



Makes Maths Fun

# Level 6

## 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.

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

## Whole Number

Level 6 is designed for students in their sixth year at school often called Year 5. Students will order, read and write numbers of any size.

**Knowledge:** Students will play skittles to create and order numbers.



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 will play the game "12 Questions" to guess a student's chosen number of between four and seven digits.



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 will order number cards in various forms ie. 350K, 1.1M, 250,000.



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 will order and write telephone numbers from smallest to largest.



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 will order numbers to create a quote.

**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: \_\_\_\_\_

# Knowledge

Students will play skittles to create and order numbers.

In this activity students will knock down skittles to create and order numbers.

1. In teams of 4, students stand with their team's Recording Sheet and tennis ball at least 5 metres from their skittles with numbers written on the front of them.
2. The first student in each team has 2 attempts to knock down as many skittles as they can.
3. Skittles which are knocked over are recorded as the highest or lowest possible number that can be made.
4. Once students have each had 4 turns they can order their numbers from lowest to highest.

Note: Teams can each have different sets of numbers and teams can rotate through the sets to create different numbers.

Recording Sheet:

	Student 1:	Student 2:	Student 3:	Student 4:
Number 1				
Number 2				
Number 3				
Number 4				

Numbers from Lowest to Highest.

Student 1:				
Student 2:				
Student 3:				
Student 4:				

\*For more information on using skittles visit

<https://learnfromplay.com/ball-toss-probability/> or <https://learnfromplay.com/math-n-movement-home-page/>



Let's Try This Again



Progress To Comprehension



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

# Comprehension

Students will play the game "12 Questions" to guess a student's chosen number of between four and seven digits.

**Player 1** chooses a number and must write the number in digits and words.

**Player 2** then has 12 chances to guess player 1's number using the recording sheet below.

*Note: All places must be filled so zeros are used for millions, hundreds or thousands and tens of thousands if the number is 9,999 or smaller.*

Questions could include:

Are any of the digits zeros?

Is the number larger than 10,000?

Does the number contain 5 digits that are not zeros? etc.

	Millions	Hundreds of Thousands	Tens of Thousands	Thousands	Hundreds	Tens	Units
Answer 1							
Answer 2							
Answer 3							
Answer 4							
Answer 5							
Answer 6							
Answer 7							
Answer 8							
Answer 9							
Answer 10							
Answer 11							
Answer 12							

Whole Number - Level 6 - Students will order, read and write numbers of any size.

Knowledge

Comprehension

Application

Analysis

Synthesis

Evaluation



Let's Try This Again



Progress To Application

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

# Application

Students will order number cards in various forms ie. 350K, 1.1M, 250,000.

## You Will Need:

- ◇ The number chart below
- ◇ Scissors
- ◇ A cup or container

1. Working in pairs students complete the 12 number cards below.
2. The cards are cut out and placed in a cup or other suitable container.
3. Students take it in turns to draw 5 cards each from the cup.
4. Students place their cards from smallest to largest and record their cards checking each other's answers as they go.
5. This can be repeated a number of times as only 10 of the 12 cards are used and the cards drawn by each student will vary over multiple rounds.

____, 000, 000	__ . __ Million	__ __ Million	__ Million
__ Thousand	__ __, 000, 000	__ 0, 000	__ __ Thousand
__ __, 000	1__, 000	3__, __ __0	__, __00, 000

Whole Number - Level 6 - Students will order, read and write numbers of any size.

Knowledge

Comprehension

Application

Analysis

Synthesis

Evaluation



Let's Try This Again



Progress To Analysis

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

# Analysis

Students will order and write telephone numbers from smallest to largest.  
Students record 10 student's telephone numbers of up to 10 digits for mobile phone numbers below and then order these from smallest to largest.

Telephone Numbers									

<b>Smallest</b> ↓ <b>Largest</b>	

Knowledge  
Comprehension  
Application  
Analysis  
Synthesis  
Evaluation

Whole Number - Level 6 - Students will order, read and write numbers of any size.



Let's Try This Again



Progress To Synthesis

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

# Synthesis

Students will order numbers to create a quote.

Each word has been given a value. You need to place the numbers in order from largest to smallest and then write the words which match each number to unjumble this powerful quote.

able	950,263
being	1,468,972
count	28,640
good	9,002
is	12,456
to	148,375
better	8
count	205
is	57
knowing	6,751
that	1,407
you	896

\_\_\_\_\_

\_\_\_\_\_

Whole Number - Level 6 - Students will order, read and write numbers of any size.



Let's Try This Again



Progress To Evaluation

# Evaluation

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.



What is the largest and smallest mobile phone number someone could have? Why is this the case?



How does adding a 0 at the beginning of a phone number affect it as a numeral?



In Australia mobile phone numbers all begin with 04, followed by two digits (a mobile network code), and then six digit numbers. How many phone numbers can there be before this system runs out?



In Sydney phone numbers have a 02 area code followed by 8 digits. These 8 digits used to all start with number 9. They are now using 9, 8, 7 and 6 as the first digit. How many phone numbers must there be in Sydney?



If they offer prefixes down to 1 how many numbers could Sydney potentially have?



How many mobile phone numbers could there be using the current system?

