



## How many possible ways are there to dress a rugby player?

<b>Activity title:</b>	Finding all possibilities
<b>Curriculum area:</b>	Mathematics
<b>NC objectives:</b>	1.1, 1.2, 1.3, 2.1, 2.2, 2.3, 2.4 & 4
<b>Main learning objective</b>	Developing logical strategies to find every possibility.

Timing	Lesson plan ideas, activities and resource sheets
INTRODUCTION 15 minutes	<ul style="list-style-type: none"> <li>Discussing different types of problems and strategies used to solve them. Word problems, identifying patterns, visual problems and puzzles, logical thinking and finding all possibilities. Try out a Sudoku using numbers and then one using rugby pictures.</li> </ul>
MAIN ACTIVITY 35 minutes	<ul style="list-style-type: none"> <li>The children will be given pictures of 4 rugby shirts, 4 pairs of shorts and 4 pairs of socks in handout 3.5a. They have to find as many ways as possible of dressing a rugby football player. They must find every possible combination without missing any out. Are they thinking logically? Are they writing possibilities in an orderly way or are they just writing down any combination which pops into their head? This activity may take 2 lessons. ...continued</li> </ul>



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MAIN ACTIVITY	<ul style="list-style-type: none"> <li>You could also give the students 3.5b so they could cut out and move the items of clothing around.</li> </ul>
PLENARY  10 minutes	<ul style="list-style-type: none"> <li>How many possibilities did they find?</li> <li>How did they record each possibility?</li> <li>How did they stop themselves from missing out a possibility?</li> </ul>

### Suggested extension activities or cross curricular links:

Could they work out all the possibilities without writing them all down?

How many possibilities would there be if there were just 3 tops, shorts and socks?

How many would there be if there were 5 of each?

The same activity could be done with numbers of handshakes if each member of a group shook hands with everyone else.

In other subjects logical thinking is important. As with this activity it is imperative a strategy is put in place to ensure that no possibilities are missed out.

**This activity is suitable for all types of learners. Low attainers will also find it interesting**