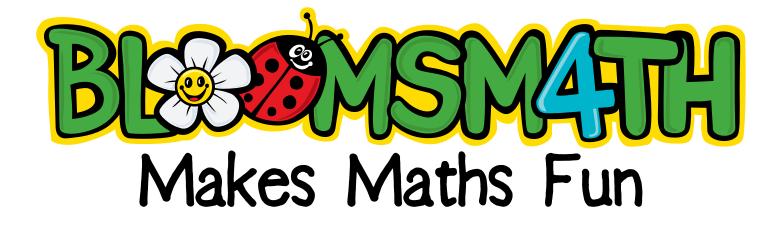


# **Multiplication & Division**

Bloomsmath is a comprehensive mathematics program which provides a fun way for every student to be learning to the best of their ability.

By Rachel McCann (B. Teach; B. Ed Hons; M. ED (Special Ed.)



## Also Available in the Level 1 Program

Whole Number Addition Subtraction Fractions & Decimals Probability Patterns & Algebra Data Length Area Volume Mass Time **3D** Shape 2D shape Position



# **Multiplication & Division**

Level 1 is designed for students in their first year at school. The Multiplication & Division strand allows students to group, share and record collections of objects.

Knowledge: Students count the stars which have been divided into varying groups and then draw stars in the given sets to learn how to group and share objects using 1 to 1 counting.



Students who demonstrate proficiency in this activity move on to Comprehension.



Students stop here as they require additional teacher support to master this activity.

Comprehension: Students use the stars and varying sets provided to find all 8 factors for the number 24.



Students who demonstrate proficiency in this activity move on to Application.



Students stop here if time has run out or they require additional support with this activity.

Application: Students use the groups of stars to identify fair and unfair groupings based on number of stars and the size of the stars in each set.



Students who demonstrate proficiency in this activity move on to Analysis.



Students stop here if time has run out or they require additional support with this activity.

Analysis: Students must share a varying number of stars among differing numbers of sets each time making fair groups of stars.



Students who demonstrate proficiency in this activity move on to Synthesis.



Students stop here if time has run out or they require additional support with this activity.

Synthesis: Students use a 1, 2, 3 and a regular die to produce the number of sets and stars and number of stars in each set and practice 1 to 1 counting to record this information in simple multiplication groupings.

Evaluation: Suggested questions and activities provide a starting point for discussions related to Multiplication & Division such as charting all the factor of 24.



Students may complete more or fewer activities for each learning outcome depending on the time allocated and their strength in the area being covered.



All students should participate in the Evaluation discussion to encourage the use of mathematical language, logical reasoning and reflection on that which they have completed.

### Groups And Sets

Count the stars to answer the question



Count the stars to answer the question

\* \* \* \* \* \* \* \*

 $\star$   $\star$   $\star$   $\star$   $\star$   $\star$ 

7 groups of 3 = \_\_\_\_\_

Count the stars to answer the question

 $\star \star \star \star \star \star$ 

Draw 5 sets of 3 stars below - 5 sets of 3 = \_\_\_\_\_

Draw 8 sets of 2 stars below - 8 sets of 2 = \_\_\_\_\_

Draw 5 sets of 5 stars below - 5 sets of 5 = \_\_\_\_\_



Draw 2 sets of 7 stars below - 2 sets of 7 = \_\_\_\_\_

Draw 4 sets of 6 stars below - 4 sets of 6 = \_\_\_





Count the stars to answer the question

6 groups of 4 = \_\_\_

3 groups of 6 = \_\_\_



Let's Try This Again



Progress To Comprehension

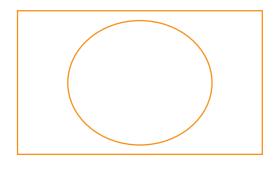


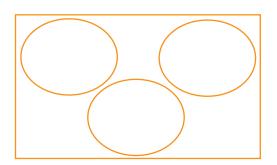
MD 1 KN

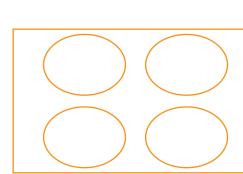
### Let's Break It Down

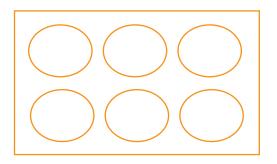
Use the circles below to divide the 24 stars into 8 different groupings.

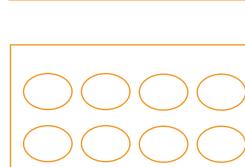


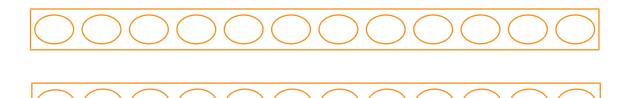
















Progress To Application

Multiplication & Division - Level 1 - Students will group, share and record collections of objects.

Knowledge.

Comprehension

Application

Analysis

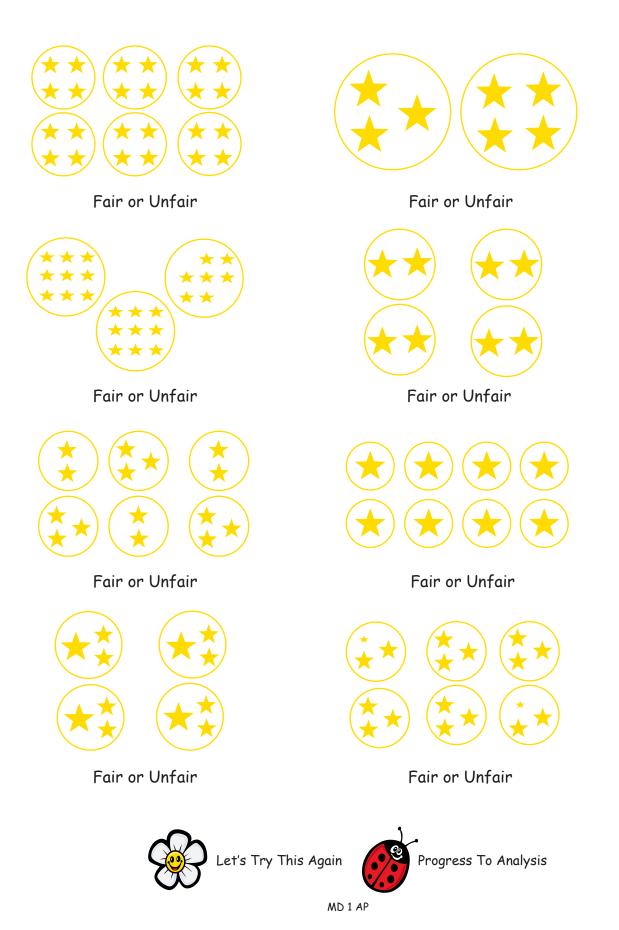
Synthesis

Evaluation



#### Fair Or Unfair

In a fair group every set is equal. Choose whether these sets are fair or unfair.



Analysis

Synthesis

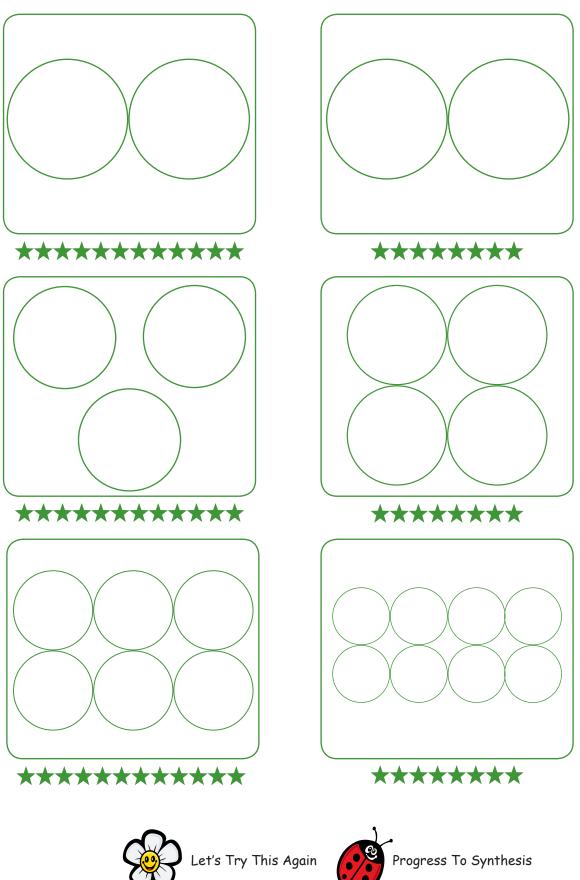
Evaluation

Comprehension



## We All Need A Fair Share

Share the stars evenly amongst the sets.







#### Sets And Totals

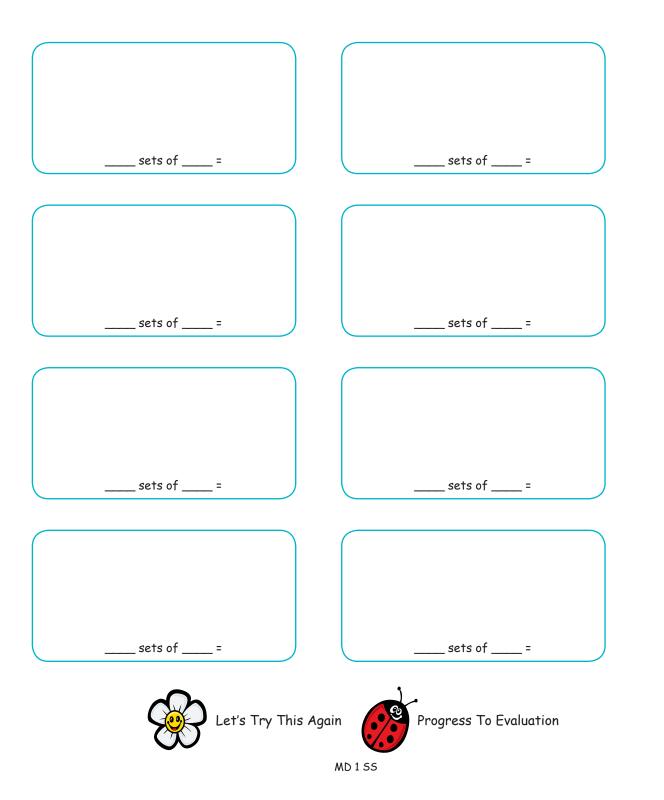
#### You Need:

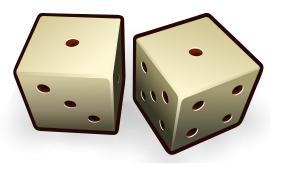
A dice with the numbers 1, 2 and 3. A normal dice with 1 to 6 on it.

#### The Game:

Roll both dice to produce the number of stars in each set and the total number

of sets of stars. Fill these in below with star and numbers.









# Multiplication & Division Evaluation

The following activities and ideas are provide as a starting point for fun discussions related to Multiplication and Division. During these conversations students will have an opportunity to use appropriate mathematical language in its correct context, to engage in reflection on the Multiplication and Division activities they have completed and to use logical reasoning to tie their in-class mathematics to its everyday context.



Chart all the factors of 24 ie. 1, 2, 3, 4, 6, 8, 12 and 24 and discuss the fact that when listing factors a number is only ever listed once and is recorded from smallest to largest.



Chart all 18 groupings possible when using a 1, 2, 3 and 1 to 6 dice ie. 1x1; 2x1; 3x1; 4x1; 5x1; 6x1; 1x2; 2x2; 3x2; 4x2; 5x2; 6x2; 1x3; 2x3; 3x3; 4x3; 5x3; 6x3 and point out the common factor sets ie, 2x1 and 1x2; 3x1 and 1x3; 2x3 and 3x2. Avoid identical answer sets ie. 2x3 and 1x6 or 1x4 and 2x2 as these are quite a different thing.



Discuss the concept of a fair share and whether a cake should be divided based on the size of the recipients or the number of people receiving a slice of cake.





