

**HOME-SCHOOLING: GRADE 4 MATHEMATICS WORKSHEETS:**

**TOPIC: WHOLE NUMBERS - Expanded Notation**

**Activity 1**

a) What does the number fifteen mean?

b) What does the number sixteen mean?

c) What are the parts of nineteen?

d) What is the number symbol for nineteen?

**Activity 2**



Twenty – four

24 = 20 + 4 (The number symbol is 24) 

When you write this number as 20 + 4, you are using the **expanded notation.**

The English number name twenty–four tells you that the expanded notation is 20 + 4.

 Look at number 48:





a) What are the parts of 48?

b) Write the expanded notation of 48.

**Activity 3**

1. Copy and complete this table

|  |  |  |
| --- | --- | --- |
| **Number symbol** | **Number name** | **Expanded notation** |
|  | Six hundred and thirty - four |  |
| 546 |  |  |
|  |  | 300 + 20 + 9 |
| 910 |  |  |
|  |  | 700 + 30 +4 |
|  | Two hundred and four |  |
| 703 |  |  |
|  |  | 900 + 40 + 8 |

1. What does the “7” in each of the following number symbols tell us about the number?
2. 573
3. 357
4. 735
5. (a) How do you know that the “7” in 573 means 70, and not 7 or 700?

(b) How do you know that the “7” in 357 means 7, and not 70 or 700?

(c) How do you know that the “7” in 735 means 700, and not 7 or 70?



**HOME-SCHOOLING: GRADE 4 MATHEMATICS WORKSHEETS:**

**TOPIC: WHOLE NUMBERS – Rounding Off Whole Numbers**

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
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| Activity 1 **Example 1**: **Rounding off whole numbers**  Round off 8 343 to the nearest 10Rounding off to the nearest 10,100 and 1 000

|  |  |  |
| --- | --- | --- |
| Rounding | Rounding off digits | Round up or down |
| To the nearest 10: we look at the last digit | $ 21 ≈20$  | The units digit is less than 5. Round down |
| $ 145 ≈150$  | The units digit is 5 or more than 5. Round up |
| To the nearest 100: we look at last 2 digits | $ 811 ≈ 800$  | The last 2 digits are less than 50. Round down |
| $ 675 ≈ 700$  | The last 2 digits are 50 or more than 50. Round up. |
| To the nearest 1 000: we look at last 3 digits | $3 232 ≈2 000$  | The last 3 digits are less than 500. Round down |
| $4 988 ≈5000$  | The last 3 digits are 500 or more than 500. Round up. |

  Activity 2Copy and complete the table.1. Copy and complete the tables

|  |  |  |  |
| --- | --- | --- | --- |
| **Round off to the nearest** | **10** | **100** | **1 000** |
|  526 |  |  |  |
|  456 |  |  |  |
| 1 567 |  |  |  |
| 5 823 |  |  |  |
| 3 988 |  |  |  |

|  |  |  |  |
| --- | --- | --- | --- |
| **Round off to the nearest** | **10** | **100** | **1 000** |
| 326 |  |  |  |
| 579 |  |  |  |
| 330 |  |  |  |

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**HOME-SCHOOLING: GRADE 4 MATHEMATICS WORKSHEETS:**

**TOPIC: WHOLE NUMBERS – Addition and Subtraction**

**Activity 1**

**I**ntroduceestimation by rounding off the numbers to the nearest 1 000 to get an approximate answer

1. Estimate the answer of the following numbers by rounding off to the nearest 1000 to add.

**Example 1.**

1. 4 432 + 1 526

 4 000 + 2 000 = 6 000

1. 5 684 +1 315
2. 6 651 + 2 431

 **Use (a) as an example**

644 + 120

 600 + 100 = 700

1. Give the approximate answers for questions in (1. b and c)

**Activity 2**

Introduce breaking down all numbers according to place value parts to add

Follow the steps given below when adding:

* Add the two numbers together
* Break down both numbers all parts separated by + signs

**e.g.** 4 000 + 400 + 30 +2 + 1000 + 500 + 20 + 6

* Group the thousands, hundreds, tens and units to add
* Make transfer if it is necessary
* Write the final answer

 **Example 1.**

4 432+1 526

 = 4 000 + 400 + 30 +2 + 1000 + 500 + 20 + 6

 = (4000 + 1000) + (400 + 500) + (30 + 20) + (2 + 6)

 = 5 000 + 900 + 50 + 8

 = 5 958

 **OR**

4 000 + 1 000 = 5 000

 400 + 500 = 900

 30 + 20 = 50

 2 + 6 = 8

Therefore 4 432+1 526 ­= 5 000 + 900 + 50 + 8 = 5 958

1. Use the above methods and calculate no **(b)** to get an accurate answer
2. Use the inverse of addition to check if the solutions are correct:

 **Example** 5 958– 1 526 = 4 432 or 5 958 – 4 432 = 1 526

**Activity 3**

1. Give the approximate answers for the numbers below by rounding off the nearest 1 000
2. 6 503 + 2 741
3. 8 365 + 1 462
4. 4 532 + 3 407
5. 5 139 + 4 840
6. Calculate the accurate answers of the above questions by breaking down all numbers according to place value parts to add
7. Use the inverse of addition to check if the solutions are correct.



**HOME-SCHOOLING: GRADE 4 MATHEMATICS WORKSHEETS:**

**TOPIC: WHOLE NUMBERS – Addition and Subtraction**

 **Activity 1**

**Introduce: Adding on (by breaking down the second number according to place value parts to be added)**

Steps to add:

* + - Add the two numbers
		- Break down second number, add the parts separately
		- Keep on adding
		- Write the final answer
1. calculate:
2. 5 362 + 2 486
3. 4 912 + 1 371
4. 6 323 + 3 056

 **Example use (a) to demonstrate on the board.**

 5 362 + 2000 + 400 +80 + 6

 = 5 362 + 2 000 7 362+ 400 7 762 + 80 7 842+6 = 7 848

1. Calculate (b & c) by breaking down the second number according to place value parts to add
2. Use the inverse of addition to check if the solutions are correct

**Example** 7 848 ─ 5 362 = 2 486 or 7 848 ─ 2 486 = 5 362

**Activity 2**

1. Find the missing number. You can do it in steps, and use arrows to show your thinking**.**
2. 4 287 + …….. = 4 300
3. 5 624 + ……… = 6 000

**Activity 3**

1. Solve the problem below:

 **The school fee at a certain school is R1 460. Mandisa’s mother pays with four R200**

 **notes, six R100 notes and three R20 notes. Rashmi’s father pays with five R200 notes,**

 **four R100 notes, one R50 note and one R10 note.**

1. Use number sentences to show the ways of paying the school fees in the two cases above.
2. Use arrows to show how Rashmi’s father paid her school fee.
3. Describe by using a number sentence to show three other ways in which R1 460 can be made up from different banknotes.
4. Calculate by breaking down the second number into place value parts to add
5. 4 628 + 2 775
6. 4 775 + 2 628
7. Use the inverse of addition to check if the solutions are correct.



**HOME-SCHOOLING: GRADE 4 MATHEMATICS WORKSHEETS:**

**TOPIC: WHOLE NUMBERS – Addition and Subtraction**

**Activity 1**

**Introduce rounding off to add by explaining the following**:

* Four digits can be calculated by rounding off to the next multiple of ten, hundred and thousand.
	1. Round off to the nearest 1000 and calculate the sum of the rounded number

**Example**  5 567 + 2 359

1. 000 + 2 000 = 8 000

 1.2 Calculate by rounding off the following numbers by the next multiple of **1000.**

1. 4 473 + 3 052
2. 2 564 + 1 247
3. 5 516 + 1 682
4. 7 625 + 2 145

**Activity 2**

Use Activity 1. 2 **(a)** to demonstrate rounding off and compensating on the board

* Rounding off both numbers to the next multiple of thousand.
* Rounding off the first number up and the second number down to the next multiple of thousand
1. Calculate by rounding off to the nearest 1000.

 **Example**  4 473 + 3 052

 4 000 + 3 000 = 7000

1. Calculate by compensating to get an accurate answer.
2. 000 + 473 + 52 = 7 525
3. Calculate by compensating your answers in Activity 1.2 (c ) to get the accurate answers.
4. Use the inverse of addition to check if your solutions are correct

**Activity 3**

Follow the steps below when adding by rounding off to nearest 100 and compensating:

* Round the first number up to the next multiple of thousand.
* Round the second number down to the next multiple of thousand.
1. Calculate by rounding off to the nearest 100.

 **Example** 2 564 + 1 247

 3 000 + 1 000 = 4 000

1. Calculate by compensating to get an accurate answer.

 3 000 + 1 000 = 4 000 – 436 + 247= 3 811

1. Calculate by compensating your answers in activity 1.2 (d) to get accurate answers.
2. Use the inverse of addition to check if your solutions are correct.

**Activity 4**

1. Give approximate answers for the questions by rounding off to the nearest 1 000.
2. 4 513 + 3 221
3. 5 632 + 2 141
4. 3 605 + 3 154
5. 6 613 + 5 332
6. 2 376 + 1 442
7. Calculate the above numbers by compensating to get the accurate answers
8. Use the inverse of addition to check if the solutions are correct.