MATHEMATICS
GRADE 4
TERM 2

DATE: ……..

1. **TOPIC: ADDITION AND SUBTRATION 1 Week Covid19 Plan**

2. **CONCEPTS & SKILLS TO BE ACHIEVED:**

By the end of the week learners should know and be able to;

- Addition: Using the breaking up method to add
- Subtration: Using the breaking down method to subtract
- Solving different types of words problems
- Explore different calculation strategies.

3. **RESOURCES:**	Sasol-Inzalo Term 2 book, Textbooks (for further practice)
4. **Icons**	**Indicates notes to teachers, parents and/or the learner**
	Icon for teachers
	Icon for parents
	Icon for learners

1. (Day 1: +/-10 mins): INTRODUCTION
Start class with the following questions:

- Refresh your memory (verbally – can you expand these numbers?

a. 1 647 = _____
b. 2 370 = _____
c. 7 564 = _____
d. 4 976 = _____

- Try to do these mental calculations:

e. 4 000 + 6 000 = _____
b. 6 800 + 3 200 = _____
c. 5 300 + 4 700 = _____
d. 10 000 - 4 000 = _____
e. 7 500 - 3 500 = _____
f. 8 365 - 5 000 = _____
g. 4 287 + _____ = 4 300
h. 3 063 + _____= 6 000
i. 624 + _____ = 8 000

Use the following example to explain the concept of addition using the Breaking up method. Breaking up one number.

One way to calculate 3 785 + 4 667 is to break the 4 667 down into its place value parts and add them one by one to 3 785:

4 667 = 4 000 + 600 + 60 + 7
3 785 + 4 000 = 7 785
7 785 + 600 = 8 385
8 385 + 60 = 8 445
8 445 + 7 = 8 452

The smaller parts can be added first if you prefer to do so:

3 785 + 7 = 3 792
3 792 + 60 = 3 852
3 852 + 600 = 4 452
4 452 + 4 000 = 8 452

2. Let's investigate

(a) . Will we get the same answer if we start with 4667?

3 000 + 700 + 80 + 5
4 667 + 3 000 = _____
7 667 + 700 = _____
8 367 + 80 = _____
8 447 + 5 = _____

3. Calculate:

(a) 1 212 + 8 688

(b) 5 421 + 3 399

(c) 5 583 + 3 489

(d) 7 354 + 1 687

(e) ☐ - 4 675 = 4 588

(f) ☐ - 789 = 2 334

CONSOLIDATION / CONCLUSION & HOMEWORK

(Day 2 -Activity 2 +/- 40min): Calculating addition: Breaking up both numbers.

To calculate 3 465 + 4 574 you can break *both* numbers down, work with the parts of the same kind, and then build the answer up.

Break down:

3 465 = 3 000 + 400 + 60 + 5
4 574 = 4 000 + 500 + 70 + 4

Writing the expanded notations in separate lines makes it easier to see which parts belong together.

Work with the parts:

3 000 + 4 000 = 7 000
400 + 500 = 900
60 + 70 = 130
5 + 4 = 9

Build up the answer:

3 465 + 4 574
= 7 000 + 900 + 130 + 9
Transfer 100 from 130 to 900
= 7 000 + 1 000 + 30 + 9
Transfer 1 000 to 7 000
= 8 000 + 0 + 30 + 9
= 8 039

When 3 465 + 4 574 is calculated, do you think it matters which of 4 000, 500, 70 and 4 is added to 3 465 first and which part is added next?

Complete these calculations to check your answer:

(a) 3 465 + 4 → . . . . +70 → . . . . + 500 → . . . . + 4 000 = ...

(b) 3 465 + 70 → . . . . + 4 → . . . . + 4 000 → . . . . + 500 = ...

(c) 3 465 + 500 → . . . . + 4 000 → . . . . + 4 → . . . . + 70 = ...

Break all numbers down to calculate the following:

(a) 4 478 + 3 827

_____
_____
_____
_____
_____

(b) 6 289 + 1 877

_____
_____
_____
_____
_____

(c) 866 + 967 + 678

(d) 1 287 + 991 + 658 + 786

(Day 3: +/-10 mins): INTRODUCTION: SUBTRACTION

Fill in the missing answers. Explain how you found the answers.

a) 90 + …….. = 100
b) 85 + …….. = 100
c) 78 +…… = 200
d) 325 +…….. = 350
e) 312 + …….. = 400
f) 350 + …… = 525

(**Day 3: Activity 2 +/- 30 – 40 mins). Subtraction: Using the breaking up method**.

1.

To calculate 6 878 – 4 465 you can break *both* numbers down into place value parts, work with the parts of the same kind, and then build the answer up.

Break down:

6 878 = 6 000 + 800 + 70 + 8
4 465 = 4 000 + 400 + 60 + 5

Work with the parts:

6 000 – 4 000 = 2 000
800 – 400 = 400
70 – 60 = 10
8 – 5 = 3

Build up the answer:

6 878 – 4 465 = 2 000 + 400 + 10 + 3 = 2 413

The above actions can also be described by using brackets:

6 878 – 4 465 = (6 000 + 800 + 70 + 8) – (4 000 + 400 + 60 + 5)
= (6 000 – 4 000) + (800 – 400) + (70 – 60) + (8 – 5)
= 2 000 + 400 + 10 + 3
= 2 413

2. Calculate each of the following by breaking both numbers down into place value parts, working with the parts and building the answers up.

(a) 7 698 − 2 354

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(b) 6 567 − 4 143

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(c) 6 559 − 3 325

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(d) 6 552 − 3 325

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2. Ben has R4 325 and he pays. R2 768 rent for his house.
How much money will he have left?

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3. Farmer Cele has two farms. He calls them Farm A and Farm B. He has 2 347 goats on Farm A. Altogether, there are 5 479 goats on the two farms.

(a) How many goats are there on Farm B?

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(b) Farmer Cele takes 1 234 goats from Farm A to Farm B. How many goats are left on Farm A?

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4. CONSOLIDATION / CONCLUSION & HOMEWORK (Day 2)

a. Tebogo also has R3 787 in her purse. She pays R2 545 for a washing machine. How much money does she have left?

b. Sarah has R4 958. She buys a refrigerator for R2 336. How much money does she have left?

1. (Day 5: +/-10 mins): INTRODUCTION

Change the words to write number sentences for the following:

a) **Add** 5 000 **and** 900. ……..

b) **Take** 500 **from** 8 000 ……..

c) **Increase** 360 by 2 100 ……..

d) **Decrease** 2 700 by 700. ……..

Calculate the solutions of the problems above.

a) ……..

b) ……..

c) ……..

d) ……..

(Day 5: Activity 2 +/- 30 – 40 mins). Problem-solving - Mixed activities.

- Read the problem with understanding by underlining the key words.
- Derive the plan by writing the accurate number sentence.
- Carry out the plan and use any method to solve the problem.
- Reflect by checking whether the solutions were correct or not (inverse operations can be used)

1. Between 10 o'clock and 11 o'clock 2 176 people enter a soccer stadium. At 11 o'clock there are 6 573 people in the stadium. How many people were there at 10 o'clock?

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2. There are 4 788 Grade 4 learners in School District A and 3 866 learners in School District B.
   (a) How many more Grade 4 learners are there in District A than in District B?
   (b) How many Grade 4 learners are there in the two districts together?

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3. On five consecutive days a supermarket sold 657, 358, 724, 547 and 622 chickens.
   How many chickens were sold altogether?

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4. A contractor has to build 8 276 flush toilets in a township. He has completed 5 377.
   How many are still outstanding?

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5. An airline charges a fare of R4 480 for a return flight from Johannesburg to Nairobi.
   There are also additional fees and taxes of R3 448. What is the total cost of the air ticket?

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6. Lerato walked 5 683m. In the same period of time; Sipho walked 7 349m. How many further than Lerato did Sipho walked?

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7. CONSOLIDATION / CONCLUSION & HOMEWORK (Day 5)

a. Selina uses 3 524 litres of water from a tank to water her small field of maize. If there is then 4 852 litres of water left, how much water was in the tank.

b. A store sold 8 563 packets of chips during a month. Of these, 2 047 were sold during the last week. How many packets were sold during the first 3 weeks of the month?

c. William has to lay 8 675 bricks. He laid 2 357 bricks. How many bricks must he still lay?

MATHEMATICS
GRADE 4
TERM 2 - Memorandum

TOPIC: ADDITION AND SUBTRATION 1 Week Covid19 Plan

1. (Day 1: +/-10 mins): INTRODUCTION
Start class with the following questions:

- Refresh your memory (verbally – can expand these numbers:

f. 1 647 = 1000 + 600 + 40 + 7
g. 2 370 = 2000 + 300 + 70
h. 7 564 = 7000 + 500 + 60 +4
i. 4 976 = 4000 + 900 + 70 + 6

j. 4 000 + 6 000 = 1 000
b. 6 800 + 3 200 = 10 000
c. 5 300 + 4 700 = 10 000
d. 10 000 - 4 000 = 6 000

e. 7 500 - 3 500 = 4 000
f. 8 365 - 5 000 = 3 365
g. 4 287 + 13 = 4 300
h. 3 063 + 2 937 = 6 000
i. 624 + 8 624 = 8 000

2. Let's investigate

(b) . Will we get the same answer if start with 4667?

3 000 + 700 + 80 + 5
4 667 + 3 000 = 7 667
7 667 + 700 = 8 367
8 367 + 80 = 8 447
8 447 + 5 = 8 452

3. Calculate:

(a) 1 212 + 8 686
8 000 + 600 + 80 + 8
1212 + 8 000 = 9 212
9 212 + 600 = 9 812
9 812 + 80 = 9 892
9 892 +6= 9 898

(b) 5 421 + 3 399
3 000 + 300 + 90 =9
5 421 + 3 000 = 8 421
8 421 + 300 = 8 721
8 721 + 90 = 8 811
8 811 + 9 = 8 820

(c) 5 583 + 3 489
3 000 + 400 +80 +9
5 583 +3000 = 8 583
8 583 + 400 = 8 983
8 983 + 80 = 9 063
9 063 + 9 = 9 0 72

(d) 7 354 + 1 687
1 000 + 600 + 80 =7
7 354 + 1000 = 8 354
8 354 + 600 = 8 954
8 954 + 80 = 9034
9034 + 7 =9 041

(e) ☐ - 4 675 = 4 588
4 588 + 4 675
4 000+ 600 + 70 + 5
4 588 +4 000 = 8588
8588 + 600 = 9188
9188 + 70 = 9 258
9 258 + 5 = 9263

(f) ☐ – 4 789 = 2 334
2 334 +4 789
4 000 + 700 +80 + 9
2 334 + 4 000 =6334
6 334 + 700 = 7 034
7 034 +80 = 7 114
7 114 +9 = 7123

(Day 2 -Activity 2 +/- 40min): Calculating addition: Breaking up both numbers.

When 3 465 + 4 574 is calculated, do you think it matters which of 4 000, 500, 70 and 4 is added to 3 465 first and which part is added next?

Complete these calculations to check your answer:

(a) 3 465 + 4 → 3 469 + 70 → 3 539 + 500 → 4 039 + 4 000 = 8039

(b) 3 465 + 70 → 3 465 + 4 → 3 539 + 4 000 → 7 538 + 500 = 8 039

(c) 3 465 + 500 → 3965 + 4 000 → 7 965 + 4 → 7 969 + 70 = 8 039

Break all numbers down to calculate the following:

(a) 4 478 + 3 827

4000 + 400 + 70 + 8

3 000 + 800 + 20 + 7

4 000 + 3 000 =7 000

400 + 800 = 1 200

70 + 20 = 90

7 + 8 = 15

7 000 + 1 000 + 200 + 90 + 10 +5

= 8 305

(b) 6 289 + 1 877

6 000 + 200 + 80 + 9

1 000 + 800 + 70 + 7

6 000 +1 000 = 7 000

200 + 800 = 1 000

80 + 70 = 150

9 + 7 = 16

7 000 + 1 000 + 100 +50 + 10+6

= 8 166

(c) 866 + 967 + 678

800 +60 +6

900 + 60 +7

(d) 1 287 + 991 + 658 + 786

1 000 + 200 + 80 + 7

900 + 90 +1

600+ 70+ 8

800 + 900 + 600= 2 300

60 + 60 + 70 = 190

7 + 8 +6 = 21

2 300 + 100 +90 + 20 +1 = 2 511

600 + 50 + 8

700+ 80 + 6

1000

200 +900 +600 + 700 = 2 400

80 + 90 + 50 + 80 = 300

7 + 1+ 8 + 6 = 22

1 000+ 2000 + 400 + 300 +20+2

= 3 722

(Day 3: +/-10 mins) : INTRODUCTION

a) 90 + 10 = 100
b) 85 + 15 = 100
c) 78 + 122 = 200
d) 325 + 25 = 350
e) 312 + 88 = 400
f) 350 + 175 = 525

Explain how you found the answers. Learner response may differ.
Subtraction, add on method or any other correct response may be accepted.

(Day 3: Activity 2 +/- 30 – 40 mins). Subtraction: Using the breaking up method.

1.

To calculate 6 878 – 4 465 you can break *both* numbers down into place value parts, work with the parts of the same kind, and then build the answer up.

Break down:

6 878 = 6 000 + 800 + 70 + 8
4 465 = 4 000 + 400 + 60 + 5

Work with the parts:

6 000 – 4 000 = 2 000
800 – 400 = 400
70 – 60 = 10
8 – 5 = 3

Build up the answer:

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The above actions can also be described by using brackets:

6 878 – 4 465 = (6 000 + 800 + 70 + 8) – (4 000 + 400 + 60 + 5)
= (6 000 – 4 000) + (800 – 400) + (70 – 60) + (8 – 5)
= 2 000 + 400 + 10 + 3
= 2 413

2. Calculate each of the following by breaking both numbers down into place value parts, working with the parts and building the answers up.

(e) 7 698 − 2 354
7698 = 7 000+600+90+8
2 354= 2 000+300+50=4
7000 -2000 =5000
600-300 = 300
90-50 = 40
8-4 = 4
= 5 000 + 300 + 40 + 4
= 5 344

(f) 6 567 − 4 143
6567= 6 000+500+60+7
4 143 = 4000 + 100+40+3
6000 -4000 = 2000
500-100=400
60-40 = 20
7=3 =4
2000+400+20+4= 2 424

(g) 6 559 − 3 325
6 559 = 6 000+500+50+9
3 325 = 3 000+300+20+5
6 000- 3 000 = 3000
500-300 = 200
50-20 = 30
9 -5 = 4
3000+200+30+4 = 3 234

(h) 6 552 − 3 325

6 000+500+50+2

3 000+300+20+5

6 000-3 000 =3 000

500+300 =300

40-20 =20

12-5 = 7

=3 000+300 + 20 +7

3 227

2. Ben has R4 325 and he pays R2 768 rent for his house.
How much money will he have left?

4 325 = 4000+300+20+5

2 768 = 2000+700+60+8

4000-2000 =1000

1200-700 = 500

110-60 =50

15-8 = 7

= R1 557

3. Farmer Cele has two farms. He calls them Farm A and Farm B. He has 2 347 goats on Farm A. Altogether, there are 5 479 goats on the two farms.

(b) How many goats are there on Farm B?

5 479 – 2347

5 478= 5 000+400+70+9

2 347 = 2 000 +300+40=7

5 000-2 000 = 3000

400-300 =100

70-40 =30

9-7 =2

= 3 132 goats

(c) Farmer Cele takes 1 234 goats from Farm A to Farm B.
How many goats are left on Farm A?

2 347-1234

2000+300+40+7

1000+200+30+4

2000-1000 = 1000

300-200= 100

40-30=10

7-4 =3

=1113

2. (Day 5: +/-10 mins): INTRODUCTION

Change the words to write number sentences for the following:

e) **Add** 5 000 **and** 900. 5 000+900= 5 900

f) **Take** 500 **from** 8 000 8000-500 = 7 500

g) **Increase** 360 by 2 100 2100 +360 = 2 460

h) **Decrease** 2 700 by 700. 2 700 – 700 = 2 000

(Day 5 : Activity 2 +/- 30 – 40 mins). Problem-solving Mixed activities.

a. Between 10 o'clock and 11 o'clock 2 176 people enter a soccer stadium. At 11 o'clock there are 6 573 people in the stadium. How many people were there at 10 o'clock?
6 5 73 – 2 176
6 573 = 6000+500+70+3
2 176 = 2000+100+70+6
6 000-2 000 = 4 000
400-100 =300
160-70 = 90
13-6 =7
=4 397 people

b. There are 4 788 Grade 4 learners in School District A and 3 866 learners in School District B.
(a) How many more Grade 4 learners are there in District A than in District B?
(b) How many Grade 4 learners are there in the two districts together?
4 788 – 3866
4 788 = 4000+700+80+8
3 866 = 3000 +800+60+6
3 000-3 000 = 0
1700 -800 = 900
80-60 = 20
8-6 = 2
= 900 + 20 +2 Learners 922 learners

Number of learners in the two districts
4 788 +3 866
4 788 = 4 000+700+80+8
3 866 = 3 000 +800+60+6
4 000+3000 = 7 000
700+800 = 1 500
80+60 = 140
8+6 = 14
= 7000+1000 +500+ 100+40+10+4
= 8 654 learners

On five consecutive days a supermarket sold 657, 358, 724, 547 and 622 chickens.
How many chickens were sold altogether?
657+358+724+547+622
657 = 600+50+7
358 = 300+50+8
724 = 700+20+4
547 = 500+40+7
622 = 600+20+2
600+300+700+500+600 =2700
50+50+20+40+20 = 180
7+8+4+7+2 =28
2 700+180+28 = 2 908 chickens

A contractor has to build 8 276 flush toilets in a township. He has completed 5 377.
How many are still outstanding?
8 276 – 5 377
8 376 = 8 000+200+70+6
5 377 = 5 000 +300+70+7
7 000-5 000= 2000
1 100-300 =800
160-70 =90
16 -7 =9
=2000 +800 + 90+9
=2 899

7. An airline charges a fare of R4 480 for a return flight from Johannesburg to Nairobi.
There are also additional fees and taxes of R3 448. What is the total cost of the air ticket?

R4 480 + R3 448
4480 = 4000+400+80
3 448 = 3000+400+40+8
4000+3000 = 7000
400+ 400 = 800
80+40 =120
+ 8
= 7000+800+120+8
=R 7928

8. Lerato walked 5 683m. In the same period of time; Sipho walked 7 349m. How many m further than Lerato did Sipho walked?

7 349m– 5 6 83m
7349 = 7000+300+40+9
5683 = 5000+ 600+80+3
6000-5000 = 1000
1 200 – 6000 = 600
140 -80 = 60
9-3=6
= 1 666m

4. CONSOLIDATION / CONCLUSION & HOMEWORK - (Day 5)

a. Selina uses 3 524 litres of water from a tank to water her small field of maize. If there is then 4 852 litres of water left, how much water was in the tank.

3 524 litres +4852
3 524 = 3000 +500+20+4
4 852 = 4000 +800+50 +2
3 000+4 000 =7 000
500+800 = 1300
20+50 = 70
4+2 = 6
= 7000 +1 000 + 300 + 70+ 6
= 8 376 litres

b. A store sold 8 563 packets of chips during a month. Of these, 2 047 were sold during the last week. How many packets were sold during the first 3 weeks of the month?

8 563 – 2 047
8 5 63 = 8 000 + 500 +60+3
2 047 = 2 000 + 0 + 40 +7
8 000 – 2 000 = 6 000
500-0 = 500

50-40 = 10
13 – 7= 6
6 000 + 500 + 10 + 6 =6 516 packets of chips

a. William has to lay 8 675 bricks. He laid 2 357 bricks. How many brick must he still lay?

8 675 -2 357
8 675 = 8 000+ 600+70+5
2 357 = 2 000 + 300 + 50 +7
8 000-200 = 6 000
600 – 300 = 300
60 – 50 = 10
15 -7 = 8
=6 318 bricks