|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **SCHOOL** | **LEVEL** | **LEARNING AREA** | **DATE** | **TIME** | **ROLL** |
|  | **GRADE 4** | **MATHEMATICS** |  |  |  |

**WEEK 1: LESSON 1**

**Strand:** Numbers

**Sub Strand:** Whole Numbers: Place Value

**Specific Learning Outcomes:**

**- By the end of this lesson, learners should be able to:**

1. Identify the place value of digits up to thousands using place value apparatus.

2. Use the place value of digits in daily life situations.

3. Appreciate the importance of finding the place value of digits in real life.

**Key Inquiry Question:**

- How do you find the place value of numbers?

**Learning Resources:**

- KLB Visionary Mathematics Grade 4, Pages 1-2

- Number cards

- Place value apparatus (e.g., base ten blocks)

- IT devices (tablets/computers)

- Video clips illustrating place value

**Organisation of Learning:**

**Introduction (5 minutes):**

- Review the previous lesson about basic number concepts.

- Discuss with learners how knowing place value might help them in everyday life, using examples (e.g., understanding pricing, counting money).

- Guide learners to read and discuss relevant content from the learning resources focusing on the key inquiry question, "How do you find the place value of numbers?"

**Lesson Development (25 minutes):**

**Step 1:** Demonstration

- Introduce the place value apparatus. Show how to represent numbers using base ten blocks: units, tens, hundreds, and thousands.

- Write a few four-digit numbers on the board (e.g., 2,345). Ask, “What does each digit represent?”

**Step 2:** Group Activity

- In pairs, give each group a number and a set of place value apparatus. Ask them to arrange the blocks to show the number visually.

- Example number: 1,482. Each group should show 1 thousand, 4 hundreds, 8 tens, and 2 units.

**Step 3:** Record and Share

- Have each group record their number and its breakdown (such as: 1,000 + 400 + 80 + 2 = 1,482) on chart paper.

- Groups take turns sharing their number with the class, explaining the place value of each digit.

**Step 4:** Real-World Application

- Discuss how understanding place value helps in real-life applications (e.g., reading prices, population statistics).

- Present a scenario where students need to determine the value of digits in a real number (e.g., the cost of items in a store).

**Conclusion (5 minutes):**

- Summarize the key points about place value and its importance.

- Conduct a quick interactive game where you say a number, and students must shout out the place value of a specified digit (e.g., "In the number 3,654, what is the place value of 6?").

- Preview the next lesson topic about addition and subtraction of whole numbers and ask the class to think about how place value will help with those operations.

**Extended Activities:**

- Place Value Scavenger Hunt: Have learners find examples of numbers with different place values around the classroom or school (e.g., prices in the cafeteria, bus numbers).

- Create Your Own Store: Learners create a pretend store where they price items using numbers up to the thousands and practice using place value to calculate total prices.

- Flashcards: Create flashcards for different place values and practice identifying them in pairs or small groups.

**Teacher Self-Evaluation:**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **SCHOOL** | **LEVEL** | **LEARNING AREA** | **DATE** | **TIME** | **ROLL** |
|  | **GRADE 4** | **MATHEMATICS** |  |  |  |

**WEEK 1: LESSON 2**

**Strand:** Numbers

**Sub Strand:** Whole numbers: place value

**Specific Learning Outcomes:**

**- By the end of this lesson, learners should be able to:**

1. Identify place value of digits up to tens of thousands using place value apparatus.

2. Use place value of digits up to tens of thousands in daily life situations.

3. Appreciate finding the place value of digits up to tens of thousands in real life.

**Key Inquiry Question(s):**

- What is the place value of 368?

**Learning Resources:**

- KLB Visionary Mathematics Grade 4 (Pages 2-3)

- Number cards

- Place value apparatus (base ten blocks or charts)

- IT devices (tablets or computers)

- Video clips demonstrating place value

**Organisation of Learning:**

**Introduction (5 minutes):**

- Review the previous lesson on whole numbers and place value.

- Introduce the concept of place value and its importance in understanding numbers.

- Guide learners to read from the resource material, focusing on understanding what place value means and how it is used in everyday situations.

**Lesson Development (25 minutes):**

**Step 1:**

- Introduction to Place Value Apparatus

- Show the place value apparatus to the class. Discuss how each piece represents different values (units, tens, hundreds, thousands, and ten thousands).

- Ask the learners to handle the apparatus and identify the pieces representing each place value.

**Step 2:**

- Pair Work with Number Cards

- Distribute number cards with different values (e.g., 12,345; 67,890).

- In pairs, have learners determine the place value of each digit in the number cards they received. For example, for 12,345:

- 1 is in the ten thousands place,

- 2 is in the thousands place,

- 3 is in the hundreds place, and so on.

**Step 3:**

- Real-Life Application

- Discuss real-life examples that involve the use of place value:

- Money ($10,000 or $5.50),

- Populations of cities (e.g., city populations in thousands),

- Distances (kilometers or miles).

- Ask each pair to think of a real-life example using numbers up to tens of thousands and share their examples with the class.

**Step 4:**

- Interactive Review and Assessment

- Play a quick interactive game where students use their apparatus to show place value representations of numbers called out by the teacher.

- For example, if the teacher says "32,781," students should correctly display this using the apparatus.

**Conclusion (5 minutes):**

- Summarize the key points learned during the lesson: the meaning of place value and its practical uses.

- Conduct a brief quiz where students write down one number and identify the place value of one of its digits.

- Preview the upcoming session on comparing and ordering numbers to keep them engaged.

**Extended Activities:**

- Place Value Scavenger Hunt:

In a classroom or school environment, have students find various numbers (e.g., on store signs, in newspapers, etc.) and record the place value of specific digits.

- Create a Place Value Poster:

Learners can create a poster that features a large number, with a breakdown of the place value for each digit, using drawings or cut-out pieces from magazines.

- Online Place Value Games:

Assign students to explore educational websites with interactive place value games to reinforce their understanding at home.

**Teacher Self-Evaluation:**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **SCHOOL** | **LEVEL** | **LEARNING AREA** | **DATE** | **TIME** | **ROLL** |
|  | **GRADE 4** | **MATHEMATICS** |  |  |  |

**WEEK 1: LESSON 3**

**Strand:** Numbers

**Sub Strand:** Whole Numbers: Total Value

**Specific Learning Outcomes:**

**- By the end of the lesson, learners should be able to:**

1. Identify the total value of digits up to ten thousand using place value apparatus.

2. Use the total value of digits up to ten thousand in real-life contexts.

3. Appreciate finding the total value of digits up to ten thousand in everyday situations.

**Key Inquiry Question(s):**

- How do you find the total value of numbers in real life?

**Learning Resources:**

- KLB Visionary Mathematics Grade 4 Pages 3-4

- Number cards

- Place value apparatus

- IT devices (tablets/computers)

- Video clips demonstrating place value

**Organisation of Learning:**

**Introduction (5 minutes):**

- Review the previous lesson on place values. Ask students to recall what they learned about the values of digits in smaller numbers.

- Introduce the new lesson by asking students to read together from the KLB Visionary Mathematics book, particularly pages 3-4, discussing how to find total values of numbers.

**Lesson Development (25 minutes):**

**Step 1:** Understanding Place Value

- Introduce the concept of place value with examples on the board. Explain the value of each position up to ten thousand (units, tens, hundreds, thousands, ten thousands).

- Use the place value apparatus to illustrate how each digit's position affects its total value.

**Step 2:** Hands-On Activity with Number Cards

- Divide students into pairs and give each pair a set of number cards (e.g., cards representing digits 0-9) and place value apparatus.

- Challenge them to create their own numbers up to ten thousand and identify the total value of each digit they arrange using the apparatus.

**Step 3:** Real-Life Application

- Discuss how these large numbers are used in real life (e.g., population counts, distances, or money).

- Give examples and guide students to think of their own examples where they might encounter such numbers (like prices of cars, the number of people in a stadium, etc.).

**Step 4:** Work Together with IT Devices

- Use IT devices to access a short video clip demonstrating how to find total values in various real-life scenarios.

- After viewing, facilitate a discussion asking students how they can apply what they learned to understand total values better.

**Conclusion (5 minutes):**

- Summarize the key points covered in the lesson: the significance of place value and how to determine the total value of digits.

- Conduct a quick interactive activity where students call out numbers and the class quickly identifies the total value together.

- Preview the next session, which will delve deeper into comparing and ordering numbers up to one hundred thousand.

**Extended Activities:**

- Place Value Online Game: Encourage students to explore interactive online games focusing on place values and total values of larger numbers.

- Math Journal Entry: Have students write a short journal entry about a time they used large numbers in their lives or something interesting they've learned about place values.

**Teacher Self-Evaluation:**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **SCHOOL** | **LEVEL** | **LEARNING AREA** | **DATE** | **TIME** | **ROLL** |
|  | **GRADE 4** | **MATHEMATICS** |  |  |  |

**WEEK 1: LESSON 4**

**Strand:** Numbers

**Sub Strand:** Whole numbers: Total value

**Specific Learning Outcomes:**

**- By the end of the sub-strand, the learners should be able to:**

1. Use an IT device to learn more about total numbers up to tens of thousands.

2. Write the total value of each digit in numbers.

3. Appreciate using digital devices to learn about place value.

**Key Inquiry Question:**

- What did you learn about the total value of numbers?

**Learning Resources:**

- KLB Visionary Mathematics Grade 4 Pages 3-4

- Number cards

- Place value apparatus

- IT devices

- Video clips

**Organisation of Learning:**

**Introduction (5 minutes):**

- Begin with a brief review of the previous lesson on place value. Ask students to recall what they learned and if they can give examples.

- Display the relevant content from KLB Visionary Mathematics and guide learners to read and discuss it. Encourage them to think about the importance of each digit in a number.

**Lesson Development (25 minutes):**

**Step 1:**

- Introduction to IT Resources: Divide the class into small groups. Provide each group with an IT device, such as a tablet or laptop. Explain how they will use it to access interactive place value games or videos related to total numbers up to tens of thousands.

**Step 2:**

- Identifying Values: After the digital exploration, give each group a set of numbers (e.g., 42, 586, 23,510). Each group will discuss and write down the total value of each digit in the numbers provided. For example, for 23,510:

- 2 is worth 20,000

- 3 is worth 3,000

- 5 is worth 500

- 1 is worth 10

- 0 is worth 0

**Step 3:**

- Class Discussion: Regroup as a class. Ask each group to share one number and its digit values. Encourage students to explain how they determined the value of each digit.

**Step 4:**

- Interactive Exercise: As a class, play a quick game where numbers are displayed on the board, and students take turns shouting out the total values of the digits in those numbers.

**Conclusion (5 minutes):**

- Summarize the key points learned during the lesson, focusing on the total value of digits and the importance of place value.

- Conduct a brief interactive activity such as a quick quiz or a group response session, asking questions like “What is the total value of the 7 in 7,422?”

- Preview the next session’s topic, such as comparing large numbers, and ask students, “What do you think you will learn about really big numbers?”

**Extended Activities:**

- Math Centers: Set up math centers focused on different aspects of place value. For example, one center could have hands-on activities with place value blocks while another could focus on digital games.

- Home Assignment: Ask students to choose a number between 10,000 and 99,999 and create a poster showing the total value of each digit in the number along with a real-life context (e.g., "This number represents how many people live in my city.").

- Family Learning: Encourage family participation by having students explain the concept of total value and place value to a family member and report back on what their family learned.

**Teacher Self-Evaluation:**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **SCHOOL** | **LEVEL** | **LEARNING AREA** | **DATE** | **TIME** | **ROLL** |
|  | **GRADE 4** | **MATHEMATICS** |  |  |  |

**WEEK 1: LESSON 5**

**Strand:** Numbers

**Sub Strand:** Whole Numbers

**Specific Learning Outcomes:**

**- By the end of this lesson, learners should be able to:**

1. Read and write numbers up to 10,000 in symbols in real-life situations.

2. Use numbers up to 10,000 in symbols in practical contexts.

3. Appreciate the importance of reading and writing numbers up to 10,000.

**Key Inquiry Question(s):**

- What do you consider when writing numbers in symbols?

**Learning Resources:**

- KLB Visionary Mathematics Grade 4 Pages 5-7

- Number cards

- Place value apparatus

- IT devices (tablets or computers)

- Video clips on place value and large numbers

**Organisation of Learning:**

**Introduction (5 minutes):**

- Begin by reviewing the previous lesson's content related to place values and numbers.

- Ask students to share examples of numbers they have encountered in their daily lives (e.g., populations, distances, prices).

- Guide learners to read and discuss relevant content from the KLB book, focusing on the importance of understanding large numbers in real life.

**Lesson Development (25 minutes):**

**Step 1:** Introduction to Numbers up to 10,000

- Present a quick overview of how to read and write numbers in symbols, focusing on the digits from 1 to 10,000.

- Introduce examples of different contexts where these numbers are used (e.g., sports scores, book pages, bank balances).

**Step 2:** Practice Reading Numbers

- Provide each pair/group with number cards representing various numbers (e.g., 2,435; 8,709; 10,000) and ask them to read each number aloud.

- Encourage them to help each other with pronunciation and understanding the value of each digit.

**Step 3:** Writing Numbers in Real-Life Contexts

- Ask them to write down a number they see in their environment (e.g., from their favorite book, a price tag, or their age).

- Discuss the significance of viewing numbers in real-world scenarios.

**Step 4:** Using Technology to Explore Numbers

- Allow learners to use IT devices to watch a short video clip that reinforces the concepts discussed.

- After viewing, ask students to write one thing they learned from the video that they didn’t know before.

**Conclusion (5 minutes):**

- Summarize the key points discussed, including how to read and write numbers up to 10,000 and their importance in everyday situations.

- Conduct a brief interactive activity where students can write numbers on the board, and the class guesses the contexts they come from.

- Preview the next lesson on comparing and ordering numbers, and ask students to think about where they might find larger numbers used.

**Extended Activities:**

- Home Activity: Ask students to find three examples of numbers larger than 1,000 in newspapers, magazines, or online and bring them to class.

- Group Project: Create a “Number Book” where students illustrate and describe the significance of different numbers up to 10,000 within their local community (e.g., the number of students in their school, number of books in the library).

- Interactive Game: Organize a number-sorting game where students arrange cards with numbers in ascending order and present them to the class.

**Teacher Self-Evaluation:**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **SCHOOL** | **LEVEL** | **LEARNING AREA** | **DATE** | **TIME** | **ROLL** |
|  | **GRADE 4** | **MATHEMATICS** |  |  |  |

**WEEK 2: LESSON 1**

**Strand:** Numbers

**Sub-Strand:** Whole Numbers

**Specific Learning Outcomes:**

**- By the end of the sub-strand, learners should be able to:**

1. Use IT devices to learn more about writing numbers in symbols up to 10,000.

2. Play games involving numbers in symbols.

3. Appreciate the use of numbers in symbols in real life.

**Key Inquiry Question:**

- Where are numbers in symbols used in real life?

**Learning Resources:**

- KLB Visionary Mathematics Grade 4, Pages 5-7

- Number Cards

- Place Value Apparatus

- IT Devices (tablets or computers)

- Video Clips on numbers and their uses

**Organisation of Learning:**

**Introduction (5 minutes):**

- Review the previous lesson on place values, focusing on identifying numbers up to 1,000.

- Guide learners to read and discuss relevant content from the learning resources, emphasizing the importance of numbers in daily life and their representation in symbols.

**Lesson Development (25 minutes):**

**Step 1:** Explore Number Representation

- Use IT devices to show a video explaining how numbers are written in symbols up to 10,000.

- Discuss the various ways we see these numbers in real life (e.g., in books, on signs, in prices).

**Step 2:** Practice Writing Numbers

- In pairs, have learners use IT devices to create a digital poster that includes:

- 3 different numbers (written in symbols).

- Their corresponding word forms (e.g., 5,632 & five thousand six hundred thirty-two).

- Encourage creativity by adding visuals representing these numbers.

**Step 3:** Number Games

- Introduce a fun online game that allows students to practice identifying and writing numbers up to 10,000.

- Alternatively, set up stations with physical number cards for a hands-on game where students match numbers to their symbolic forms.

**Step 4:** Discussion and Reflection

- Bring learners together and discuss what they learned about numbers today.

- Ask questions like: “How do you think numbers help us in shopping?” or “Can anyone give me an example of a number they saw today in their environment?”

**Conclusion (5 minutes):**

- Summarize key points: the importance of understanding number symbols and where we see them in everyday life.

- Conduct a brief interactive activity, such as a number scavenger hunt, where students find examples of numbers in the classroom or school environment.

- Preview the next lesson: “Next time, we will explore how to compare numbers and understand greater and lesser values!”

**Extended Activities:**

- Home Activity: Challenge students to find at least five different places where they can see numbers in symbols outside of school (like in stores or on street signs) and share them in the next class.

- Math Journals: Have students keep a math journal where they reflect on what they learn about numbers each week, including their experiences with using numbers in real life.

**Teacher Self-Evaluation:**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **SCHOOL** | **LEVEL** | **LEARNING AREA** | **DATE** | **TIME** | **ROLL** |
|  | **GRADE 4** | **MATHEMATICS** |  |  |  |

**WEEK 2: LESSON 2**

**Strand:** Numbers

**Sub Strand:** Whole numbers

**Specific Learning Outcomes:**

**- By the end of the lesson, learners should be able to:**

1. Read and write numbers up to 1,000 in words from a number chart.

2. Use and relate numbers up to 1,000 in words in real life.

3. Appreciate the importance of reading and writing numbers in words in everyday situations.

**Key Inquiry Question(s):**

- What do you consider when writing numbers in words?

**Learning Resources:**

- KLB Visionary Mathematics Grade 4 Pages 7-8

- Number cards

- Place value apparatus

- IT devices (tablets/laptops)

- Video clips on reading and writing numbers

**Organisation of Learning:**

**Introduction (5 minutes):**

- Begin the lesson by reviewing the previous topic to connect prior knowledge with new learning.

- Ask students to share how they use numbers in their daily lives.

- Display a number chart on the board and guide learners to discuss how numbers are represented.

**Lesson Development (25 minutes):**

**Step 1:** Introduction to Writing Numbers in Words

- Explain the importance of writing numbers in words and how it is used in real life (e.g., checks, addresses).

- Show examples from the number chart and write a few numbers in words together as a class (e.g., 345 = three hundred forty-five).

**Step 2:** Partner Activity with Number Cards

- Distribute number cards (ranging from 1-1,000) to pairs of students.

- Instruct students to take turns reading the number on their card and writing it in words on a piece of paper.

- Monitor and assist pairs as needed, ensuring they focus on accurate spelling and phrasing.

**Step 3:** Place Value Exploration

- Using the place value apparatus, review how the position of numbers in a three-digit number affects how it is written in words.

- Have the students create numbers using the apparatus and practice writing those numbers in words.

**Step 4:** Individual Writing Challenge

- Distribute a short exercise where each student must read a list of numbers and write each as words.

- Encourage students to check their spelling and help each other.

**Conclusion (5 minutes):**

- Summarize key points discussed during the lesson, emphasizing the process of converting numbers into words.

- Conduct a quick interactive quiz where students raise their hands to give the correct word form for a number displayed on the board.

- Preview the next lesson by introducing the concept of comparing and ordering numbers and encouraging students to think about why understanding number values is essential.

**Extended Activities:**

- Home Connection: Encourage students to find and write down items in their house that have prices (like toys or groceries) and write the amounts in words.

- Creative Writing: Ask students to write a short story that includes at least five different numbers written in words.

- Classroom Display: Create a “Number Wall” where students can contribute by writing different numbers in words and hanging them up for display.

**Teacher Self-Evaluation:**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **SCHOOL** | **LEVEL** | **LEARNING AREA** | **DATE** | **TIME** | **ROLL** |
|  | **GRADE 4** | **MATHEMATICS** |  |  |  |

**WEEK 2: LESSON 3**

**Strand:** Numbers

**Sub Strand:** Whole Numbers

**Specific Learning Outcomes:**

**- By the end of the sub-strand, learners should be able to:**

1.Use IT devices to learn more about writing numbers in words up to 10,000

2. Play games involving numbers in words

3.Appreciate the use of number words in real life

**Key Inquiry Questions:**

- How do you find the total value of numbers in real life?

**Learning Resources:**

- KLB Visionary Mathematics Grade 4 (Pages 7-8)

- Number cards

- Place value apparatus

- IT devices (tablets/computers)

- Video clips

**Organisation of Learning:**

**Introduction (5 minutes):**

- Review the Previous Lesson: Begin with a quick recap of what was learned in the last math lesson, focusing on whole numbers.

- Discussion: Ask students what they remember about writing numbers in words. Encourage students to share examples.

**Lesson Development (25 minutes):**

**Step 1:** Introduction to IT Tools

- Introduce students to IT devices. Show them how to access resources about writing numbers in words.

- Guide them to specific websites or videos that explain how to write numbers (like 4,532) in words (like "four thousand five hundred thirty-two").

- Activity: Give students 5 minutes to explore and find examples of how numbers are written in words.

**Step 2:** Group Work on Writing Numbers

- Divide students into small groups (3-4 students per group).

- Each group will be given a set of numbers (ranging from 1 to 10,000) to convert into words.

- Each group will write down their findings on a piece of chart paper or digital document.

- Allow 10 minutes for this task.

**Step 3:** Playing Games with Numbers

- Introduce a fun game where students match number cards with the corresponding word cards.

- Have groups take turns, and if they get a match, they earn points.

- Explain the rules clearly and set a timer for 10 minutes for this game.

**Step 4:** Real-Life Application

- Ask students to think of situations where they see or use numbers in words in their daily lives (e.g., writing checks, reading prices).

- Share examples as a class and encourage students to give their own experiences.

- Spend about 5 minutes discussing these real-life applications.

**Conclusion (5 minutes):**

- Summary of Key Points: Recap the main ideas from the lesson, emphasizing how to write numbers in words and their real-life significance.

- Interactive Activity: Conduct a quick quiz or flashcard activity where students will read a number out loud and say its word form.

- Preview for Next Session: Briefly introduce the topic for the next lesson, such as comparing and ordering numbers, and pose an open question for consideration (e.g., "How can we use greater than and less than symbols with large numbers?").

**Extended Activities:**

- Homework: Students could write sentences using number words related to their own lives, such as "I have three hundred pages to read for my book."

- Creative Assignment: Allow students to create a story or comic strip that incorporates numbers and their word forms.

- Math Journals: Encourage students to keep a math journal where they write down any numbers they encounter throughout their week and their word forms.

**Teacher Self-Evaluation:**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **SCHOOL** | **LEVEL** | **LEARNING AREA** | **DATE** | **TIME** | **ROLL** |
|  | **GRADE 4** | **MATHEMATICS** |  |  |  |

**WEEK 2: LESSON 4**

**Strand:** Numbers

**Sub Strand:** Whole numbers

**Specific Learning Outcomes:**

**- By the end of this lesson, learners should be able to:**

1. Discuss how to order numbers up to 1,000 in order from smallest to largest using a number line.

2. Order numbers in ascending order up to 1,000 in different situations.

3. Appreciate the ordering of numbers up to 1,000 in real life.

**Key Inquiry Question(s):**

- Where is the ordering of numbers used in real life?

**Learning Resources:**

- KLB Visionary Mathematics Grade 4, Pages 8-9

- Number cards

- Place value apparatus

- IT devices (tablets/laptops)

- Video clips showcasing real-life scenarios of number ordering

**Organisation of Learning:**

**Introduction (5 minutes):**

- Begin with a quick review of the last lesson on numbers and their place values.

- Ask some guiding questions to refresh students' memories about ordering numbers. For example, "What is the smallest number you can think of?"

- Introduce the key inquiry question: "Where is ordering of numbers used in real life?" Engage students in a brief discussion about examples, such as ordering food, ranking scores in games, or arranging birthdays.

**Lesson Development (25 minutes):**

**Step 1:**

- Model the Concept: Introduce the number line and how it works. Show a visual example with numbers ranging from 1 to 1,000. Explain how to identify smallest and largest numbers.

**Step 2:**

- Pair Work: Divide the students into pairs and give each pair a set of number cards (e.g., 234, 567, 123, and 890). Instruct them to arrange the numbers in ascending order (smallest to largest) on their desks.

**Step 3:**

- Sharing Results: After arranging the numbers, ask each pair to share their ordered numbers with another pair. This encourages collaboration and reinforces the learning through peer discussion and feedback.

**Step 4:**

- Real-Life Application: Present a short video clip that highlights real-life situations where ordering numbers is important (e.g., arranging people by height, ordering books by size, or sorting scores in a game). After the video, prompt a discussion about what they observed.

**Conclusion (5 minutes):**

- Summarize key points learned during the lesson: understanding of number lines, ordering numbers, and situations where this skill is applicable.

- Conduct a brief interactive activity, such as a quick game where students must race to write their assigned number on the board in order.

- Prepare learners for the next session by asking them what they think comes next in learning about numbers or why keeping things in order matters in everyday life.

**Extended Activities:**

- Number Ordering Challenge: Give students a set of mixed numbers to arrange and challenge them to do this as quickly as they can at home with family or friends.

- Ordering Story: Ask students to write a short story that includes ordering items (like a shopping list) using numbers up to 1,000, and how that affects their purchase decisions.

- Interactive Digital Game: Have students find or create an interactive game or app on IT devices that challenges them to order numbers in various fun ways.

**Teacher Self-Evaluation:**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **SCHOOL** | **LEVEL** | **LEARNING AREA** | **DATE** | **TIME** | **ROLL** |
|  | **GRADE 4** | **MATHEMATICS** |  |  |  |

**WEEK 2: LESSON 5**

**Strand:** Numbers

**Sub-Strand:** Whole Numbers

**Specific Learning Outcomes:**

**- By the end of the sub-strand, learners should be able to:**

1. Order numbers up to 1,000 from largest to smallest using number cards.

2. Order numbers in descending order up to 1,000 in different situations.

3. Appreciate ordering numbers up to 1,000 in real life.

**Key Inquiry Question:**

- How do we order numbers in descending order?

**Learning Resources:**

- KLB Visionary Mathematics Grade 4 Pages 9-10

- Number cards

- Place value apparatus

- IT devices (for videos and digital activities)

- Video clips

**Organisation of Learning:**

**Introduction (5 minutes):**

- Begin the lesson with a quick review of the previous concepts covered in class, particularly focusing on number values and comparisons.

- Ask students if they remember what it means to order numbers and why it is useful in everyday life (e.g., arranging items, comparing scores).

- Guide learners to read relevant passages from the KLB Visionary Mathematics resource, focusing on key concepts such as "largest" and "smallest."

**Lesson Development (25 minutes):**

**Step 1:** Introduce the Concept of Descending Order

- Explain what descending order means, using visual aids (e.g., a number line).

- Show examples of numbers ordered from largest to smallest and guide learners to identify the largest number among a set of numbers.

**Step 2:** Hands-On Activity with Number Cards

- Divide students into pairs and distribute number cards with various numbers up to 1,000.

- Instruct them to arrange their cards in descending order. Encourage them to discuss with each other why they placed the numbers in that particular order.

**Step 3:** Group Sharing and Verification

- After pairing activity, have each pair share their ordered numbers with other pairs (or as a whole class), allowing them to verify and discuss any differences. Encourage learners to explain their thought process.

**Step 4:** Real-Life Application

- Discuss situations where ordering numbers can be important (e.g., scores in games, age, prices).

- Engage students in a quick discussion about how they might use ordering numbers in their daily lives or in future lessons.

**Conclusion (5 minutes):**

- Summarize the main points of the lesson, highlighting what was learned about ordering numbers.

- Conduct an interactive activity, such as a quick quiz where students have to shout out the largest number from a set displayed on the board or a digital device.

- Briefly preview the next lesson by asking students to think about different ways to compare numbers (e.g., using greater than, less than, equal to).

**Extended Activities:**

- Create a “Number Order Game” with larger numbers using a board game format, where students must arrange numbers on a board from largest to smallest.

- Assign homework where learners can find examples of ordered numbers in newspapers or online, like prices or athlete statistics, and write a short paragraph explaining their findings.

**Teacher Self-Evaluation:**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **SCHOOL** | **LEVEL** | **LEARNING AREA** | **DATE** | **TIME** | **ROLL** |
|  | **GRADE 4** | **MATHEMATICS** |  |  |  |

**WEEK 3: LESSON 1**

**Strand:** Numbers

**Sub Strand:** Whole Numbers – Ordering

**Specific Learning Outcomes:**

**- By the end of the sub-strand, the learners should be able to:**

1. Use IT devices to learn more about ordering numbers in ascending and descending order.

2. Play digital games involving ordering numbers.

3. Enjoy playing digital games using digital devices.

**Key Inquiry Question(s):**

- What have you learnt about ordering numbers?

**Learning Resources:**

- KLB Visionary Mathematics Grade 4 Pages 9-10

- Number cards

- Place value apparatus

- IT devices (tablets/computers)

- Video clips demonstrating ordering numbers

**Organization of Learning:**

**Introduction (5 minutes):**

- Review the previous lesson: Begin with a quick recap of whole numbers and their significance in mathematics. Ask students questions such as, "What are whole numbers?" and "Can you give me some examples?"

- Discussion: Guide learners to read and discuss relevant content from the learning resources, focusing on the importance of ordering numbers.

**Lesson Development (25 minutes):**

**Step 1:** Introduction to Ordering Numbers

- Briefly explain ascending and descending order.

- Show a video clip that illustrates examples of ordering numbers.

- Ask students to identify which numbers come first or last in a given list.

**Step 2:** Hands-on Activity with Number Cards

- Divide the class into small groups and provide each group with a set of number cards.

- Instruct them to arrange the cards in ascending and then in descending order.

- Monitor their progress and provide guidance as needed.

**Step 3:** Using IT Devices for Digital Learning

- Introduce suitable online games or apps that focus on ordering numbers.

- Assign each group a different game and allow them to spend time playing, helping each other learn through the experience.

**Step 4:** Share and Reflect

- Bring the class back together.

- Have each group share their experiences and what they learned about ordering numbers during their game.

- Prompt students with questions such as, “What strategies helped you order the numbers correctly?”

**Conclusion (5 minutes):**

- Summarize key points: Reinforce the definitions of ascending and descending order and remind students about the importance of these concepts in mathematics.

- Interactive Activity: Conduct a quick quiz where students have to order a set of numbers given verbally by the teacher.

- Preview Next Session: Give students a sneak peek into the next lesson on comparing numbers, asking them to think about how ordering plays a role in comparing.

**Extended Activities:**

- Homework Challenge: Ask students to create their own number line using at least ten different whole numbers and write a few sentences about which numbers are greater or lesser.

- Online Game Exploration: Encourage students to explore more digital games at home that focus on ordering and comparing numbers. They can share what they find in the next class.

- Family Involvement: Have students ask a family member to play an ordering game with them using everyday items (like buttons or marbles) and share how it went in class.

**Teacher Self-Evaluation:**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **SCHOOL** | **LEVEL** | **LEARNING AREA** | **DATE** | **TIME** | **ROLL** |
|  | **GRADE 4** | **MATHEMATICS** |  |  |  |

**WEEK 3: LESSON 2**

**Strand:** Numbers

**Sub Strand:** Whole Numbers

**Specific Learning Outcomes:**

**- By the end of the lesson, learners should be able to:**

1. Discuss how to round off numbers up to 1,000 to the nearest ten.

2. Round off numbers up to 1,000 to the nearest ten in different situations.

3.Appreciate the importance of rounding off numbers up to 1,000 to the nearest ten in various contexts.

**Key Inquiry Question:**

- How do you round off numbers to the nearest ten?

**Learning Resources:**

- KLB Visionary Mathematics Grade 4, Pages 10-12.

- Number cards.

- Place value apparatus.

- IT devices (e.g., tablets or computers).

- Video clips on rounding numbers.

**Organisation of Learning:**

**Introduction (5 minutes):**

- Review the previous lesson on place value and number sense.

- Engage students in a brief discussion about rounding, asking them if they have ever rounded numbers in real-life situations (like estimating costs or distances).

- Introduce the key inquiry question and outline the importance of rounding numbers.

**Lesson Development (25 minutes):**

**Step 1:** Introduction to Rounding

- Explain the concept of rounding off numbers to the nearest ten.

- Use a number line on the board. Show examples, like rounding 23 to 20 and 27 to 30.

- Emphasize identifying whether the number is closer to a lower ten or a higher ten based on the last digit (0-4 round down, 5-9 round up).

**Step 2:** Guided Practice

- Display several numbers on the board (e.g., 38, 65, 112, 495, 785) and round them to the nearest ten as a class.

- Allow learners to come up and demonstrate how they would round each number using the place value apparatus.

- Encourage open discussion: ask learners if they agree with the rounded numbers.

**Step 3:** Group Activity

- Divide students into pairs or small groups and provide them with number cards (containing numbers up to 1,000).

- Ask each group to select five numbers and round them to the nearest ten.

- Each group will then share their rounded numbers with another group and discuss if they agree on the rounded values.

**Step 4:** Real-Life Application

- Present scenarios where rounding is useful, such as shopping for items or measuring distances.

- Ask students to create their own examples of when they might need to round numbers, emphasizing practical applications.

**Conclusion (5 minutes):**

- Summarize the key points discussed during the lesson: what rounding is, the rules, and why it is useful.

- Conduct a quick interactive activity: pose a few rounding questions and have students give a thumbs-up for correct answers.

- Prepare students for the next session by informing them that they will explore rounding larger numbers and how it helps in estimating.

**Extended Activities:**

- Home Activity: Have students round off numbers they encounter in their daily life, such as prices at a store or page numbers in a book, and share their findings during the next class.

- Rounding Game: Create a digital game using IT devices where students practice rounding numbers in a fun and interactive way.

- Rounding Word Problems: Provide students with word problems that require them to round numbers to find approximate answers in practical situations.

**Teacher Self-Evaluation:**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **SCHOOL** | **LEVEL** | **LEARNING AREA** | **DATE** | **TIME** | **ROLL** |
|  | **GRADE 4** | **MATHEMATICS** |  |  |  |

**WEEK 3: LESSON 3**

**Strand:** Numbers

**Sub Strand:** Whole numbers

**Specific Learning Outcomes:**

**- By the end of the lesson, learners will be able to:**

1. Identify factors/divisors of numbers up to 50 in different contexts.

2. Find factors/divisors of numbers up to 50 in real life.

3. Appreciate finding the factors/divisors of numbers in real life.

**Key Inquiry Question:**

- What are factors/divisors of numbers?

**Learning Resources:**

- KLB Visionary Mathematics Grade 4, Pages 12-13

- Number cards

- Place value apparatus

- IT devices

- Video clips

**Organisation of Learning:**

**Introduction (5 minutes):**

- Start by reviewing the previous lesson on whole numbers and their significance.

- Ask students guiding questions about what they remember, leading them to engage with the concept of factors and divisors.

- Have students read and discuss key content from the learning resources related to factors/divisors to set the context for the lesson.

**Lesson Development (25 minutes):**

**Step 1:** Introduction to Factors and Divisors

- Explain the concepts of factors and divisors using simple language.

- Use visual aids (like number cards) to demonstrate how to find the factors of a number (e.g., using 12: 1, 2, 3, 4, 6, and 12).

- Encourage students to ask questions and clarify any misunderstandings.

**Step 2:** Group Activity – Finding Factors

- Organize students into pairs or small groups and assign each group a number between 1 and 50.

- Instruct them to list all the factors of their assigned number using number cards and place value apparatus.

- Once they have their lists, they should prepare to share their findings with the class.

**Step 3:** Real-Life Application

- Discuss examples of where factors/divisors appear in real-life situations, such as dividing items into groups or understanding schedules.

- Ask students to think of any scenarios they may have encountered that relate to finding factors, prompting them to share their thoughts.

**Step 4:** Peer Sharing

- Have each group present their number and the factors they found to the class.

- Encourage other students to ask questions or provide additional examples related to the factors shared.

**Conclusion (5 minutes):**

- Summarize the key points covered in the lesson, reiterating the definitions and importance of factors/divisors.

- Conduct a brief interactive quiz using a few sample numbers to identify factors as a class.

- Preview upcoming topics, such as multiples and prime numbers, and ask students to think about where they see numbers being grouped in their daily lives.

**Extended Activities:**

- Factor Pairs Game: Create a bingo card with numbers up to 50 and factor pairs. Students can play in pairs to find matching pairs that are factors of the numbers on their cards.

- Factor Hunt: Instruct students to go on a "factor hunt" at home or around the school, looking for items that can be evenly divided into groups (like chairs, tables, or books) and then report back with their findings.

- Interactive Online Quiz: Use online platforms where they can practice identifying factors and divisors with immediate feedback.

**Teacher Self-Evaluation:**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **SCHOOL** | **LEVEL** | **LEARNING AREA** | **DATE** | **TIME** | **ROLL** |
|  | **GRADE 4** | **MATHEMATICS** |  |  |  |

**WEEK 3: LESSON 4**

**Strand:** Numbers

**Sub Strand:** Whole Numbers

**Specific Learning Outcomes:**

**- By the end of the sub-strand, learners should be able to:**

1. Use IT devices to learn more about factors and divisors of numbers.

2.Discuss where factors and divisors of numbers are applied in real life.

3. Appreciate the application of factors and divisors of numbers in real life.

**Key Inquiry Question:**

Where are factors and divisors of numbers used in real life?

**Learning Resources:**

- KLB Visionary Mathematics Grade 4 (Pages 12-13)

- Number cards

- Place value apparatus

- IT devices (tablets or computers)

- Video clips demonstrating real-life applications of factors and divisors

**Organisation of Learning:**

**Introduction (5 minutes):**

- Begin with a quick review of the previous lesson on whole numbers.

- Ask students to recall any factors or divisors they might have learned about, facilitating a brief discussion.

- Read and discuss relevant content from the KLB Visionary Mathematics resource, emphasizing understanding of factors and divisors.

**Lesson Development (25 minutes):**

**Step 1:** Exploration of Factors and Divisors

- In pairs, students will use IT devices to research what factors and divisors of a number are.

- Provide them with a list of numbers and ask them to find all the factors/divisors of each number using online resources or educational video clips.

**Step 2:** Real-Life Applications

- Regroup and have a class discussion where each pair shares one real-life application of factors and divisors they discovered.

- Examples may include organizing items into equal groups, scheduling events, or dividing resources.

**Step 3:** Interactive Game

- Conduct an interactive game using number cards where students are challenged to pair up cards that represent factors and their products in a fun and competitive way.

**Step 4:** Reflection and Discussion

- Ask students to reflect and write down one new thing they learned about factors and divisors and where they see these concepts applied in their daily lives.

- Encourage students to share their reflections with the class.

**Conclusion (5 minutes):**

- Summarize the key points discussed during the lesson: what factors and divisors are and their real-life applications.

- Conduct a brief interactive activity, like a quiz, to reinforce the main topics.

- Preview the next lesson, prompting students to think about how factors and divisors might be useful in arithmetic operations.

**Extended Activities:**

- Factor Hunt: Assign students to find real-world examples of factors at home or in their community. They can take pictures or document their findings in a journal.

- Creative Projects: Have students create a poster illustrating a specific number, displaying its factors and real-life contexts where those factors can be useful (e.g., cooking, sports, building).

- Math Journals: Encourage students to keep a math journal where they can regularly write about what they've learned, new questions they have, or any further research on factors and divisors.

**Teacher Self-Evaluation:**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **SCHOOL** | **LEVEL** | **LEARNING AREA** | **DATE** | **TIME** | **ROLL** |
|  | **GRADE 4** | **MATHEMATICS** |  |  |  |

**WEEK 3: LESSON 5**

**Strand:** Numbers

**Sub Strand:** Whole Numbers - Multiples of 15

**Specific Learning Outcomes:**

**- By the end of this lesson, learners should be able to:**

1. Identify multiples of numbers up to 100 in different situations.

2. Find the multiples of numbers up to 100 in different situations.

3. Appreciate calculating multiples of numbers up to 100 in different situations.

**Key Inquiry Question:**

- How do you find the multiples of a number?

**Learning Resources:**

- KLB Visionary Mathematics Grade 4 (Pages 13-15)

- Number cards

- Place value apparatus

- IT devices (tablets/computers)

- Video clips related to multiples

**Organisation of Learning:**

**Introduction (5 minutes):**

- Review the previous lesson by asking students to share what they remember about numbers.

- Guide learners to read and discuss relevant content from the KLB Visionary Mathematics resources, focusing on understanding the concept of multiples.

**Lesson Development (25 minutes):**

**Step 1:** Introduction to Multiples

- Explain the concept of multiples. Use a number line and demonstrate how multiplying a whole number (e.g., 3) gives multiples (3, 6, 9, 12,...).

- Ask students to suggest other numbers and find their multiples together as a class.

**Step 2:** Group Activity - Finding Multiples

- Divide the students into pairs or small groups. Assign each group a number (e.g., 5, 10, 15, ...).

- Task groups to identify as many multiples of their assigned number up to 100. They can use number cards to help visualize.

- Each group shares their findings with the class, reinforcing collaborative learning.

**Step 3:** Interactive Game

- Play a quick interactive game where students take turns picking a number and others must quickly shout out the multiples. Use a timer for added excitement.

**Step 4:** Using Technology

- Allow students to use IT devices to watch a short video that illustrates how to find multiples in real-life scenarios (e.g., grouping items, time intervals, etc.).

- Have a brief discussion post-video about what they learned.

**Conclusion (5 minutes):**

- Summarize the key points about identifying and calculating multiples.

- Conduct a brief interactive quiz where students answer questions related to what they learned today.

- Prepare learners for the next lesson by giving them a preview of upcoming topics, such as lessons on factors or prime numbers.

**Extended Activities:**

- Encourage students to create their own “Multiples Chart” at home for different numbers and use it in daily life situations, such as counting objects, telling time, etc.

- Suggest a creative group project where learners represent a number’s multiples using art (e.g., drawing, crafting) to showcase in the classroom.

**Teacher Self-Evaluation:**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **SCHOOL** | **LEVEL** | **LEARNING AREA** | **DATE** | **TIME** | **ROLL** |
|  | **GRADE 4** | **MATHEMATICS** |  |  |  |

**WEEK 4: LESSON 1**

**Strand:** Numbers

**Sub Strand:** Whole Numbers

**Specific Learning Outcomes:**

**- By the end of the sub-strand, learners should be able to:**

1. Identify even and odd numbers up to 100

2. Use even and odd numbers up to 100 in different situations

3. Appreciate the use of even and odd numbers in real-life situations

**Key Inquiry Question(s):**

- What are even and odd numbers?

**Learning Resources:**

- KLB Visionary Mathematics Grade 4 Pages 15-18

- Number cards

- Place value apparatus

- IT devices

- Video clips

**Organisation of Learning:**

**Introduction (5 minutes):**

- Review the previous lesson by asking students to share what they learned about numbers.

- Guide learners to read and discuss relevant content from the KLB resource, focusing on the definitions and examples of even and odd numbers.

**Lesson Development (25 minutes):**

**Step 1:** Definition and Explanation of Even and Odd Numbers

- Introduce the concept of even and odd numbers.

- Explain that even numbers are those that can be divided by 2, while odd numbers cannot.

- Use the number cards to demonstrate: show a set of numbers and ask students to identify which are even and which are odd.

**Step 2:** Pair Work - Identification Activities

- In pairs, give each group a set of number cards (1-100).

- Students take turns identifying which numbers are even and which are odd.

- Have them write down their findings on a piece of paper to share with the class.

**Step 3:** Practical Application

- Discuss where students see even and odd numbers in real life (e.g., pairs of shoes, classroom supplies, etc.).

- Ask students to share their examples, reinforcing how they use these concepts daily.

**Step 4:** Interactive Game - Collecting Even and Odd Numbers

- Divide the class into two teams.

- Call out a number between 1 and 100 and have teams raise their hands to identify if it’s even or odd.

- Award points for correct answers to make it engaging.

**Conclusion (5 minutes):**

- Summarize key points: definitions of even and odd numbers, how to identify them, and their applications in real life.

- Conduct a brief interactive quiz, asking questions like "Is 24 even or odd?" and "Give me an example of an odd number."

- Preview the upcoming session about patterns with even and odd numbers to spark curiosity.

**Extended Activities:**

- Even and Odd Scavenger Hunt: Have students look around their homes or classrooms to find objects in even and odd pairs. For example, how many pairs of shoes do they have?

- Number Line Project: Have students create a large number line from 1 to 100 on poster paper, labeling each number as even or odd for future reference.

- Even & Odd Number Art: Encourage students to create a piece of artwork where they group objects into even and odd collections, like drawing even or odd shapes.

**Teacher Self-Evaluation:**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **SCHOOL** | **LEVEL** | **LEARNING AREA** | **DATE** | **TIME** | **ROLL** |
|  | **GRADE 4** | **MATHEMATICS** |  |  |  |

**WEEK 4: LESSON 2**

**Strand:** Numbers

**Sub Strand:** Whole numbers

**Specific Learning Outcomes:**

**- By the end of this lesson, learners should be able to:**

1. Observe how to make patterns using odd and even numbers from a video clip.

2. Make patterns involving even and odd numbers in day-to-day life experiences.

3. Appreciate making patterns involving even and odd numbers in different situations.

**Key Inquiry Question(s):**

- How can we make patterns using even and odd numbers?

**Learning Resources:**

- KLB Visionary Mathematics Grade 4, pages 19-20

- Number cards

- Place value apparatus

- IT devices (for video viewing)

- Video clips demonstrating patterns of even and odd numbers

**Organisation of Learning:**

**Introduction (5 minutes):**

- Review the previous lesson on even and odd numbers using quick questions to engage learners.

- Introduce the key inquiry question and explain what patterns are.

- Show a brief video clip that demonstrates patterns with even and odd numbers.

**Lesson Development (25 minutes):**

**Step 1:** Discussion

- After watching the video, discuss the different patterns observed. Ask students how they think those patterns were made—what rules can we notice about even and odd numbers?

**Step 2:** Pair Work

- Divide the class into pairs and give each group number cards. Ask them to create their own patterns using the cards, ensuring they alternate between even and odd numbers. For example, they could make a pattern like 2, 5, 4, 7, 6, 9...

**Step 3:** Group Sharing

- Invite pairs to share their patterns with the class. Encourage them to explain the reasoning behind their patterns and to identify if they were even or odd.

**Step 4:** Real-World Application

- Challenge learners to think of examples in their daily lives where they see patterns with even and odd numbers (e.g., pairs of shoes, days of the month). Pose a question: "Can you find a pattern when counting objects in your home?"

**Conclusion (5 minutes):**

- Summarize key points: Define patterns again and recap what makes a number even or odd.

- Conduct a quick interactive game where students clap hands to indicate even numbers and stomp feet for odd numbers as you call out random numbers from 1 to 20.

- Prepare learners for the next session by previewing that they will explore counting and place value further with even and odd.

**Extended Activities:**

- Have students keep a pattern journal for a week where they record patterns they notice in their environment—this could include patterns in nature, clothing, or architecture.

- Create a "Guess My Pattern" game where students create patterns with items at home (like toys or books) and describe them to classmates without revealing them, so others can guess the pattern.

**Teacher Self-Evaluation:**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **SCHOOL** | **LEVEL** | **LEARNING AREA** | **DATE** | **TIME** | **ROLL** |
|  | **GRADE 4** | **MATHEMATICS** |  |  |  |

**WEEK 4: LESSON 3**

**Strand:** Numbers

**Sub Strand:** Whole Numbers

**Specific Learning Outcomes:**

**- By the end of the sub-strand, learners should be able to:**

1.Identify Hindu Arabic numerals and Roman numerals.

2. Represent Hindu Arabic numerals using Roman numerals up to ‘X’ in different situations.

3. Appreciate the use of Roman numerals in real-life situations.

**Key Inquiry Question(s):**

- What are Roman numerals?

**Learning Resources:**

- KLB Visionary Mathematics Grade 4 (Pages 20-22)

- Number cards

- Place value apparatus

- IT devices

- Video clips

**Organisation of Learning:**

**Introduction (5 minutes):**

- Start with a quick review of the previous lesson on Hindu Arabic numerals.

- Ask students if they have seen Roman numerals before and discuss in pairs what they remember.

- Collect responses and briefly explain the role of Roman numerals in history and modern times.

**Lesson Development (25 minutes):**

**Step 1:**

- Introduce Roman Numerals

- Show a chart of Roman numerals I to X. Explain how each Roman numeral represents a certain value. For example, I = 1, V = 5, X = 10.

- Use visual aids and ask students to find examples from the classroom or around the school (like clocks or book titles).

**Step 2:**

- Hindu Arabic to Roman Numeral Conversion

- In pairs, have students practice converting Hindu Arabic numerals (1-10) into Roman numerals using number cards.

- For example, if one student holds up the number 3, the partner will say "III" and write it down.

Step 3:

- Role-Playing with Roman Numerals

- Give each pair a scenario (like a treasure map or a sports score) where they need to use Roman numerals to represent numbers.

- Encourage them to create a short dialogue or skit that includes using Roman numerals.

**Step 4:**

- Real-Life Applications

- Show a short video clip about the use of Roman numerals in real life (clocks, movie copyright dates, etc.).

- Have a class discussion about where students have encountered Roman numerals outside of school.

**Conclusion (5 minutes):**

- Summarize the key points discussed during the lesson about Roman numerals and their significance.

- Conduct a quick true or false game where students identify whether a statement about Roman numerals is true or false, reinforcing the concepts learned.

- Prepare learners for the next session, hinting that they will explore larger numbers and more complex conversions.

**Extended Activities:**

- Roman Numeral Scavenger Hunt:

Organize a scavenger hunt where students must find items in the classroom or school grounds labeled with Roman numerals and record their values.

- Create a Roman Numeral Clock:

Have students design and create their own clocks using Roman numerals instead of numbers. Encourage them to display it in the classroom.

- Roman Numerals Storybook:

Ask students to write and illustrate a simple story using Roman numerals for key elements (like the number of characters or items). Share these stories in a gallery walk.

**Teacher Self-Evaluation:**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **SCHOOL** | **LEVEL** | **LEARNING AREA** | **DATE** | **TIME** | **ROLL** |
|  | **GRADE 4** | **MATHEMATICS** |  |  |  |

**WEEK 4: LESSON 4**

**Strand:** Numbers

**Sub Strand:** Whole Numbers

**Specific Learning Outcomes:**

**- By the end of the sub-strand, learners should be able to:**

1.Use IT devices to learn more about whole numbers.

2. Play digital games involving numbers.

3. Appreciate the use of whole numbers in real-life situations.

**Key Inquiry Question(s):**

- How can we make patterns using even and odd numbers?

**Learning Resources:**

- KLB Visionary Mathematics Grade 4 (Page 22)

- Number cards

- Place value apparatus

- IT devices (tablets/computers)

- Video clips

**Organisation of Learning:**

**Introduction (5 minutes):**

- Start by reviewing the previous lesson on whole numbers and their importance.

- Ask the learners to share any experiences where they noticed whole numbers in real life (like counting money, measuring distances, etc.).

- Guide students to read and discuss relevant content from the learning resources, focusing on odd and even numbers.

**Lesson Development (25 minutes):**

**Step 1:** Introduce a digital math resource or game that focuses on identifying even and odd numbers. Explain how to access and navigate the site.

**Step 2:** Organize students into pairs or small groups. Allow them 10-15 minutes to explore the digital games together on their IT devices, encouraging collaboration and discussion.

**Step 3:** After gaming, regroup and ask each pair/group to share something they learned about even and odd numbers during their play, specifically how to identify patterns.

**Step 4:** Using number cards and place value apparatus, create a classroom activity where students will physically sort numbers into even and odd categories and discuss the patterns they observe.

**Conclusion (5 minutes):**

- Summarize the key points learned about whole numbers, especially focusing on even and odd patterns.

- Conduct a quick interactive quiz (e.g., “Is this number even or odd?”) to reinforce learning.

- Prepare students for the next session by asking them to think about other patterns they might find at home or in their environment.

**Extended Activities:**

- Encourage students to create a “number diary” over the next week in which they record instances of even and odd numbers they encounter, like items in their home or numbers on license plates.

- Provide worksheets with number patterns for students to complete at home, where they can identify and create sequences involving even and odd numbers.

- Suggest online math games or websites for students to visit at home that focus on the topic of whole numbers and patterns.

**Teacher Self-Evaluation:**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **SCHOOL** | **LEVEL** | **LEARNING AREA** | **DATE** | **TIME** | **ROLL** |
|  | **GRADE 4** | **MATHEMATICS** |  |  |  |

**WEEK 4: LESSON 5**

**Strand:** Numbers

**Sub Strand:** Whole numbers

**Specific Learning Outcomes:**

**- By the end of the sub-strand, the learner should be able to:**

1. Discuss and work out problems involving whole numbers.

2. Find more questions from the internet and solve them.

3. Appreciate the use of numbers in day-to-day life.

**Key Inquiry Question(s):**

- Where do we apply numbers in day-to-day life?

**Learning Resources:**

- KLB Visionary Mathematics Grade 4 Page 22

- Number cards

- Place value apparatus

- IT devices

- Video clips

**Organisation of Learning:**

**Introduction (5 minutes):**

- Review the previous lesson about whole numbers in different contexts.

- Guide learners to read and discuss relevant content from the KLB Visionary Mathematics textbook, focusing on the concept of whole numbers and their applications in daily life.

**Lesson Development (25 minutes):**

**Step 1:** Introduction to Whole Numbers

- Introduce the concept of whole numbers through a short video clip that illustrates their use in everyday scenarios (e.g., grocery shopping, counting items).

- Engage students by asking them to name other situations where they see or use whole numbers.

**Step 2:** Group Problem Solving

- Divide students into pairs. Provide each pair with a set of number cards and place value apparatus.

- Pose a problem that requires the use of whole numbers (e.g., "If you buy 3 packets of biscuits, each costing 15 units, how much do you spend in total?").

- Allow pairs to work together to solve the problem using the cards and apparatus, encouraging discussion.

**Step 3:** Internet Research Activity

- Guide students to use IT devices to search for real-life math problems involving whole numbers.

- Encourage them to find one problem they can bring back to class and share with others.

- Have them write down the problem and prepare to explain both the problem and their solution process.

**Step 4:** Whole Numbers and Daily Life

- Regroup and ask students to share the problems they found online and discuss where they see whole numbers being applied in their lives.

- Facilitate a conversation that helps students appreciate the importance of whole numbers in settings like budgeting, cooking, and measuring.

**Conclusion (5 minutes):**

- Summarize key points covered in the lesson, emphasizing the application of whole numbers and the processes used to solve problems.

- Conduct an interactive activity, such as a quick game where students shout out a number and relate it to a real-life context (e.g., "7 for days in a week").

- Preview the next lesson by hinting at exploring larger numbers and their applications, encouraging students to think of scenarios to bring up.

**Extended Activities:**

- Create a mini-booklet where students can compile their found problems and solutions related to whole numbers.

- Set up a "Math in Real Life" poster project where students select areas in their community (like shopping, sports, etc.) and create posters showing the use of whole numbers.

- Conduct a class survey (e.g., "How many pets do students have?") and use the data gathered to create charts and graphs, further strengthening their understanding of whole numbers.

**Teacher Self-Evaluation:**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **SCHOOL** | **LEVEL** | **LEARNING AREA** | **DATE** | **TIME** | **ROLL** |
|  | **GRADE 4** | **MATHEMATICS** |  |  |  |

**WEEK 5: LESSON 1**

**Strand:** Numbers

**Sub Strand:** Addition

**Specific Learning Outcomes:**

**- By the end of the sub-strand, learners should be able to:**

1. Discuss how to add up to two 4-digit numbers with single regrouping up to a sum of 10,000 in different situations.

2. Add up to two 4-digit numbers with single regrouping up to a sum of 10,000 in different situations.

3.Appreciate the addition of numbers up to two 4-digit numbers with single regrouping.

**Key Inquiry Question(s):**

- When do you use addition in real life?

**Learning Resources:**

- KLB Visionary Mathematics Grade 4 (Pages 23-24)

- Number cards

- Place value apparatus

- IT devices

- Video clips

**Organisation of Learning:**

**Introduction (5 minutes):**

- Review the previous lesson on basic addition concepts and regrouping.

- Guide learners to read and discuss relevant content from the learning resources, emphasizing the understanding of the key concepts of addition.

**Lesson Development (25 minutes):**

**Step 1:** Understanding Regrouping

- Introduce what regrouping is in addition and explain using a visual aid (like place value charts).

- Show an example of adding 2,345 + 1,678, emphasizing where regrouping occurs (regrouping in the units and tens place).

**Step 2:** Guided Practice

- Divide learners into pairs and provide them with number cards to practice adding two 4-digit numbers.

- Ask one pair to solve 3,249 + 1,586 on the board with teacher assistance to ensure understanding of regrouping.

**Step 3:** Group Challenge

- Create small groups and give them different scenarios where they might need to add 4-digit numbers. (Examples: calculating the total score in a game or the total number of books read in a month).

- Each group presents their situation and calculation to the class.

**Step 4:** Individual Practice

- Each student solves a worksheet with a mix of problems that include 4-digit addition with single regrouping.

- Encourage students to use place value apparatus if needed.

**Conclusion (5 minutes):**

- Summarize key points, reinforcing the concept of regrouping and its importance in addition.

- Conduct a brief interactive activity: Ask learners to share real-life situations where they use addition, linking back to the key inquiry question.

- Preview upcoming topics, such as subtraction with regrouping, and invite students to think about how subtraction relates to addition.

**Extended Activities:**

- Home Connection: Ask students to keep a week-long log of instances where they use addition in daily activities, such as shopping or during sports.

- Math Games: Introduce online games that focus on addition with regrouping, allowing for practice at home.

- Math Story Creation: Encourage students to create a short story involving the addition of 4-digit numbers, highlighting situations where they could apply what they learned.

**Teacher Self-Evaluation:**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **SCHOOL** | **LEVEL** | **LEARNING AREA** | **DATE** | **TIME** | **ROLL** |
|  | **GRADE 4** | **MATHEMATICS** |  |  |  |

**WEEK 5: LESSON 2**

**Strand:** Numbers

**Sub Strand:** Addition

**Specific Learning Outcomes:**

**- By the end of the sub-strand, learners should be able to:**

1.Discuss addition up to two 4-digit numbers with single regrouping up to a sum of 10,000 in different situations.

2. Add up to two 4-digit numbers with single regrouping up to a sum of 10,000 in different situations.

3. Appreciate addition of numbers up to two 4-digit numbers with single regrouping.

**Key Inquiry Question(s):**

- When do you use addition in real life?

**Learning Resources:**

- KLB Visionary Mathematics Grade 4 Pages 25-25

- Number cards

- Place value apparatus

- IT devices

- Video clips

**Organisation of Learning:**

**Introduction (5 minutes):**

- Review the previous lesson on basic addition concepts. Ask students to share any examples of single regrouping they remember.

- Guide learners to read and discuss relevant content from the learning resources, emphasizing the addition of 4-digit numbers and the importance of place value in regrouping.

**Lesson Development (25 minutes):**

**Step 1:** Understanding 4-Digit Addition

- Introduce the topic with a brief explanation of 4-digit numbers.

- Use a visual aid such as a chart to show how to line up numbers by place value.

- Demonstrate adding two sample 4-digit numbers (e.g., 2,345 + 1,678) on the board, emphasizing how to regroup when necessary.

**Step 2:** Guided Practice with Number Cards

- In pairs, give students number cards to create their own 4-digit addition problems with single regrouping.

- Encourage them to share their problems with another pair and explain how they regrouped.

- Circulate the room to provide assistance and check for understanding.

**Step 3:** Applying Addition in Real-Life Scenarios

- Present a few real-life scenarios where 4-digit addition might be needed (e.g., planning a school trip, budgeting).

- Ask pairs to create their own real-life scenarios requiring addition of two 4-digit numbers and present them to the class.

**Step 4:** Independent Practice

- Provide students with a worksheet containing problems to solve independently.

- Include at least three problems requiring addition of two 4-digit numbers with regrouping.

**Conclusion (5 minutes):**

- Summarize key points: the process of adding two 4-digit numbers, the necessity of regrouping when sums exceed 10, and the real-life applications discussed.

- Conduct a quick interactive quiz where students respond with thumbs up/thumbs down for statements about addition and regrouping.

- Preview the next session on subtraction and how it relates to addition, encouraging them to think of subtraction situations in daily life.

**Extended Activities:**

- Challenge students to gather real-world data (e.g., expenses for a family outing) and create addition problems based on it.

- Encourage students to create story problems based on their favorite books or films that involve adding 4-digit numbers.

**Teacher Self-Evaluation:**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **SCHOOL** | **LEVEL** | **LEARNING AREA** | **DATE** | **TIME** | **ROLL** |
|  | **GRADE 4** | **MATHEMATICS** |  |  |  |

**WEEK 5: LESSON 3**

**Strand:** Numbers

**Sub Strand:** Addition

**Specific Learning Outcomes:**

**- By the end of this sub-strand, learners should be able to:**

1. Discuss how to add two 4-digit numbers with double regrouping up to a sum of 10,000.

2. Solve real-life problems involving the addition of two 4-digit numbers with double regrouping.

3. Appreciate the importance of adding two 4-digit numbers with double regrouping.

**Key Inquiry Question:**

- How do you add numbers with double regrouping?

**Learning Resources:**

- KLB Visionary Mathematics Grade 4, Page 26

- Number cards

- Place value apparatus

- IT devices (smartboards, computers)

- Educational video clips on addition

**Organisation of Learning:**

**Introduction (5 minutes):**

- Start by reviewing the previous lesson on addition.

- Encourage learners to read a relevant section from the learning resource and discuss it in pairs, focusing on concepts that will be essential for understanding double regrouping.

**Lesson Development (25 minutes):**

**Step 1:** Exploring 4-Digit Addition

- Introduce the concept of 4-digit numbers and what double regrouping means using a simple example on the board (e.g., 4,578 + 2,367).

- Demonstrate the process step-by-step, showing how to regroup in both the tens and hundreds places.

**Step 2:** Partner Practice with Guided Examples

- In pairs, provide each learner with two 4-digit numbers to add using the double regrouping method.

- Circulate around the classroom to scaffold learning, ensuring students work through any difficulties they encounter.

**Step 3:** Real-Life Applications

- Transition to a real-life context where adding 4-digit numbers is applicable. For example, discuss budgeting or planning a class trip.

- Present a word problem that requires adding two 4-digit numbers with double regrouping and have students solve it in pairs.

**Step 4:** Share Solutions and Strategies

- Invite pairs to share their answers and the strategies they used with the whole class.

- Discuss any different methods used and clarify any misconceptions.

**Conclusion (5 minutes):**

- Summarize the key points learned in the lesson and reaffirm the importance of double regrouping in addition.

- Conduct a brief interactive quiz or a game using number cards to reinforce the main concepts covered.

- Preview the next session by stating that they will learn about subtraction of 4-digit numbers, which also involves regrouping.

**Extended Activities:**

- Math Journals: Ask students to keep a math journal where they can write about their understanding of addition, including the steps they took for double regrouping and drawing examples from their lives.

- Home Challenge: Provide a worksheet with real-life scenarios requiring the addition of 4-digit numbers for students to complete at home with family members.

- Technology Integration: Encourage learners to explore interactive math apps or websites that provide practice problems for addition and allow them to explore double regrouping further.

**Teacher Self-Evaluation:**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **SCHOOL** | **LEVEL** | **LEARNING AREA** | **DATE** | **TIME** | **ROLL** |
|  | **GRADE 4** | **MATHEMATICS** |  |  |  |

**WEEK 5: LESSON 4**

**Strand:** Numbers

**Sub Strand:** Addition

**Specific Learning Outcomes:**

**- By the end of the lesson, learners should be able to:**

1. Discuss how to add up to two 4-digit numbers with double regrouping up to a sum of 10,000.

2.Add up to two 4-digit numbers with double regrouping up to a sum of 10,000 in real-life situations.

3.Appreciate the process of adding up to two 4-digit numbers with double regrouping.

**Key Inquiry Question:**

- How do you add numbers with double regrouping?

**Learning Resources:**

- KLB Visionary Mathematics Grade 4 (Page 27)

- Number cards

- Place value apparatus

- IT devices (tablets or computers)

- Video clips demonstrating double regrouping

**Organisation of Learning:**

**Introduction (5 minutes):**

- Review the previous lesson focused on addition concepts with 3-digit numbers.

- Discuss key terms such as "regrouping" and "place value." Encourage students to reflect on how these concepts might be similar when adding larger numbers.

**Lesson Development (25 minutes):**

**Step 1:** Introduction to Double Regrouping

- Use the place value apparatus to demonstrate what happens when adding 4-digit numbers that require regrouping in both the tens and hundreds place.

- Example: Add 1,256 + 3,789. Show how to regroup once after adding the units (6 + 9 = 15), then regroup again after adding tens (5 + 8 + 1 = 14).

**Step 2:** Guided Practice in Pairs

- Distribute number cards and ask students to choose two 4-digit numbers to add.

- Encourage them to use the place value apparatus to visualize the process.

- Walk around to provide support and clarify any misunderstandings as students add the numbers together.

**Step 3:** Real-Life Application

- Present a real-life scenario where double regrouping is necessary (e.g., adding funds or expenses).

- Example scenario: "If Jane has $1,852 and her friend gives her $2,579, how much money does she have now?"

- Let students work in pairs to solve the scenario and discuss their thought processes.

**Step 4:** Collaborative Sharing

- Have pairs present their solutions and methods to the class.

- Encourage students to explain how they regrouped and any challenges they encountered.

**Conclusion (5 minutes):**

- Summarize the key points covered during the lesson, including the steps of double regrouping and its application in real life.

- Conduct a quick interactive quiz using IT devices to reinforce concepts (e.g., Kahoot quiz on double regrouping).

- Preview upcoming topics related to subtraction, hinting at how similar strategies will apply.

**Extended Activities:**

- Home Connection: Assign students to find two 4-digit numbers from their daily life (e.g., prices of groceries) and practice adding them with double regrouping at home.

- Math Journal Activity: Have students write a reflection about their learning experience today, including their feelings about adding larger numbers and any strategies they found helpful.

- Group Challenge: Create a math scavenger hunt where students need to solve addition problems with double regrouping hidden around the classroom or schoolyard.

**Teacher Self-Evaluation:**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **SCHOOL** | **LEVEL** | **LEARNING AREA** | **DATE** | **TIME** | **ROLL** |
|  | **GRADE 4** | **MATHEMATICS** |  |  |  |

**WEEK 5: LESSON 5**

**Strand:** Numbers

**Sub Strand:** Addition

**Specific Learning Outcomes:**

**- By the end of the sub-strand, learners should be able to:**

1. Identify how to estimate the sum of numbers to be added to the nearest ten.

2. Estimate sums by rounding off numbers to the nearest ten in different situations.

3. Appreciate estimating sums of numbers by rounding off addends to the nearest ten.

**Key Inquiry Question(s):**

- How do you estimate the sum of numbers?

**Learning Resources:**

- KLB Visionary Mathematics Grade 4 (Pages 27-29).

- Number cards.

- Place value apparatus.

- IT devices (tablets or computers).

- Video clips explaining rounding and estimation.

**Organisation of Learning:**

**Introduction (5 minutes):**

- Begin by reviewing the previous lesson on addition.

- Ask students what they remember about adding numbers and introduce the concept of estimation.

- Guide learners to read and discuss relevant sections from the KLB Visionary Mathematics book, encouraging them to focus on rounding to the nearest ten.

**Lesson Development (25 minutes):**

**Step 1:** Introduction to Rounding

- Explain what rounding means and demonstrate how to round numbers to the nearest ten using examples (e.g., 24 rounds to 20, 27 rounds to 30).

- Use number cards to visually illustrate rounding.

**Step 2:** Group Activity – Rounding Off Numbers

- In pairs, give students a list of numbers and ask them to round each number to the nearest ten.

- Collect responses and discuss as a class, clarifying any misunderstandings.

**Step 3:** Estimating Sums

- Once they understand rounding, introduce how to estimate sums using rounded numbers.

- Show an example: Estimate the sum of 24 and 37 by rounding (20 + 40 = 60).

- Ask students how much the actual sum is and discuss the difference between the two.

**Step 4:** Round and Estimate in Real Situations

- Present different scenarios (e.g., shopping, sports scores) and ask groups to estimate sums of various numbers using rounding.

- Encourage them to share their estimated sums and the original numbers.

**Conclusion (5 minutes):**

- Summarize key points: importance of rounding and how it helps with estimation.

- Conduct a brief interactive quiz using raised hands or a digital tool (like Kahoot!) to review concepts discussed.

- Preview the next lesson's theme on adding more complex numbers and how estimation will help.

**Extended Activities:**

- Estimation Jars: Fill jars with different quantities of objects (like small blocks) and have students estimate how many are in each jar. Discuss their strategies for estimating.

- Rounding Games: Create a board game where students round numbers to the nearest ten to move forward in the game.

- Real-Life Estimation: Encourage students to find situations outside of school where they might need to estimate sums (e.g., grocery shopping, planning a party) and report their findings to the class.

**Teacher Self-Evaluation:**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **SCHOOL** | **LEVEL** | **LEARNING AREA** | **DATE** | **TIME** | **ROLL** |
|  | **GRADE 4** | **MATHEMATICS** |  |  |  |

**WEEK 7: LESSON 1**

**Strand:** Numbers

**Sub Strand:** Addition

**Specific Learning Outcomes:**

**- By the end of this lesson, learners should be able to:**

1. Use digital devices to estimate sums by rounding off numbers to the nearest ten in different situations.

2. Play digital games that focus on estimating numbers to the nearest ten in different contexts.

3. Appreciate the importance of estimating numbers to the nearest ten.

**Key Inquiry Question(s):**

- What do you consider when estimating answers in addition?

**Learning Resources:**

- KLB Visionary Mathematics Grade 4 (Pages 27-29)

- Number cards

- Place value apparatus

- IT devices for digital games

- Video clips demonstrating rounding concepts

**Organisation of Learning:**

**Introduction (5 minutes):**

- Begin the lesson by reviewing key concepts from the previous lesson related to addition.

- Ask students to share what they remember about rounding numbers.

- Introduce the topic of estimating sums by rounding to the nearest ten, and guide learners to read and discuss pages 27-29 from the KLB Visionary Mathematics textbook, focusing on the key concepts of rounding.

**Lesson Development (25 minutes):**

**Step 1:** Understanding Rounding

- Explain how to round numbers to the nearest ten using examples.

- Use number cards to demonstrate rounding: for example, show the number 47. Ask students if they round up to 50 or down to 40 and why.

**Step 2:** Estimating Sums

- Give pairs of students a set of addition problems that require rounding. For example:

- 46 + 27 (round to 50 + 30, estimate the sum as 80)

- Allow students to use place value apparatus to visualize the rounding process and check their work.

**Step 3:** Using Digital Devices

- Introduce a digital game that focuses on estimating sums by rounding to the nearest ten.

- Have students work in pairs on IT devices to play the game, allowing them to see real-time feedback on their estimates.

**Step 4:** Reflection Activity

- After the digital game, ask students to pair up and share what strategies they used to estimate their sums.

- Encourage discussion on the importance of rounding in everyday situations (e.g., shopping, measuring).

**Conclusion (5 minutes):**

- Summarize the key points from the lesson, reinforcing how rounding can help make estimating sums easier.

- Engage the class in a brief interactive game where they quickly round off numbers you shout out.

- Preview the next session, which will involve adding larger numbers and using estimation as a checking tool.

**Extended Activities:**

- Suggest homework where students estimate grocery costs at a pretend shopping trip, rounding each item to the nearest ten before adding.

- Encourage students to create their own word problems that involve estimating sums, using real-life scenarios, and share with the class in the next lesson.

- Provide links to additional online games or apps that focus on rounding and estimating for students to explore at home.

**Teacher Self-Evaluation:**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **SCHOOL** | **LEVEL** | **LEARNING AREA** | **DATE** | **TIME** | **ROLL** |
|  | **GRADE 4** | **MATHEMATICS** |  |  |  |

**WEEK 7: LESSON 2**

**Strand:** Numbers

**Sub Strand:** Addition

**Specific Learning Outcomes:**

**- By the end of the sub-strand, the learner should be able to:**

1. Identify patterns involving addition up to a sum of 10,000 in real-life situations.

2. Solve missing numbers in number patterns involving addition.

3.Appreciate creating patterns involving addition of numbers in real-life situations.

**Key Inquiry Question(s):**

- How do you form number patterns in addition?

**Learning Resources:**

- KLB Visionary Mathematics Grade 4, Pages 29-30

- Number cards

- Place value apparatus

- IT devices (tablets/laptops)

- Video clips related to addition patterns

**Organisation of Learning:**

**Introduction (5 minutes):**

- Review the previous lesson on basic addition and number patterns.

- Engage learners to read and discuss content from the learning resources, emphasizing key concepts.

**Lesson Development (25 minutes):**

**Step 1:** Introduction to Number Patterns

- Explain what number patterns are, focusing on addition patterns.

- Use examples from real life (e.g., counting money, tallying scores) to show how addition patterns work.

**Step 2:** Hands-On Pattern Creation

- Divide students into pairs or small groups.

- Provide them with number cards and ask them to create their own addition patterns that can sum to a number less than or equal to 10,000 (e.g., 0, 2, 4, 6... or 10, 20, 30...).

**Step 3:** Solving Missing Number Patterns

- Present a pattern on the board where some numbers are missing (e.g., 5, \_\_, 15, \_\_, 25).

- Ask groups to discuss among themselves to fill in the blanks using their knowledge of addition.

**Step 4:** Real-Life Applications

- Have students think of real-life situations where they could use addition patterns (for example, planning a garden, budgeting for a party, etc.).

- Encourage students to share their ideas with the class.

**Conclusion (5 minutes):**

- Summarize the key points about number patterns and their application in both math and real life.

- Conduct a brief interactive quiz where students can raise their hands to answer questions about what they learned.

- Preview the next session, which will involve exploring subtraction patterns and how they relate to addition patterns.

**Extended Activities:**

- Create an "Addition Patterns Journal" where students can document various number patterns they encounter in their day-to-day lives, including shopping expenses, distances traveled, or time spent on activities.

- Assign students a home task to identify patterns in a real-world setting (e.g., during meals, shopping, or in their daily schedules) and create a presentation about it for the next class.

- Utilize online math games that focus on addition patterns for extra practice.

**Teacher Self-Evaluation:**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **SCHOOL** | **LEVEL** | **LEARNING AREA** | **DATE** | **TIME** | **ROLL** |
|  | **GRADE 4** | **MATHEMATICS** |  |  |  |

**WEEK 7: LESSON 3**

**Strand:** Numbers

**Sub Strand:** Addition

**Specific Learning Outcomes:**

**- By the end of the sub-strand, learners should be able to:**

1.Use IT devices for learning more about the addition of numbers and for enjoyment.

2. Play digital games involving addition.

3. Appreciate the application of addition of numbers in real-life situations.

**Key Inquiry Questions:**

- How do you create patterns in addition?

**Learning Resources:**

- KLB Visionary Mathematics Grade 4 Page 30

- Number cards

- Place value apparatus

- IT devices (tablets/computers)

- Video clips

**Organisation of Learning:**

**Introduction (5 minutes):**

- Review the previous lesson focused on understanding addition.

- Guide learners to read and discuss the relevant content from the learning resources, emphasizing the importance of addition in daily life.

**Lesson Development (25 minutes):**

**Step 1:** Introduction to Digital Games

- Introduce learners to a selection of digital games focused on addition. Explain how these games can help improve their addition skills in an enjoyable way.

**Step 2:** Group Work - Playing Games

- Divide the class into pairs or small groups. Each group will choose a digital game to play that reinforces addition concepts. Teacher circulates to provide support and encouragement.

**Step 3:** Discussion and Strategy Sharing

- Bring the class back together and ask each group to share their game experience. What strategies did they use? Did they notice any patterns in addition during gameplay?

**Step 4:** Real-Life Application

- Present a few real-life scenarios where addition is used (e.g., shopping, cooking). Ask students to solve simple addition problems based on these scenarios and discuss how they used addition in their daily lives.

**Conclusion (5 minutes):**

- Summarize the key points covered in the lesson, including the importance of addition and its applications.

- Conduct a brief interactive activity, such as a quick addition quiz or a fun number pattern game, to reinforce the main topics.

- Preview the next session by introducing the topic of subtraction and posing questions like “Can you think of times when we take things away?”

**Extended Activities:**

- Create addition math story problems based on their daily activities.

- Challenge students to keep a daily log of instances where they used addition, such as counting money or combining items.

- Encourage students to find or create a pattern in addition using physical objects or drawings.

**Teacher Self-Evaluation:**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **SCHOOL** | **LEVEL** | **LEARNING AREA** | **DATE** | **TIME** | **ROLL** |
|  | **GRADE 4** | **MATHEMATICS** |  |  |  |

**WEEK 7: LESSON 4**

**Strand:** Numbers

**Sub Strand:** Subtraction

**Specific Learning Outcomes:**

**- By the end of the lesson, learners will be able to:**

1. Discuss how to subtract up to 4-digit numbers without regrouping using place value apparatus.

2.Subtract up to 4-digit numbers without regrouping in real-life situations.

3. Appreciate subtracting up to 4-digit numbers without regrouping in real-life situations.

**Key Inquiry Question(s):**

- When do you use subtraction in real life?

**Learning Resources:**

- KLB Visionary Mathematics Grade 4 Pages 31-33

- Number cards

- Place value apparatus

- IT devices (tablets/computers)

- Video clips

**Organisation of Learning:**

**Introduction (5 minutes):**

- Begin the lesson by reviewing the previous topic, ensuring students understand the importance of subtraction.

- Guide learners to read pages 31-33 of the KLB Visionary Mathematics book and discuss key concepts about subtraction without regrouping.

**Lesson Development (25 minutes):**

**Step 1:** Understanding Place Value

- Introduce place value and its importance in subtraction.

- Demonstrate a subtraction problem using place value apparatus (e.g., base ten blocks) without regrouping.

**Step 2:** Pair Work

- In pairs, provide each student with a set of number cards.

- Ask each pair to create and solve problems involving subtracting 4-digit numbers without regrouping.

**Step 3:** Real-Life Application

- Discuss real-life situations where subtraction is used (e.g., shopping, distance).

- Ask pairs to come up with their own real-life scenarios where they might use subtraction, and share one with the class.

**Step 4:** Sharing Solutions

- Invite pairs to present one subtraction problem they created and explain how they solved it.

- Provide feedback and encourage classmates to ask questions for clarification.

**Conclusion (5 minutes):**

- Summarize the key points learned about subtracting without regrouping and its practical applications.

- Conduct a brief interactive activity, such as a quick quiz or a game where students answer subtraction questions.

- Preview the next lesson by introducing the concept of regrouping in subtraction, and pose questions like, "What happens when we need to borrow?"

**Extended Activities:**

- Math Journal: Have students write in their math journals about a time they used subtraction in their lives, describing both the problem and how they solved it.

- Subtraction Relay: Organize a fun relay race where students solve subtraction problems on cards placed around the classroom.

- Digital Games: Encourage students to use educational apps or websites that offer subtraction games to practice their skills at home.

**Teacher Self-Evaluation:**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **SCHOOL** | **LEVEL** | **LEARNING AREA** | **DATE** | **TIME** | **ROLL** |
|  | **GRADE 4** | **MATHEMATICS** |  |  |  |

**WEEK 7: LESSON 5**

**Strand:** Numbers

**Sub Strand:** Subtraction

**Specific Learning Outcomes:**

**- By the end of the lesson, learners should be able to:**

1.Use digital devices to subtract up to 4-digit numbers without regrouping.

2. Play digital games that involve subtraction of numbers without regrouping.

3.Appreciate the usefulness of digital devices in performing subtraction.

**Key Inquiry Question(s):**

- How do you subtract numbers without regrouping?

**Learning Resources:**

- KLB Visionary Mathematics Grade 4 (Pages 31-33)

- Number cards

- Place value apparatus

- IT devices (computers/tablets)

- Video clips demonstrating subtraction

**Organisation of Learning:**

**Introduction (5 minutes):**

- Review the previous lesson on basic subtraction concepts.

- Guide learners to read and discuss relevant content from the learning resources, focusing on understanding subtraction without regrouping.

**Lesson Development (25 minutes):**

**Step 1:** Understanding Subtraction

- Explain the concept of subtraction without regrouping using visual aids like place value charts and number cards.

- Demonstrate with an example (e.g., 5321 - 1234) how to align numbers and subtract each column starting from the right.

**Step 2:** Group Work Activity

- Divide learners into pairs or small groups. Provide each group with a set of 4-digit subtraction problems.

- Instruct them to use their IT devices to input the problems into an online subtraction tool or engage in a game focused on subtraction without regrouping.

**Step 3:** Real Life Application

- Discuss real life scenarios where subtraction is applied without regrouping (e.g., subtracting money, items in inventory).

- Have each pair create their own story problems that involve subtraction without regrouping.

**Step 4:** Sharing Solutions

- Allow groups to share their story problems and solutions with the class.

- Encourage questions and discussion to clarify any misunderstandings.

**Conclusion (5 minutes):**

- Summarize key points covered in the lesson, affirming the learning objectives achieved.

- Conduct a brief interactive quiz/game to reinforce subtraction concepts (e.g., flashcard races).

- Prepare learners for the next session by introducing upcoming topics such as regrouping in subtraction.

**Extended Activities:**

- Encourage students to find everyday articles or products (like toys, books, or snacks) and create and solve subtraction problems based on their prices.

- Assign online platforms or apps that focus on subtraction games for additional practice at home.

- Have learners create a mini-poster or digital presentation showcasing common situations where subtraction is used in daily life.

**Teacher Self-Evaluation:**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **SCHOOL** | **LEVEL** | **LEARNING AREA** | **DATE** | **TIME** | **ROLL** |
|  | **GRADE 4** | **MATHEMATICS** |  |  |  |

**WEEK 8: LESSON 1**

**Strand:** Numbers

**Sub Strand:** Subtraction

**Specific Learning Outcomes:**

**- By the end of the sub-strand, learners should be able to:**

1. Discuss subtraction of up to 4-digit numbers with regrouping using the place value apparatus.

2. Subtract up to 4-digit numbers with regrouping in different situations.

3. Appreciate subtraction of up to 4-digit numbers with regrouping in real-life situations.

**Key Inquiry Question(s):**

- How do you work out subtraction of numbers with regrouping?

**Learning Resources:**

- KLB Visionary Mathematics Grade 4 (Pages 33-35)

- Number cards

- Place value apparatus

- IT devices (such as tablets or computers)

- Video clips demonstrating regrouping in subtraction

**Organisation of Learning:**

**Introduction (5 minutes):**

- Review the previous lesson on basic subtraction concepts.

- Guide learners to read and discuss relevant content from the learning resources, focusing on the regrouping concept in subtraction.

**Lesson Development (25 minutes):**

**Step 1:** Understand Regrouping

- Introduce the concept of regrouping in subtraction using the place value apparatus.

- Demonstrate a subtraction problem on the board, highlighting the regrouping process (e.g., subtract 2,305 from 4,682).

**Step 2:** Guided Practice

- In pairs, give learners similar subtraction problems (up to 4-digit numbers) that require regrouping.

- Circulate the classroom to provide guidance and answer questions as they solve the problems.

**Step 3:** Real-Life Situations

- Present real-life scenarios where subtraction with regrouping is needed (e.g., shopping, planning events).

- Have learners create their own scenarios and write corresponding subtraction problems.

**Step 4:** Peer Teaching

- Ask pairs to explain how they solved their subtraction problems to another group.

- Encourage students to discuss different strategies they used for regrouping.

**Conclusion (5 minutes):**

- Summarize key points on subtraction with regrouping and its importance in real-life situations.

- Conduct a brief interactive quiz or game to reinforce the main topics covered in class (e.g., a quick round of "Subtraction Bingo").

- Preview the next session, mentioning the introduction of addition with regrouping or the connection to word problems.

**Extended Activities:**

1. Subtraction Story Problems:

Encourage students to create a short story that involves subtraction with regrouping and present it to the class.

2. Online Games:

Suggest websites or apps that offer interactive subtraction games focused on regrouping.

3. Shopping Simulation:

Organize a classroom shopping activity where students use play money to purchase items, requiring them to subtract totals and manage their finances.

**Teacher Self-Evaluation:**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **SCHOOL** | **LEVEL** | **LEARNING AREA** | **DATE** | **TIME** | **ROLL** |
|  | **GRADE 4** | **MATHEMATICS** |  |  |  |

**WEEK 8: LESSON 2**

**Strand:** Numbers

**Sub Strand:** Subtraction

**Specific Learning Outcomes:**

**- By the end of the sub-strand, the learners should be able to:**

1. Use digital devices to subtract up to 4-digit numbers with regrouping in different situations.

2. Play digital games involving subtraction of numbers with regrouping.

3. Appreciate using digital devices to subtract numbers in different situations.

**Key Inquiry Question(s):**

- How do you work out subtraction of numbers with regrouping?

**Learning Resources:**

- KLB Visionary Mathematics Grade 4 Pages 33-35

- Number cards

- Place value apparatus

- IT devices (tablets or computers)

- Video clips on subtraction with regrouping

**Organisation of Learning:**

**Introduction (5 minutes):**

- Start the class by reviewing the previous lesson on subtraction without regrouping.

- Encourage students to recall any strategies they used and ask if anyone can explain regrouping.

- Present the relevant content from the learning resources emphasizing the importance of understanding regrouping in subtraction.

**Lesson Development (25 minutes):**

**Step 1:** Introduction to Regrouping

- Explain the concept of regrouping, using a simple example (e.g., 4321 - 1378).

- Use place value apparatus to visually demonstrate how to regroup.

- Show a video clip that illustrates regrouping in subtraction.

**Step 2:** Guided Practice

- Provide number cards with 4-digit numbers and let learners work in pairs to practice subtraction problems involving regrouping.

- Circulate around the classroom to assist students and provide feedback as they work through problems.

**Step 3:** Digital Application

- Have students use IT devices to access a math game focused on subtraction with regrouping.

- Monitor their engagement and understanding while they play. Encourage them to discuss strategies with their partners during the game.

**Step 4:** Real-life Application

- Present a real-life scenario (e.g., a store selling items where they need to subtract prices).

- Ask students to create their own subtraction problems based on the scenario and solve them individually before sharing with the class.

**Conclusion (5 minutes):**

- Summarize the key points on subtracting with regrouping learned during the lesson.

- Conduct a brief interactive activity: a quick quiz using number cards where students raise a card with the answer after you give a subtraction problem.

- Prepare learners for the next session by asking them to think about different situations where subtraction might be used in their daily lives.

**Extended Activities:**

- Assign students to find 3 subtraction problems from a newspaper or magazine that require regrouping and explain how they solved them.

- Encourage students to create a simple digital presentation or video explaining one of the subtraction problems they worked on in class.

- Suggest using online math platforms or apps to play subtraction games at home for additional practice.

**Teacher Self-Evaluation:**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **SCHOOL** | **LEVEL** | **LEARNING AREA** | **DATE** | **TIME** | **ROLL** |
|  | **GRADE 4** | **MATHEMATICS** |  |  |  |

**WEEK 8: LESSON 3**

**Strand:** Numbers

**Sub Strand:** Subtraction

**Specific Learning Outcomes:**

**- By the end of the sub-strand, learners should be able to:**

1. Discuss how to estimate differences by rounding off numbers to the nearest ten.

2.Find the difference by rounding off numbers to the nearest ten in real-life situations.

3. Appreciate estimating differences by rounding off numbers to the nearest ten in real-life situations.

**Key Inquiry Question(s):**

- How do you estimate differences by rounding off numbers to the nearest ten?

**Learning Resources:**

- KLB Visionary Mathematics Grade 4 Pages 36-37

- Number cards

- Place value apparatus

- IT devices (tablets or computers)

- Video clips demonstrating rounding off and estimation

**Organisation of Learning:**

**Introduction (5 minutes):**

- Review the previous lesson on subtraction methods.

- Ask learners to discuss what they remember about subtraction and introduce the concept of rounding off numbers.

- Guide learners to read pages 36-37 from the KLB Visionary Mathematics book, highlighting key concepts of estimation.

**Lesson Development (25 minutes):**

**Step 1:** Introduction to Rounding Off

- Explain what rounding off is using examples (e.g., 23 rounds to 20, and 27 rounds to 30).

- Use place value apparatus to visually show the rounding process.

**Step 2:** Group Activity - Estimating Differences

- Divide students into pairs or small groups.

- Provide them with real-life scenarios where they might need to estimate differences (e.g., the cost of items at a store).

- Each group will choose two numbers from a set (e.g., prices) and practice rounding them to the nearest ten, then finding the estimated difference.

**Step 3:** Class Discussion - Sharing Their Findings

- Invite each group to present their rounding examples and estimated differences.

- Discuss the results with the class to reinforce understanding. Encourage students to explain their thought process.

**Step 4:** Video Demonstration and Application

- Show a brief video clip that illustrates how rounding off and estimation is used in real life (e.g., budgeting for a shopping trip).

- Follow up with a discussion on what they observed in the video.

**Conclusion (5 minutes):**

- Summarize the key points of estimating difference by rounding off numbers.

- Conduct a brief interactive quiz (possibly using IT devices) where students can respond to questions on rounding and estimation.

- Prepare learners for the next session by introducing the topic of real-life applications of subtraction with larger numbers.

**Extended Activities:**

- Estimation Scavenger Hunt: Have students find various items around their home or school, write down the prices, and practice rounding and estimating differences.

- Classroom Store Activity: Set up a classroom store where students can 'buy' items with play money. They will need to round prices and calculate estimated costs for their purchases.

- Home-School Connection: Encourage students to observe real-world situations where they might need to estimate (e.g., grocery shopping with parents) and share their experiences in the next lesson.

**Teacher Self-Evaluation:**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **SCHOOL** | **LEVEL** | **LEARNING AREA** | **DATE** | **TIME** | **ROLL** |
|  | **GRADE 4** | **MATHEMATICS** |  |  |  |

**WEEK 8: LESSON 4**

**Strand:** Numbers

**Sub Strand:** Subtraction

**Specific Learning Outcomes:**

**- By the end of the sub-strand, learners should be able to:**

1. Use digital devices to estimate the difference by rounding off numbers to the nearest ten.

2. Play digital games involving estimating differences by rounding off numbers in various situations.

3. Appreciate estimating differences by rounding off numbers in real-life situations.

**Key Inquiry Question(s):**

- How do you work out the estimated difference to the nearest ten?

**Learning Resources:**

- KLB Visionary Mathematics Grade 4 (Pages 36-37)

- Number cards

- Place value apparatus

- IT devices (tablets/laptops)

- Video clips related to rounding and subtraction

**Organisation of Learning:**

**Introduction (5 minutes):**

- Quickly review the previous lesson on basic subtraction to connect the concepts.

- Guide learners to read and discuss the relevant content from the learning resources, focusing on how rounding to the nearest ten helps with estimating differences.

**Lesson Development (25 minutes):**

**Step 1:** Understanding Rounding

- Introduce the concept of rounding numbers to the nearest ten using examples (e.g., 27 rounds to 30; 43 rounds to 40).

- Ask students to practice rounding various numbers using place value apparatus and number cards.

**Step 2:** Estimating Differences

- Explain how to estimate the difference between two numbers by rounding both numbers to the nearest ten first.

- Provide examples (e.g., to estimate the difference between 47 and 29, round to 50 and 30, then find the difference: 50 - 30 = 20).

**Step 3:** Real-Life Situations

- In pairs, have students come up with real-life situations where they could apply rounding to estimate differences (e.g., shopping budgets, distances).

- Share examples as a class and discuss how estimation can help in decision-making.

**Step 4:** Digital Games

- Introduce students to a digital game or app that focuses on estimating differences using rounding.

- Allow students time to play and practice this concept interactively, ensuring they understand how to use the tool to aid their learning.

**Conclusion (5 minutes):**

- Summarize the key points covered during the lesson, including rounding and estimating differences.

- Conduct a brief interactive activity, such as a quick quiz or game, to reinforce the main topics discussed.

- Prepare learners for the next session by giving them a preview of upcoming topics, such as more complex subtraction problems.

**Extended Activities:**

- Home Challenge: Ask students to find real-life examples where they can estimate differences using rounding to the nearest ten (like comparing prices in stores) and share these with the class.

- Creative Rounding Game: Create a board game where students round numbers and calculate differences to advance to the finish line.

**Teacher Self-Evaluation:**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **SCHOOL** | **LEVEL** | **LEARNING AREA** | **DATE** | **TIME** | **ROLL** |
|  | **GRADE 4** | **MATHEMATICS** |  |  |  |

**WEEK 8: LESSON 5**

**Strand:** Numbers

**Sub Strand:** Subtraction

**Specific Learning Outcomes:**

**- By the end of the lesson, learners should be able to:**

1.Identify patterns involving subtraction of numbers from up to 10,000.

2. Find missing numbers in number patterns involving subtraction.

3.Appreciate creating number patterns involving subtraction in different situations.

**Key Inquiry Question(s):**

- How do you create patterns involving subtraction?

**Learning Resources:**

- KLB Visionary Mathematics Grade 4 Pages 37-39

- Number cards

- Place value apparatus

- IT devices (e.g. tablets, computers)

- Video clips

**Organisation of Learning:**

**Introduction (5 minutes):**

- Review the previous lesson on subtraction.

- Guide learners to read and discuss relevant content from the learning resources, emphasizing the key concept of creating patterns through subtraction.

**Lesson Development (25 minutes):**

**Step 1:** Explore Subtraction Patterns

- Show a simple number pattern on the board (e.g., 10, 7, 4, 1).

- Discuss how each number is decreasing. Ask students to identify the subtraction involved (e.g., -3, -3, -3).

- Allow students to work with number cards to create their own simple subtraction patterns.

**Step 2:** Create Your Own Patterns

- In pairs, have students choose a starting number (e.g., 5000) and a subtraction rule (e.g., subtract 250).

- Ask them to list the next five numbers in their pattern (e.g., 5000, 4750, 4500, 4250, 4000).

- Encourage students to share their patterns with the class.

**Step 3:** Finding Missing Numbers

- Present a subtraction pattern with a missing number (e.g., 9000, \_\_, 8400, 8100).

- Guide learners through finding the missing number by identifying the subtraction rule.

- Let students practice on their whiteboards with similar patterns.

**Step 4:** Apply Patterns in Different Situations

- Discuss real-life situations involving subtraction patterns, such as distances traveled or money spent.

- Ask learners to come up with scenarios where subtraction patterns can be applied.

- Encourage them to illustrate their scenarios using number cards or drawings.

**Conclusion (5 minutes):**

- Summarize key points and learning objectives achieved during the lesson, focusing on the creation and understanding of subtraction patterns.

- Conduct a quick interactive game where students “guess” the next number in a pattern.

- Prepare learners for the next session by asking them to think about how they might see subtraction patterns in their everyday lives.

**Extended Activities:**

- Pattern Hunt: Have students find real-life subtraction patterns around the school or at home and present them in the next class.

- Story Problems: Ask students to create their own story problems using subtraction patterns, which they will share with a partner.

- Digital Exploration: Use educational math apps or websites to practice subtraction activities involving patterns.

**Teacher Self-Evaluation:**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **SCHOOL** | **LEVEL** | **LEARNING AREA** | **DATE** | **TIME** | **ROLL** |
|  | **GRADE 4** | **MATHEMATICS** |  |  |  |

**WEEK 9: LESSON 1**

**Strand:** Numbers

**Sub Strand:** Subtraction

**Specific Learning Outcomes:**

**- By the end of the sub-strand, students should be able to:**

1. Use IT devices for learning more about subtraction of numbers.

2.Play digital games involving subtraction and math puzzles.

3.Appreciate the application of subtraction in real-life situations.

**Key Inquiry Question(s):**

- How can you create number patterns involving subtraction?

**Learning Resources:**

- KLB Visionary Mathematics Grade 4, Page 39

- Number cards

- Place value apparatus

- IT devices (tablets or computers)

- Video clips related to subtraction

**Organisation of Learning:**

**Introduction (5 minutes):**

- Review the previous lesson on addition.

- Engage the learners by asking them to share situations where they used subtraction in their daily lives.

- Guide learners to read and discuss relevant content from their textbooks, focusing on subtraction concepts.

**Lesson Development (25 minutes):**

**Step 1:** Introduction to Digital Games

- Introduce specific digital games focused on subtraction to the students.

- Explain how these games work and how they will help improve their subtraction skills.

**Step 2:** Gameplay!

- Allow students to play the selected digital games in pairs or small groups for an interactive experience.

- Circulate among the groups to assist with any questions and encourage discussions on strategies used in the games.

**Step 3:** Number Patterns

- After gameplay, guide students to create their own number patterns involving subtraction.

- Use number cards to help visualize how numbers can be subtracted in patterns, such as counting backward.

**Step 4:** Sharing and Reflection

- Invite each group to share one pattern they created, explaining the subtraction involved and how they found it.

- Discuss how these patterns can be found in real life (e.g., shopping discounts, counting money).

**Conclusion (5 minutes):**

- Summarize the key points learned about subtraction and its real-life applications.

- Conduct a brief interactive quiz using a digital tool to reinforce the main topics discussed.

- Preview the next session by posing questions about what they think will be covered next, such as addition of larger numbers or word problems.

**Extended Activities:**

- Subtraction Story Problems: Have students create and solve story problems using subtraction that relate to their interests (sports, food, etc.).

- Subtraction Art: Use a drawing exercise where students must illustrate a scene and include subtraction as part of a math equation within their artwork.

- Math Journals: Encourage students to keep a math journal where they write about their day-to-day experiences with subtraction.

**Teacher Self-Evaluation:**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **SCHOOL** | **LEVEL** | **LEARNING AREA** | **DATE** | **TIME** | **ROLL** |
|  | **GRADE 4** | **MATHEMATICS** |  |  |  |

**WEEK 9: LESSON 2**

**Strand:** Numbers

**Sub Strand:** Subtraction

**Specific Learning Outcomes:**

**- By the end of the sub-strand, the learner should be able to:**

1. Use IT devices and search for problems on subtraction.

2.Discuss and solve problems related to subtraction.

3. Appreciate subtraction of numbers in real-life situations.

**Key Inquiry Question:**

- How can you create number patterns involving subtraction?

**Learning Resources:**

- KLB Visionary Mathematics Grade 4, Page 39

- Number cards

- Place value apparatus

- IT devices (tablets/laptops)

- Video clips demonstrating subtraction in real life

**Organisation of Learning:**

**Introduction (5 minutes):**

- Begin by reviewing the previous lesson on addition and connect it to subtraction by discussing the differences.

- Guide learners to read and discuss the relevant content from the KLB textbook, focusing on understanding subtraction.

- Engage students by asking if they have ever used subtraction in their daily lives (e.g., during shopping or budgeting).

**Lesson Development (25 minutes):**

**Step 1:** Exploring Subtraction through Technology

- Divide students into pairs and provide access to IT devices.

- Instruct them to search for real-life subtraction problems or scenarios using online resources or the KLB Visionary Mathematics example.

- Ask each pair to share one interesting problem they found.

**Step 2:** Discussing Found Problems

- Once the pairs have found their problems, they will regroup into larger groups to discuss and solve at least two of the problems collectively.

- Encourage students to use visual aids like number cards or place value apparatus to help illustrate their thought process.

**Step 3:** Creating Number Patterns

- Ask each group to create a subtraction number pattern (e.g., starting from 100, subtracting 10 repeatedly).

- Have them record their patterns on chart paper.

**Step 4:** Real-Life Application of Subtraction

- Bring the class back together and ask a few selected groups to present their number patterns.

- Discuss how these patterns can relate to real-life situations, such as calculating distances, managing money, or measuring substances for cooking.

**Conclusion (5 minutes):**

- Summarize the key points learned about subtraction and the different ways it is applicable in real life.

- Conduct a brief interactive activity, such as a quick subtraction game or a quiz involving real-life applications.

- Preview upcoming topics by asking students what they think will happen when we start adding numbers back into our subtraction puzzles, setting the stage for future lessons.

**Extended Activities:**

- Assign students to track and create a weekly budget for snacks, toys, or activities they like. Each student should record their expenses and subtract from their allowance, helping them practice subtraction in a practical context.

- Create a subtraction scavenger hunt where students find and subtract quantities around the classroom or school, reinforcing their understanding through movement and interaction.

**Teacher Self-Evaluation:**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **SCHOOL** | **LEVEL** | **LEARNING AREA** | **DATE** | **TIME** | **ROLL** |
|  | **GRADE 4** | **MATHEMATICS** |  |  |  |

**WEEK 9: LESSON 3**

**Strand:** Numbers

**Sub Strand:** Multiplication

**Specific Learning Outcomes:**

**- By the end of the sub-strand, learners should be able to:**

1.Discuss how to multiply up to a 2-digit number by multiples of 10.

2. Multiply up to a 2-digit number by multiples of 10 in different situations.

3. Appreciate the use of multiplication in real-life situations.

**Key Inquiry Question(s):**

- When do you use multiplication in real life?

**Learning Resources:**

- KLB Visionary Mathematics Grade 4 Pages 40-42

- Number cards

- Place value apparatus

- IT devices

- Video clips

**Organisation of Learning:**

**Introduction (5 minutes):**

- Start by reviewing the previous lesson on basic multiplication concepts.

- Ask students to share ideas on when they might use multiplication in everyday life (e.g., shopping, cooking).

- Guide learners to read and discuss relevant content from the learning resources, focusing on the concept of multiplying 2-digit numbers by 10s.

**Lesson Development (25 minutes):**

**Step 1:** Understanding Multiples of 10

- Explain how multiples of 10 are formed (10, 20, 30, etc.).

- Use place value apparatus to show how multiplying by 10 shifts the digits.

- Example: Show what happens when you multiply 24 by 10. (24 x 10 = 240)

**Step 2:** Real-Life Situations

- Present various scenarios where multiplication by 10 is applicable, such as calculating total prices when buying multiple items.

- Demonstrate with an example: "If 1 toy costs $15, how much do 3 toys cost?" (15 x 3 = 45)

**Step 3:** Collaborative Practice

- In pairs/groups, give learners a set of problems where they must multiply 2-digit numbers by multiples of 10. Encourage them to discuss their thought process while solving.

- Problems could include:

1. 32 x 20

2. 46 x 10

3. 58 x 30

**Step 4:** Sharing and Reviewing

- Have groups share their answers and methods with the class.

- Address any misconceptions and reinforce the correct multiplication strategies used.

- Utilize IT devices to show a video clip that demonstrates multiplication in action in real-life scenarios.

**Conclusion (5 minutes):**

- Summarize key points and learning objectives achieved during the lesson.

- Ask students to reflect on what they learned and how they might use these skills in real-life situations.

- Conduct a brief interactive activity, such as a multiplication bingo game, to reinforce the main topics.

- Prepare learners for the next session by previewing the concept of multiplying by numbers other than 10 (e.g., 2, 3, 4) and asking, "What happens when we multiply by numbers other than 10?"

**Extended Activities:**

- Shopping Simulation: Create a pretend store. Each student can use fake money to "buy" items priced by multiples of 10, reinforcing their multiplication skills in a practical setting.

-Multiplication Charts: Encourage students to create their own multiplication charts focusing on the multiples of 10. This will help them visualize the relationships between numbers.

- Story Problems: Ask students to write their own word problems that involve multiplying 2-digit numbers by multiples of 10, then exchange problems with a partner to solve.

**Teacher Self-Evaluation:**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **SCHOOL** | **LEVEL** | **LEARNING AREA** | **DATE** | **TIME** | **ROLL** |
|  | **GRADE 4** | **MATHEMATICS** |  |  |  |

**WEEK 9: LESSON 4**

**Strand:** Numbers

**Sub Strand:** Multiplication

**Specific Learning Outcomes:**

**- By the end of the sub-strand, learners should be able to:**

1. Use digital devices to multiply up to a 2-digit number by multiples of 10.

2. Play digital games involving multiplication of 2-digit numbers.

3.Appreciate the use of multiplication in different situations.

**Key Inquiry Question(s):**

- When do you use multiplication in real life?

**Learning Resources:**

- KLB Visionary Mathematics Grade 4, Pages 40-42

- Number cards

- Place value apparatus

- IT devices (tablets/laptops)

- Video clips about multiplication in real life

**Organisation of Learning:**

**Introduction (5 minutes):**

- Begin with a quick review of the previous lesson on multiplication basics.

- Ask students to share examples of where they use multiplication in everyday life.

- Guide learners to read and discuss relevant content from the learning resources, focusing on the use of multiplication with 2-digit numbers and multiples of 10.

**Lesson Development (25 minutes):**

**Step 1:** Demonstration

- Show how to multiply a 2-digit number by a multiple of 10 using a digital device (e.g., tablet or smartboard).

- Example: Demonstrate multiplying 23 by 30, illustrating the steps and the concept of place value.

**Step 2:** Group Practice

- Divide students into pairs or small groups.

- Give each group different multiplication problems involving 2-digit numbers by multiples of 10 (e.g., 34 x 20, 56 x 40).

- Allow groups to use IT devices to calculate their answers and record their workings.

**Step 3:** Game Time

- Introduce a digital multiplication game that focuses on 2-digit numbers and multiples of 10.

- Ensure that students understand the rules and share a link or QR code to the game for access.

**Step 4:** Real-life Application

- Present scenarios where multiplication is used in real life (e.g., shopping, cooking, etc.).

- Ask students to think of one situation where they find multiplication useful and share their answer with a partner.

**Conclusion (5 minutes):**

- Summarize key points covered in the lesson: the process of multiplying 2-digit numbers by multiples of 10, the relevance of multiplication, and examples discussed.

- Conduct a brief interactive quiz using a digital tool (like Kahoot or Quizizz) to reinforce the main topics.

- Preview the next lesson on dividing multiples of 10 and how it relates to multiplication.

**Extended Activities:**

- Math Journaling: Encourage students to keep a math journal where they can write about instances in their daily life where they used multiplication.

- Family Challenge: Design a multiplication challenge that students can do with family members, such as calculating the total cost of groceries when shopping together.

- Online Games: Share links to educational multiplication games that students can play at home for extra practice.

**Teacher Self-Evaluation:**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **SCHOOL** | **LEVEL** | **LEARNING AREA** | **DATE** | **TIME** | **ROLL** |
|  | **GRADE 4** | **MATHEMATICS** |  |  |  |

**WEEK 9: LESSON 5**

**Strand:** Numbers

**Sub Strand:** Multiplication

**Specific Learning Outcomes:**

**- By the end of the sub-strand, the learner should be able to:**

1. Discuss how to multiply up to a 2-digit number by a 2-digit number without regrouping.

2. Multiply up to a 2-digit number by a 2-digit number without regrouping in real-life situations.

3.Appreciate multiplying 2-digit numbers without regrouping in real-life situations.

**Key Inquiry Question(s):**

- How do you multiply numbers without regrouping?

**Learning Resources:**

- KLB Visionary Mathematics Grade 4 (Pages 42-45)

- Number cards

- Place value apparatus

- IT devices (computers/tablets)

- Video clips related to multiplication

**Organisation of Learning:**

**Introduction (5 minutes):**

- Review the previous lesson by asking students to share what they learned about multiplication.

- Guide students to read and discuss relevant content from the KLB Visionary Mathematics book, focusing on multiplication concepts.

**Lesson Development (25 minutes):**

**Step 1:** Understanding Place Value

- Begin by reviewing the concept of place value with the students. Use place value apparatus to illustrate how numbers are structured.

- Discuss how each digit in a 2-digit number has a specific value based on its place (tens and ones).

**Step 2:** Introduction to Multiplying Without Regrouping

- Demonstrate how to multiply 2-digit numbers without regrouping using simple examples (e.g., 23 x 15).

- Encourage students to follow along with their place value apparatus as they work through the example together.

**Step 3:** Pair Work on Multiplication Problems

- Ask students to work in pairs to solve 3-4 multiplication problems involving 2-digit by 2-digit numbers without regrouping. Provide number cards for them to use if necessary.

- Circulate around the room to assist pairs as needed and check for understanding.

**Step 4:** Real-Life Applications of Multiplication

- Engage the students in a discussion about real-life situations where they might multiply 2-digit numbers (e.g., calculating total cost of items, area of a garden).

- Have each pair share one real-life scenario where they would need to multiply, using their recent practice to illustrate.

**Conclusion (5 minutes):**

- Summarize key points of the lesson, reinforcing the importance of understanding multiplication without regrouping.

- Conduct a brief interactive activity, such as a quick quiz or game, that reviews the concepts covered in this lesson.

- Preview the next session by sharing that they will learn about multiplying with regrouping and how it differs from what they discussed today.

**Extended Activities:**

1. Take-Home Multiplication Challenge:

- Give students a worksheet with multiplication problems based on real-life context (e.g., planning a party with a specific number of guests and table settings).

2. Multiplication Art:

- Encourage students to create a visual art piece that represents multiplication (like a multiplication mural) using a series of 2-digit multiplications they come up with on their own.

3. Story Problems:

- Invite students to create their own word problems that require multiplication of 2-digit numbers and share them with the class.

**Teacher Self-Evaluation:**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **SCHOOL** | **LEVEL** | **LEARNING AREA** | **DATE** | **TIME** | **ROLL** |
|  | **GRADE 4** | **MATHEMATICS** |  |  |  |

**WEEK 10: LESSON 1**

**Strand:** Numbers

**Sub Strand:** Multiplication

**Specific Learning Outcomes:**

**- By the end of the lesson, students should be able to:**

1. Discuss how to multiply up to a 2-digit number by a 2-digit number with regrouping.

2. Multiply up to a 2-digit number by a 2-digit number with regrouping in real-life situations.

3. Appreciate the importance of multiplying 2-digit numbers with regrouping in everyday life.

**Key Inquiry Question(s):**

- How do you multiply numbers with regrouping?

**Learning Resources:**

- KLB Visionary Mathematics Grade 4 Page 46

- Number cards

- Place value apparatus

- IT devices

- Video clips demonstrating multiplication with regrouping

**Organisation of Learning:**

**Introduction (5 minutes):**

- Briefly review the previous lesson on basic multiplication.

- Engage students by asking them to share where they might use multiplication in day-to-day life.

- Guide the learners to read and discuss relevant content from the KLB Visionary Mathematics book, focusing on multiplication of 2-digit numbers and the concept of regrouping.

**Lesson Development (25 minutes):**

**Step 1:** Understanding 2-Digit Multiplication

- Introduce the concept of multiplying two 2-digit numbers using an example (e.g., 23 x 15).

- Use the place value apparatus to visually represent this multiplication, showing how to break down the numbers into tens and ones.

**Step 2:** Demonstrating Regrouping

- Introduce the regrouping strategy through an example, walking the students through the steps:

1. Multiply the ones place (3 x 5).

2. Regroup if necessary and carry over.

3. Multiply the tens place (2 x 5) and add the carried number.

4. Repeat for the tens place of the second number (1).

- Show this on the board, highlighting each step clearly.

**Step 3:** Real-Life Application

- Present a real-life scenario that involves multiplication (e.g., calculating the cost of items in a store).

- Ask students to create their own real-life scenarios where they can apply 2-digit multiplication.

**Step 4:** Pair Work

- Have students work in pairs or small groups to solve a set of 2-digit multiplication problems with regrouping using number cards or digital devices.

- Encourage them to apply the regrouping strategy discussed.

**Conclusion (5 minutes):**

- Summarize the key points of the lesson: the steps of multiplication with regrouping and its real-life applications.

- Conduct a brief interactive activity, such as a quick quiz using number cards to reinforce what they've learned.

- Preview the next session, hinting at division of 2-digit numbers, to spark curiosity.

**Extended Activities:**

- Home Challenge: Have students find three items at home and calculate the total cost if they were to buy 2 or 3 quantities of the items, applying the 2-digit multiplication skill they learned.

- Create a Story Problem: Students write their own word problems that require multiplying 2-digit numbers with regrouping, which can be shared in groups.

**Teacher Self-Evaluation:**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **SCHOOL** | **LEVEL** | **LEARNING AREA** | **DATE** | **TIME** | **ROLL** |
|  | **GRADE 4** | **MATHEMATICS** |  |  |  |

**WEEK 10: LESSON 2**

**Strand:** Numbers

**Sub Strand:** Multiplication

**Specific Learning Outcomes:**

**- By the end of the sub-strand, the learner should be able to:**

1. Discuss how to estimate products by rounding off numbers to the nearest ten.

2. Estimate products by rounding off numbers to the nearest ten in real-life situations.

3. Appreciate estimating products by rounding off numbers to the nearest ten in different situations.

**Key Inquiry Question:**

- How can you estimate products of numbers?

**Learning Resources:**

- KLB Visionary Mathematics Grade 4 Pages 47-48

- Number cards

- Place value apparatus

- IT devices (tablets/computers)

- Video clips demonstrating estimation in multiplication

**Organisation of Learning:**

**Introduction (5 minutes):**

- Begin with a short review of the previous lesson’s key points on multiplication.

- Engage learners in a discussion about situations where they might need to estimate. Guide them to read and discuss the relevant content from the learning resources, emphasizing the understanding of estimating products.

**Lesson Development (25 minutes):**

**Step 1:** Understanding Rounding

- Begin by explaining the concept of rounding numbers. Use visuals (like number lines) to illustrate rounding numbers to the nearest ten.

- Demonstrate with examples on the board:

- 23 rounds to 20

- 37 rounds to 40

**Step 2:** Estimating Products

- Introduce the concept of estimating products by rounding.

- Show a few simple multiplication examples using rounded numbers:

- Example: Estimate the product of 24 and 36 by rounding: (20 × 40).

- Allow learners to practice estimating products using pre-selected pairs of numbers using rounding.

**Step 3:** Real-Life Situations

- In pairs, ask students to think of real-life scenarios where estimation is needed (e.g., shopping, cooking).

- Provide number cards with practical situations and ask pairs to round the numbers and find the estimated products.

**Step 4:** Interactive Practice

- Conduct a quick group activity where groups will present their rounded estimates for given situations.

- Use IT devices to access a video clip that reinforces estimating products in real life, then discuss what they learned from the video.

**Conclusion (5 minutes):**

- Recap the key points of the lesson by asking students to summarize what they learned about estimating products and rounding.

- Conduct a brief interactive activity, such as a rounding quiz or a "rounding relay" where teams have to quickly round numbers.

- Preview upcoming topics, discussing the importance of estimation in bigger multiplication concepts.

**Extended Activities:**

- Estimation Journal: Encourage learners to keep a journal for a week where they record instances where they had to estimate products in real life. They can write a small paragraph about each situation.

- Estimation Games: Create a classroom game where students can practice rounding and estimating products, using a set of flashcards with different multiplication problems.

**Teacher Self-Evaluation:**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **SCHOOL** | **LEVEL** | **LEARNING AREA** | **DATE** | **TIME** | **ROLL** |
|  | **GRADE 4** | **MATHEMATICS** |  |  |  |

**WEEK 10: LESSON 3**

**Strand:** Numbers

**Sub Strand:** Multiplication

**Specific Learning Outcomes:**

**- By the end of the lesson, learners should be able to:**

1. Use digital devices to estimate the product of numbers to the nearest ten.

2. Work out answers by rounding off numbers to the nearest ten with a product not exceeding 1,000.

3. Appreciate estimating products of numbers to the nearest ten in different situations.

**Key Inquiry Question(s):**

- How can you estimate products of numbers?

**Learning Resources:**

- KLB Visionary Mathematics Grade 4 (Pages 47-48)

- Number cards

- Place value apparatus

- IT devices (tablets/computers)

- Video clips demonstrating estimation techniques

**Organisation of Learning:**

**Introduction (5 minutes):**

- Begin with a brief review of the previous lesson focused on multiplication concepts.

- Engage students in a discussion about what they learned.

- Introduce the new topic by explaining the importance of estimating products in real-life situations. Share the key inquiry question: "How can you estimate products of numbers?"

**Lesson Development (25 minutes):**

**Step 1:** Understanding Rounding

- Explain the concept of rounding numbers to the nearest ten with examples (e.g., rounding 23 to 20 and 27 to 30).

- Use place value apparatus to visually demonstrate the rounding process.

**Step 2:** Estimating Products

- Present examples of multiplying two-digit numbers and show how to round each number to the nearest ten before multiplying.

- Guide students in pairs to practice estimating products using number cards, ensuring the product does not exceed 1,000.

- Circulate to provide support and feedback.

**Step 3:** Using Digital Devices

- Introduce learners to utilizing IT devices to further practice estimating products.

- Show them a video clip on estimation techniques. Then, have students use an estimation app or online tool to practice with given pairs of numbers.

**Step 4:** Real-Life Applications

- Have students brainstorm real-life scenarios where estimation is helpful (e.g., shopping, cooking).

- Ask them to share their thoughts and come up with examples as a class.

**Conclusion (5 minutes):**

- Recap the key points discussed during the lesson: the process of rounding to the nearest ten and estimating products.

- Conduct a brief interactive activity where students estimate a product using numbers they choose.

- Preview the next session, hinting at more complex multiplication problems and further exploration of estimation techniques.

**Extended Activities:**

- Estimation Challenge: Assign students a list of multiplication problems to estimate at home, rounding each number to the nearest ten before finding the product.

- Real-Life Estimation Poster: Have students create a poster that illustrates different scenarios where rounding and estimating products might be useful, including visual aids or examples they gather.

**Teacher Self-Evaluation:**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **SCHOOL** | **LEVEL** | **LEARNING AREA** | **DATE** | **TIME** | **ROLL** |
|  | **GRADE 4** | **MATHEMATICS** |  |  |  |

**WEEK 10: LESSON 4**

**Strand:** Numbers

**Sub Strand:** Multiplication

**Specific Learning Outcomes:**

**- By the end of the sub-strand, the learner should be able to:**

1. Create patterns involving multiplication with products not exceeding 100 in real-life situations.

2. Find missing numbers in patterns involving multiplication of numbers with products not exceeding 100.

3. Appreciate making number patterns involving multiplication in different situations.

**Key Inquiry Question(s):**

- How can we create patterns involving multiplication with products not exceeding 100?

**Learning Resources:**

- KLB Visionary Mathematics Grade 4 Pages 48-49

- Number cards

- Place value apparatus

- IT devices

- Video clips

**Organisation of Learning:**

**Introduction (5 minutes):**

- Begin with a quick review of the previous lesson on multiplication.

- Ask students questions about what they remember about multiplication.

- Guide learners to read from the learning resources (Pages 48-49) and discuss the importance of multiplication in creating patterns.

**Lesson Development (25 minutes):**

**Step 1:** Understanding Patterns

- Introduce the concept of patterns and how they can be created using multiplication.

- Show examples (e.g., 2, 4, 6, 8, … and relate them to 2 x 1, 2 x 2, 2 x 3, etc.).

- Ask students to identify the pattern rules (which number is being multiplied?).

**Step 2:** Collaborative Activity

- Pair students up and give them a set of number cards.

- Instruct each pair to select a number (e.g., 5) and create a multiplication pattern using that number (5, 10, 15, … up to 100).

- Encourage students to write down their patterns and think of a real-life situation where they might see this pattern (e.g., counting items in groups).

**Step 3:** Finding Missing Numbers

- Present students with a partially completed pattern (e.g., 3, \_\_, 9, \_\_, 15).

- Guide them to use multiplication to find the missing numbers (by recognizing the pattern 3 x 1, 3 x 2, etc.).

- Have groups share their strategies with the class.

**Step 4:** Reflection and Sharing

- Invite groups to share the patterns they created and the real-life situations they related to their patterns.

- Facilitate a discussion on how multiplication makes it easier to understand patterns in everyday life.

**Conclusion (5 minutes):**

- Summarize the key points of the lesson: understanding patterns through multiplication, creating multiplication patterns, and finding missing numbers.

- Conduct a brief interactive quiz using their patterns to reinforce multiplication concepts.

- Preview next session's topic on multiplication in word problems and invite students to think about how they see multiplication in their daily lives.

**Extended Activities:**

- Pattern Hunt: Ask students to take a walk around the classroom/school and find real-life examples of multiplication patterns (e.g., items in rows or groups).

- Create a Story: Students can create a short story or comic that involves multiplication patterns, showcasing a scenario where they apply their knowledge.

- Multiplication Bingo: Design a bingo game that has products of multiplication problems, where students can practice their skills while having fun.

**Teacher Self-Evaluation:**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **SCHOOL** | **LEVEL** | **LEARNING AREA** | **DATE** | **TIME** | **ROLL** |
|  | **GRADE 4** | **MATHEMATICS** |  |  |  |

**WEEK 10: LESSON 5**

**Strand:** Numbers

**Sub Strand:** Multiplication

**Specific Learning Outcomes:**

**- By the end of the sub-strand, learners should be able to:**

1. Use IT devices for learning and enjoyment

2.Play digital games on multiplication

3. Appreciate learning about multiplication of numbers in real life

**Key Inquiry Question:**

- How can you form patterns involving multiplication?

**Learning Resources:**

- KLB Visionary Mathematics Grade 4, Page 49

- Number cards

- Place value apparatus

- IT devices

- Video clips

**Organisation of Learning:**

**Introduction (5 minutes):**

- Begin by reviewing the previous lesson on basic multiplication facts.

- Encourage learners to share examples of multiplication they observed in their daily lives.

- Guide them to read and discuss relevant content from the KLB Visionary Mathematics textbook, focusing on understanding multiplication concepts.

**Lesson Development (25 minutes):**

**Step 1:** Introduction to Digital Games

- Introduce the students to the digital games available on multiplication. Explain how they can help to improve their skills and make learning fun.

- Demonstrate one game on the IT device, showing how to navigate through the game.

**Step 2:** Pair Work

- Organize learners into pairs. Each pair will choose one of the multiplication games to play together on the IT devices.

- Encourage them to discuss their strategies and thinking as they play.

**Step 3:** Create Patterns

- After playing, guide learners to reflect on the multiplication patterns they noticed during the games.

- Ask them to create multiplication patterns using number cards or place value apparatus, illustrating their understanding.

**Step 4:** Sharing Ideas

- Allow pairs to share the patterns they formed and the strategies they used with the class.

- Discuss any interesting findings or different methods used by various groups.

**Conclusion (5 minutes):**

- Summarize the key points from today's lesson, reinforcing the importance of multiplication in daily life and how patterns are formed.

- Conduct a brief interactive activity, such as a quick multiplication quiz or a fun multiplication chant, to reinforce the main topics.

- Preview the next lesson by posing a question about how multiplication can relate to division or real-world problems.

**Extended Activities:**

- Create a multiplication poster: Learners can create a poster that shows different multiplication patterns they discovered.

- Multiplication real-life scavenger hunt: Have students find three items at home that can be grouped in multiples and present how multiplication is involved.

- Invite students to use an app that focuses on multiplication to practice at home and share their progress with the class.

**Teacher Self-Evaluation:**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **SCHOOL** | **LEVEL** | **LEARNING AREA** | **DATE** | **TIME** | **ROLL** |
|  | **GRADE 4** | **MATHEMATICS** |  |  |  |

**WEEK 11: LESSON 1**

**Strand:** Numbers

**Sub-Strand:** Multiplication

**Specific Learning Outcomes:**

**- By the end of this lesson, learners should be able to:**

1.Use IT devices to search for multiplication problems.

2.Discuss and solve problems related to multiplication.

3. Appreciate the application of multiplication in real life.

**Key Inquiry Question:**

- Are you able to solve problems involving multiplication?

**Learning Resources:**

- KLB Visionary Mathematics Grade 4 (Page 49)

- Number cards

- Place value apparatus

- IT devices (tablets or computers)

- Video clips demonstrating multiplication concepts

**Organisation of Learning:**

**Introduction (5 minutes):**

- Review: Start the lesson by reviewing what was learned in the previous lesson on basic multiplication concepts.

- Engagement: Encourage learners to share any multiplication problems they encountered since the last class. Then guide them to read a small excerpt from the KLB Visionary Mathematics textbook, focusing on the multiplication of 9.

**Lesson Development (25 minutes):**

**Step 1:** Understanding Multiplication of 9

- Introduce the multiplication table of 9.

- Discuss patterns in the multiplication of 9 (e.g., the sum of the digits in the products equals 9).

- Use number cards or visuals to demonstrate how to calculate 9 x n (where n is any number from 1 to 10).

**Step 2:** Using IT Devices

- Arrange learners in pairs/groups. Provide access to IT devices.

- Assign a task to search for real-life multiplication problems that involve the number 9 (e.g., calculating the total number of apples if one box contains 9 apples).

- Encourage them to find at least three examples and prepare to share.

**Step 3:** Problem Solving

- After searching, facilitate a class discussion where learners present the problems they found.

- Solve a couple of the problems together as a class, emphasizing different strategies (e.g., repeated addition, using the multiplication table).

**Step 4:** Real-World Application

- Discuss how multiplication (especially with the number 9) is used in everyday life, like in shopping, measuring, or cooking.

- Invite students to share any personal experiences where they used multiplication.

**Conclusion (5 minutes):**

- Summary: Recap the key points discussed during the lesson, including the multiplication table of 9, the problems found, and their real-life applications.

- Interactive Activity: Conduct a quick quiz game where learners solve multiplication problems related to the number 9.

- Preview: Tell students that the next lesson will focus on multiplication strategies and how to multiply larger numbers! Ask them to think of different products they encounter during the week.

**Extended Activities:**

- Home Assignment: Ask students to create a multiplication story/booklet that illustrates real-life scenarios where they can use the number 9.

- Creative Art: Have learners create a poster showcasing the multiplication table of 9 with examples of real-life applications, such as in cooking, shopping, or sports (e.g., points scored).

**Teacher Self-Evaluation:**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **SCHOOL** | **LEVEL** | **LEARNING AREA** | **DATE** | **TIME** | **ROLL** |
|  | **GRADE 4** | **MATHEMATICS** |  |  |  |

**WEEK 11: LESSON 2**

**Strand:** Numbers

**Sub Strand:** Division

**Specific Learning Outcomes:**

**- By the end of the sub-strand, the learner should be able to:**

1. Identify division as equal sharing and equal grouping.

2.Divide up to a 2-digit number by a 1-digit number without a remainder in real-life situations.

3. Appreciate dividing up to a 2-digit number by a 1-digit number without a remainder in different situations.

**Key Inquiry Question(s):**

- When do you use division in real life?

**Learning Resources:**

- KLB Visionary Mathematics Grade 4 (Pages 50-51)

- Number cards

- Place value apparatus

- IT devices

- Video clips

**Organisation of Learning:**

**Introduction (5 minutes):**

- Review the previous lesson on basic division concepts.

- Lead a brief discussion to get students thinking about where they might see division in everyday life, such as sharing snacks or group projects.

**Lesson Development (25 minutes):**

**Step 1:** Introduction to Equal Sharing and Equal Grouping

- Explain that division can be understood as sharing something equally or grouping things.

- Use visual aids (like counters or drawings) to demonstrate how dividing 8 apples among 4 friends means each friend gets 2 apples.

**Step 2:** Hands-On Division Practice

- Divide the class into pairs and provide each pair with counters.

- Ask them to work together to divide various 2-digit numbers (up to 99) by 1-digit numbers (up to 9) without a remainder. For example, "Divide 16 counters by 4." Ensure each group demonstrates how they came to their solution.

**Step 3:** Real-Life Problem Solving

- Present a few relatable word problems involving division. For example: "If there are 24 cookies and 6 children, how many cookies does each child get?"

- Encourage students to use counters to find their answers and discuss as a class after.

**Step 4:** Reflection and Sharing

- Invite students to share their findings with the class.

- Encourage them to explain the process they used when working with counters and to give examples of when they might use division in their own lives.

**Conclusion (5 minutes):**

- Summarize key points: division as sharing and grouping, real-life applications, and methods practiced.

- Conduct an interactive activity, such as a quick game where students guess how many items would be in groups (e.g., “If we have 15 candies and 3 bags, how many candies in each bag?”).

- Preview the next lesson focusing on division with remainders or word problems.

**Extended Activities:**

- Create a "Division in Real Life" project where students take pictures of situations where division is used (like sharing food, organizing teams in sports, etc.).

- Have students write their own word problems using division and swap them with a partner to solve.

- Challenge students to find and present instances in the community or family where they have seen division applied.

**Teacher Self-Evaluation:**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **SCHOOL** | **LEVEL** | **LEARNING AREA** | **DATE** | **TIME** | **ROLL** |
|  | **GRADE 4** | **MATHEMATICS** |  |  |  |

**WEEK 11: LESSON 3**

**Strand:** Numbers

**Sub Strand:** Division

**Specific Learning Outcomes:**

**- By the end of this lesson, learners should be able to:**

1. Discuss how to divide a 2-digit number by a 1-digit number with a remainder using counters.

2. Divide a 2-digit number by a 1-digit number with a remainder in real-life situations.

3. Appreciate dividing a 2-digit number by a 1-digit number with a remainder in different contexts.

**Key Inquiry Question:**

- How is division equal to sharing?

**Learning Resources:**

- KLB Visionary Mathematics Grade 4 (Pages 52-54)

- Number cards

- Place value apparatus

- IT devices (tablets/laptops for interactive activities)

- Video clips illustrating division concepts

**Organisation of Learning:**

**Introduction (5 minutes):**

- Review the previous lesson on basic division concepts.

- Engage learners in a discussion about division using the key inquiry question: "How is division equal to sharing?"

- Introduce the learning objectives and key concepts from the relevant pages of the learning resource.

**Lesson Development (25 minutes):**

**Step 1:** Understanding Division with Counters

- Demonstrate how to use counters to represent a 2-digit number. For example, represent the number 24 with counters.

- Explain how to divide this number by a 1-digit number (e.g., 4) using the counters by grouping them.

- Ask students to observe how many groups they can make and how many counters are left over.

**Step 2:** Pair Work - Sharing with Counters

- Divide learners into pairs and provide each pair with counters and a set of 2-digit numbers to practice with.

- Give them a range of 1-digit numbers to divide by. For instance, have them divide 36 by 5.

- In pairs, they will create groups and share the total, counting the remainder together.

**Step 3:** Applying Division to Real-Life Scenarios

- Present a real-life scenario (e.g., sharing 45 candies among 4 friends) and guide students to calculate how many candies each friend gets and how many are left over.

- Allow pairs to come up with their own real-life examples of division with a remainder and share with the group.

**Step 4:** Interactive Video Demonstration

- Show a short video clip that visually explains division with remainders in various contexts (e.g., slicing pizza, sharing toys).

- Pause at key points to ask the students to interpret what they see and identify the total, groups formed, and any remainders.

**Conclusion (5 minutes):**

- Summarize the key points covered in the lesson: understanding division, how to divide using counters, and real-life applications.

- Conduct an interactive activity: Ask students to solve a quick division problem with a remainder on mini whiteboards, which they will hold up when they are ready.

- Preview the next session by mentioning that they will explore more challenging division problems and look into the relationship between division and multiplication.

**Extended Activities:**

- Fraction Sharing Activity: Have learners use fruits (like apples) and practice dividing them among groups, observing the remainder.

- Division Art Project: Create a poster illustrating division with remainders using colorful shapes or drawings to represent groups and remainders.

- Math Journal: Encourage students to keep a math journal where they reflect on daily divides they encounter at home (like dividing chores) or create word problems using division with remainders.

**Teacher Self-Evaluation:**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **SCHOOL** | **LEVEL** | **LEARNING AREA** | **DATE** | **TIME** | **ROLL** |
|  | **GRADE 4** | **MATHEMATICS** |  |  |  |

**WEEK 11: LESSON 4**

**Strand:** Numbers

**Sub Strand:** Division

**Specific Learning Outcomes:**

**- By the end of this sub-strand, learners should be able to:**

1. Discuss the division of a 2-digit number by a 1-digit number using the long form of division.

2.Divide a 2-digit number by a 1-digit number using the long form of division in real-life situations.

3. Appreciate dividing a 2-digit number by a 1-digit number using the long form of division.

**Key Inquiry Question(s):**

- How do you divide numbers using the long method?

**Learning Resources:**

- KLB Visionary Mathematics Grade 4, Pages 54-55

- Number cards

- Place value apparatus

- IT devices (computers/tablets)

- Video clips on long division

**Organisation of Learning:**

**Introduction (5 minutes):**

- Review the previous lesson on basic division concepts.

- Ask students about their experiences with dividing numbers and what they remember about division.

- Guide learners to read and discuss Pages 54-55 of the learning resources, focusing on the long form of division, while emphasizing key concepts such as dividends, divisors, and quotients.

**Lesson Development (25 minutes):**

**Step 1:** Introduction to Long Division

- Explain the long division process using a sample problem (e.g., divide 56 by 7).

- Model the steps visually on the board while explaining each component (place the dividend under the long division bar and the divisor outside, etc.).

**Step 2:** Guided Practice

- In pairs, have students use number cards to create their own 2-digit and 1-digit number combinations.

- Guide them to set up their long division problems on paper or a whiteboard, helping them through the first example together (e.g., 84 ÷ 4).

**Step 3:** Independent Practice

- Ask learners to complete a few long division problems independently using their own created problems (e.g., 73 ÷ 9, 42 ÷ 6).

- Walk around to provide support, answer questions, and ensure correct procedures are followed.

**Step 4:** Real-Life Application

- Discuss real-life scenarios where division might be necessary (e.g., sharing candies, distributing items among friends).

- Have students create a short example of how they might use division in their everyday life and share with their partner.

**Conclusion (5 minutes):**

- Summarize the key points learned: steps of long division, how to set up the problems, and applications of division in real life.

- Conduct a brief interactive activity such as a quiz game, where students can answer questions about long division as a class.

- Preview the next session, which will explore more complex division scenarios, and encourage students to think of other ways they use division at home or in games.

**Extended Activities:**

- Assign students to create a comic strip that illustrates a scenario in which division is used in everyday life.

- Give them additional division worksheets or online resources to practice at home.

- Organize a "Division Day" where they can bring in items to divide (like snacks) and practice division practically with their classmates.

**Teacher Self-Evaluation:**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **SCHOOL** | **LEVEL** | **LEARNING AREA** | **DATE** | **TIME** | **ROLL** |
|  | **GRADE 4** | **MATHEMATICS** |  |  |  |

**WEEK 11: LESSON 5**

**Strand:** Numbers

**Sub Strand:** Division

**Specific Learning Outcomes:**

**- By the end of the sub-strand, the learners should be able to:**

1.Discuss different methods of dividing numbers.

2. Divide a 2-digit number by a 1-digit number using their strategies.

3. Appreciate solving problems involving division in different situations.

**Key Inquiry Question(s):**

- Which other strategies can you use in division?

**Learning Resources:**

- KLB Visionary Mathematics Grade 4 Page 55-56

- Number cards

- Place value apparatus

- IT devices (tablets/computers)

- Video clips related to division

**Organisation of Learning:**

**Introduction (5 minutes):**

- Review the previous lesson on basic multiplication and the relationship between multiplication and division.

- Guide learners to read and discuss relevant content from the learning resources, focusing on key concepts of division.

**Lesson Development (25 minutes):**

**Step 1:** Introducing Division Methods

- Present different methods for dividing numbers, such as:

- Repeated subtraction

- Using arrays

- Place value method

- Allow students to ask questions and clarify their understanding.

**Step 2:** Partner Activity - Divide Using Strategies

- Organize learners into pairs.

- Give each pair a set of number cards (2-digit numbers) to practice dividing by a 1-digit number.

- Ask them to choose a method discussed in Step 1 or create their own strategy to solve a problem (e.g., 42 ÷ 6).

**Step 3:** Sharing Strategies

- Have each pair take turns sharing their chosen method and the answer they obtained with the class.

- Facilitate a discussion on the efficiency and ease of each strategy shared.

**Step 4:** Problem Solving Session

- Present a word problem involving division (e.g., "If you have 48 apples and want to put them in baskets that hold 6 apples each, how many baskets do you need?").

- Guide learners through solving the problem together, reinforcing the importance of understanding the context of division.

**Conclusion (5 minutes):**

- Summarize the key points discussed about division methods and the importance of finding personal strategies.

- Conduct a brief interactive activity, such as a rapid-fire question round where students shout out answers to simple division problems.

- Prepare learners for the next session by previewing upcoming topics, such as the relationship between division and fractions.

**Extended Activities:**

- Home Practice: Provide students with division worksheets including word problems that require the use of different strategies learned in class.

- Group Project: Have students create a short video or poster demonstrating one division method, explaining it step-by-step and showing real-life examples.

- Math Games: Introduce online math games focused on division that can reinforce their skills in an engaging way.

**Teacher Self-Evaluation:**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **SCHOOL** | **LEVEL** | **LEARNING AREA** | **DATE** | **TIME** | **ROLL** |
|  | **GRADE 4** | **MATHEMATICS** |  |  |  |

**WEEK 12: LESSON 1**

**Strand:** Numbers

**Sub Strand:** Division

**Specific Learning Outcomes:**

**- By the end of the sub-strand, learners should be able to:**

1. Explain the relationship between multiplication and division.

2. Use digital devices to work out problems involving division of numbers using their own strategies.

3. Appreciate the relationship between multiplication and division.

**Key Inquiry Question(s):**

- What is the relationship between multiplication and division?

**Learning Resources:**

- KLB Visionary Mathematics Grade 4, Page 56

- Number cards

- Place value apparatus

- IT devices

- Video clips

**Organisation of Learning:**

**Introduction (5 minutes):**

- Begin by reviewing the previous lesson on multiplication.

- Guide learners to read aloud a section on division from the KLB Visionary Mathematics book.

- Engage students in a discussion to reflect on what they remember about multiplication and how it may connect to division.

**Lesson Development (25 minutes):**

**Step 1:** Explore the Connection

- Ask students the inquiry question: “What is the relationship between multiplication and division?”

- Distribute number cards and have students work in pairs. Each pair creates multiplication problems using the cards and then writes the corresponding division problems underneath. For example, if they create 4 x 3 = 12, they should write 12 ÷ 3 = 4 and 12 ÷ 4 = 3.

**Step 2:** Using Digital Devices

- Introduce the use of digital devices for division problems.

- Ask each pair to use an educational math app or website to solve a series of division problems. They should work on different division problems and find multiple ways to reach the answers using digital tools.

**Step 3:** Sharing Strategies

- Have each pair share one strategy they used to solve division problems through digital devices.

- Encourage students to explain their thought processes and how it connects to multiplication.

**Step 4:** Application

- Distribute a short worksheet with division problems that they can solve individually using the strategies they learned.

- Circulate to provide support and to observe their understanding of the concepts.

**Conclusion (5 minutes):**

- Summarize the key points: the relationship between multiplication and division and the various strategies used to solve division problems.

- Conduct a quick interactive quiz (either raising hands or a fun digital tool) to reinforce the main topics.

- Preview the next session by hinting at how division can be used in real-life situations, such as sharing or splitting items.

**Extended Activities:**

- Math Relay Race: Create a relay game where teams race to solve division problems on large paper, but each solution requires them to write a multiplication fact underneath it.

- Digital Dividers: Encourage students to explore division games online where they can earn points for correct answers. They can present the games they played in the next class.

- Create a Story: Have students write a short story that includes multiplication and division scenarios, then share them with the class.

**Teacher Self-Evaluation:**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **SCHOOL** | **LEVEL** | **LEARNING AREA** | **DATE** | **TIME** | **ROLL** |
|  | **GRADE 4** | **MATHEMATICS** |  |  |  |

**WEEK 12: LESSON 2**

**Strand:** Numbers

**Sub Strand:** Division

**Specific Learning Outcomes:**

**- By the end of the sub-strand, learners should be able to:**

1.Use IT devices to learn more about division.

2. Play digital games focused on division.

3.Appreciate learning about the division of numbers in real life.

**Key Inquiry Question(s):**

- What did you learn about division?

**Learning Resources:**

- KLB Visionary Mathematics Grade 4 Page 56

- Number cards

- Place value apparatus

- IT devices (tablets/computers)

- Video clips relevant to division

**Organisation of Learning:**

**Introduction (5 minutes):**

- Begin by reviewing the previous lesson on multiplication and its relation to division.

- Ask students to share their prior knowledge of division.

- Guide learners to read and discuss relevant content from the learning resources that emphasize understanding the key concept of division.

**Lesson Development (25 minutes):**

**Step 1:** Exploring Division Concepts

- Introduce division by demonstrating with number cards.

- Show how to represent division visually using place value apparatus.

- Ask students to explain in their own words what division means.

**Step 2:** Digital Learning

- Split the class into pairs and assign each group a device.

- Allow learners to navigate to a selected educational website or app that focuses on division.

- Encourage groups to explore the platform together, discussing strategies and solutions.

**Step 3:** Engaging in Digital Games

- Have students play an interactive division game on their devices.

- Walk around to ensure all learners are engaged and understand the objectives of the game.

**Step 4:** Sharing Knowledge

- Regroup and have each pair share one new thing they learned about division from the digital resources and games.

- Facilitate a discussion by asking prompting questions about how they can apply division in real life (e.g., sharing equally, dividing up groups).

**Conclusion (5 minutes):**

- Summarize key points learned today regarding division and its real-life application.

- Organize a quick interactive quiz or a fun game where students must solve simple division problems together as a class.

- Preview upcoming topics, such as the relationship between division and fractions, and encourage students to think about how division might help them in everyday situations.

**Extended Activities:**

- Division Scavenger Hunt: Create a scavenger hunt where students find everyday objects in the classroom and divide them into equal groups.

- Division Story Problems: Have students create their own story problems involving division that represent real-life scenarios, then share them with their peers.

- Create a Division Board Game: In small groups, students can design a simple board game that incorporates division problems as part of gameplay.

**Teacher Self-Evaluation:**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **SCHOOL** | **LEVEL** | **LEARNING AREA** | **DATE** | **TIME** | **ROLL** |
|  | **GRADE 4** | **MATHEMATICS** |  |  |  |

**WEEK 12: LESSON 3**

**Strand:** Numbers

**Sub Strand:** Division

**Specific Learning Outcomes:**

**- By the end of the sub-strand, learners should be able to:**

1. Search for problems involving division using digital devices.

2. Discuss and solve problems on division.

3.Appreciate the application of division of numbers in real life.

**Key Inquiry Question:**

- Are you able to solve problems involving division?

**Learning Resources:**

- KLB Visionary Mathematics Grade 4, Page 56

- Number cards

- Place value apparatus

- IT devices (tablets or computers)

- Video clips on division

**Organisation of Learning:**

**Introduction (5 minutes):**

- Review: Begin the lesson by briefly reviewing the previous lesson on multiplication, highlighting how multiplication and division are related.

- Discussion: Ask students to share different ways they use division in daily life (sharing items, dividing bills, etc.). Then, guide them to read and discuss the relevant content from their textbooks, emphasizing understanding key concepts involved in division.

**Lesson Development (25 minutes):**

**Step 1:** Exploring Division Concepts

- Introduce the concept of division by using visual aids (like number cards) to explain how division works as sharing or grouping.

- Show a short video clip on division to engage students and help them visualize the concept.

- Engage the class with an example: "If we have 12 apples and we want to share them with 4 friends, how many apples does each friend get?"

**Step 2:** Group Search for Division Problems

- Divide students into pairs or small groups and provide them with digital devices.

- Instruct them to search for real-world problems involving division (e.g., sharing items, distributing resources).

- Each group should select one problem and be prepared to share it with the class.

**Step 3:** Solving Group Problems

- Each group presents their chosen division problem to the class.

- As a class, discuss different ways to solve these problems, guiding students through the process. Encourage them to show their working, either on the board or using place value apparatus.

**Step 4:** Practice Individual Problems

- Hand out worksheets with division problems for students to solve independently. Include a mix of word problems and numerical division to cater to different learning styles.

- Circulate the classroom to provide support and answer questions as needed.

**Conclusion (5 minutes):**

- Summarization: Recap the key points covered in the lesson, reinforcing how division is used in everyday life and how it relates to multiplication.

- Interactive Activity: Conduct a brief quiz game (such as a "Division Challenge") where students can answer questions or solve problems in teams, reinforcing cooperative learning.

- Preview: Inform learners about the upcoming topic on the relationship between division and fractions, and ask them to think of examples where they might see this relationship in their lives.

**Extended Activities:**

- Division in Action: Ask students to collect data on how they share things at home (e.g., snacks, toys) and to create a small presentation or poster illustrating their findings with division problems.

- Online Games: Encourage students to practice division through interactive online games or math apps to reinforce their learning outside the classroom.

**Teacher Self-Evaluation:**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **SCHOOL** | **LEVEL** | **LEARNING AREA** | **DATE** | **TIME** | **ROLL** |
|  | **GRADE 4** | **MATHEMATICS** |  |  |  |

**WEEK 12: LESSON 4**

**Strand:** Numbers

**Sub Strand:** Fractions

**Specific Learning Outcomes:**

**- By the end of the sub-strand, learners should be able to:**

1. Identify fractions as part of a whole.

2. Demonstrate that a fraction is a part of a whole using a piece of paper.

3. Appreciate fractions as parts of a whole.

**Key Inquiry Question(s):**

- What is a fraction?

**Learning Resources:**

- KLB Visionary Mathematics Grade 4, Pages 57-58

- Number cards

- Place value apparatus

- IT devices (tablets or computers)

- Video clips related to fractions

**Organisation of Learning:**

**Introduction (5 minutes):**

- Review the previous lesson on numbers and parts of whole numbers.

- Engage learners by asking them if they have ever shared something equally (like sharing a pizza) and relate that to the concept of fractions.

- Guide learners to read and discuss relevant content from the learning resources, specifically the definitions and examples of fractions.

**Lesson Development (25 minutes):**

**Step 1:** Introduction to Fractions

- Explain what a fraction is using simple language. For example, state: "A fraction shows a part of a whole. If we divide something into equal parts, each part is a fraction of the whole."

- Show visual examples using cut paper shapes or drawings (e.g., a circle divided into 4 parts).

**Step 2:** Hands-On Activity

- In pairs, give each learner a square piece of paper. Ask them to fold it in half and then in half again to create quarters.

- Instruct them to cut along the folds, creating 4 equal pieces. They should now have a visual representation of the fraction 1/4.

**Step 3:** Identification of Fractions

- Using number cards, have learners identify fractions. For example, display different numbers and ask students to create equivalent fractions using their paper pieces (e.g., 2/4, which can be made using 2 out of the 4 pieces they cut).

**Step 4:** Discussion and Reflection

- Gather the class for a discussion. Ask learners questions like, "How did you create your fractions?" and "What did you notice about the pieces?"

- Encourage them to share their understanding and representations of fractions with the rest of the class.

**Conclusion (5 minutes):**

- Summarize the key points covered: What fractions are, how to identify them, and how to see them through dividing paper.

- Conduct a quick interactive activity: quickly ask students to display fractions using their paper pieces and share their findings.

- Prepare learners for the next session by providing them with questions to think about for the next topic, such as "How can we use fractions in our daily lives?"

**Extended Activities:**

- Fraction Art: Have students create a piece of art using different colored paper pieces that represent various fractions (e.g., 1/2 red and 1/4 blue, etc.).

- Fraction Bingo: Create a Bingo game where students have to match descriptions of fractions to their visual representations or names.

- Real-Life Fractions: Encourage students to bring in real-life examples of fractions (e.g., slices of fruit) and discuss these examples in the next class.

**Teacher Self-Evaluation:**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **SCHOOL** | **LEVEL** | **LEARNING AREA** | **DATE** | **TIME** | **ROLL** |
|  | **GRADE 4** | **MATHEMATICS** |  |  |  |

**WEEK 12: LESSON 5**

**Strand:** Numbers

**Sub Strand:** Fractions

**Specific Learning Outcomes:**

**- By the end of this sub-strand, learners should be able to:**

1. Fold a piece of paper to show different fractions and shade those fractions.

2. Write the fraction represented by the shaded part.

3. Appreciate how fractions can be shown and written in different situations.

**Key Inquiry Question(s):**

- How do we write fractions?

**Learning Resources:**

- KLB Visionary Mathematics Grade 4, Pages 57-58

- Number cards

- Place value apparatus

- IT devices (tablets/laptops)

- Video clips about fractions

**Organisation of Learning:**

**Introduction (5 minutes):**

- Start by reviewing the previous lesson on basic fraction concepts.

- Ask students engaging questions to refresh their memory about whole numbers and parts of a whole.

- Guide learners to read and discuss the relevant content from the learning resources, focusing on understanding how to represent fractions.

**Lesson Development (25 minutes):**

**Step 1:** Understanding Folding Paper

- Demonstrate how to fold a piece of paper in half.

- Discuss what happens to the paper, leading to the concept that each half is a fraction. Elicit responses from students about what fraction this represents (1/2).

**Step 2:** Shading and Writing Fractions

- Next, ask students to fold their paper into quarters (4 equal parts).

- Have them shade one of the four parts and write the fraction that represents the shaded area (1/4). Encourage them to share their work with a partner.

**Step 3:** Creating Different Fractions

- Now, using the same paper, challenge the students to fold their paper into different fractions (e.g., 1/3, 2/3).

- After shading parts of the paper, they will write down the fractions represented by the shaded area. Discuss the importance of the denominator.

**Step 4:** Sharing and Application

- Ask students to share their shaded papers with the class.

- Let them explain how they created their fractions, reinforcing both the writing and visual representation of fractions.

**Conclusion (5 minutes):**

- Summarize the key points learned in the lesson about how to create and write fractions.

- Conduct a brief interactive activity where students can show fractional representations using their hands (e.g., showing 1/2 or 1/4 using fingers).

- Preview the next session by asking, “What happens when we combine fractions?” to spark curiosity.

**Extended Activities:**

- Fraction Scavenger Hunt: Have students find items in the classroom or at home that can be represented by fractions (e.g., 1/2 an apple, 1/4 of a pizza) and take photos or draw them.

- Fraction Games: Create a board game where students can practice writing fractions based on different situations depicted on the game cards.

**Teacher Self-Evaluation:**