



Makes Maths Fun

Level 2

WHOLE NUMBER

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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## Whole Number

Level 2 is designed for students in their second year at school which is most often referred to as Year 1. The Whole Number strand allows students to count, order, read and represent 2 and 3 digit numbers.

**Knowledge:** Students are provided with a set of 3 numbers and must find all 12 numbers from each set and put them in order from smallest to largest.



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 play the game *More or Less* where they use a double sided disc and must turn a playing card and the winner is the person whose card is highest or lowest depending on the disc.



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 play the game *Advanced More or Less* where 2 cards are now drawn and added together and the winner is the person whose total is highest or lowest again based on the disc.



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 record all the possible results from the *Advanced More or Less* game and record the odds of these numbers occurring in the game.



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 test the odds they have created by using only *more or less* for an entire game and see whether this affects their chances of winning.

**Evaluation:** Suggested questions provide a starting point for discussions related to Whole Number.



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: \_\_\_\_\_

# Making Numbers To Order

Find all 12 numbers which can be made from each of the 15 sets of 3 numbers below and put them in order from smallest to largest. The first one has been done for you.

	Smallest $\longrightarrow$ Largest											
1, 3 & 5	13	15	31	35	51	53	135	153	315	351	513	531
1, 2 & 3												
2, 4 & 6												
3, 6 & 9												
2, 5 & 7												
7, 8 & 9												
3, 4 & 5												
1, 4 & 8												
5, 7 & 9												
1, 2 & 5												
2, 3 & 9												
3, 5 & 7												
4, 6 & 9												
1, 5 & 8												
2, 6 & 8												

Whole Number - Level 2 - Students will count, order, read and represent 2 and 3 digit numbers.

Knowledge  
Comprehension  
Application  
Analysis  
Synthesis  
Evaluation



Let's Try This Again

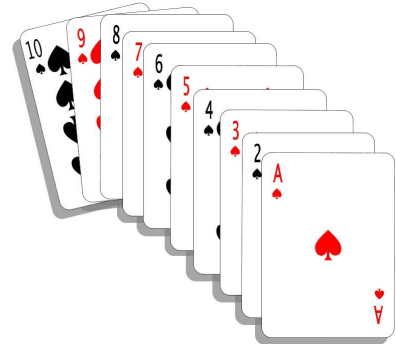


Progress To Comprehension

Name: \_\_\_\_\_

# More or Less

Use the rules and resources below to play More or Less.



## You Will Need:

One pack of playing cards with the picture cards (J, Q and K) removed.

The 2 discs below copied onto card and stuck back to back.

## How To Play:

1. Divide the cards evenly face down between up to 4 players.
2. Toss the disc and see if More or Less is shown.
3. Each player turns a card simultaneously.
4. The player with the highest card (More) or lowest card (Less) wins one point.
5. The player with the most points wins.

Each player scores a point each time they win or tie.			
Player 1	Player 2	Player 3	Player 4



Let's Try This Again



Progress To Application

Name: \_\_\_\_\_

# Advanced More or Less

Use the rules and resources below to play Advanced More or Less.

## You Will Need:

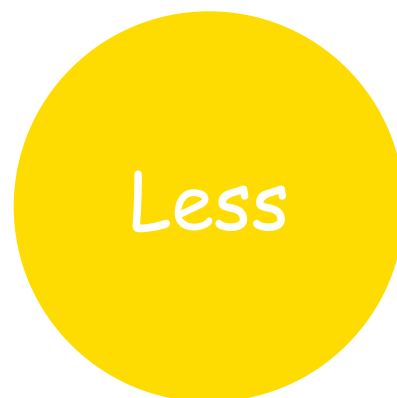
A set of cards from A to 5 for each of the 4 suits (20 cards in total).

The 2 discs below copied onto card and stuck back to back.

## How To Play:

1. Deal each player 2 cards.
2. Toss the disc and see if More or Less is shown.
3. Each player turns their cards simultaneously and adds their 2 cards together.
4. The player with the highest total (More) or lowest total (Less) wins one point.
5. The player with the most points wins.

Each player scores a point each time they win or tie.			
Player 1	Player 2	Player 3	Player 4



Let's Try This Again



Progress To Analysis



Name: \_\_\_\_\_

# A Winning Chance

Play the game *Advanced More or Less* one more time but this time play an entire game using only *More or Less*. See if this changes a player's chance of winning or if the game results are the same as when the disk is flipped.

Winner	More	Less	Flipped
Round 1			
Round 2			
Round 3			
Round 4			
Round 5			
Round 6			
Round 7			
Round 8			
Round 9			

Whole Number - Level 2 - Students will count, order, read and represent 2 and 3 digit numbers.

Knowledge

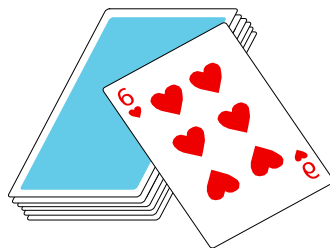
Comprehension

Application

Analysis

Synthesis

Evaluation



Let's Try This Again



Progress To Evaluation

# Whole Number Discussion

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



Look at the 12 results created when 3 numbers are given and have students predict how many answers will be created when one additional number is added to the set ie. 4 numbers are given (58).



Allow students to suggest sets of 4 numbers and see if they can create all 58 combinations of 1,2,3 and 4 digit numbers from these sets. There should be 4 x 1 digit, 12 x 2 digit, 24 x 3 digit and 24 x 4 digit numbers.



When playing both More or Less and Advanced More or Less which numbers were created most often? Why do students think this may have been?



When playing both More or Less and Advanced More or Less which numbers were created least often? Why do students think this may have been?



Look at the table created in Adding Up The Odds and the numbers students circled and discuss a number's factors and that these circled numbers have multiple addition factors.



When students have played Advanced More or Less both with and without flipping the disc discuss which is the most fun - when it is flipped or set.

