

## **MULTIPLICATION AND DIVISION GROWTH POINTS**

*0. Not apparent.*

Not yet able to create and count the total of several small groups.

*1. Counting group items as ones*

To find the total in a multiple group situation, refers to individual items only.

*2. Modelling multiplication and division (all objects perceived)*

Models all objects to solve multiplicative and sharing situations.

*3. Partial modelling multiplication and division (some objects perceived)*

Solves multiplication and division problems where objects are not all modelled or perceived.

*4. Abstracting multiplication and division (no objects perceived)*

Solves multiplication and division problems where objects are not modelled or perceived.

*5. Basic derived and intuitive strategies for multiplication*

Can solve a range of multiplication problems using strategies such as commutativity and building up from known facts.

*6. Basic, derived and intuitive strategies for division*

Can solve a range of division problems using strategies such as fact families and building up from known facts.

*7. Extending and applying multiplication and division*

Can solve a range of multiplication and division problems (including multi-digit numbers) in practical contexts

*8. Extending and applying multiplication and division*

Fractions and decimals

# Activities

## **Beat your best!**

This is a great way for your child to challenge themselves to practise their times tables.

## **Lots of**

Materials: 1 die, 1 set of cards numbered 1-5 per group, items to be used as counters  
Student rolls the die to determine how many “lots of” need to be made, and then draws a card to determine the group size. Eg. Roll 2 and draw 5, means make 2 groups of five. The student must then physically model these groups using the MAB or other items.

## **Colour to Win**

Materials: one grid sheet, 2 dice, coloured pencils

This activity will introduce the idea of commutativity to students. Each student takes turns to roll the two dice, and they then colour a regular shape as shown by the numbers on the dice. eg. roll 3 and 5, can shade a  $5 \times 3$  rectangle or a

$3 \times 5$  rectangle. Play then passes to the other student. Students aim to use the regular shapes to fill their grid sheet, If unable to colour a regular shape, play passes back to the other student. Encourage students to write the answer, such as  $5 \times 3 = 15$

## **Coin Toss**

Materials: cards numbered 1 – 9, one coin, calculator

One student draws two cards eg. 6 and 8. They then toss the coin, if it lands tails – division question heads – multiplication question.

The students must use the numbers drawn to make an appropriate algorithm.

eg. draw 6 and 8, toss heads algorithm could be either  $6 \times 8 = 48$  or  $8 \times 6 = 48$

draw 6 and 8 , toss tails algorithm could be either  $48 \div 6 = 8$  or  $48 \div 8 = 6$

Partner checks with the calculator and student scores one point.

Play then passes to the other student.

The first student to score ten points is the winner.