Grade 6 Mathematics

Term 1 - 56 complete lesson plans

Ready to teach, in the KICD lesson-plan format | 35-minute lessons | PDF and editable Word

ABOUT THIS PACK

56 complete, ready-to-teach Grade 6 Mathematics lesson plans for Term 1, covering whole numbers, multiplication, division, fractions and decimals.

TOPICS IN THIS PACK

Topic	Name	Lessons
1.1	Whole Numbers	20
1.2	Multiplication	6
1.3	Division	6
1.4	Fractions	12
1.5	Decimals	12

INSIDE EVERY LESSON PLAN

- The specific learning outcomes, key inquiry question, core competencies, values and PCIs, and the resources needed.
- A timed lesson flow: what the teacher does and what the learners do, from introduction to summary.
- The key content (a worked example, notes or a practical with its expected results), then four practice questions with the answers for the teacher.
- The common mistake to watch for, and ideas for learners who need support and for those ready for more.
- A four-level CBC assessment rubric (EE, ME, AE, BE), homework, and a blank reflection space to fill in after teaching.

A TASTE OF LESSON 1

Place value up to millions

By the end of the lesson, the learner should be able to: a) name the place of each digit in a 7-digit number; b) place a 7-digit number on a place value chart

> **Placing 2,162,202 on a place value chart**
> Millions 2 | Hundred thousands 1 | Ten thousands 6 | Thousands 2 | Hundreds 2 | Tens 0 | Ones 2.
> Digits are grouped in threes from the right: ones group (202), thousands group (162), millions group (2).

You also receive this pack as an editable Word file, so you can change any lesson to suit your class before you print it. Lessons follow the order of the KICD curriculum design.

CONTENTS

No.	Lesson	Topic	Page
1	Place value up to millions	1.1 Whole Numbers	4
2	Total value up to millions	1.1 Whole Numbers	7
3	Expanded form	1.1 Whole Numbers	10
4	Writing numbers up to millions in symbols	1.1 Whole Numbers	13
5	Large numbers in real life	1.1 Whole Numbers	16
6	Reading numbers up to 100,000 in words	1.1 Whole Numbers	19
7	Writing numbers up to 100,000 in words	1.1 Whole Numbers	22
8	Numbers in words on receipts	1.1 Whole Numbers	25
9	Comparing numbers up to 100,000	1.1 Whole Numbers	28
10	Ordering numbers up to 100,000	1.1 Whole Numbers	31
11	Ordering numbers in real-life data	1.1 Whole Numbers	34
12	Rounding off to the nearest thousand	1.1 Whole Numbers	37
13	Rounding off on a number line	1.1 Whole Numbers	40
14	Rounding off in real life	1.1 Whole Numbers	43
15	What a square number is	1.1 Whole Numbers	46
16	Squares of numbers from 10 to 20	1.1 Whole Numbers	49
17	Squares of numbers up to 100	1.1 Whole Numbers	52
18	Square roots of perfect squares	1.1 Whole Numbers	55
19	Square roots up to 10,000 and real-life problems	1.1 Whole Numbers	58
20	Review: whole numbers	1.1 Whole Numbers	61
21	Multiplying a 4-digit number by a 2-digit number	1.2 Multiplication	64
22	More long multiplication with real-life problems	1.2 Multiplication	67
23	Estimating products by rounding to the nearest ten	1.2 Multiplication	70
24	Multiplication patterns	1.2 Multiplication	73
25	Choosing and checking multiplication in problems	1.2 Multiplication	76
26	Review: multiplication in real life	1.2 Multiplication	79
27	Dividing a 4-digit number by a 2-digit number	1.3 Division	82
28	Dividing by a 3-digit number	1.3 Division	85
29	Estimating quotients	1.3 Division	88
30	Combined operations	1.3 Division	91
31	Division in real-life problems	1.3 Division	94
32	Review: division and combined operations	1.3 Division	97

33	Finding the LCM of denominators	1.4 Fractions	100
34	Adding fractions with different denominators	1.4 Fractions	103
35	Adding three fractions and word problems	1.4 Fractions	106
36	Subtracting fractions with different denominators	1.4 Fractions	109
37	Adding mixed numbers	1.4 Fractions	112
38	Subtracting mixed numbers	1.4 Fractions	115
39	Reciprocals	1.4 Fractions	118
40	Squares of fractions	1.4 Fractions	121
41	Expressing a fraction as a percentage	1.4 Fractions	124
42	Converting percentages to fractions	1.4 Fractions	127
43	Percentages in real life	1.4 Fractions	130
44	Review: fractions and percentages	1.4 Fractions	133
45	Decimal place value to ten thousandths	1.5 Decimals	136
46	Reading, writing and comparing decimals	1.5 Decimals	139
47	Rounding off to 1 and 2 decimal places	1.5 Decimals	142
48	Rounding off to 3 decimal places	1.5 Decimals	145
49	Converting decimals to fractions	1.5 Decimals	148
50	Converting fractions to decimals	1.5 Decimals	151
51	Decimals and percentages	1.5 Decimals	154
52	Comparing fractions, decimals and percentages	1.5 Decimals	157
53	Adding decimals up to 4 decimal places	1.5 Decimals	160
54	Subtracting decimals up to 4 decimal places	1.5 Decimals	163
55	Decimals in real life	1.5 Decimals	166
56	Review: decimals	1.5 Decimals	169

ELIMU254

Place value up to millions

Strand 1.0 Numbers > Sub-strand 1.1 Whole Numbers | Lesson 1 of 20 | 35 minutes

SCHOOL	TEACHER	DATE
CLASS / STREAM	TIME	ROLL (B / G)

SPECIFIC LEARNING OUTCOME(S)

By the end of the lesson, the learner should be able to: a) name the place of each digit in a 7-digit number; b) place a 7-digit number on a place value chart

KEY INQUIRY QUESTION(S)

- How do we read and write numbers in symbols and in words?

CORE COMPETENCIES, VALUES AND PCIS IN THIS LESSON

COMPETENCY	**Critical thinking and problem solving**	Learners choose a method, check their answers and give reasons for their choices.
COMPETENCY	**Communication and collaboration**	Learners explain their thinking to a partner and report their findings to the group.
VALUE	**Unity**	Learners share materials fairly and work as one team.
VALUE	**Responsibility**	Learners look after shared materials and finish every task.
PCI	**Social cohesion**	Learners work in harmony, include everyone and settle differences peacefully.
PCI	**Safety**	Learners follow safety rules when using materials and moving about.

LEARNING RESOURCES

Place value chart up to millions drawn on manila paper | Number cards 0 to 9 | Newspaper cuttings with large numbers (populations, budgets) | Squared paper | Learners' exercise books

ORGANISATION OF LEARNING

Whole class for the introduction and the summary; pairs or groups of four to five for guided practice; individual work for the independent tasks.

KEY WORDS

digit | place value | total value | millions | expanded form | ascending | descending | round off | square | square number | square root | perfect square

THE LESSON AT A GLANCE

Introduction	Teacher models	Guided practice	On their own	Wrap-up
5 min	8 min	9 min	8 min	5 min

LESSON FLOW

Stage	Minutes	The teacher	The learners
Introduction	5	Greet the class and ask: "Key question: how do we read and write numbers in symbols and in words? Nakuru County had about 2,162,202 people in the 2019 census. Which digit is in the millions place?" Take two or three answers, link them to earlier work, then state today's outcome.	Answer the starter question, recall what they already know and read the outcome aloud.
Step 1: Teacher models	8	Work through the worked example on the next page, thinking aloud. Use place value chart up to millions drawn on manila paper, number cards 0 to 9, newspaper cuttings with large numbers (populations, budgets). Ask learners to predict each step before you show it.	Watch, predict the next step, ask questions and note the key steps in their exercise books.
Step 2: Guided practice	9	Give questions 1 and 2. Move round the groups, ask "How do you know?" and correct errors kindly on the spot.	Work in pairs or small groups, explain each step to a partner and check one another's answers.
Step 3: Independent practice	8	Set questions 3 and 4 for individual work. Mark as you walk round and note who needs help in the next lesson.	Work on their own, then swap books with a partner to check.
Summary and conclusion	5	Ask two or three learners to state the key idea in their own words. Give this exit question and check the answers: "Write the 7-digit number with 6 in the millions place and 0 in every other place."	Say the key idea in their own words and answer the exit question in the exercise book.

WORKED EXAMPLE

Placing 2,162,202 on a place value chart

Millions 2 | Hundred thousands 1 | Ten thousands 6 | Thousands 2 | Hundreds 2 | Tens 0 | Ones 2.

Digits are grouped in threes from the right: ones group (202), thousands group (162), millions group (2).

The commas separate the groups and help us read the number.

PRACTICE QUESTIONS - WITH ANSWERS FOR THE TEACHER

No.	Question	Answer
1	Write the place value of 5 in 5,302,148.	**Millions**
2	Write the place value of 8 in 1,480,263.	**Ten thousands**
3	In 3,906,715, which digit is in the hundred thousands place?	**9**
4	Write the 7-digit number with 6 in the millions place and 0 in every other place.	**6,000,000**

WATCH OUT FOR

Learners name the digit instead of the place. Keep asking: which column is the digit in?

ASSESSMENT RUBRIC - THE FOUR CBC LEVELS

Level	What the learner can do
Exceeds expectations (EE)	Can name the place of each digit in a 7-digit number confidently and accurately, explain the method used, and apply the idea to new or unfamiliar problems.
Meets expectations (ME)	Can name the place of each digit in a 7-digit number accurately in familiar situations; notices and corrects slips without help.
Approaches expectations (AE)	Can partly name the place of each digit in a 7-digit number, or does so with prompts from the teacher or a partner; makes some errors.
Below expectations (BE)	Cannot yet name the place of each digit in a 7-digit number without direct help; needs the idea taught again with concrete objects.

SUPPORT AND EXTENSION

Learners who need support	Place number cards on a 7-column chart and say each column name aloud.
Learners ready for more	Using the digits 7, 0, 2, 9, 4, 1 and 5 once each, make the largest 7-digit number. (Answer: 9,754,210)
Inclusion	Seat learners with low vision near the board and read aloud whatever you write; use large, clear, tactile materials; allow extra time; pair with a patient partner; use gestures or Kenyan Sign Language for the key words.

HOMEWORK AND FOLLOW-UP

Redo questions 3 and 4 neatly in the exercise book. Then tell someone at home what you learned about "place value up to millions" and bring one question of your own to ask next lesson.

TEACHER SELF-CHECK

- Did every learner get a turn to handle materials or explain their thinking?
- Did most learners meet the outcome? Write down the names of those who did not.
- Was the pace right — did any step take too long or too short a time?
- Which competency and value did I see learners showing?
- What will I change the next time I teach this lesson?

REFLECTION ON THE LESSON / SELF-REMARKS

Write this after teaching - what worked, what to change, which learners need follow-up.

ELIMU254

Total value up to millions

Strand 1.0 Numbers > Sub-strand 1.1 Whole Numbers | Lesson 2 of 20 | 35 minutes

SCHOOL	TEACHER	DATE
CLASS / STREAM	TIME	ROLL (B / G)

SPECIFIC LEARNING OUTCOME(S)

By the end of the lesson, the learner should be able to: a) find the total value of a digit; b) show that total values add up to the number

KEY INQUIRY QUESTION(S)

- How do we read and write numbers in symbols and in words?

CORE COMPETENCIES, VALUES AND PCIS IN THIS LESSON

COMPETENCY	**Critical thinking and problem solving**	Learners choose a method, check their answers and give reasons for their choices.
COMPETENCY	**Communication and collaboration**	Learners explain their thinking to a partner and report their findings to the group.
VALUE	**Unity**	Learners share materials fairly and work as one team.
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KEY WORDS

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THE LESSON AT A GLANCE

Introduction	Teacher models	Guided practice	On their own	Wrap-up
5 min	8 min	9 min	8 min	5 min

LESSON FLOW

Stage	Minutes	The teacher	The learners
Introduction	5	Greet the class and ask: "In 4,250,000 the 4 is in the millions place. How much is it worth?" Take two or three answers, link them to earlier work, then state today's outcome.	Answer the starter question, recall what they already know and read the outcome aloud.
Step 1: Teacher models	8	Work through the worked example on the next page, thinking aloud. Use place value chart up to millions drawn on manila paper, number cards 0 to 9, newspaper cuttings with large numbers (populations, budgets). Ask learners to predict each step before you show it.	Watch, predict the next step, ask questions and note the key steps in their exercise books.
Step 2: Guided practice	9	Give questions 1 and 2. Move round the groups, ask "How do you know?" and correct errors kindly on the spot.	Work in pairs or small groups, explain each step to a partner and check one another's answers.
Step 3: Independent practice	8	Set questions 3 and 4 for individual work. Mark as you walk round and note who needs help in the next lesson.	Work on their own, then swap books with a partner to check.
Summary and conclusion	5	Ask two or three learners to state the key idea in their own words. Give this exit question and check the answers: "What is the total value of 3 in 6,320,418?"	Say the key idea in their own words and answer the exit question in the exercise book.

WORKED EXAMPLE

Total value = digit × value of its place

In 3,546,201: 3 × 1,000,000 = 3,000,000; 5 × 100,000 = 500,000; 4 × 10,000 = 40,000.

6 × 1,000 = 6,000; 2 × 100 = 200; 0 × 10 = 0; 1 × 1 = 1.

Check: 3,000,000 + 500,000 + 40,000 + 6,000 + 200 + 1 = 3,546,201.

PRACTICE QUESTIONS - WITH ANSWERS FOR THE TEACHER

No.	Question	Answer
1	What is the total value of 7 in 7,215,036?	**7,000,000**
2	What is the total value of 4 in 2,843,190?	**40,000**
3	What is the total value of 9 in 1,069,500?	**9,000**
4	What is the total value of 3 in 6,320,418?	**300,000**

WATCH OUT FOR

Place value is the column name; total value is a number. Do not mix them.