading into 20, 50, 100, etc</p> <p>13+14= 10+3+10+4= 20+7= 27</p> <p>13x6= 10x6 + 3x6= 60+18= 78</p> <p>••••</p> <p>•••• = 4x3</p> <p>••••</p> <p>Ones (units), tens, hundreds, (one) thousands, ten thousands, hundred thousands, (one) millions, ten millions, hundred millions, (one) billion, ten billions, hundred billions...etc</p> <p>Leading into tenths, hundreds, (one) thousandths, ten thousandths...etc</p> | | | | | | | | | | | | | | | | | | |
| | <table border="1" style="width: 100%; text-align: center;"> <tr> <td>10</td> <td>1</td> <td>100</td> <td>10</td> <td>100</td> <td>1</td> </tr> <tr> <td></td> <td></td> <td></td> <td>Point of symmetry</td> <td></td> <td></td> </tr> <tr> <td><u>10,000</u></td> <td><u>1000's</u></td> <td><u>100s</u></td> <td><u>10s</u></td> <td><u>10ths</u></td> <td><u>1000ths</u></td> </tr> </table> | 10 | 1 | 100 | 10 | 100 | 1 | | | | Point of symmetry | | | <u>10,000</u> | <u>1000's</u> | <u>100s</u> | <u>10s</u> | <u>10ths</u> | <u>1000ths</u> |
| 10 | 1 | 100 | 10 | 100 | 1 | | | | | | | | | | | | | | |
| | | | Point of symmetry | | | | | | | | | | | | | | | | |
| <u>10,000</u> | <u>1000's</u> | <u>100s</u> | <u>10s</u> | <u>10ths</u> | <u>1000ths</u> | | | | | | | | | | | | | | |