GRADE 7 LESSON PLAN EXEMPLAR TERM 1 2021 **Lesson 1**

Topic

Properties of Whole Numbers: Ordering and comparing whole numbers

Concepts and Skills

- Arranging numbers from smallest to biggest or biggest to smallest
- Filling in missing numbers in a sequence, number grid or number line
- Making use of the maths notation =,< and >

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 40,Platinum Mathematics LB pp ……, DBE Workbook (pp.....)

Vocabulary

Place value, digit, smaller than (<), bigger than (>), less than (<), more than (>), ascending order, descending order

Prior Knowledge

- Place values,
- Ordering numbers

Lesson Content/Concept Development

Mental maths (8 mins)

		ANSWER			ANSWER
1	4 × 12=	**48**	6.	11 x 4 =	**44**
2.	12 x 3=	**36**	7.	6x 9 =	**54**
3.	8 0× 12 =	**960**	8.	2× 8 =	**16**
4.	7× 3 =	**21**	9.	9x1 =	**9**
5.	8 x 4 =	**32**	10.	9 x 0 =	**0**

Ask the learners: What is the meaning of 4 x 12; 12 x 3 and 80 x 12?

Homework reflection & Remediation (5 mins)

Introduction:5mins

Write the topic on the board and ask learners what they understand by whole numbers

Write the 3 numbers 235,532 and 253. What is the value of the underlined digit in each case? (Ans :5;500 and 50)

Concept Development (20mins)

Comparing numbers

Write 2 pairs of numbers and ask learners to say which one is smaller or which one is bigger

Example 1

22 235 is smaller/less than 22 253 ….in symbols 22 235<22 253.

NB: The sharp end always points to the smaller number.

Example 2.

67 321 is bigger /more than 63 721 ….67 321> 63 721.

Example 3

765 432=765 432

Example 4
Arrange the following numbers in ascending order; 987126; 879162; 129876; 298612.
Ans :129876; 298612; 879162; 987126
Example 5
Write the following numbers in descending order; 365421; 124365; 542165; 421653; 653421.
Ans: 653421; 542165; 365421; 124365

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 11th 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?

GRADE 7 LESSON PLAN EXEMPLAR TERM 1 2021 **Lesson 2**

Topic

Properties of Operations with Whole Numbers

Concepts and Skills Commutative property of addition and multiplication
COVID-19 INFORMATION & PSS (2 min) What is well- being? Taking care of myself and others
Resources Required ATP T1 WK 2, CAPS pp 40,Platinum Mathematics LB pp ……, DBE Workbook (pp…..)
Vocabulary Commutative, Addition, Subtraction, Multiplication **Prior Knowledge** **In Grade 6 the learners learnt about:** Recognize and use the commutative; associative; distributive properties with whole numbers

Lesson Content/Concept Development

Mental maths (8 mins)

		ANSWER			ANSWER
1	4 × 10=	**40**	6.	110 x 2 =	**220**
2.	12 x 3=	**36**	7.	7x 9 =	**63**
3.	8 0× 10 =	**800**	8.	4 × 8 =	**32**
4.	6 × 3 =	**18**	9.	7 × 2 x 1 =	**14**
5.	8 x 40 =	**320**	10.	7 x 9 x 0 =	**0**

Homework reflection & Remediation (5 mins)

Reflection / Remediation based on previous day's work.

Introduction:(5mins)

Revise ordering and comparing of numbers **(Solutions for All: Page 3 1a and 2b)**

Concept Development (20mins)

Example 1

Write the sums below on the writing board. Ask the learners thefollowing questions:

1. **Is the following True or False?**

a. 3 + 4 = 4 + 3 3 x 4 = 4 x 3

b. 20 + 5 = 5 + 20 20 x 5 = 5 x 20

2. **What do you notice?**

The commutative property of addition and multiplication states thus:

- **When adding two or more numbers; you can change the position ofnumbers around and still get the same answer.**

Write the words **commutative property of addition andmultiplication** on the board.

Ask learners to work in pairs and give two more examples of the commutative property of addition and multiplication.
Write some of their examples on the board

Example 2

Ask learners work in pairs and complete to do thefollowing calculation: $10 - 4 \times 2$

Possible Answers:

a. $(10 - 4) \times 2$ b. $10 - (4 \times 2)$

$= 6 \times 2$ $= 10 - 8$

$= 12$ $= 2$

Ask the learners: **Can both the answers be correct?**

Explain to the RULE that we use to avoid confusion:

We look at the operations we must use and we always:

Multiply and divide first – working from left to right

We then do all the addition and subtraction – **working from feft to right**

Learners do the sum again… therefore, the **CORRECTanswer is 2**

We have learnt that:

Different answers are only possible when we do notuse brackets

But **brackets** prevent us from having "*2 differentanswers*" but **only one correct answer.**

We therefore must learn the…**BODMAS** Rule

B-Brackets
O-Orders/Of
D-Division
M-Multiplication (Left to Right)
A-Addition
S- Subtraction (from Left to Right)

Example 3

4+3×6 multiplication first before addition (4+3)×6 Brackets first
=4 +18 **=7x6**
=22 **=42**

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 11th 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?**

GRADE 7 LESSON PLAN EXEMPLAR TERM 1 2021 Lesson 3

Topic

Properties of Operations with Whole Numbers

Concepts and Skills

Recognize and use 0 in terms of its additive property (identity element for addition) e.g. a + 0 = a

Recognize and use 1 in terms ofits multiplicative

e.g. a x 1 = 1

COVID-19 INFORMATION & PSS (2 min)

What is well- being?

My safety

Resources Required

ATP T1 WK 2, CAPS pp 40,Platinum Mathematics LB pp ……, DBE Workbook (pp…..)

Vocabulary

Add, addition, multiply,multiplication

Prior Knowledge

In Grade 6 the learners learnt about:

- Recognize and use 0 in terms of its additive property (identify element for addition)
- Recognize and use 1 in terms of its multiplicative property (identify element for multiplication)

Lesson Content/Concept Development

Mental maths (8 mins)

Homework reflection & Remediation (5 mins)

Introduction:(5mins)

Revise Grade 6 work about adding zero and multiplying numbers by 1. Introduce the day's topic

Concept Development (20mins)

Example 1

Write the following sums on the board.

3 + 0 = 5 + 0 = 100 + 0 = 0 + 16 = 0 + 250 =

What do you notice?

The answer will always be the number that **zero** is **added** to.

Write the following sums on the board.

4 x 1 = 10 x 1 = 200 x 1 = 1 x 300 = 45 x 1 =

What do you notice?

The answer will be the number that **one** is multiplied **by**.

Example 2

Write the following on the board.

Remember, we say that 4 **+ 0** = 4, so what will a **+ 0** be? (a **+ 0** = a)Do a few examples like this with the learners?

Remember: we say that 4 **x 1** = 4, so what will a **x 1** be? (a **x 1** = a)Do a few examples like this with the learners?

Zero is the identity of addition, e.g. a + 0 = a

One is the identity of multiplication, e.g. a x 1 = 1

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 11th 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?

GRADE 7 LESSON PLAN EXEMPLAR TERM 1 2021 **Lesson 4**

Topic

Properties of Operations with Whole Numbers

Concepts and Skills

- distributive property of addition and multiplication

COVID-19 INFORMATION & PSS (2 min)

What is well- being?

Exercising

Resources Required

ATP T1 WK 2, CAPS pp 40,Platinum Mathematics LB pp ……, DBE Workbook (pp…..)

Vocabulary

Distributive, Addition, Subtraction, Multiplication

Prior Knowledge

Recognize and use the commutative; associative; distributive properties with whole numbers.

Lesson Content/Concept Development

Mental maths (8 mins)

		ANSWER			ANSWER
1	101 +110 =	**211**	6.	909 +190 =	**1 099**
2.	115 + 511=	**626**	7.	999 + 1 + 0 =	**1 000**
3.	565 – 505 =	**60**	8.	756 + 243 =	**999**
4.	789 – 189 =	**600**	9.	898 – 99 =	**799**
5.	369 +136 =	**505**	10.	680 + 319 =	**999**

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

Introduction:(5mins)

- Revise and introduce the distributive property of **multiplication** with your learners.

Concept Development (20mins)

Write the examples on the **board.** **7**(3)

What do the brackets mean? (It means multiplication 7x 3)

Do a few examples with your learners.

4(6), 3(9), 7(8), 4(100), etc.

Write the following on the board: **4**(3 + 2).

How do you think I will write this?

Give the learners an opportunity to come up with different answers.

When we have brackets, we will say :4times 3 + 4 times 2.

- Let us test it.

4 times 3 **+ 4** times 2 = 12 **+ 8** = 2**0**, or 4(3 + 2) = 4(5) = 2**0**

EXAMPLE 1

Write the following on the board: **6**(3 + 5)

How would you write this as an **addition sum**?

= 6 times 3 + 6 times 5

= 6 x 3 + 6 x 5

To make it easier, we can write it as: **(6 x 3) + (6 x 5)**

Write the following on the board:

4x 6 + 4 x 5

How would you write this as a **multiplication sum**?

4 times 6 + 4 times 5
= 4 (6 + 5)

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 11th 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?

GRADE 7 LESSON PLAN EXEMPLAR TERM 1 2021 **Lesson 5**

Topic

Properties of Whole Numbers :Revision

Concepts and Skills

- Properties of whole numbers

COVID-19 INFORMATION & PSS (2 min)

What is well- being?

Resources Required

ATP T1 WK 2, CAPS pp 40,Platinum Mathematics LB pp ……, DBE Workbook (pp…..)

Vocabulary Associative, Distributive,Commutative, Addition, Multiplication

Prior Knowledge

Recognize and use the commutative; associative; distributive properties with whole numbers.

Lesson Content/Concept Development

Mental maths (8 mins)

		ANSWER			ANSWER
1	12 x 4 x 10=	**480**	6.	20 x 6 =	**120**
2.	14 x 4 =	**56**	7.	8 x 11 =	**88**
3.	8 x 20 x 1=	**160**	8.	50 x 9=	**450**
4.	20 x 3 =	**60**	9.	3 x 90 =	**270**
5.	6 x 4 x 10 =	**240**	10.	6 x 7 x 10 =	**420**

Homework reflection & Remediation (5 mins)

Introduction:(5mins)

Concept Development (20mins)

Write the following sums on the board.

Ask the learners to **match column A with Column B:**

COLUMN A	COLUMN B
Associative property of numbers	a x 1 = a
Commutative property of numbers	(a + b) + c = a + (b + c)
Distributive property of numbers	a + 0 = a
Zero as the identity of addition	a + b = b + a
One as the identity of multiplication	a(b + c) = a x b + a x c

Write the following on the board. Learners STUDY these:

- ✓ The **Commutative law** can be written as: a + b = b + a
- ✓ The **Associative law** can be written as: (a + b) + c = a + (b + c)
- ✓ The **Distributive law** can be written as: a x (b + c) = (a x b) + (a x c)
- ✓ **Zero** is the **identity of addition**. a + 0 = a
- ✓ **1 is the identity for multiplication e.g.** a×1=a

ANA PAPER 2008

1. Which number sentence below has the same meaning as:5 x (6 + 2)

   A. (5 x 6) + 2

   B. (5 x 2) + 6

   C. (6 + 2) x 5

   D. (5 + 2) x 6

ANA PAPER 2012

Complete:

1. 578 = _____ + 578 **Answer: 0**

2. 47 893 - _____ = 47 893 **Answer: 0**

3. Complete the following number sentence.

0 + 95 = _____ and 95 – 0 = **_95_** therefore 0 + 95 **_=**_____ 95 – 0

4.**The following spectator tickets were sold at the Olympics.** 1 625 407 for gymnastics, 68 945 for weightlifting, 2 165 001 for athletics and 770 239 for swimming.

a. How many tickets were sold altogether? Answer: **4 629 592**

b. How many more tickets were sold for athletics than for swimming? Answer: **1 394 762**

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 11th 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?