

**Topic**

Whole Numbers: Addition and Subtraction

**Concepts and Skills**

- Use a range of strategies to perform and check written and mental calculations with whole numbers including adding, subtracting, and multiplying in columns
- Using a calculator

**COVID-19 INFORMATION & PSS (2 min)**

What is well-being?

Feeling good and strong in mind and body

**Resources Required**

ATP T1 WK 2, CAPS pp 78-79, Platinum Mathematics LB pp ....., DBE Workbook (pp.....)

**Vocabulary**

Carrying, partitioning, borrowing and subtraction

**Prior Knowledge**

Learners are able to carry out addition, subtraction using different techniques from Grade 7

**Lesson Content/Concept Development**

**Mental maths (3 mins)**

Simplify the following

1.  $1.123\ 456 + 654\ 123 = ?$

2.  $876\ 213 - 431\ 101 = ?$

**Homework reflection & Remediation (5 mins)** No Reflection since first lesson

**Introduction: 5mins**

Teacher explains how addition and subtraction can be simplified by making use columns. Numbers therefore are partitioned into columns before adding and subtracting.

**Concept Development (25mins)**

**Example 1**

$6349 + 4145 = ?$

HTH	TTH	TH	H	T	U
		6	3	4	9
	+	4	1	4	8
	1			1	
	1	0	4	9	7

- We add from the right-hand side to the left
- Provide another row for writing the carried over solutions like  $9+8$  is 17 so the 1 is carried

**Example 2**

$6349 - 4321 = ?$

HTH	TTH	TH	H	T	U
		6	3	4	9
	-	4	3	2	1
		2	0	2	8

- We subtract from the right-hand side to the left

**Class activity:**

Use column addition and subtraction. Check your answers using a calculator

1.  $9765 + 2345 =$

$2. 7654 + 2718 =$

$3.8764-5432=$

$4.8532-4321=$

**Classwork Activity (20 Mins)**

Give learners 3 problems for each example above. The first problem they do in pairs and work on the board the other 2 are to be done individually in class.(Teacher moves around checking and giving remediation.)

Solutions for all page...activity.../Platinum page.....activity....

**Homework Allocation (5 Mins)**

Dbe 11<sup>th</sup> edition page.....

**Lesson Reflection**

**Successes: What went well in the lesson?**

**Challenges: What did not go well?**

**Recommendations: What changes are necessary to improve the lesson?**

**Topic**

Whole Numbers: Multiplication and Long division

**Concepts and Skills**

- Use a range of strategies to perform and check written and mental calculations with whole numbers including multiplying in columns, long division, using calculator, estimation, rounding off and compensating.

**COVID-19 INFORMATION & PSS (2 min)**

What is well-being?

Taking care of myself and others

**Resources Required**

ATP T1 WK 2, CAPS pp 78-79, Platinum Mathematics LB pp ....., DBE Workbook (pp.....)

**Vocabulary**

Commutative, Addition, Subtraction, Multiplication

**Prior Knowledge**

**In Grade 7 the learners learnt about:** Learners are able to carry out addition, subtraction using different techniques

**Lesson Content/Concept Development****Mental maths (8 mins)**

1. Estimate the following answers  
(a)  $7 \times 8 =$       (b)  $132 \div 11 =$       (c)  $2570 \div 10$       (d)  $6 \times 9 =$
2. Round off 658 492 to nearest  
(a) 10      (b) 100      (c) 10000

**Homework reflection & Remediation (5 mins)**

Reflection / Remediation based on previous day's work.

**Introduction:(5mins)**

Revise 345 x 6 + using column method

**Concept Development (20mins)**

Teacher explains that it is possible to multiply each column by the multiplicand separately as shown below

4623x5=

HTH	TTH	TH	H	T	U	
		4	6	2	3	
<b>X</b>					5	
				1	5	=5X3
			1	0	0	=5X20
		3	0	0	0	=5X600
<b>+</b>	2	0	0	0	0	=5X4000
	2	3	1	1	5	

**LONG DIVISION**

23652÷6=

	0	3	9	4	2	
<b>6</b>	<b>2</b>	<b>3</b>	<b>6</b>	<b>5</b>	<b>2</b>	6 into 23 is 3
<b>-</b>	<b>1</b>	<b>8</b>	↓	↓	↓	6x3
		5	6			Subtract 18 and bring down 6.6 into 56=9
	<b>-</b>	<b>5</b>	<b>4</b>	↓		6x9 ...Subtract 54 To Get 2
			2	5		Bring down 5...6 into 25 is 4 times
		<b>-</b>	<b>2</b>	<b>4</b>	↓	6x4 =24. Subtract it from 25 =1
			1	2		Bring down 2...6 into 12=2
		<b>-</b>	<b>1</b>	<b>2</b>		6x2=12.....12-12=0
				0		

**CLASSWORK**

1.612X24=?

2. 546÷31

**Classwork Activity (20 Mins)**

Give learners 3 problems for each example above. The first problem they do in pairs and work on the board the other 2 are to be done individually in class. (Teacher moves around checking and giving remediation.)

Solutions for all page...activity..../Platinum page.....activity....

**Homework Allocation (5 Mins)**

1.8764÷4 =2191

2.423X211=89253

**Lesson Reflection**

**Successes: What went well in the lesson?**

**Challenges: What did not go well?**

**Recommendations: What changes are necessary to improve the lesson?**

**Topic**

Whole Numbers: Rounding off and Compensating

**Concepts and Skills**

- Use a range of strategies to perform and check written and mental calculations with whole numbers including multiplying in columns, long division, using calculator, estimation, rounding off and compensating

**COVID-19 INFORMATION & PSS (2 min)**

What is well-being?

**My safety during Covid19****Resources Required**

ATP T1 WK 2, CAPS pp 78-79, Platinum Mathematics LB pp ....., DBE Workbook (pp.....)

**Vocabulary**

Rounding off, compensating

**Prior Knowledge**

In Grade 7 the learners learnt about: Rounding off numbers

**Lesson Content/Concept Development****Mental maths (8 mins)**

1. Estimate the following answers

(a)  $21 \times 80 =$       (b)  $138 \div 11 =$       (c)  $2560 \div 10$       (d)  $60 \times 9 =$ 

2. Round off 458 472 to nearest

(a).10      (b)100      (c) 10000

**Homework reflection & Remediation (5 mins)****Introduction:(5mins)**

Teacher explains the terms rounding off and compensating, giving examples

**Concept Development (20mins)**

Teacher can give scenarios like Asive saw a dress for R289.00. The shopkeeper did not have coins and so did Asive. How much did Asive get the dress for? What can be done to get R1 change if she gave the shopkeeper R290.00? (Expected answer is getting an item equivalent to R1.) So 289 is rounded up to 290 and compensated by subtracting 1 to get back to 289. Thus  $289 = 290 - 1$ .

Example 1.

 $72 - 39 = 72 - 40$  (rounding off)  $+ 1$  (compensating) $= 32 + 1$  $= 33$ 

Example 2

 $38 + 96 = 40$  (rounding off)  $+ 100$  (rounding off)  $- 2$  (compensating)  $- 4$  (compensating) $= 140 - 2 = 138 - 4 = 134$ Thus  $38 + 96 = 134$ **Classwork Activity (20 Mins)**

Use rounding off and compensating to simplify

1.  $238 + 862 =$ 2.  $617 - 385 =$ **Homework Allocation (5 Mins)**

Simplify.

Use rounding off and compensation

1.  $897 + 6542 =$ 2.  $513 - 237 =$

## Lesson Reflection

**Successes: What went well in the lesson?**

**Challenges: What did not go well?**

**Recommendations: What changes are necessary to improve the lesson?**

**Topic**

Whole Numbers: Prime Factors and HCF

**Concepts and Skills**

- Prime factors of numbers to at least 3-digit whole numbers
- LCM and HCF of whole numbers, by inspection or factorisation

**COVID-19 INFORMATION & PSS (2 min)**

What is well-being?

**Healthy eating during Covid 19**

**Resources Required**

ATP T1 WK 2, CAPS pp 78-79, Platinum Mathematics LB pp ....., DBE Workbook (pp.....)

**Vocabulary**

Prime factor. Factors and multiples

**Prior Knowledge**

Factors, common factors and multiples, HCF, LCM

**Lesson Content/Concept Development**

**Mental maths (8 mins)**

1. List the factors of 4
2. List the factors of 12
3. Find the HCF of 4 and 12

**Homework reflection & Remediation (5 mins)** Reflection / Remediation based on previous day's work.

**Introduction:(5mins)**

- Revise giving examples the meaning of the terms, factors, Multiples, HCF and LCM

**Concept Development (20mins)**

Teacher asks learners to write down the factors of the following numbers: 2, 5, 7, 11, 13 ... what do they notice? (have 2 factors only...prime numbers,

**Classwork Activity (20 Mins)**

Give learners 3 problems for each example above. The first problem they do in pairs and work on the board the other 2 are to be done individually in class. (Teacher moves around checking and giving remediation.)

Solutions for all page...activity.../Platinum page.....activity...

**Homework Allocation (5 Mins)**

Dbe 11<sup>th</sup> edition page.....



## Lesson Reflection

**Successes: What went well in the lesson?**

**Challenges: What did not go well?**

**Recommendations: What changes are necessary to improve the lesson?**

**Topic**

Whole Numbers : Multiples and Lowest Common Multiple (LCM)

**Concepts and Skills**

- Prime factors of numbers to at least 3-digit whole numbers
- LCM and HCF of whole numbers, by inspection or factorisation

**COVID-19 INFORMATION & PSS (2 min)**

What is well- being?

**Things to avoid during Covid19****Resources Required**

ATP T1 WK 2, CAPS pp 78-79,Platinum Mathematics LB pp ....., DBE Workbook (pp.....)

**Vocabulary**

Factors, Prime factors, common factors, multiples, lowest common multiples

**Prior Knowledge**

Learners have learnt about factors, HCF, LCM in Grade 7

**Lesson Content/Concept Development****Mental maths (8 mins)**

1. List the prime factors of 8,12,18 and 36
2. List the multiples of 5;6;7;8 less than 100

**Homework reflection & Remediation (5 mins)** Reflection / Remediation based on previous day's work.**Introduction:(5mins)**

Teachers revises multiples, common multiples with learners .

**Concept Development (20mins)****Example**

Lowest common multiple (LCM): the smallest number that can be divided by 20 or more numbers without leaving a remainder.

Find the LCM of 6 and 8

Multiples of 6=6,12,18,**24**,30,36, ...Multiples of 8=8,16,**24**,32, 40 .....The smallest common multiple is **24****Working**

$$6=2 \times 3$$

$$8=2 \times 2 \times 2$$

$$\text{LCM}=2 \times 2 \times 2 \times 3 = \mathbf{24}$$
 (Taking the highest number of the factors for each factor)

**Classwork Activity (20 Mins)**

Using the working above; find the LCM of the following:

- 1.36 and 48
- 2.16 and 18
- 3.12 and 18
- 4.24 and 50

**Homework Allocation (5 Mins)**

Find the HCF and LCM of the following numbers

- 1.12 and 16
- 2.18 and 24

## Lesson Reflection

**Successes: What went well in the lesson?**

**Challenges: What did not go well?**

**Recommendations: What changes are necessary to improve the lesson?**