BLOOMSM4TH

Makes Maths Fun

Level 6

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.

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BLOOMSM4TH Makes Maths Fun

Level 6

Multiplication & Division

Level 6 is designed for students in their sixth year at school often called Year 5. Students will select and apply appropriate strategies for multiplication and division.

Knowledge: Students will complete a colour by number using multiplication and division.

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

STOP

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

Comprehension: Students will choose classmates and convert their names to numbers which are then multiplied together.

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

STOP

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

Application: Students will suggest the child in the school whom they believe will have the highest scoring name and test competing names.

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

STOP

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

Analysis: Students will explore "Ancient Egyptian" Multiplication.

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

STOP

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

Synthesis: Students will compare Ancient Egyptian and NSW Syllabus multiplication methods to find which they prefer.

Evaluation: Suggested questions provide a starting point for discussions related to Multiplication and Division.

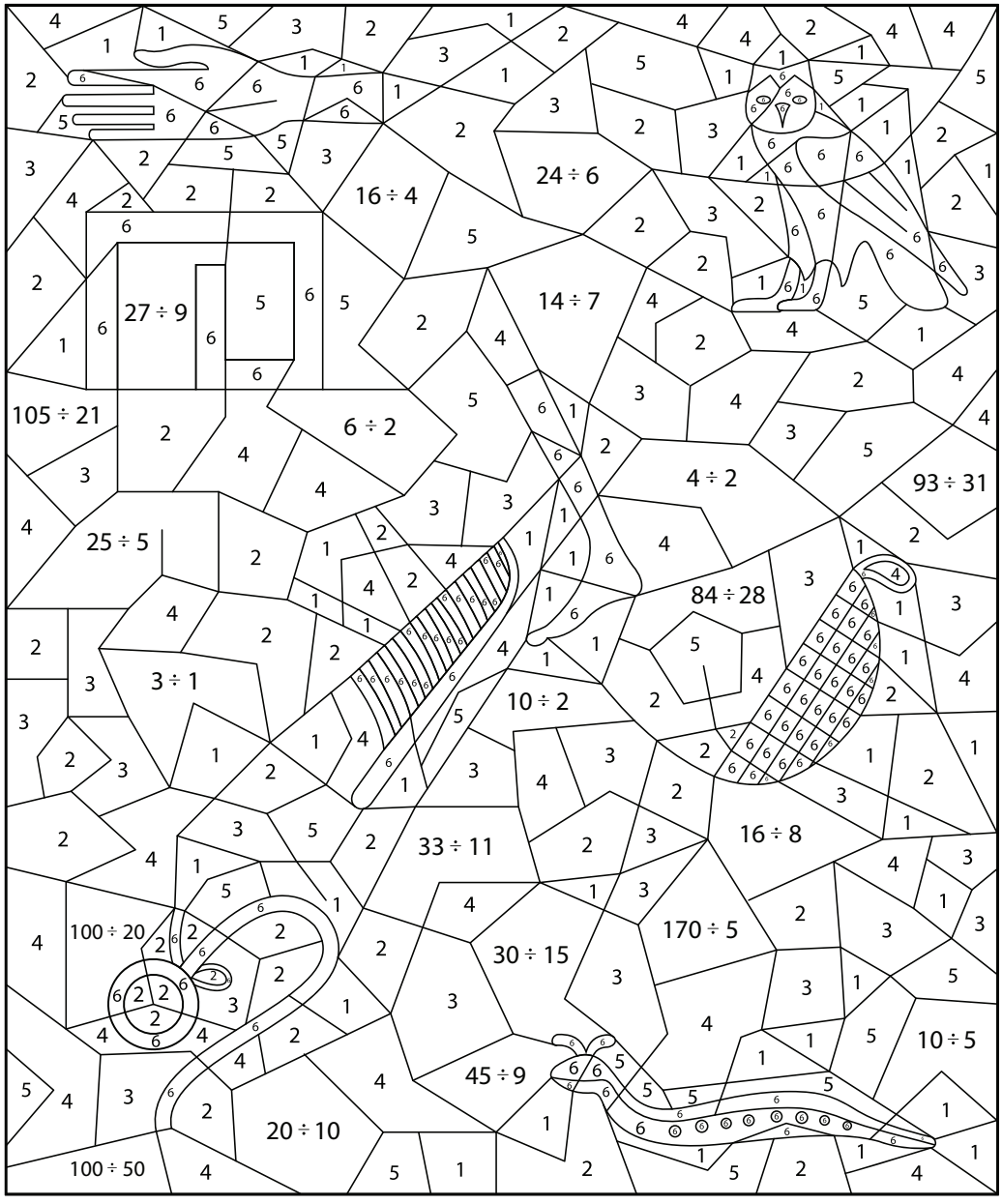
Students may complete more or fewer activities for each learning outcome depending on the time allocated and their strength in the area being covered.

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.

Name: _____

Knowledge

Complete the division colour by number below to reveal a picture. This picture will make more sense when you get to the Analysis activity.



20 ÷ 20	60 ÷ 30	9 ÷ 3	100 ÷ 25	35 ÷ 7	24 ÷ 4
Orange	Sky Blue	Green	Red	Purple	Yellow

Let's Try This Again

Progress To Comprehension

MD 6 KN

Knowledge
Comprehension
Application
Analysis
Synthesis
Evaluation

Multiplication & Division - Level 6 - Students will select and apply appropriate strategies for multiplication and division.

BLOOMSMATH

Name: _____

Comprehension

Choose 5 classmates and convert their names to numbers which are then multiplied together.

A	B	C	D	E	F	G	H	I	J	K
1	2	3	4	5	6	7	8	9	10	11
L	**M**	**N**	**O**	**P**	**Q**	**R**	**S**	**T**	**U**	**V**
12	13	14	15	16	17	18	19	20	21	22
				W	**X**	**Y**	**Z**			
				23	24	25	26			

P	A	T	R	I	C	K		M	O	R	R	I	S
16	1	20	18	9	3	11		13	15	18	18	9	19

Multiplication: (using a calculator if needed)

P x A x T x R x I x C x K

16 x 1 x 20 x 18 x 9 x 3 x 11 = 1710720

M x O x R x R x I x S

13 x 15 x 18 x 18 x 9 x 19 = 10803780

Name 1:

Name 2:

Name 3:

Name 4:

Name 5:

Let's Try This Again

Progress To Application

Name: _____

Application

Suggest the child in the school whom you believe will have the highest scoring name and test competing names.

Propose 5 possible names below:

Name: _____ Calculation:

Name: _____ Calculation:

Name: _____ Calculation:

Name: _____ Calculation:

Name: _____ Calculation:

Find 5 alternate names other classmates have chosen:

Name: _____ Calculation:

Name: _____ Calculation:

Name: _____ Calculation:

Name: _____ Calculation:

Name: _____ Calculation:

How do these compare to your names?

Where any scores the same or very similar? Why was this the case?

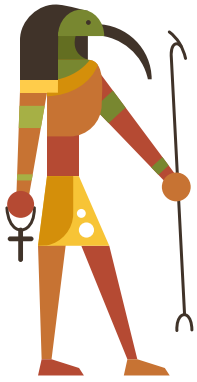
Name: _____

Analysis

Ancient Egyptian Multiplication.

If Ancient Egyptians wished to multiply 25 and 34 they used the following method.

1. Numbers in the left-hand column were doubles.
2. Numbers in the right-hand column were halved and any remainder was left out.
3. Any row with an even number in the right-hand column was crossed out.
4. The remaining numbers in the left column were added together.



Example 1

(25 x 34)

25 x 34
50 x 17
~~100 x 8~~
~~200 x 4~~
~~400 x 2~~
800 x 1

850

Example 2

(68 x 47)

68 x 47
136 x 23
272 x 11
544 x 5
~~1088 x 2~~
2176 x 1

3196

See if you can use this method to solve these multiplication sums.

(56 x 71) (38 x 24) (23 x 54) (37 x 30)

Name: _____

Synthesis

Perform each of the calculations below using both the Ancient Egyptian Method and your usual in class method for multiplying numbers. Which is easier and why?

45 x 28

Egyptian Method	Current Method

29 x 52

Egyptian Method	Current Method

18 x 43

Egyptian Method	Current Method

21 x 48

Egyptian Method	Current Method

64 x 23

Egyptian Method	Current Method

34 x 33

Egyptian Method	Current Method

Let's Try This Again

Progress To Evaluation

Evaluation

The following questions and activities are provide as a starting point for fun discussions related to Multiplication & 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 & Division activities they have completed and to use logical reasoning to tie their in-class mathematics to its everyday context.

Why did some names score more highly than others?

Suggest names which would have a very high score. Test ideas to see if they work.

Suggest names which would have a very low score. Test to see if these are correct?

How do you determine a low or high scoring name?

Which is easier when multiplying - The Egyptian or the current preferred method? Why?

Have a calculator race to see who can complete division and multiplication questions quickest.