

**1** The  
White  
Clay

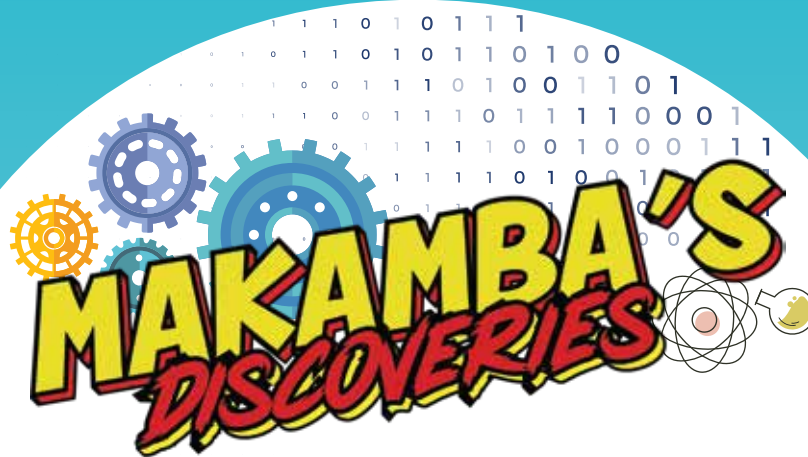
# MAKAMBA'S DISCOVERIES



**BY**

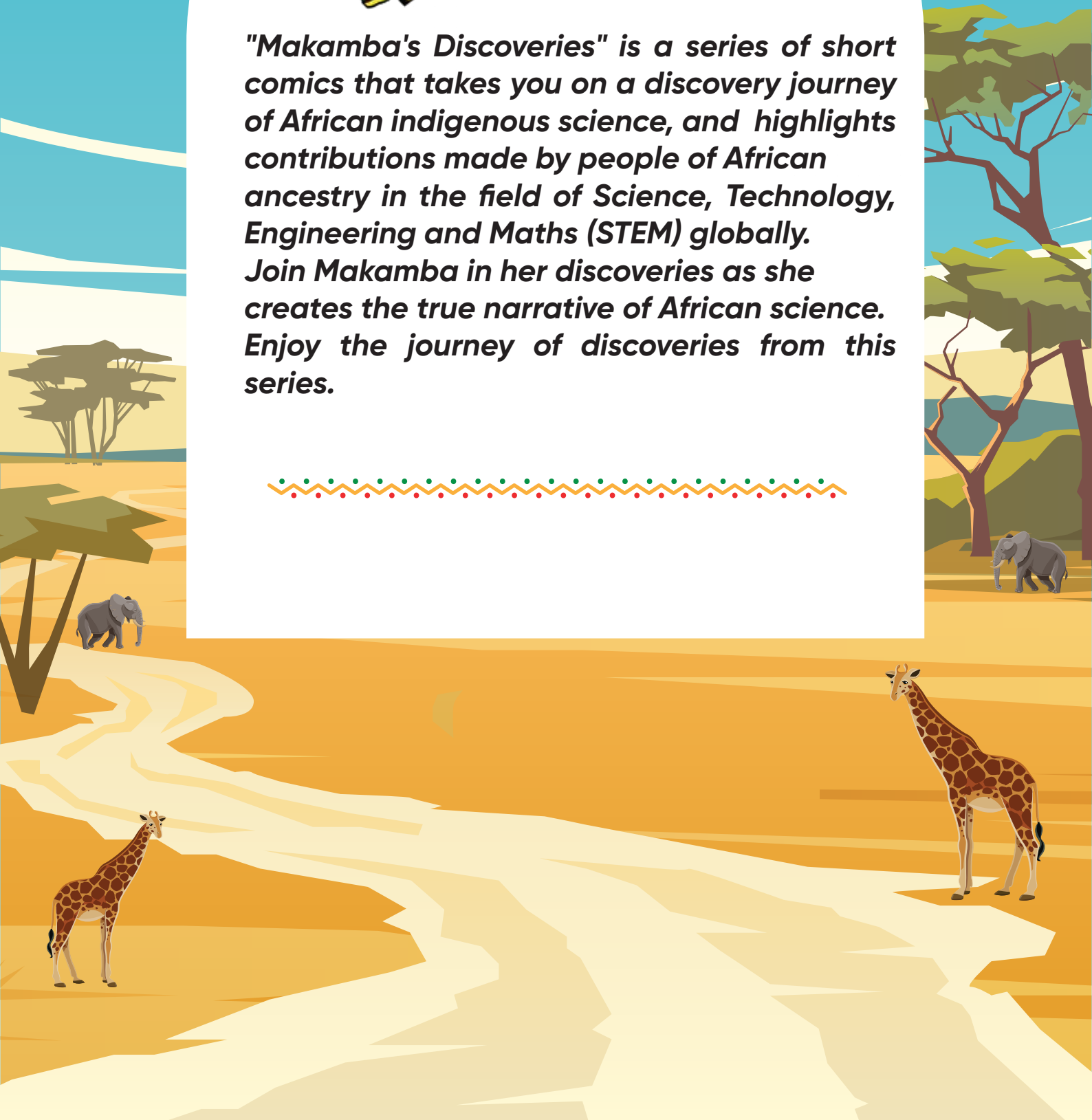
**Rose-Margaret Ekeng**

**Discover the Power of African Science**



# MAKAMBA'S DISCOVERIES

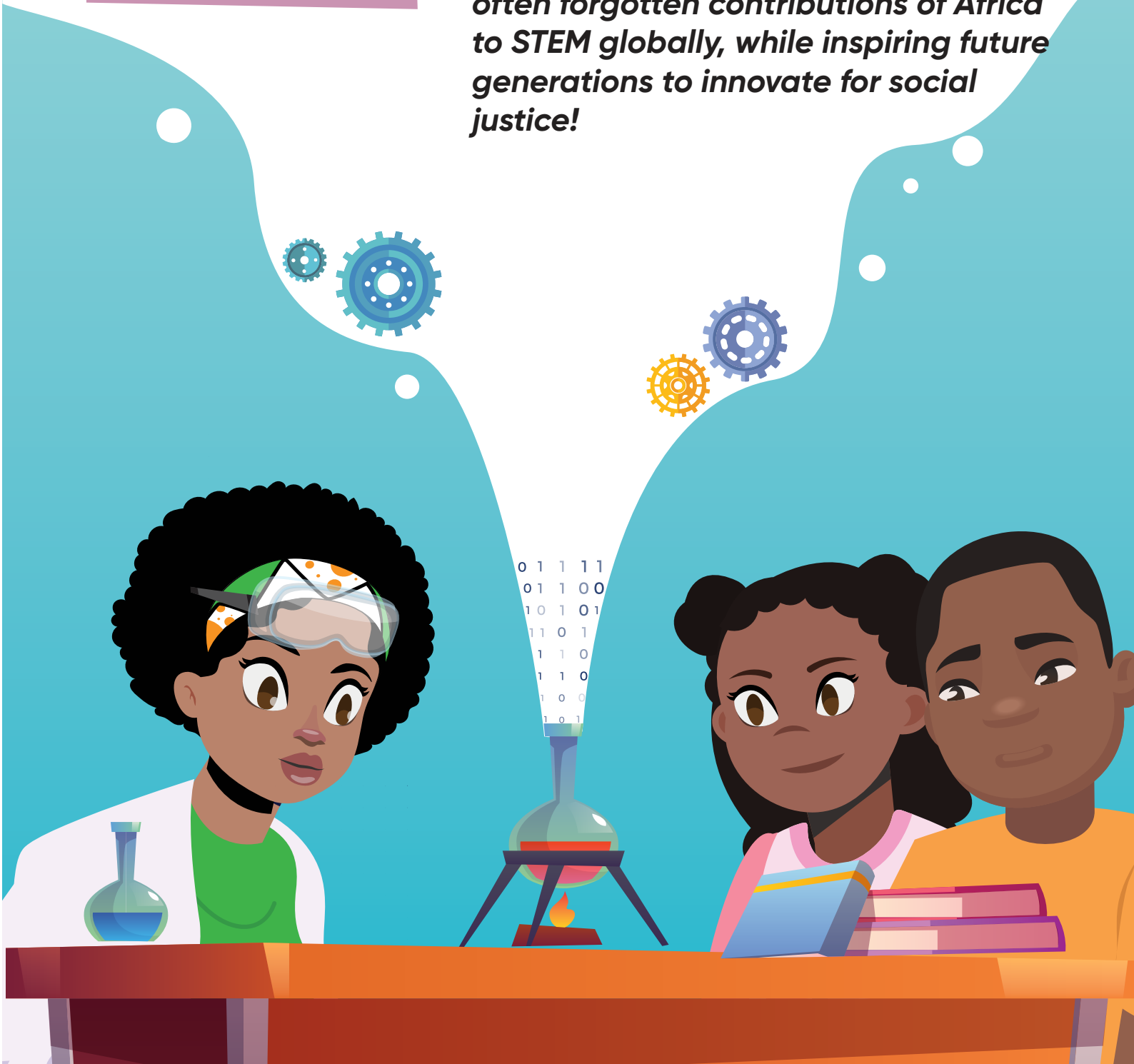
**"Makamba's Discoveries" is a series of short comics that takes you on a discovery journey of African indigenous science, and highlights contributions made by people of African ancestry in the field of Science, Technology, Engineering and Maths (STEM) globally. Join Makamba in her discoveries as she creates the true narrative of African science. Enjoy the journey of discoveries from this series.**



# About the Author

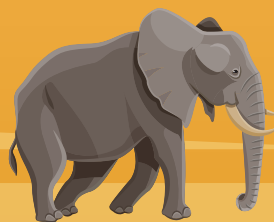


*Rose-Margaret Andem Ekeng is an American based Professor of Engineering born in Calabar into the Efik tribe. She is an advocate for racial and gender Equity in STEM Education and Careers. Rose-Margaret is a TED-Ed lesson creator and a TED-X Speaker. "Makamba's Discoveries" is born from her passion to change the Narrative on Africa and showcase the often forgotten contributions of Africa to STEM globally, while inspiring future generations to innovate for social justice!*

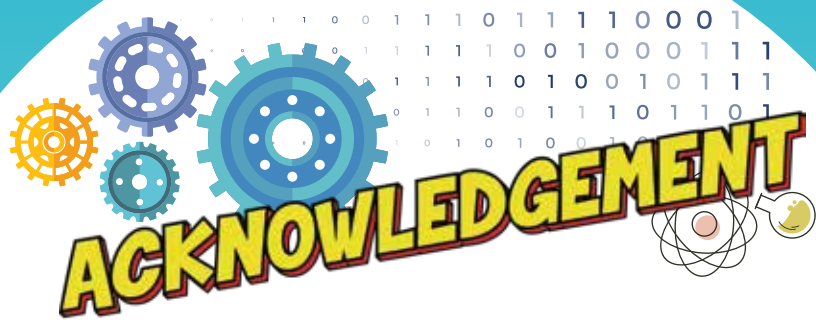




***This first series is Dedicated to my  
Mother-H.E Cecilia Ekpenyong for  
being a trailblazer who inspired me  
and many women.***



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# ACKNOWLEDGEMENT



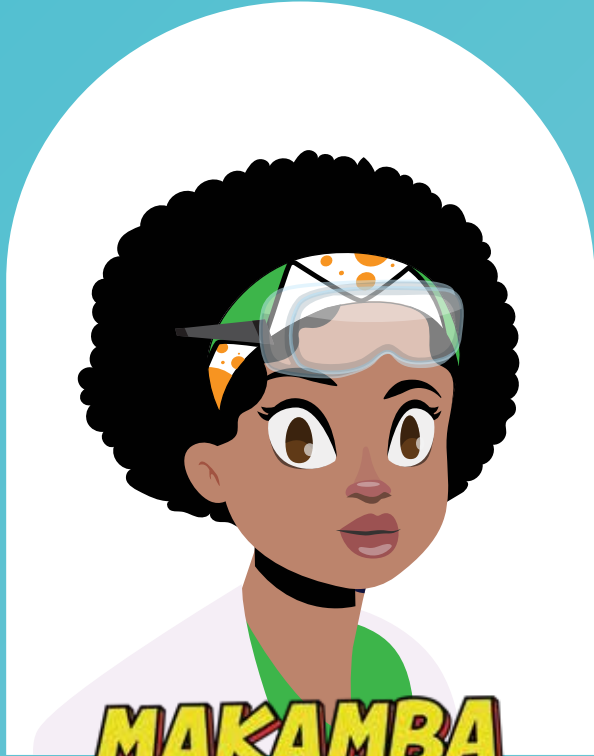


*It is a pleasure and a privilege for me to write this foreword. This comic will surely have a positive impact on teaching and learning of science in the early stages of education in Africa. It is critically necessary for basic science to be taught to youths as early in life as possible so they understand the scientific explanations to national problems that can be solved through Science and Technology. This initiative will contribute to buy-in by a major proportion of population to sustainable national socio economic development in Africa. Climate change is the major global issue right now. Many do not understand the magnitude of negative outcome of climate change because they were not sensitized early in life. It then becomes a difficult task for many to avoid actions that speed up climate change. Same can be said of waste management and environmental sanitation. This comic will be a source of useful information for future African leaders who need to know that spend on provision of basic facilities and services in communities is an investment and not a expenditure. I commend the writer and assure her that this is indeed a huge afrocentric contribution to early education and by extension development in Africa.*

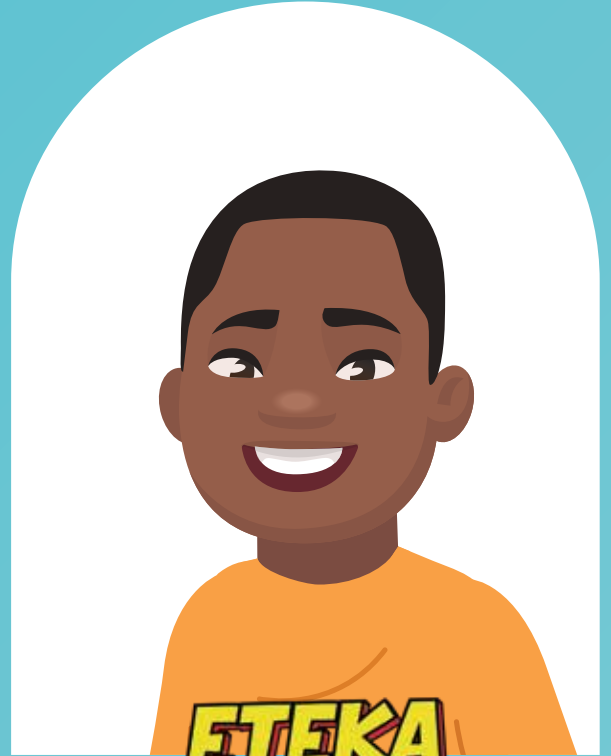
**Prof. Ekanem Ikpi Braide**



# CHARACTERS



**MAKAMBA**



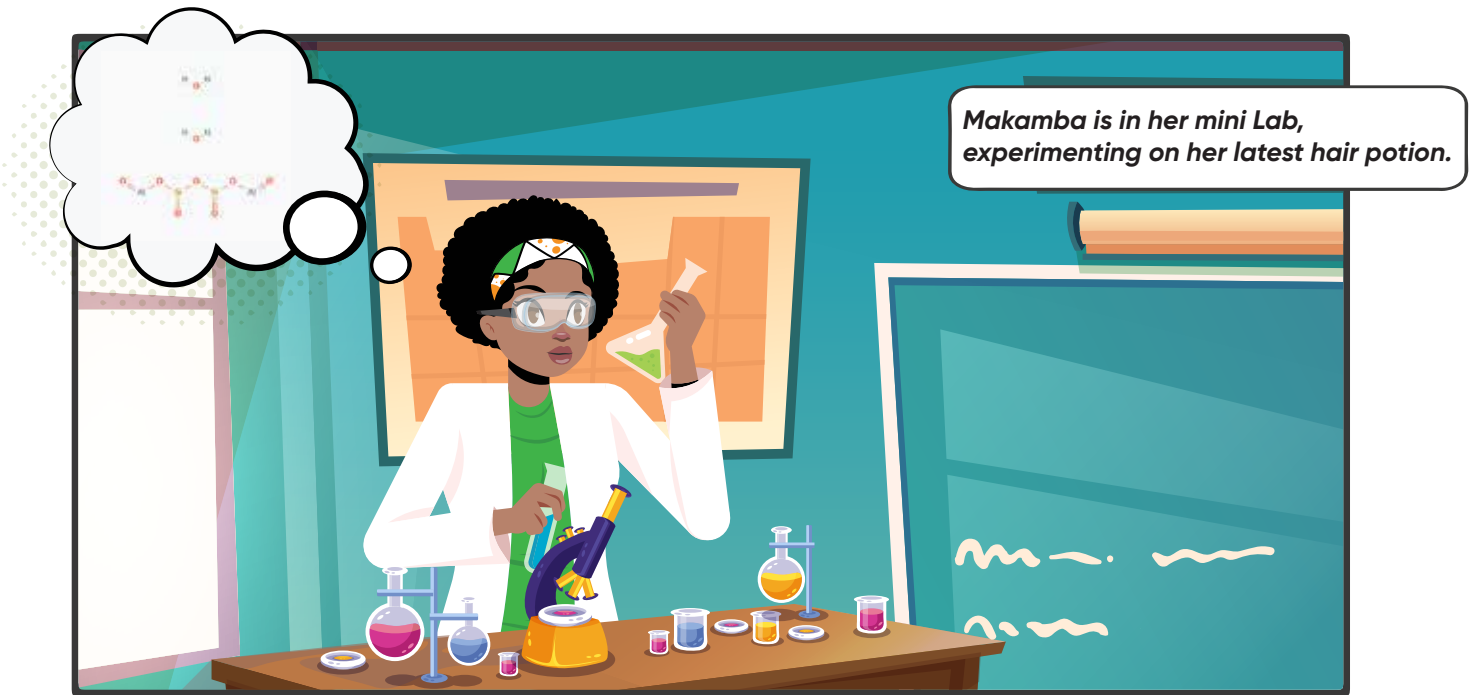
**ETEKA**



**TOLU**



**DR. BAKAMBU**





I am winning!

Next time I will win

Makamba walks away from her science experiments to Tolu and Eteka

Yes, that's true, I don't hear much about them either.

Talking about indigenous things, I wonder about our indigenous or African science and innovators,...

We don't hear about them at school or read about them in our text books. I wonder why?

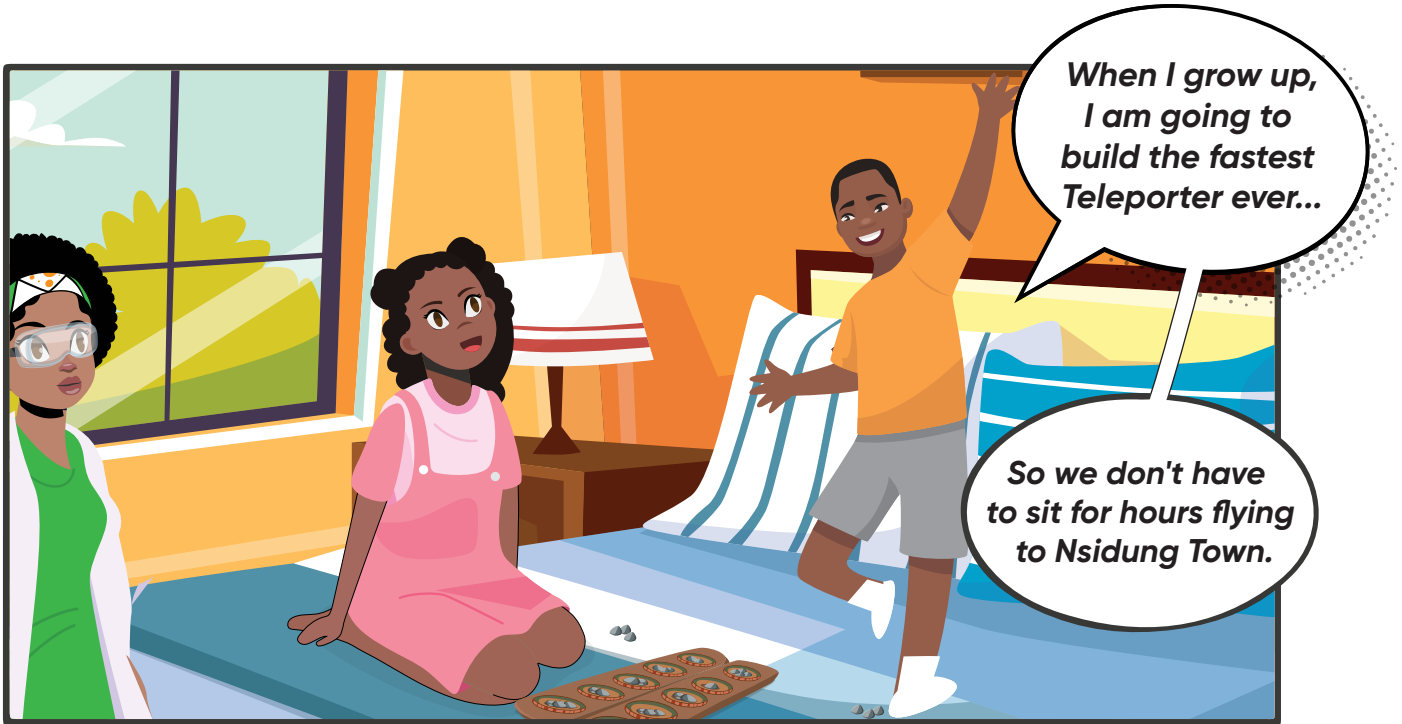
It would be such a confidence booster to know about African innovators and scientist.



*"As long as the mind is enslaved the body can never be free. Psychological freedom, a firm sense of self-esteem, is the most powerful weapon against the long night of physical slavery."*

*-Martin Luther King Jr*

I guess that is why Dr. MLK said...



When I grow up,  
I am going to  
build the fastest  
Teleporter ever...

So we don't have  
to sit for hours flying  
to Nsidung Town.



Me too!  
The people are  
so hospitable

I love the food  
and music in  
Nsidung town!  
I miss our cousins.

Talking about  
Nsidung, town I had  
my best holiday  
ever there!



Our cousins are  
such fun! Cousin Andem  
from Nsidung Town gave  
me a gift...

...she said it is the  
magic white clay  
I wonder where  
I kept it ?



Makamba searches for the white clay and finds it on the shelf.

I have found it!  
The magic white clay!



I know who can tell us more about it, our god-father Dr. Bakambu.

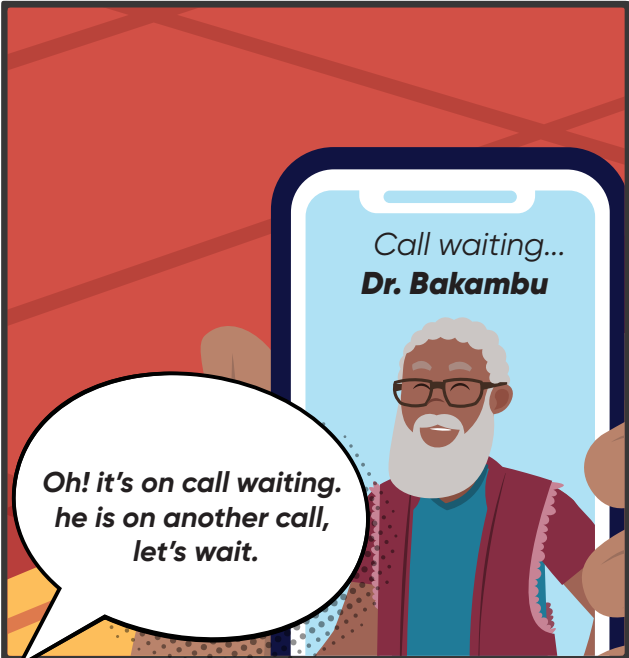
Let's ask Dr. Bakambu. He is wise and full of knowledge.

Wow! what can we do with it?

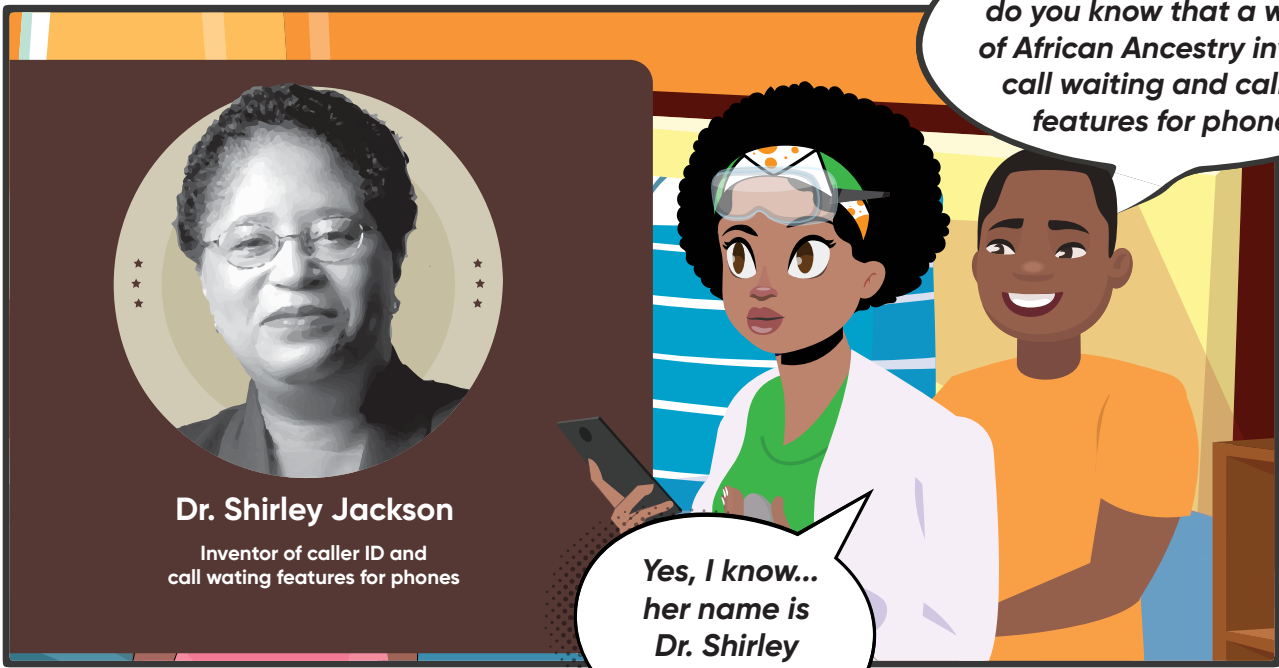
Makamba takes out her phone to call Dr. Bakambu.



I am calling him now...



Oh! it's on call waiting. he is on another call, let's wait.



**Dr. Shirley Jackson**  
Inventor of caller ID and  
call waiting features for phones

Talking of call waiting,  
do you know that a woman  
of African Ancestry invented  
call waiting and caller ID  
features for phones?

Yes, I know...  
her name is  
Dr. Shirley  
Jackson...



She is a very important  
person, why don't  
we hear a lot  
about her ?

Good question  
Tolu!

HELLO!



Hello  
godfather...



Hello  
my dear  
god-daughter  
the great Makamba





They run to Dr. Bakambu's house.

I have some handy too!

It's a very sunny day, glad we all have sunscreen on.

They get to Dr. Bakambu's house.

Good afternoon Sir

Idem fo Sir?

Welcome children I am happy to see you all.

Ekaasan Sir

Our godFather, please tell us more about this magic white clay.

The magic clay in your hand is called Kaolin, Ndom, Nzu or Amo funfun. It is a mineral clay that is commonly found in Africa.



*Please tell us, what is it used for?*

*In some traditional African culture, it is used to detoxify the skin. It is also used as a sunscreen and for UV protection*



*Like this sunscreen?*



*A more organic version of that, although some modern day sunscreens also contain kaolin.*



*What else is it used for?*



*It is used in paint, face masks, ceramics and in some stomach soothers.*

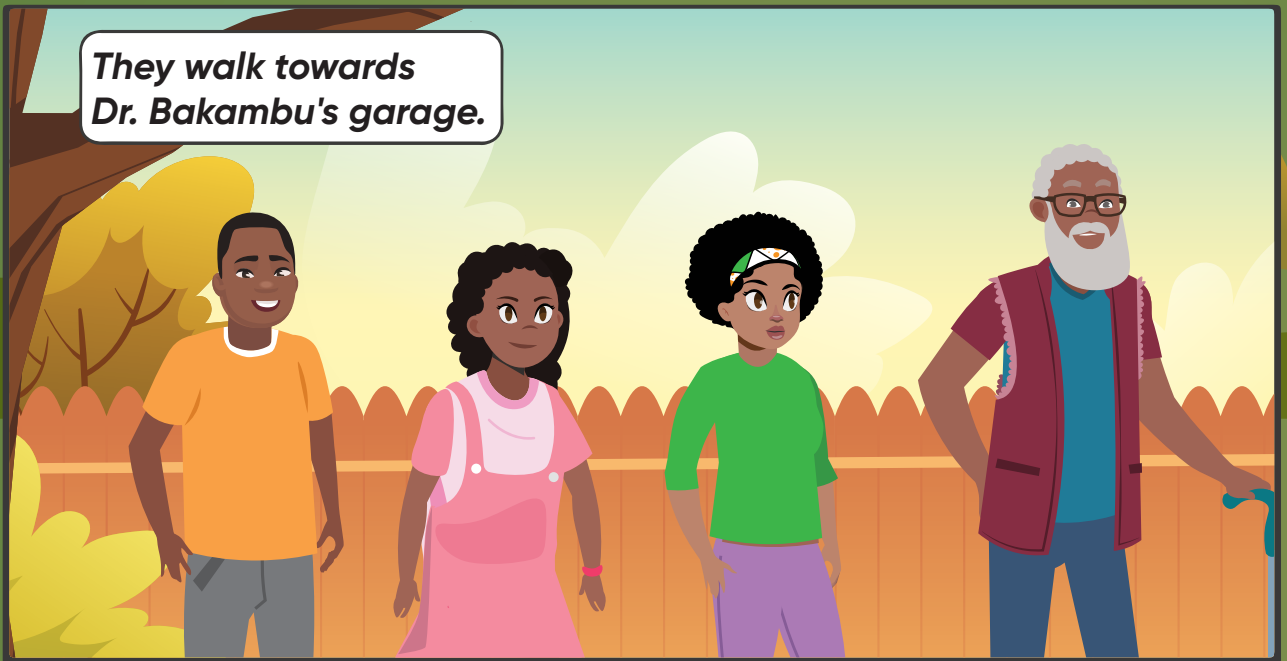


Other indigenous tribes around the world like the Aztec tribe also also use a similar type of clay for similar purposes.

Wow!



I have a suprise for you.



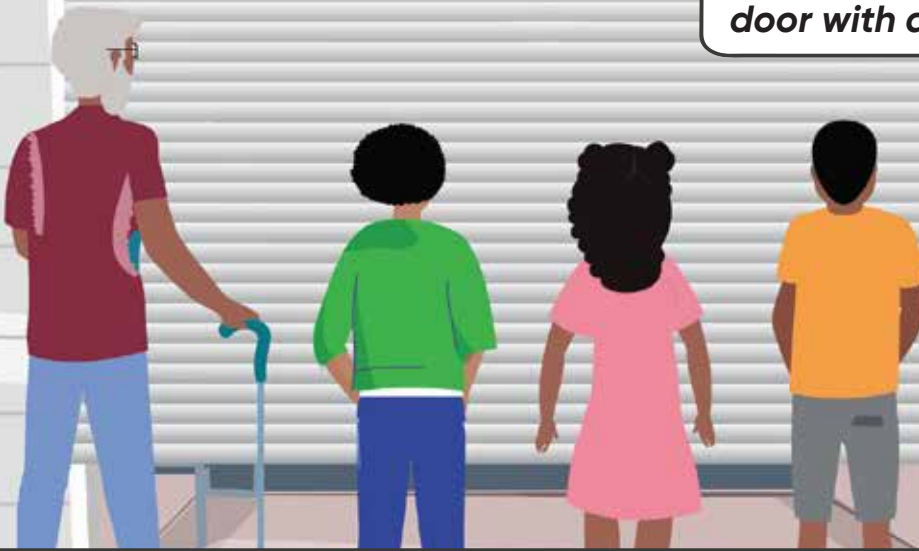
They walk towards Dr. Bakambu's garage.



*They arrive in front of Dr. Bakambu's Garage.*



*Dr. Bakambu opens the garage door with a voice command.*

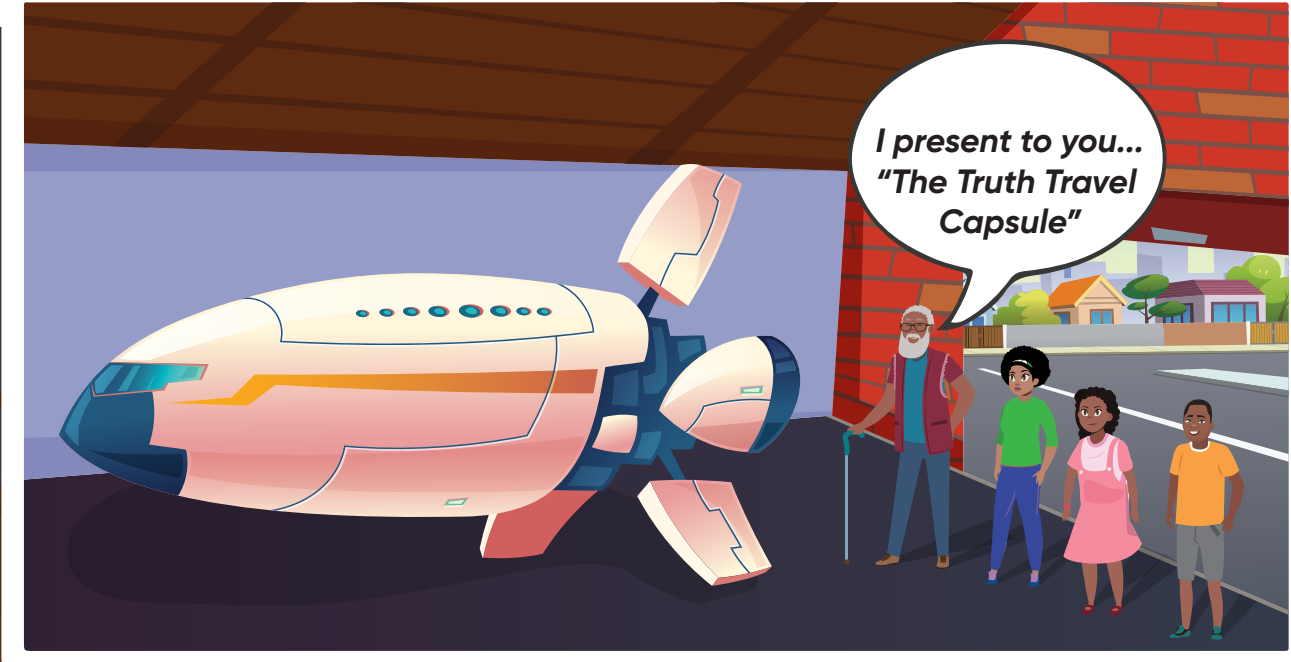


*This is amazing!*

*Awesome!*

*Wow!*





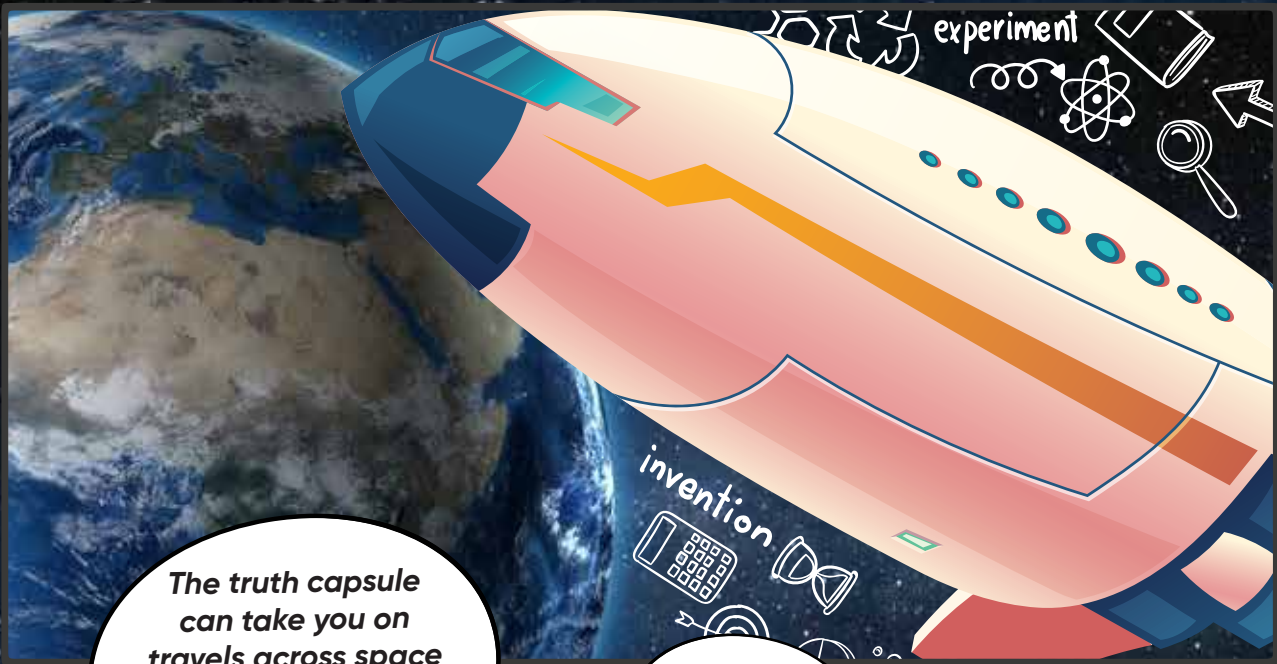
I present to you...  
"The Truth Travel  
Capsule"



How fast is it?

Can i be the pilot?

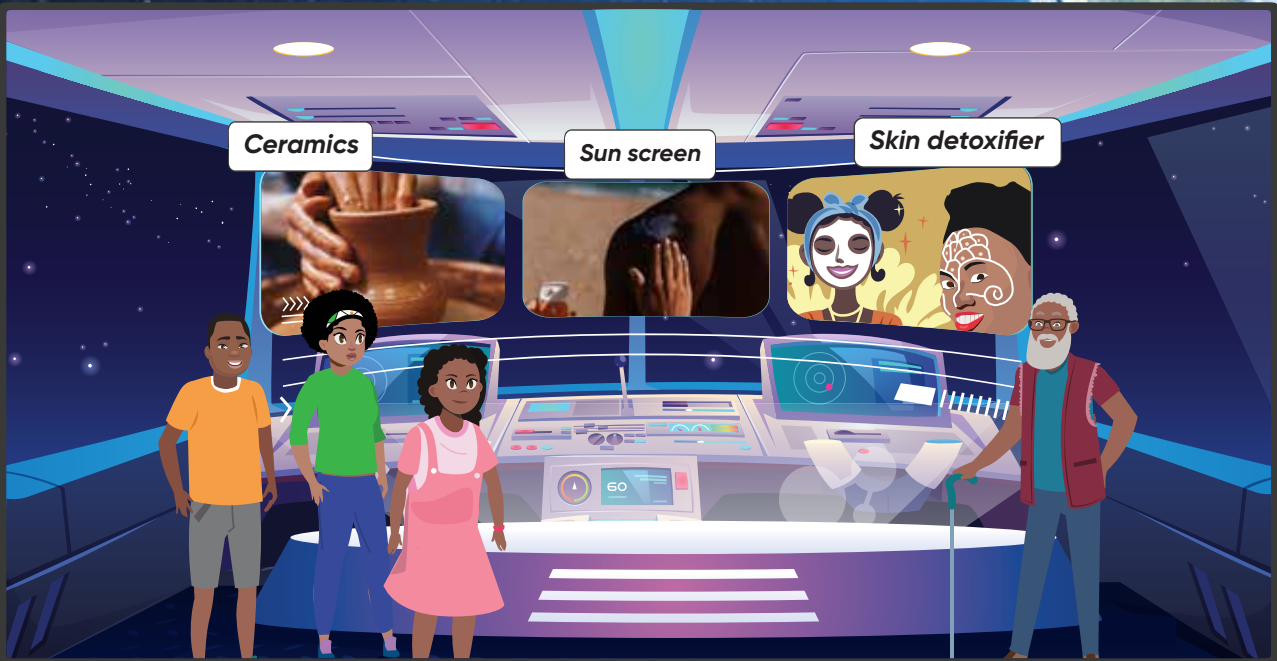
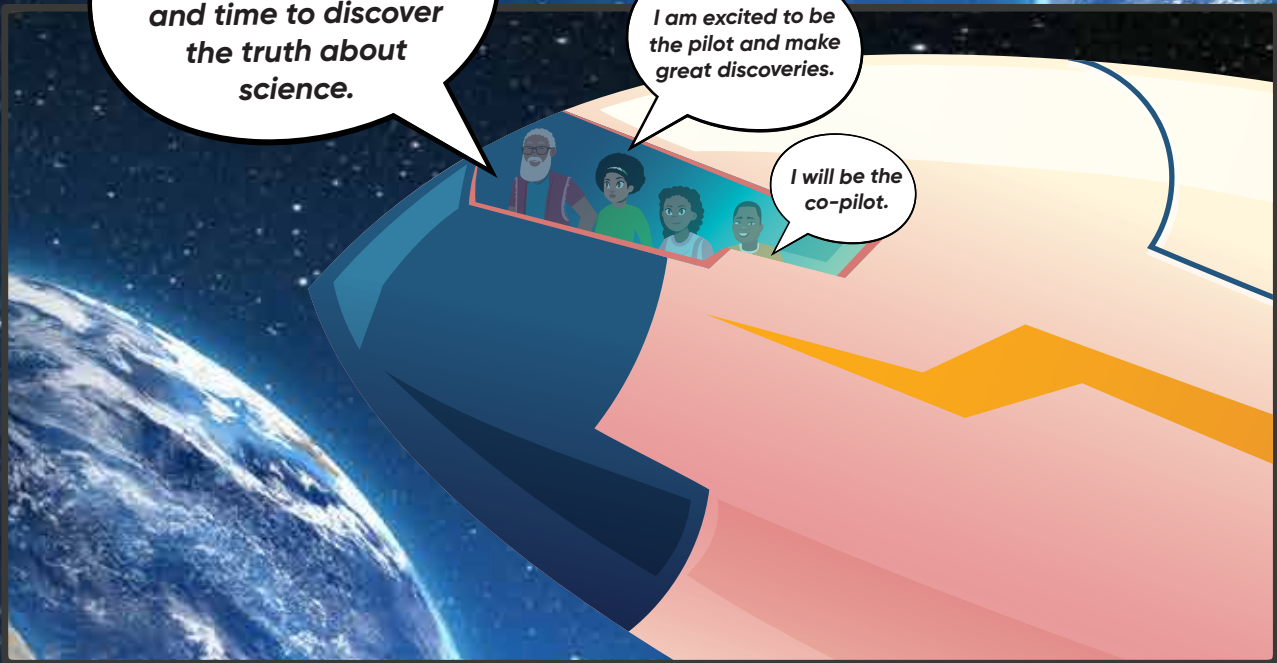
Let's look inside the  
"Truth Travel Capsule"  
and see what we  
find out about  
the white clay.



The truth capsule can take you on travels across space and time to discover the truth about science.

I am excited to be the pilot and make great discoveries.

I will be the co-pilot.



Ceramics

Sun screen

Skin detoxifier

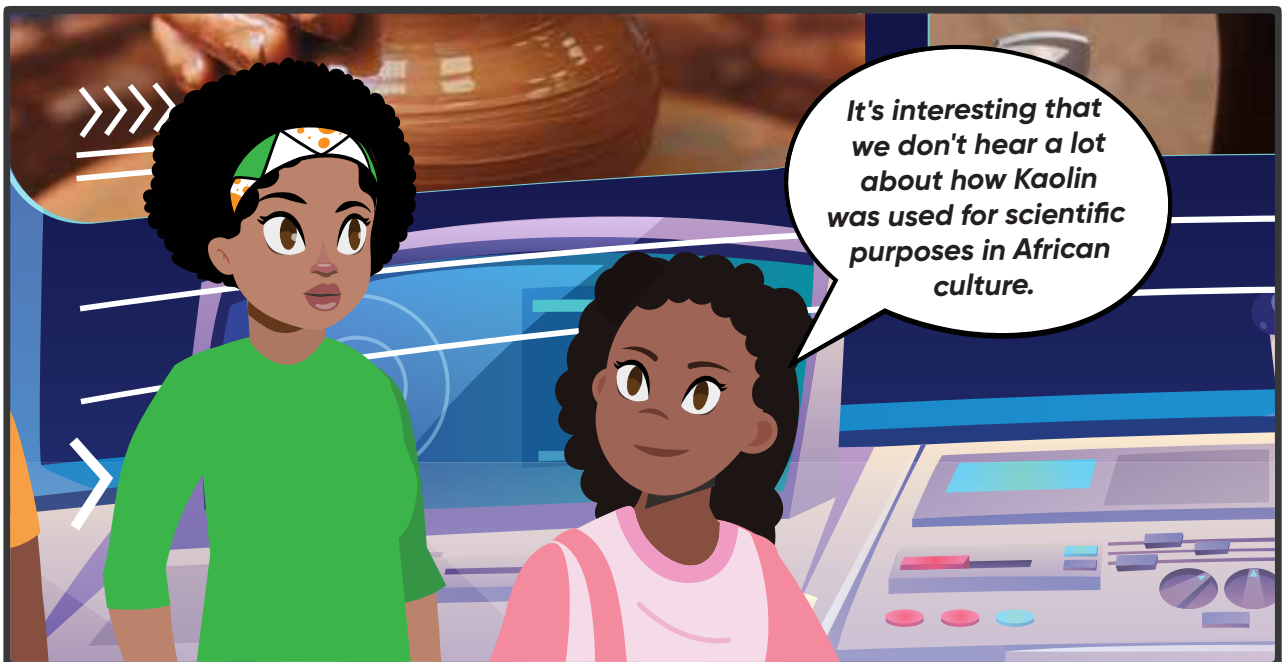


Wow! these are great discoveries about Ndom.

Yes, it can and I hope you would enjoy, travelling with the truth capsule to make more discoveries.

God father, it all confirms what you told us about Kaolin.

I bet this truth capsule can help us travel to many countries and cultures to make great discovery.



It's interesting that we don't hear a lot about how Kaolin was used for scientific purposes in African culture.



African and indigenous science is not talked about a lot in popular media...

Africa has made quite a lot of contributions globally in the field of Science, Technology, Engineering and Math, though it not often publicized.



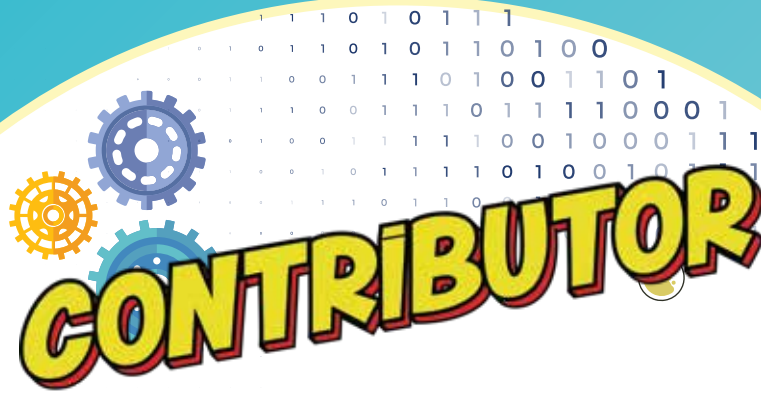


# GLOSSARY

## ***African Words***

## ***Meaning***

<b><i>Ndom</i></b>	<b><i>White clay (Efik tribe)</i></b>
<b><i>Nzu</i></b>	<b><i>White clay (Igbo tribe)</i></b>
<b><i>Amo funfun</i></b>	<b><i>White clay (Yoruba tribe)</i></b>
<b><i>Ekaasan</i></b>	<b><i>Good Afternoon (Yoruba tribe)</i></b>
<b><i>Idem fo?</i></b>	<b><i>How are you? (Efik tribe)</i></b>

A decorative graphic at the top of the page. It features three interlocking gears: a yellow one on the left, a blue one in the middle, and a smaller blue one below it. To the right of the gears is a grid of binary code (0s and 1s) in a light blue color. Below the gears and binary code, the word "CONTRIBUTOR" is written in a large, bold, yellow font with a red outline and a slight 3D effect.

# CONTRIBUTOR

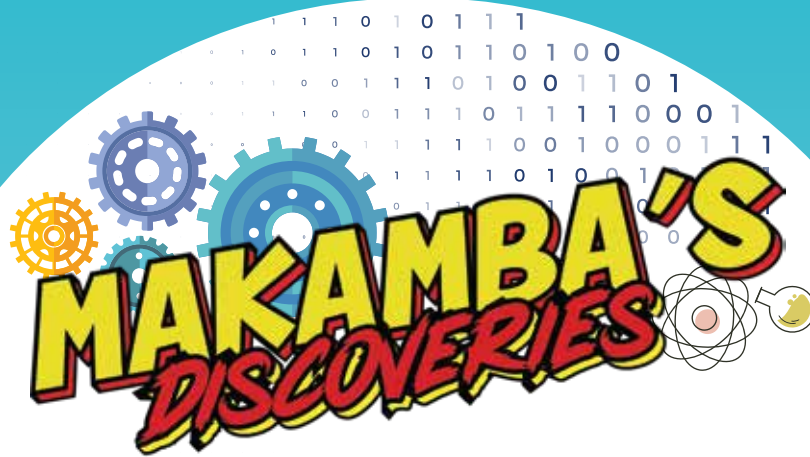


***Deborah Braide is an engineer, development professional and spoken word poet from Calabar, Nigeria. She is passionate about creating inclusive and sustainable societies through STEAM; enabling personal and professional growth opportunities for African women and youth.***

***She is also a World Economic Forum Global Shaper and a British Chevening Alumni. Makamba Diaries aligns with her commitment to showcase the contributions of African people through innovation in science and technology.***







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