

Shajara

1ST EDITION

Magazine

WOMEN AND GIRLS IN
SCIENCE

February 2024

Do You Know Your
SDG's ?

find out on page 14

WAKANDA FOREVER??

MEET SHURI

On Page 26

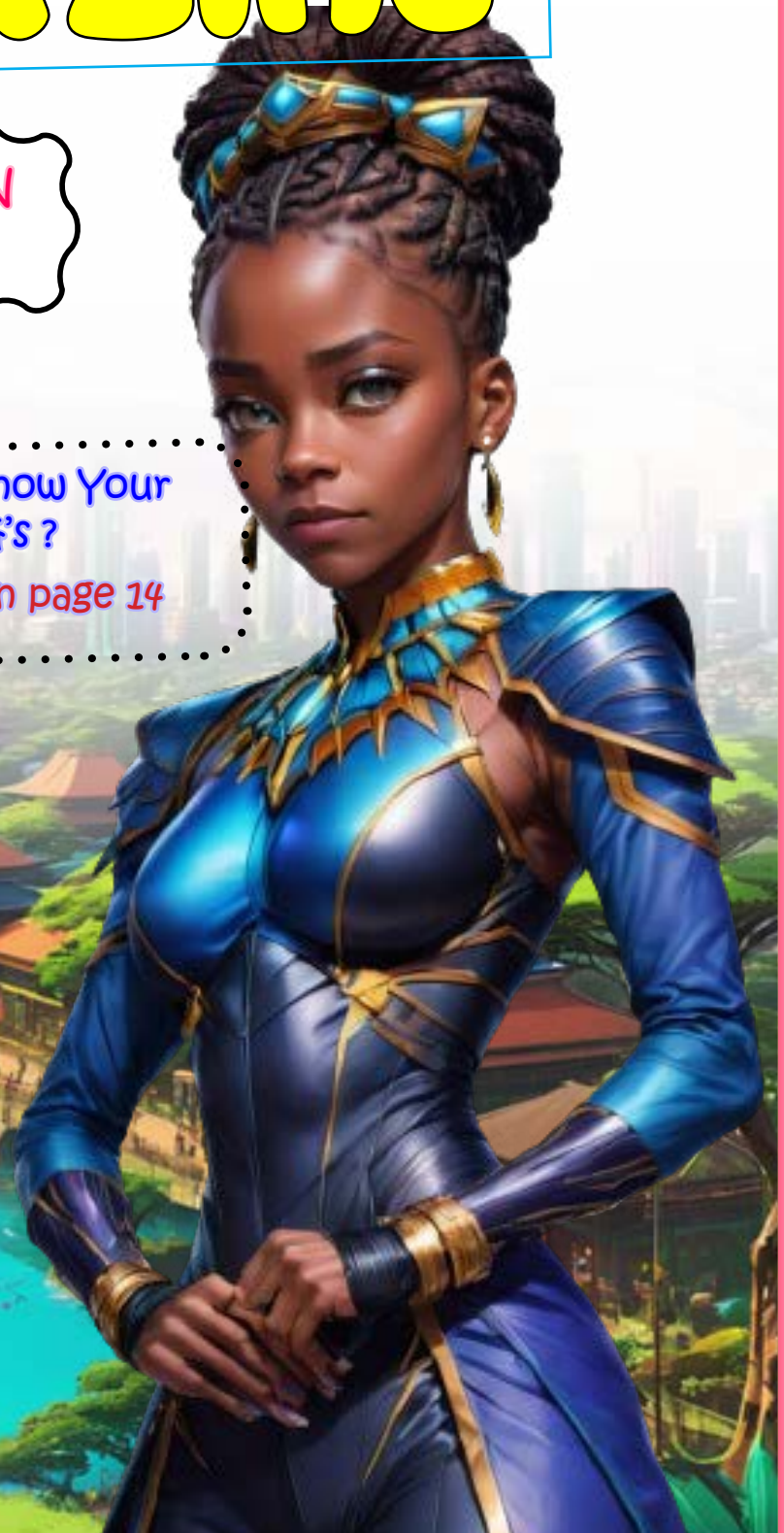




Table of Content

3 ITS STORY TIME!

10 Yummy corner
Something yummy is cooking
this way.

16 Interesting facts
Ever Been to Accra?

17 Find Nemo on
MOVIE REVIEW

19 How do you love
your clothes?
Check out the
Fashion Section

27 Let us Know More
About Cancer

26 Wakanda Forever? Who is
Your Favourite Character

22 PLANET HEROES!
KNOW YOUR SDGs

14 & 25

FUN TIME! Riddles
and Word Search



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LETTER FROM THE EDITOR

“ Hello Readers,

Welcome to our latest issue! Get ready to explore the amazing world of science, technology, engineering, and maths.

In this magazine, you'll find inspiring stories about girls just like you who are doing incredible things in STEM. From cool experiments to awesome inventions, there's so much to learn and discover.

We've also got fun activities for you to try at home. Get hands-on with experiments, puzzles, recipes and more!

At Girls in STEM, we believe in encouraging girls to follow their interests and dream big in STEM. We hope you feel inspired and excited to explore all the possibilities.

Enjoy the magazine! ”



Hey everyone ,My name is Una



We will be taking you through
the magical mystical lands of
Shajara

and I am Jabari, aaaaaand



And our first stop will be A Story

**It is a Cruel World But Sometimes
It Does Offer the Warmest Hugs.**

“Alright, settle down, settle down, class,” Mr. Obaga’s voice cut through the chatter like a knife. The students of Form Two West at Cheptugulu Girls High School unwillingly quieted down, their curiosity roused by the unexpected sight of their science teacher taking charge of their Swahili period. Some even glanced at the timetable, wondering if they had missed a memo or two.

A hand shot up in the air, belonging to none other than the class president, Wanjiru. With confidence, she stood up and made her way to the front of the class, the sea of students parting like the Red Sea before her.

“Mr. Obaga,” she began, “our Swahili teacher is unwell today, so we were told you’d be taking over.”

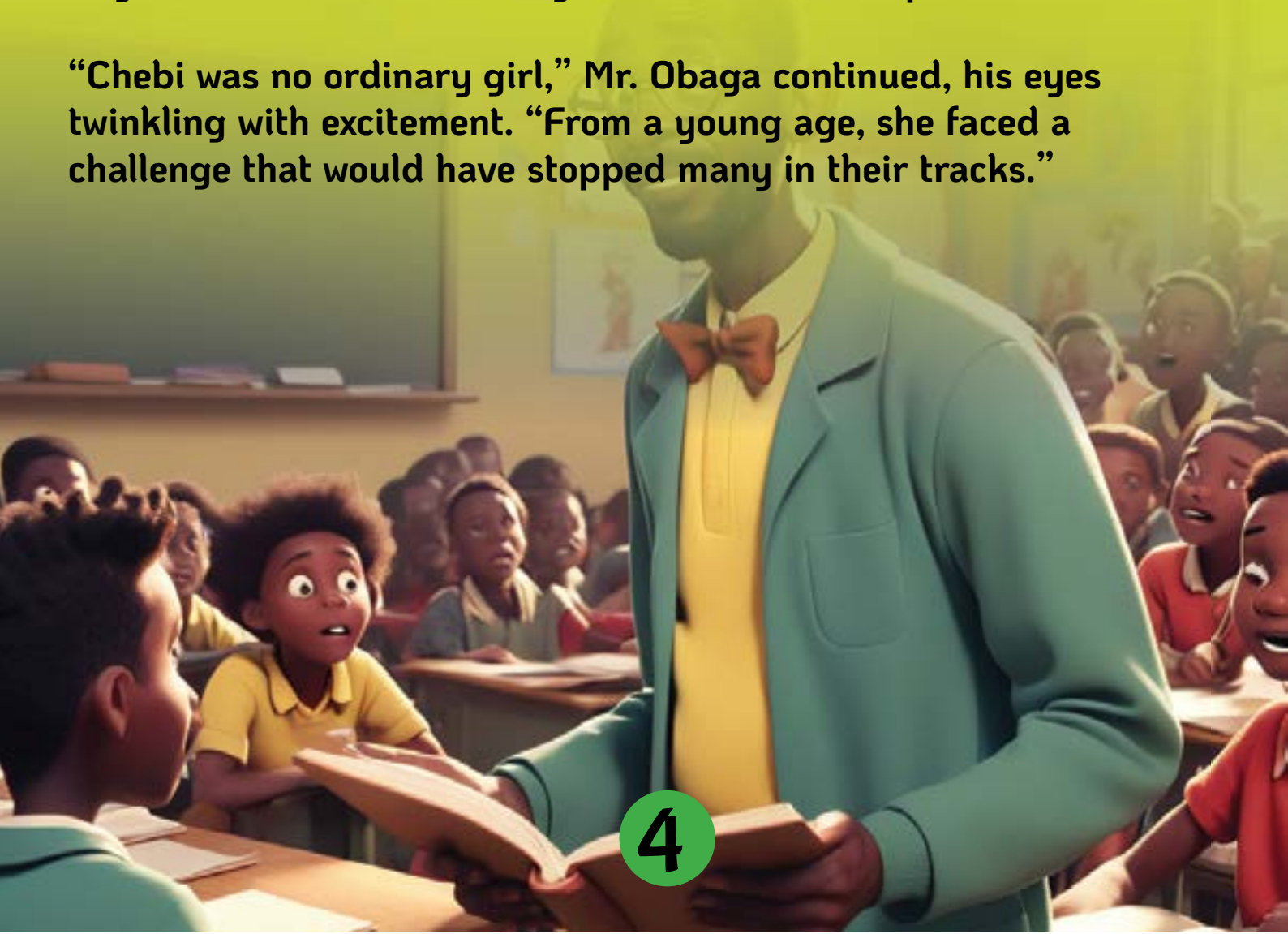
Mr. Obaga nodded, a mischievous glint dancing in his eyes. “Ah, I see. Well then, since we have a change in plans, how about a little storytelling session?” The class exchanged puzzled looks once more. Storytelling? In the middle of a science class? Now that was unexpected.

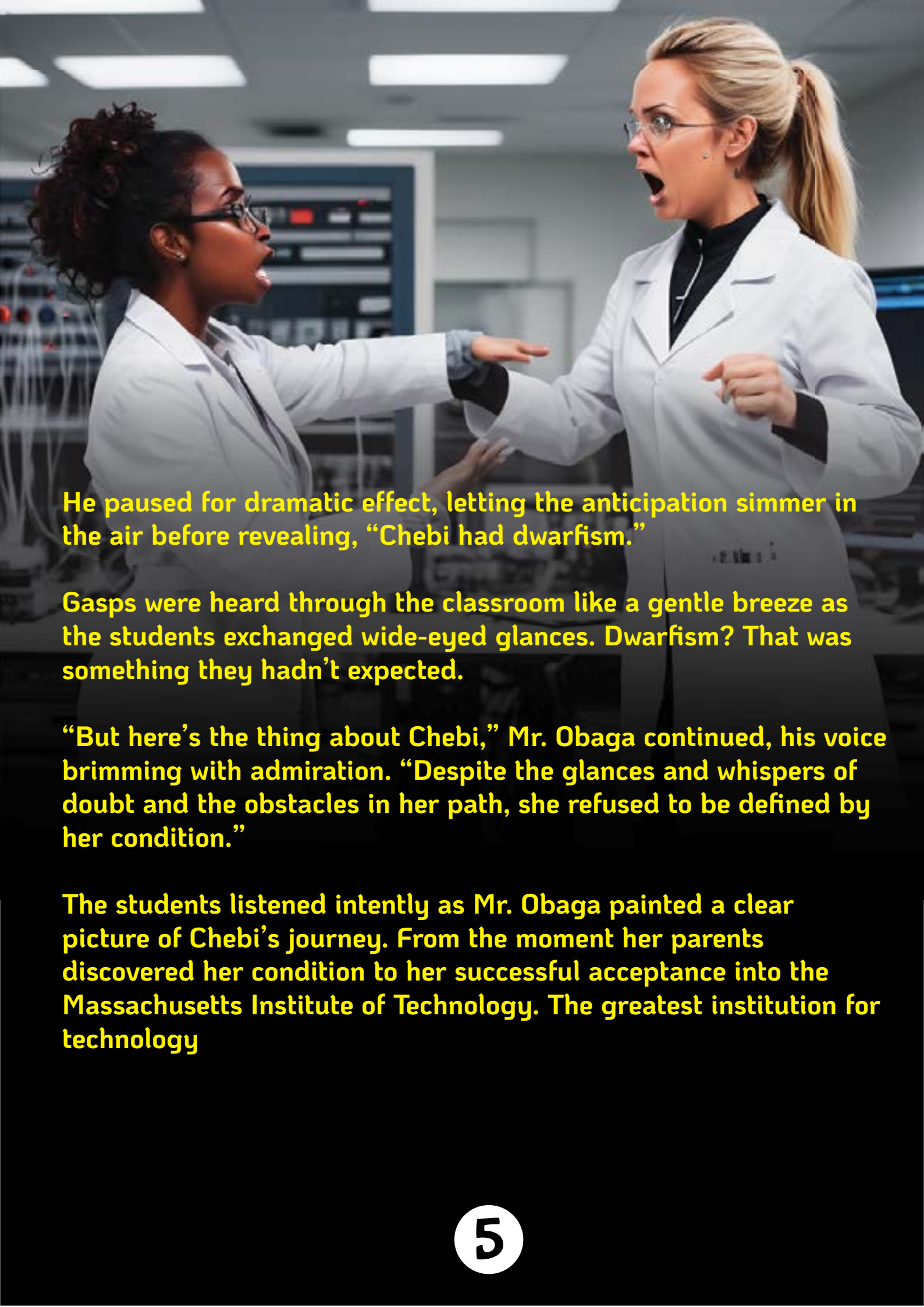
“Hadithi hadithi!!!” Mr. Obaga’s voice boomed, cutting through the air. The class hesitated for a moment before responding, “Hadithi njoo!”

“I’ve got a tale for you today. A tale of courage, determination, and one extraordinary girl named Chebi,” continued Mr Obaga. And so, with bated breath and eager hearts, the students of Form Two West leaned in, ready to start a journey they never knew they needed.

“Once upon a time, in this very village of Cheptugulu,” Mr. Obaga began, “there lived Chebi, a girl who defied all expectations.”

“Chebi was no ordinary girl,” Mr. Obaga continued, his eyes twinkling with excitement. “From a young age, she faced a challenge that would have stopped many in their tracks.”





He paused for dramatic effect, letting the anticipation simmer in the air before revealing, “Chebi had dwarfism.”

Gasps were heard through the classroom like a gentle breeze as the students exchanged wide-eyed glances. Dwarfism? That was something they hadn’t expected.

“But here’s the thing about Chebi,” Mr. Obaga continued, his voice brimming with admiration. “Despite the glances and whispers of doubt and the obstacles in her path, she refused to be defined by her condition.”

The students listened intently as Mr. Obaga painted a clear picture of Chebi’s journey. From the moment her parents discovered her condition to her successful acceptance into the Massachusetts Institute of Technology. The greatest institution for technology



But then, something happened, Chebi encountered a controversial challenge that tested not only her intellect but also her moral compass.

It all began when she was selected to participate in a groundbreaking research project led by one of the university's most esteemed professors. The project aimed to develop advanced artificial intelligence technology with the potential to transform various industries.

Excited to contribute to such a fresh and new project, Chebi threw herself into the project with firm determination. However, as she dug deeper into the research, she began to uncover unsettling truths about the potential consequences of the technology they were developing.



The AI they were creating had the power to change the world, but at what cost? Chebi found herself struggling with ethical dilemmas that left her torn between her ambition and her principles. Should she continue down the path laid out before her, knowing the potential harm it could cause? Or should she take a stand and risk ruining her academic and professional future?

Chebi took it on her and consulted her colleague Maria on what she was so stressed about.

“Chebi, you’re overthinking this,” Maria snapped, her tone sharp and dismissive. “We’re here to push boundaries and make breakthroughs, not waste time worrying about hypotheticals.”



Chebi bristled at Maria's dismissive attitude, her brow furrowing with frustration. "But Maria, these are real concerns! We can't just ignore the potential consequences of our research."

Maria scoffed, rolling her eyes in exasperation. "Oh please, Chebi. Don't tell me you're buying into all that moral high ground nonsense. We're scientists, not philosophers. Our job is to innovate, no matter the cost."

Chebi felt a knot form in her stomach as she struggled to reconcile Maria's cold indifference with her own sense of morality. "But what about the people who could be harmed by our technology? Don't their lives matter?"

Maria waved her hand dismissively, her expression cold and uncaring. "Collateral damage, Chebi. It's the price we pay for progress. If you're not willing to make sacrifices, then maybe you're in the wrong field."

As their conversation came to a bitter end, Chebi was left feeling more isolated and conflicted than ever before. Would she stand by her principles, even in the face of opposition from someone she once considered a colleague and friend? Or would she succumb to the pressure to prioritise ambition over ethics?

How was the technology going to affect the lives of thousands and millions of people? How is Chebi going to get through this? Alas, dear reader, the answer remains wrapped in uncertainty, a cliffhanger waiting to be resolved in the next chapter of Chebi's journey.

by Joseph Atulo



Me too Una, my curiosity senses are tingling But first, Let's see just how much you remember from it.

Whooooo liiiiiiii that was a great story, i can't wait for the next part,



What was unique about Chebi according to Mr. Obaga?

What did Mr. Obaga unexpectedly suggest for their lesson?

Where did Chebi get accepted to study?

What challenge did Chebi face during her research? her principles or her ambition?

What do you think Chebi will choose? Her ambitions or her morals??



I feel like the next chapter will have a lot of twists and turns , I can't wait! Una all this reading and answering questions is making me really hungry.

Don't worry Jabari the next stop is going to help you that just ready your tastebuds and tummy as we join Shillah with this months recipe



Little Chefs

RECIPE

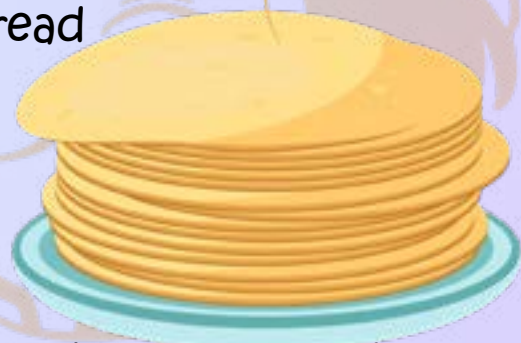
what you need to prepare, banana peanut butter, roll-ups.

✓ Medium Banana



✓ Tablespoons Peanut Butter
(or any nut or seed butter of choice)

✓ Whole Wheat Tortilla or Flatbread
(The thin Chapati guys)



Optional: Honey, Cinnamon, Raisins,
Sliced Strawberries For Extra Flavour.





1. Peel the banana and place it on a cutting board. Use a butter knife to spread peanut butter evenly over the banana.



2. Place a whole wheat tortilla or flatbread on the cutting board. Carefully place the peanut butter-covered banana near one edge of the tortilla.

3. Roll the tortilla tightly around the banana, pressing gently to seal the edges.



4. If desired, drizzle a little honey over the top of the rolled-up tortilla for added sweetness. You can also sprinkle some cinnamon, add a few raisins, or place sliced strawberries inside before rolling for extra flavour.

5. Using a sharp knife, slice the rolled-up tortilla into bite-sized pieces or leave it whole for a larger roll-up.



6. Serve immediately and enjoy your delicious and healthy Banana Peanut Butter Roll-Ups!



That is okay Una we can relax as we listen to the lovely poem written by our very own poet Shillah Lwangu

I really enjoyed banana peanut butter roll ups Jabari, now all I want to do is relax,





Young Women In STEM, Soar.

In the field of science, Technology ,
Engineering and mathematics,
In a world of endless possibilities,
Young women shine brilliantly.



In labs and workshops,they explore,
Young women in STEM,they soar,
With coding, circuit and equations,
They unlock the world's innovations.
In science,they seek answers untold,

Discovering wonders ,bold and bold,
In Technology they build and create,
Designing the future they innovate.

With passion and determination,they strive,
Breaking barriers;they truly thrive,
Young women in STEM, they lead the way,
Inspiring others everyday.

So let's celebrate those young women,
Bright,in STEM,they shine, with all their
might,
With their brilliance and dreams, they will
reach the stars
For they are the future, our STEM
superstar.



It's Riddle Time!

1

I'm black when you get it, Red when you burn it, Gray when you're done with it. What am I?



2

Number one is hydrogen, Number 16 is sulfur, Number 36 is krypton, What list is this?

3

I'm as hard as stone but can be found on the body. What am I?

4

It keeps you on the ground and stops things floating around. What is it?

5

I can be hot, I can be cold, I can run and I can be still, I can be hard and I can be soft. What am I?



wow, those riddles were very hard to crack.



Not really, But i would love to know more about him and his country Jabari.



Then we are in the right place as our next stop is in the Learn about the cities of Africa with Our wise wise owl Bena



ACCRA, The Largest City in Ghana

by Bena

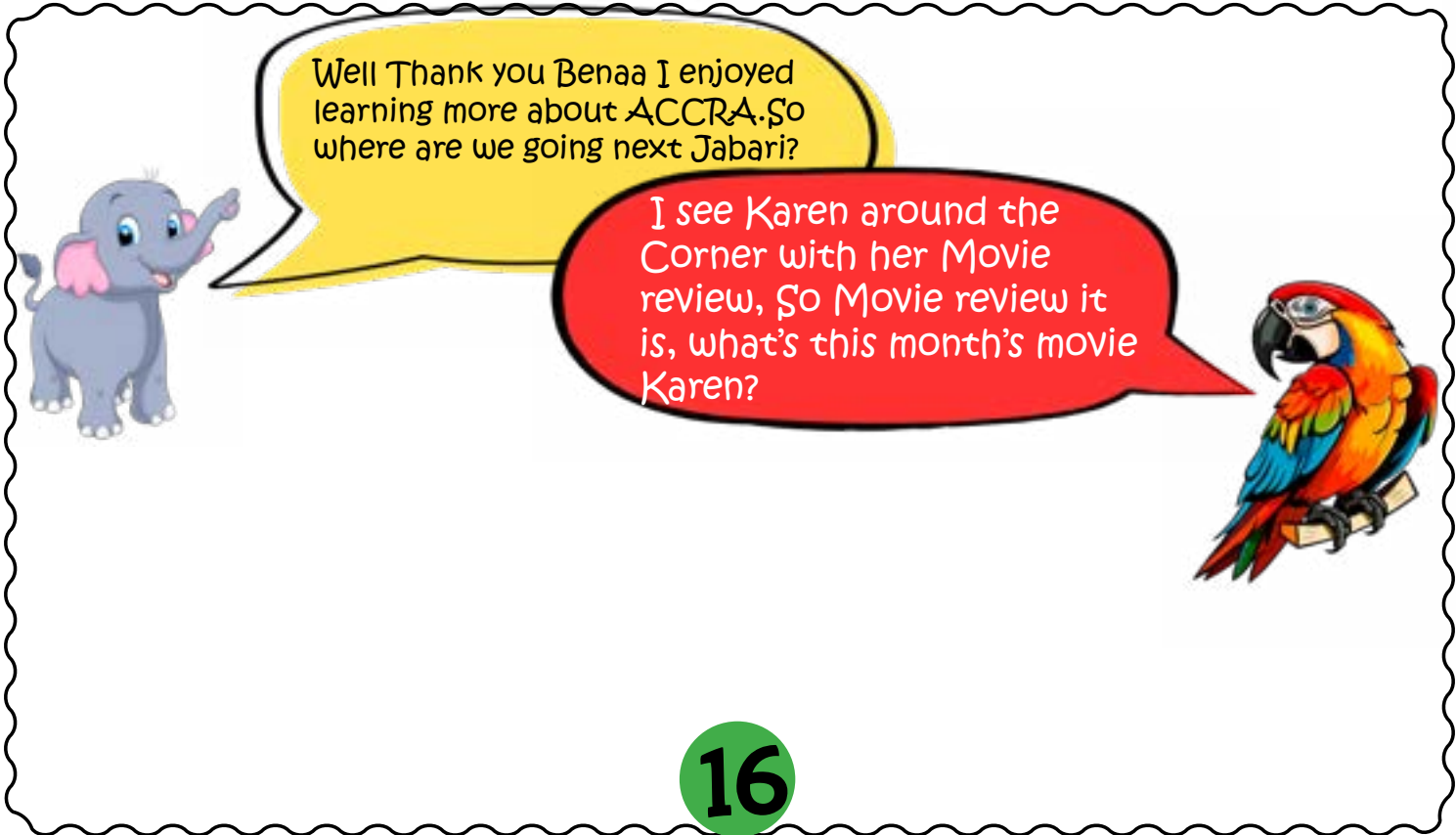


Accra is the capital city of Ghana.

The name Accra means “ant hill” The name was given because of the many ant hills that were in the area during its early days.

Have you heard about the popular Kwame Nkrumah Memorial Park? It is located in Ghana. It was named after Ghana’s first president, Kwame Nkrumah. The park pays tribute to the father of Ghana’s independence.

The commonly known cash crop, Cocoa is also grown in large scale in Accra.



Well Thank you Bena I enjoyed learning more about ACCRA. So where are we going next Jabari?

I see Karen around the Corner with her Movie review, So Movie review it is, what’s this month’s movie Karen?



Movie Review

Finding NEMO

by Karen Mwikhoma



“Finding Nemo” is a heartwarming tale about a nervous clownfish named Marlin and his adventurous son, Nemo. When Nemo gets captured by a scuba diver, Marlin sets out on a brave journey to find him with the help of various sea creatures, including the forgetful but caring Dory. The film’s beautiful animation, captivating storyline, and memorable characters make it a joy to watch for both kids and adults.



The movie teaches important lessons about family, independence, and overcoming fears. With its beautiful underwater world and charming characters, “Finding Nemo” captivates audiences of all ages. Ellen DeGeneres shines as the voice of Dory, providing humour and heart to the story. The film’s musical score by Thomas Newman adds depth and emotion to the underwater adventure. animation, captivating storyline, and memorable characters make it a joy to watch for both kids and adults.





I might even say that “Finding Nemo” is a delightful animated film that entertains while delivering meaningful messages about the bond between parents and children. It’s a must-watch for anyone coming home after a long day and looking for a heartwarming and cozy movie experience.



Have we watched this movie yet?



Not yet, Let’s watch it after we are done reading this magazine. But first, FASHION TIIIMMEEE.

FASHION SPREE

by Benaa

Hello kids! Welcome to this month's fashion spree. Here we will be talking about fashion all round. Let's get into it, shall we!!



THRIFTING



Thrifting is shopping for cool outfits from Thrift shops, boutiques and even markets.

Is thrifting the real deal?

In the fashion world there are two major personalities....People who prefer shopping for new clothes and those who prefer thrifting used clothes(second hand clothes), commonly known as “mitumba”, I know you have your own

THERE IS VARIETY!!

I mean Mitumbaa are everywhere, and I feel like they cater to everyone's fashion sense.



CLOTHES ARE AFFORDABLE

30 Cent

I'm sure Thrifts can go as low as 30 cents for a female top in Gikomba. So I think we can all agree that thrifting doesn't require deep pockets at all since everything is priced relatively cheaply. And I'm not saying that every thrift is cheap as there are some that may not be very cheap but the price you are getting is certainly value for money.

ELEMENT OF UNIQUENESS

Since clothes from a thrift store don't originate from one place, the chances of you crossing paths with an individual wearing the exact same fit as you is minimal contrary to buying clothes from shops that sell the same brands and types of clothes which you may all end up looking like Christmas trees, different shades but all the same.



ACCESS TO HIGH END BRANDS

Getting luxury brands from Zara to Louis Vuitton is very possible, and you can get them all for lower prices. This actually creates a sense of thrill when perusing through the clothes. You never know what

LOWEST PRICE



COULD BE AN AMAZING HOBBY

To some ,going from thrift store to thrift store picking through the clothes is therapeutic and quite thrilling.

POSITIVE IMPACT ON THE ENVIRONMENT

One of the most impactful benefits of thrifting is that it is eco friendly. Buying second hand clothes is basically preventing them from being dumped somewhere. Thrifting therefore plays an important role in waste reduction and in turn keeping our environment clean.

Now that we've seen various reasons why thrifting is the real deal, next time you decide to update your wardrobe, pass by that thrift store near you. You never know what you'll come across!!



Well, I'm SOLD...I think we need to start going to thrift shops Jabari.

Well, not to brag but..I have been going to thrift shops for the longest time.

Without me? I can't believe you. Anyway.. Brian what do you have for us this month?



DO YOU KNOW ALL THE 17 SDGs???

Hello Kids Brian here again with the SDG'S, I have told you many stories of children from all over the world who learnt what the SDG'S are and used them to Change the World. From Climate Action to Zero poverty and even Gender Equality we have all read the stories of Amazing young Champions who are all working hard to Change their Communities and the World. I really hope all those stories inspired you to make a difference and to start your Journey with the sustainable development goals.))

I have a question for you, Do you remember how many SDG's they are?



To help you always remember most of the 17 sustainable goals I have come up with an Awesome way of remembering them no matter where you are or what you are doing.

It's Simple all you have to remember is that you and your friends are

PLANET HEROES

using PLANET HEROES you can remember 12 SDG'S at one go because Each letter represents one of the SDGs:

P No Poverty (Goal 1)
L Life on Land (Goal 15)
A Affordable and Clean Energy (Goal 7)
N Zero Hunger (Goal 2)

E Good and Quality Education for All (Goal 4)

T Clean Water and Sanitation (Goal 6)

H Good Health and Well-being (Goal 3)
E Gender Equality (Goal 5)

R

O Life on Water (Goal 14)
E Economic Growth (Goal 8)

S Responsible Consumption and Production (Goal 12)

S Sustainable Cities and Communities (Goal 11)

- P - No Poverty (Goal 1)
- L - Life on Land (Goal 15)
- A - Affordable and Clean Energy (Goal 7)
- N - Zero Hunger (Goal 2)
- E - Good and Quality Education for All (Goal 4)
- T - Clean Water and Sanitation (Goal 6)
- H - Good Health and Well-being (Goal 3)
- E - Gender Equality (Goal 5)
- R - Responsible Consumption and Production (Goal 12)
- O - Life on Water (Goal 14)
- E - Economic Growth (Goal 8)
- S - Sustainable Cities and Communities (Goal 11)

Can you tell me which SDG's are missing ?. See you guys next time when I'll share another amazing way of learning the SDG'S. Ciao



The SDGs were FUN, I am not going to lie, but the next part is the best one yet... because guys....do you know who we have this month?

Who do we have?



SHURII Jabari... Shuri from "Wakanda forever"



Yess, But first, It's **ACTIVITY TIME!**



REALLY?

Can you find all the words?



Women in Science

T O K H I A F D Q B S X K W E V P R H U B H E J
U Y V L J D C Q R Z J E S U J W E W G D E C Q M
E T M N G N W E T K U H N V X X V E T K O T N O
J H H S B Z P V B F J T N E I R U C E I R A M O
T S I C I S Y H P G Z H P J G W K A E O G H B Y
N B T Q M Q L L E W K C A L B H T E B A Z I L E
M E U C G O X B B C Z F U I C J V L S Q J D T O
N M B I O R X A H M C Q I K O O U S I U E K K F
I P M M U W V W W S S G S I Y P F X F Y J D Z Y
L Y E O B Z Y S K C Q G Z R V W W U N H D B V L
K X E T U V X B A R B A R A M C C L I N T O C K
N I C A Y T I V I T C A O I D A R O D L W G G D
A Y Z K T M E Y Z X L M R B Q B P Z Y M J V R J
R N A M A R I A M A Y E R E E J L P K W W F T W
F S D S T Q M W G T D C R M D T V P P U C A Z J
D H C E O D L X N E F H P Y O E P T D B Q E A L
N Z U Z I I E C H E M I S T C M T M U E V N G N
I I W S W P X X K G V S J T T Y W K I Q P D R Q
L A H W Y I B R D R R T Y T O L O X Q J O N B K
A Y S W R L T Q U Q W K P E R D N V Y Y L C Y A
S J W T H R U X C V P B S Q H G Q N S F U H P F
O Q G N V W L V D B F U E D H I R J S V S S T I
R N M O L E C U L A R S T R U C T U R E S O P N
A S S D J X Q A D L Z J E T T A A E J W P E M Z

genes

molecular structures

barbara mcclintock

physicist

radioactivity

doctor

rosalind franklin

marie curie


atomic

elizabeth blackwell

maria mayer

chemist

Meet Shuri

A digital illustration of Shuri from the movie Wakanda Forever. She is a young Black woman with her hair styled in two large braided buns. She is wearing a blue and yellow jacket over a white top. The background is a futuristic cityscape with tall buildings and a glowing blue sign with Japanese characters.

It's Women in Science Month guys, and our person of the Month is SHURI!!
Yes, Shuri from Wakanda Forever!! I know she has been our woman crush for the longest time, because she has the looks, the brains and she is Royalty!.

First, do you know Shuri?

Shuri, is a fictional character from the Movie Black Panther portrayed in the Marvel Cinematic Universe (MCU) films by Letitia Wright.

Here's a little bit of something about her.

Her Name is Shuri, but she is also called Princess Shuri. Shuri is the Princess of Wakanda and Chief Science and Technology Officer of Wakanda, Inventory.

Shuri stands out as a beacon of intellect and innovation. As the Chief Science and Technology Officer of Wakanda and the younger sister of King T'Challa, her brilliance shines through in every aspect of her character. Shuri's genius-level intellect in science, engineering, and technology sets her apart as one of the greatest minds in the Marvel Universe. Her mastery of Vibranium, Wakanda's most prized resource, allows her to create new and fresh inventions and advancements that drive her nation to lead in terms of technological innovation.

Shuri's passion for science and technology is evident in everything she does. She fearlessly pursues knowledge, pushing the boundaries of what is possible with her inventive creations. Whether it's designing advanced weaponry, developing cutting-edge gadgets, or crafting armours. Her contributions as a scientist and inventor play an important role in shaping Wakanda's future and defending it against external threats.

Shuri has been my favourite character as a lady in Technology so far... What about you?

Healthy Corner

Let's Talk About Cancer



Hey there! Let's talk about something super important: cancer. It's a tough disease that affects a lot of people worldwide, but guess what? You have more power than you think to fight against it, and it starts with what you eat!

You've probably heard that eating healthy is good for you, but did you know it can also help lower your risk of getting cancer? Well, it's true! So Let's break it down..;

First up, antioxidants. Think of them as the most important stuff in your fruits and veggies. They help fight off bad stuff called free radicals in your body, which can damage your cells and lead to cancer.

Next, fibre. This stuff is like a cleaner for your gut. It helps you digest food better, keeps things moving smoothly in your tummy, and gets rid of toxins that could cause cancer, especially in your colon.

Ever heard of omega-3 fatty acids? They're like these cool things found in fish, flaxseeds, and nuts. They're awesome at fighting inflammation, which can help lower your risk of certain cancers, like breast and prostate cancer.

And don't forget about your vitamins and minerals! They're like the tiny protectors for your cells. Stuff like vitamin D, vitamin C, and selenium keep your immune system strong and help prevent damage to your DNA, which could lead to cancer.

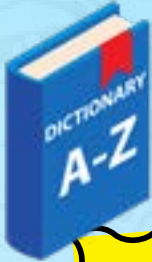


Answers to Riddles



What building has the most stories?

Library



Where is the only place where today comes before yesterday?

Dictionary

If you throw a blue stone into the Red Sea, what will it become?

Wet

What five-letter word becomes shorter when you add two letters to it?

Short

What can you find in a cupboard that can never be put in a saucepan?

It's lid





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