Year 5 Maths Investigation

Learning Intention

To understand the properties of different numbers to decide which is the 'coolest number'.

Select your numbers from one of the rows. We have given you 5 numbers. Can you think of another five you would like to work with?

Once you have decided all your numbers, complete all the activities on the Activity Board.

EP	25	17	5	79	44					

MP	977	274	101	330	2857					

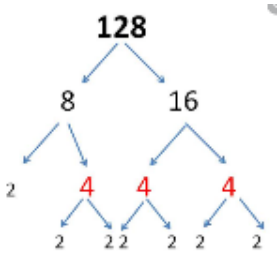
SITT	2749	4001	33510	9720	8643.06					

Success Criteria

Criteria	A	B	C	D	E
Factors, multiples, prime and composite numbers	Identify and describe factors, multiples, composite and prime numbers of whole numbers and use them to solve problems.	Identify and describe factors and multiples including prime factors.	Identify and describe factors and multiples.	List most factors and some multiples for given numbers.	Use skip counting to create multiples of a given number (2, 3, 5, 10)
Addition and Subtraction	Solve problems involving addition and subtraction by using a combination of large numbers and decimal numbers by using efficient mental and written strategies	Solve problems involving addition and subtraction using a range of decimal numbers using a range of strategies.	Solve simple problems up to four-digits involving addition and subtraction using a range of strategies.	Solve double-digit problems involving addition and subtraction with limited strategies.	Solve single digit problems involving addition and subtraction with one strategy.
Estimation and Rounding	Nil.	Nil.	Check the reasonableness of answers using estimation and rounding.	Estimate answers when adding and subtracting round numbers.	Round numbers to the nearest 10 and 100.

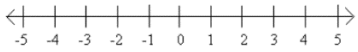
1. **Sort your numbers into as many groups as you can.**

E.g. Multiples, factors, odd, prime, ascending etc. Are there any other groups you can think of?



2. **Place your numbers on a number line.**

Hint: you may need more than one number line.



SITT: Place your numbers on a number line not starting at '0'.

3. **Use your numbers (and add any others you might need) to show sums involving addition and subtraction. Use rounding and estimation to show you have guessed the answer first.**

Show you can use a variety of strategies then pick your favourite one.

Why is it your favourite?

4. **For each of your numbers write a 'What's my Number' riddle.**

E.g.

- I am an odd number below 50
- I am a multiple of 3, 5 and 9
- My digits total 9.
- What number am I? (45)

5. **Write each of your numbers in expanded notation.**

E.g.

71,256 = 70,000 +1,000 + 200 + 50 + 6

6. **Round each of your numbers to the nearest 10, 100, 1,000 and 10,000. Explain how you know your rounding is correct.**

E.g. 42 812

Nearest 10: 42,810

Nearest 100: 42,800

Nearest 1,000: 43,000

Nearest 10,000: 40,000

7. **Make pairs using your numbers and estimate the total sum, before you calculate the answer.**

Calculate the answer using your chosen strategy and show the difference.

8. **Write each of your numbers using words.**

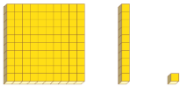
E.g.

31,217

Thirty one thousand, two hundred and seventeen

9. **Show what each of your numbers look like in MAB blocks.**

Now, show each number in three other MAB ways.



10. **After completing each task, choose a journal question and record your response on SeeSaw.**

The maths words I used were...

The first thing I did to solve the problem was...

We do this at home when we...

What mathematics was involved in solving this problem?

What did you find challenging?

Where would you use this maths in the real world?

Why does that answer make sense?

I can prove my thinking by...

Did you make any interesting mistakes?

I can check my answer by...

The thing I like about Mathematics is...

I need help with... because...

The steps I followed were...

11. **Decide which of your numbers is the 'coolest' and <u>explain</u> why you have chosen this number.**