BSICS Unit Openers

Math Department

Kindergarten

Unit 1 Opener: Math in Our World

Title: Exploring African Patterns - Math in Our Vibrant World!

Materials: For this activity, make sure to have maps of Africa, large images of African patterns, enough sheets of paper, and a variety of colorful markers. Encourage participation, creativity, and a fun learning environment! Time: About 30 minutes

Introduction (5 minutes): Hello, young explorers! Welcome to a fantastic journey through the colorful world of math! Today, we are going to take a special trip to Africa, where we will discover the beauty of African patterns and how math is all around us. Get ready for an exciting, engaging, and interactive adventure!

Activity - African Pattern Hunt (15 minutes):
Step 1: Gather Around (2 minutes) Let's all gather in a circle. We are going to start our adventure by learning a little bit about Africa! Who can tell me what they know about Africa? Raise your hand!

Step 2: Map of Africa (3 minutes) Now, we have a map of Africa here. Can you point to where Africa is on the map? Great job! Africa is a vast and diverse continent with so much to explore.

Step 3: African Patterns (5 minutes) In Africa, people create beautiful patterns using colors and shapes. These patterns are not just pretty; they also teach us about math! Look at these colorful African patterns on the big screen! Can you see the shapes and colors in the patterns? Let's count how many circles, triangles, and squares we can find!

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Step 4: Create Your Own African Pattern (5 minutes) Now it's your turn to become artists and mathematicians! Each of you will get a sheet of paper and some colorful markers. We want you to create your very own African-inspired pattern. Use different shapes and colors to make it unique!

Step 5: Pattern Sharing (5 minutes) Wow, look at all these fantastic patterns you've created! Let's take turns sharing our patterns with the class. As you show your pattern, tell us which shapes and colors you used. Don't forget to count them too!

Conclusion (1 minute): Today, we explored African patterns and learned how math is everywhere, even in art! You all did an amazing job creating your patterns. Remember, math is a fantastic adventure, and it's all around us, waiting for us to discover its wonders. Great job, young explorers!

Unit 2 Opener: Numbers 1 to 10

Title: "Safari Counting Adventure: Exploring Numbers 1 to 10 the African Way!"

Introduction (5 minutes): Welcome to our exciting Safari Counting Adventure, little explorers! Today, we're going on a special journey to discover the magic of numbers 1 to 10, the African way. We'll learn about amazing African animals, vibrant cultures, and incredible contributions to the world of counting. Are you ready for an engaging and interactive experience? Let's get started!

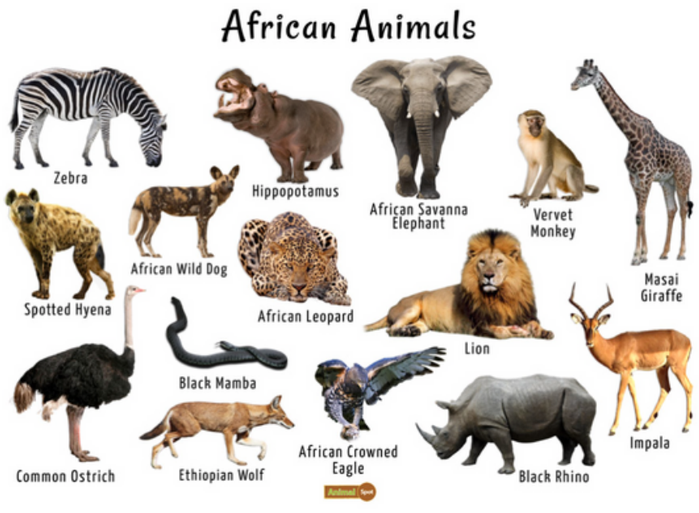
Activity 1: African Animal Count (8 minutes):

Step 1: Set up a large game board with pictures of various African animals, like lions, elephants, giraffes, zebras, and more. Each animal has a number (1 to 10) written beside it.

Step 2: Divide the students into small groups, and give each group a dice.

Step 3: In turns, the groups will roll the dice and move their game piece (e.g., a small toy animal) the corresponding number of spaces. When they land on an animal, they have to count the animals on the board and say the number aloud. For example, if they land on a group of three zebras, they say "Three!"

Step 4: To make it more interactive, encourage the students to imitate the sounds of the animals they land on. Roar like lions, trumpet like elephants, and giggle like hyenas!



Unit 2 Opener: Numbers 1 to 10

Activity 2: African Rhythms and Counting (7 minutes):

Step 1: Gather some African percussion instruments, like drums, shakers, and bells.

Step 2: Show the students how to create simple rhythms using the instruments, clapping hands, or stomping feet.

Step 3: Once they grasp the rhythms, explain that each rhythm will correspond to a specific number. For example, three beats could represent the number three.

Step 4: Now, play a fun game where you or a student creates a rhythm, and the others have to guess which number it represents. They can shout out the number they think it is.

Step 5: After a few rounds, let the students take turns creating their own rhythms for others to guess!

Conclusion (5 minutes): Wow, you all did a fantastic job exploring numbers 1 to 10 the African way! Through our Safari Counting Adventure, we learned about amazing African animals, played fun counting games, and enjoyed the rhythm of African beats. Remember, numbers are all around us, and they connect us to incredible cultures and traditions from all over the world, including Africa. As we continue our math journey, let's keep the spirit of exploration and curiosity alive!

We hope you had a roaring good time on this African-centered counting adventure. Keep counting, learning, and embracing the beauty of diversity! Asante sana (Thank you very much) for joining us today! 🐾🌍🌞

Unit 3 Opener: Flat Shapes All Around Us

Title: Exploring African Art Shapes: A Journey through African Culture and Geometry

Objective:
In this 20-minute African-centered unit opener for Kindergarten grade students, we will introduce the concept of "Float Shapes All Around Us" through an engaging and interactive exploration of African art, culture, and geometry. Students will learn about various African art shapes, their significance, and how they relate to the concept of shapes in their immediate environment.

Materials Needed:

1. Visual aids of African art (e.g., pictures, posters, or slides)
2. Construction paper and scissors
3. Markers or crayons
4. Music player (optional)

Opening (5 minutes):

1. Greetings: Begin the session by greeting the students warmly and acknowledging the diversity within their classroom.
2. Share African Art: Introduce the students to the beauty and richness of African art. Show them pictures or posters of different African art pieces, such as masks, sculptures, or patterns. Briefly explain the significance of art in African culture and how it represents their history, beliefs, and daily life.

Unit 4 Opener: Understanding Addition and Subtraction

Title: Exploring African Safari Adventures with Math!

Objective:
In this African-centered unit opener for kindergarten grade students, we will embark on an exciting safari adventure to explore addition and subtraction concepts while celebrating the rich culture and wildlife of Africa. Through engaging and interactive activities, we will lay the foundation for understanding addition and subtraction in a fun and inclusive way. Let's get started on our African Safari Adventure!

Duration: Approximately 20 minutes
Materials:

1. African Safari Adventure poster or digital display
2. Animal cut-outs (lion, giraffe, elephant, zebra, etc.)
3. Safari hats or headbands (optional)
4. African drums or percussion instruments (optional)
5. Whiteboard or flipchart and markers
6. Jungle-themed decorations (optional)

Unit 4 Opener: Understanding Addition and Subtraction

Activity Sequence:

1. Welcome to the African Safari Adventure (5 minutes)
    - As students enter the classroom, play some soft African-themed music in the background to set the mood.
    - Greet the students with a warm "Jambo" (hello in Swahili) and explain that we are about to embark on a thrilling safari adventure through Africa.
    - Show the African Safari Adventure poster or digital display, featuring vibrant images of animals, African landscapes, and colorful math symbols.
2. Meet the Safari Animal Friends (5 minutes)
    - Introduce the animal cut-outs representing different safari animal friends (lion, giraffe, elephant, zebra, etc.).
    - Give each student an animal cut-out or let them choose their favorite safari animal to keep during the unit.
    - Explain that each animal will have its own unique way of helping us understand addition and subtraction.
3. Drumroll for Addition (5 minutes)
    - Gather students in a circle or around a designated area for an interactive addition activity.
    - Use African drums or percussion instruments (if available) to create a drumroll.
    - Display simple addition equations (e.g., 2 + 3 = ?) on the whiteboard or flipchart.
    - Invite students to take turns being safari rangers and "capture" the correct number of animals to represent the sum.
    - For example, for 2 + 3 = ?, the safari ranger will collect 2 lion cut-outs and 3 giraffe cut-outs to form a group of 5 animals.

Unit 4 Opener: Understanding Addition and Subtraction

4. Hunt for Subtraction (5 minutes)
    - Transition to a subtraction activity using the same African drumroll or music.
    - Display subtraction equations (e.g., 5 - 2 = ?) on the whiteboard or flipchart.
    - Invite students to take turns being safari explorers and "release" a specific number of animals to find the answer.
    - For example, for 5 - 2 = ?, the safari explorer will release 2 elephant cut-outs, leaving 3 animals behind.
5. Safari Celebration (5 minutes)
    - Gather all the safari animal friends and students back to the circle or designated area.
    - Recap the addition and subtraction activities and encourage students to share their experiences.
    - Commend their efforts and celebrate their progress in understanding addition and subtraction.
    - Optionally, sing an African song or do a simple African dance together to celebrate the completion of the African Safari Adventure!

Conclusion:

Through this engaging and interactive African-centered unit opener, students will not only develop a solid foundation in understanding addition and subtraction concepts but also gain an appreciation for the rich culture and wildlife of Africa. This memorable experience will set the tone for an exciting and inclusive math journey throughout the rest of the unit. Karibuni sana (you are very welcome) to the world of African Safari Adventures with math!

Unit 5 Opener: Composing and Decomposing

Title: Benjamin's Magical Clock

Once upon a time, in a small kindergarten class, there were five curious friends named Mia, Noah, Ava, Ethan, and Sophia. One sunny morning, their math coach, Mama Jackie, told them an amazing story about a brilliant African American mathematician named Benjamin Banneker.

"Listen closely, my little mathematicians," said Mama Jackie, "Benjamin was a master of numbers, just like you all are becoming! He loved solving puzzles and creating magical inventions with his math skills."

Excited, the children leaned in to hear more about Benjamin's incredible journey. "One day," Mama continued, "Benjamin used his knowledge of composing and decomposing numbers to design a special clock that amazed everyone in his town!"

The children's eyes sparkled with curiosity as they imagined Benjamin's clock. "But there's a little problem," said Ms. Lily, "The clock lost its magical powers because it needs the right numbers to make it work again."

Mia, Noah, Ava, Ethan, and Sophia wanted to help! They knew they could be just like Benjamin, using their math skills to create wonders too. "What do we need to do, Mama Jackie?" asked Ava eagerly.

Unit 5 Opener: Composing and Decomposing

Mama Jackie smiled and said, "To fix the magical clock, you must find three special numbers that, when added together, make the number 10."

The children thought carefully and began to explore different combinations of numbers. "I found one!" shouted Ethan, "5 + 3 + 2 = 10!"

"That's correct!" praised Mama Jackie, "You found one way to compose 10 using three numbers."

Sophia added, "I have one too! 6 + 3 + 1 = 10!"

Mia and Noah high-fived, and together they said, "We found one more! 7 + 2 + 1 = 10!"

Mama Jackie beamed with pride at her clever students. "You did it! You composed the magical number 10 using different combinations of three numbers, just like Benjamin Banneker did with his clock!" The children felt like little math wizards, knowing they could use their math skills to create magical wonders too. From that day on, Mia, Noah, Ava, Ethan, and Sophia looked at numbers with excitement, always eager to find new ways to compose and decompose them.

And so, the kindergarten friends continued their journey as math explorers, inspired by the amazing African American mathematician, Benjamin Banneker, and his magical clock that sparked wonder and curiosity in the hearts of young mathematicians everywhere.
The End.

Unit 6 Opener: Numbers 0-20

Title: Amazing Numbers: Celebrating African Contributions!

Introduction: Hello, young mathematicians! Today, we embark on an exciting adventure to explore the fascinating world of numbers from 0 to 20.

Meet Maryam, the Counting Queen: Long ago, in ancient Egypt, there was a brilliant African mathematician named Maryam. She was known as the "Counting Queen" because she loved exploring numbers! Maryam made exciting discoveries about different ways to count and group objects. She taught her friends and family how to count with ease, using their fingers and toes as the earliest counting tools!

Problem:
Maryam has a basket of colorful stones. Let's help her count the stones using her special counting method!

1. First, she points to each stone with her finger, starting from one. How many stones are there if she points to five stones?
2. Next, Maryam counts using her fingers and toes together. She points to each stone, and for every five stones, she taps one toe. Can you figure out how many stones are in the basket when she counts up to three toes?
3. Now, she wants to group the stones into sets of five. If there are 12 stones in the basket, how many groups of five can she make? How many stones will be left over?

Remember, Maryam's special counting method makes it fun and easy to explore numbers. Happy counting like the Counting Queen!

Unit 7 Opener: Solid Shapes All Around Us

Title: Shapes from the World: Celebrating African Contributions!

Introduction: Hello, curious mathematicians! Today, we are about to embark on an exciting adventure to explore the captivating world of solid shapes all around us.

Meet Makena, the Shape Explorer: Long ago, in the heart of Africa, there lived a curious little girl named Makena. She was known as the "Shape Explorer" because she loved to wander through nature, finding beautiful shapes everywhere! Makena would spot circles in the round sun and the full moon, squares in the huts they lived in, and triangles in the mountains on the horizon. She taught her friends and family to see shapes in the world around them, making their days full of joy and discovery!

Makena's Shape Adventure:

Once upon a time, in the heart of Africa, there lived a bright and curious little girl named Makena. She was known as the "Shape Explorer" because she loved to wander through nature, finding beautiful shapes everywhere!

One sunny morning, Makena decided to go on a shape adventure with her best friend, Leo. They set out on a journey to explore the shapes in their village.

As they walked along a path, Makena spotted a big round sun rising in the sky. "Look, Leo! A circle shape!" she exclaimed with excitement. Makena and Leo decided to count the round circles they could find throughout the day.

At the village square, they saw a group of huts with square bases. "Wow, squares!" Makena said, smiling. "Let's see how many square huts we can find!" So, they started counting the huts with square bases.

Unit 7 Opener: Solid Shapes All Around Us

Later in the afternoon, as they climbed up a hill, Makena pointed to the tall, pointy mountains on the horizon. "Triangles!" she shouted happily. Makena and Leo decided to play a game to spot as many triangles as they could find on their way back home.

At the end of the day, they were thrilled with their shape adventure. "We found so many circles, squares, and triangles today!" Makena said, proud of their discoveries.

Now, here comes the math question for you, little explorers: How many circles did Makena and Leo find in the sky? How many huts with square bases did they see at the village square? And how many tall, pointy triangles did they spot on the horizon?

Remember, you are just like Makena, the Shape Explorer, and you can find shapes all around you too! So, get ready to count and discover the fascinating world of shapes just like Makena and Leo did! Happy shape exploring!