

<u>Finding All Possibilities</u> levelling criteria	
<p>Have a system for finding the possibilities (e.g. start with the smallest number)</p> <ul style="list-style-type: none"> • Can find some possibilities that match the context set (random) • Can find most possibilities that match the context set (random) • Notice links between possibilities, use them to find other answers (some systematic working) • Develop and apply a systematic approach after initially exploring the problem • Apply a systematic approach throughout the problem 	<p><i>Level 1</i> <i>Level 2</i> <i>Level 3</i> <i>Level 4</i> <i>Level 5</i></p>
<p>Organise the recording of possibilities (e.g. in an ordered list or table)</p> <ul style="list-style-type: none"> • Possibilities recorded in pictures or with practical resources (random) • Possibilities recorded in pictures or diagrams with some evidence of an order • Possibilities recorded in an ordered list or table using numbers / colours as appropriate • Record in an organised and clear way, using a suitable shorthand system (initial letters etc) and appropriate layout • Communicate findings in an appropriate way, with sufficient detail to enable others to interpret their work 	<p><i>Level 1</i> <i>Level 2</i> <i>Level 3</i> <i>Level 4</i> <i>Level 5</i></p>
<p>Use a method of tracking what has been included and what has not</p> <ul style="list-style-type: none"> • Needed adult support to check work or continue looking for possibilities • Some attempts made to check for repeats and missing answers • Refer to recording system adopted to find repeats and missing answers (independently) • Aware that all possibilities do not need to be recorded, able to predict with mathematical justification from results already obtained • Independently explore other linked problems with a view to developing a generalised solution (more / less variables) 	<p><i>Level 1</i> <i>Level 2</i> <i>Level 3</i> <i>Level 4</i> <i>Level 5</i></p>
<p>Have a way of deciding when all possibilities have been found</p> <ul style="list-style-type: none"> • Unable to discuss concept that all possibilities have been found • Able to describe verbally why they think they have found all possibilities • Be able to give some justification (spoken / written) for why all possibilities have been found • Be able to describe the solution to the problem investigated in words and symbols as appropriate • Able to construct a formulae for finding all possibilities using letters as symbols, or make a reasoned prediction about other linked problems (more / less variables) 	<p><i>Level 1</i> <i>Level 2</i> <i>Level 3</i> <i>Level 4</i> <i>Level 5</i></p>
<p>Best-Fit Assessed NC Level: <i>(It is <u>not</u> possible to sub-level an individual problem from this criteria)</i></p>	