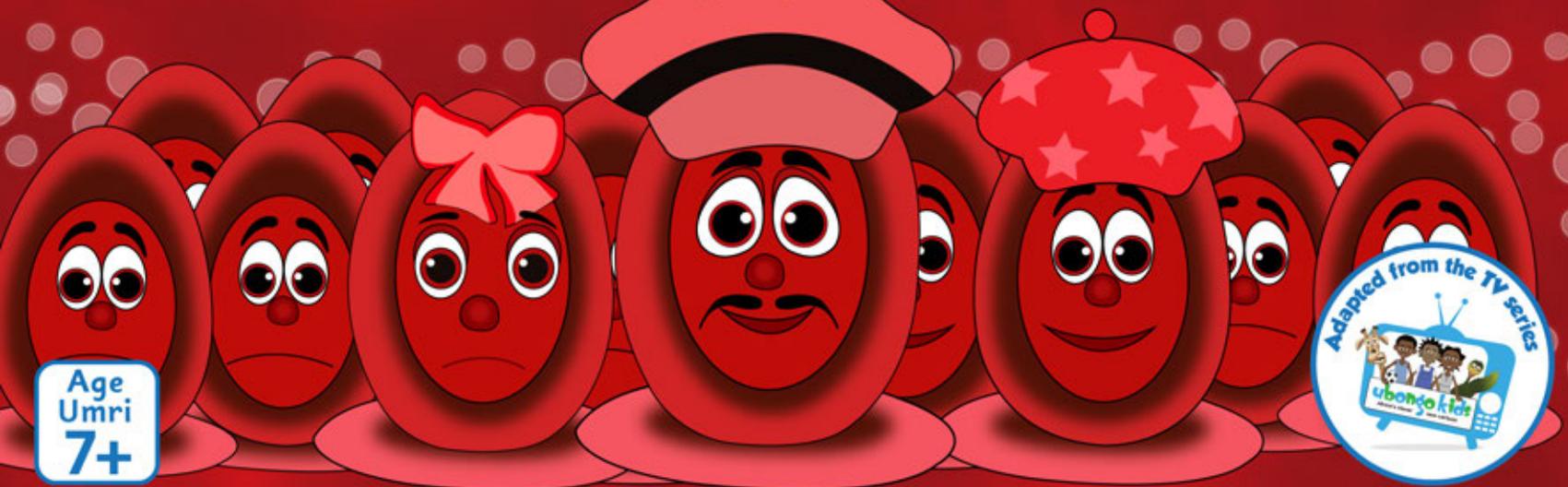


The Curious Blood Cell

body systems



Age
Umri
7+



It's time for the football match between Kokotoa Village and Matimbwa!
But the Kokotoa Village team is short one player – they only have ten players...



...and Zawadi is more than an hour late.
The referee is getting impatient.



As Koba, Kibena, and the others try to decide what to do, Koba's younger brother Baraka shouts from the sidelines. "I can play!" he shouts. "I can plaaaaay!!"



Koba doesn't think Baraka should play with them.
"He's selfish and he doesn't understand that
football is a team sport..."



...He just wants to play up front and get the glory,” Koba explains.



Baraka thinks they don't want him to play because he is small. But because he is so small he can sneak in and join the team anyway!

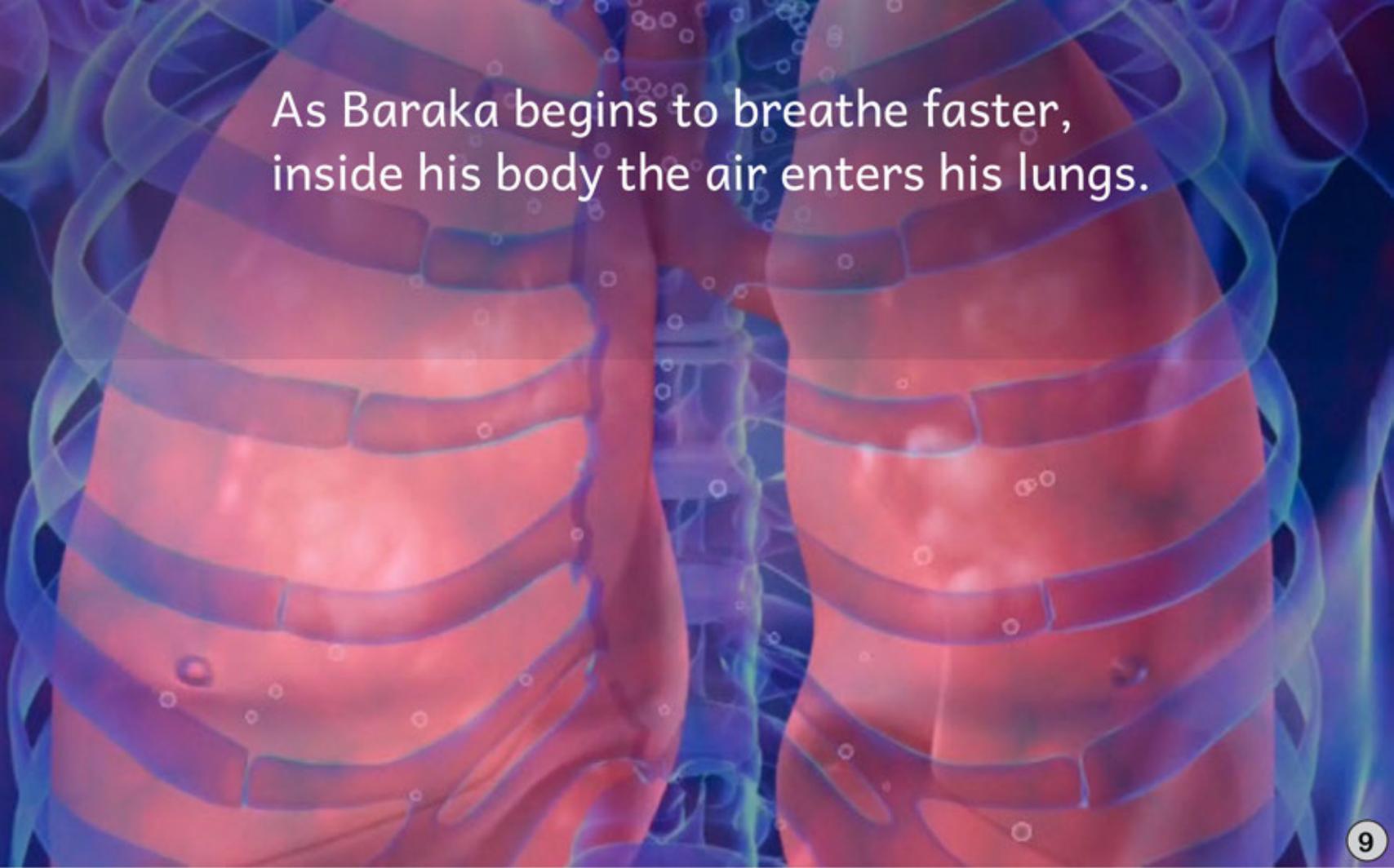


The Kokotoa team has no choice but to let him join them. “You’ll take Zawadi’s spot in midfield,” Koba tells Baraka. But Baraka objects. He wants to be a striker!



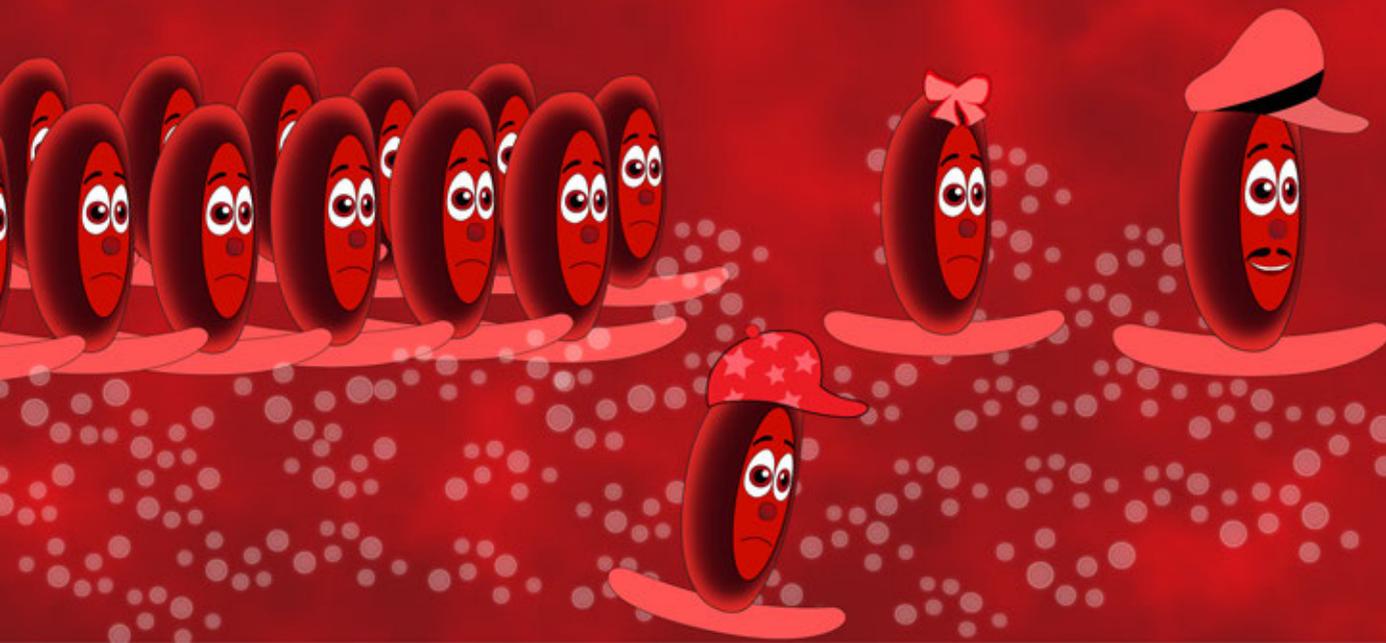
Baraka starts to warm up, doing jumping jacks on the sideline. His heart beats faster and his breath quickens.



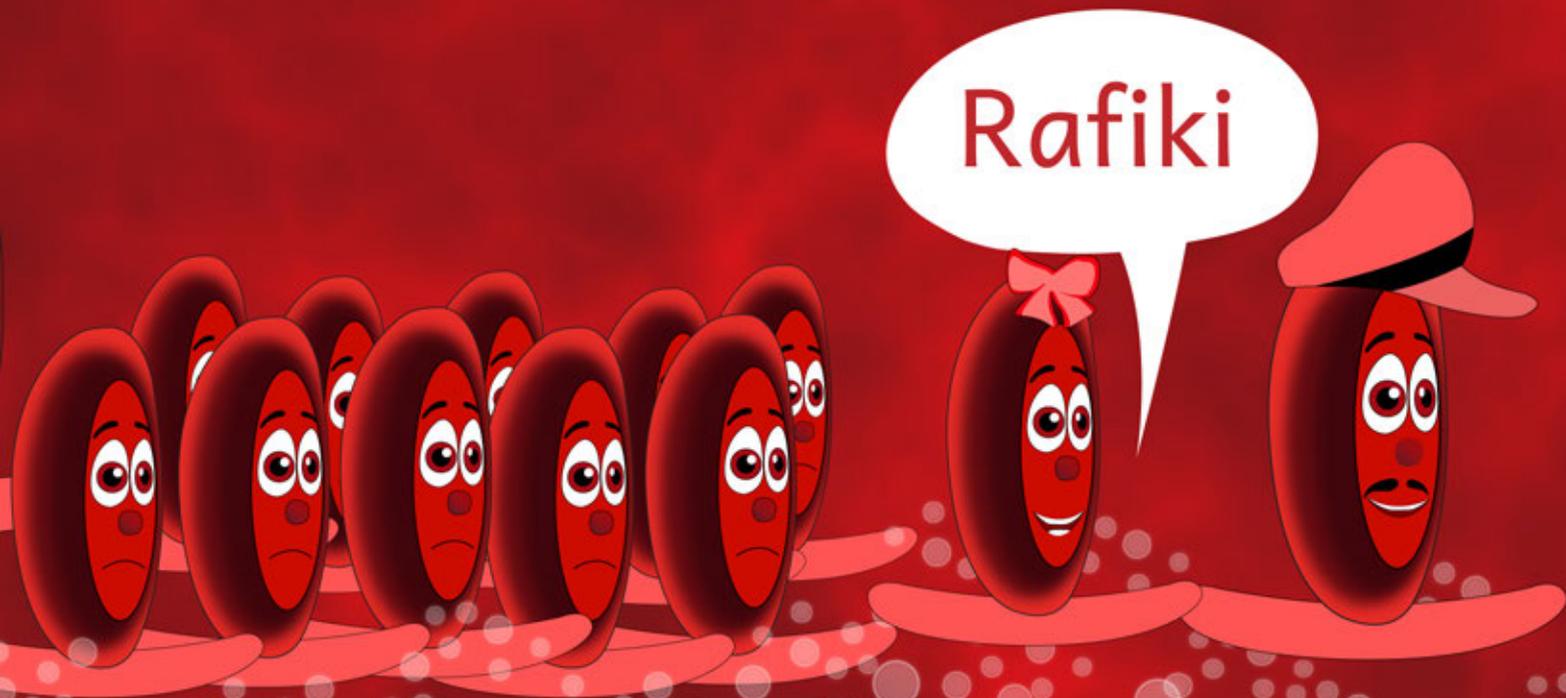
An anatomical illustration of a human ribcage and lungs. The ribcage is shown in a reddish-pink color, with the ribs curving around the chest. The lungs are depicted in a light blue color, with a network of branching bronchi and capillaries. The background is a dark blue gradient. The text is overlaid on the upper part of the ribcage.

As Baraka begins to breathe faster,
inside his body the air enters his lungs.

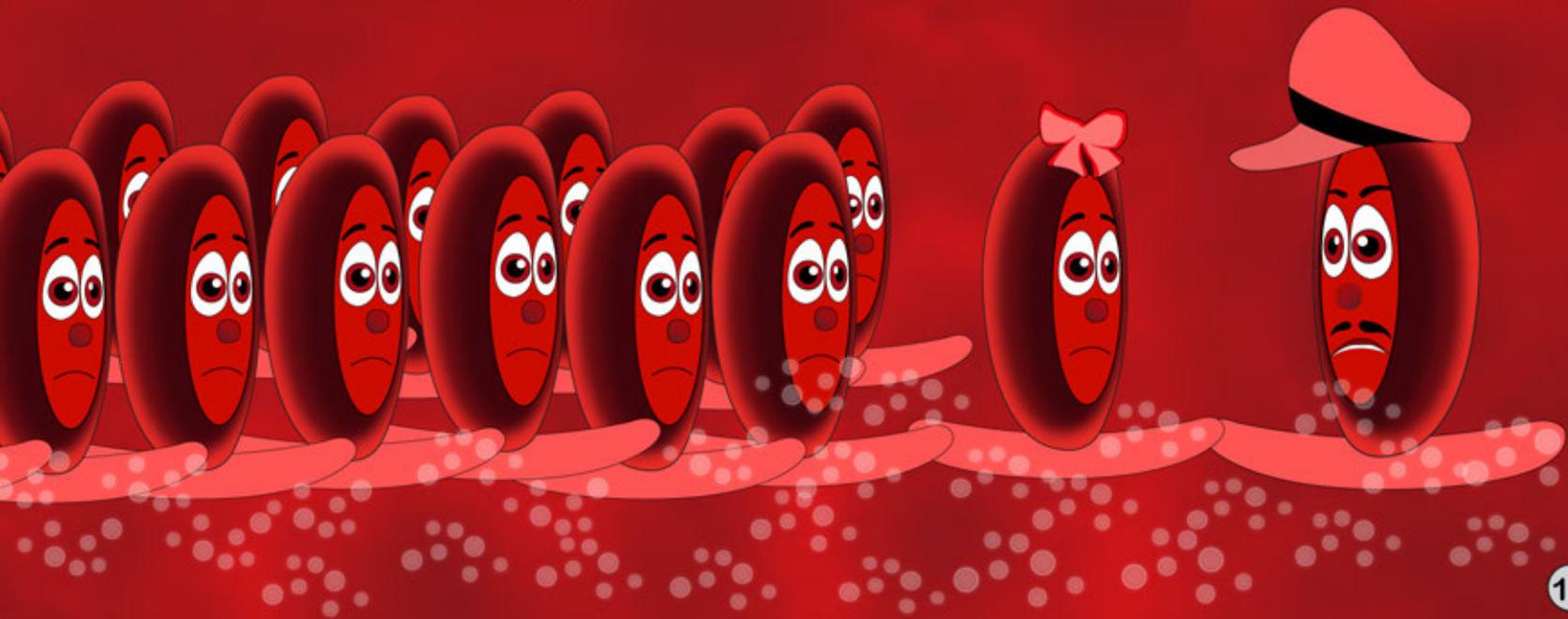
Inside the blood vessels of the lungs, Rafiki, a red blood cell, is getting bored of travelling through Baraka's blood vessels with the other red blood cells.



Rafiki's friend, Samira,
calls out to him to wait for the others.



The other red blood cells line up in formation and wait for the orders from their commander. He notices that one of his troops is missing. “Who is missing?” he asks the others.



Meanwhile, Rafiki is surfing through the blood vessels of the heart on his own, past the mitral valve...



...and through the aortic valve...

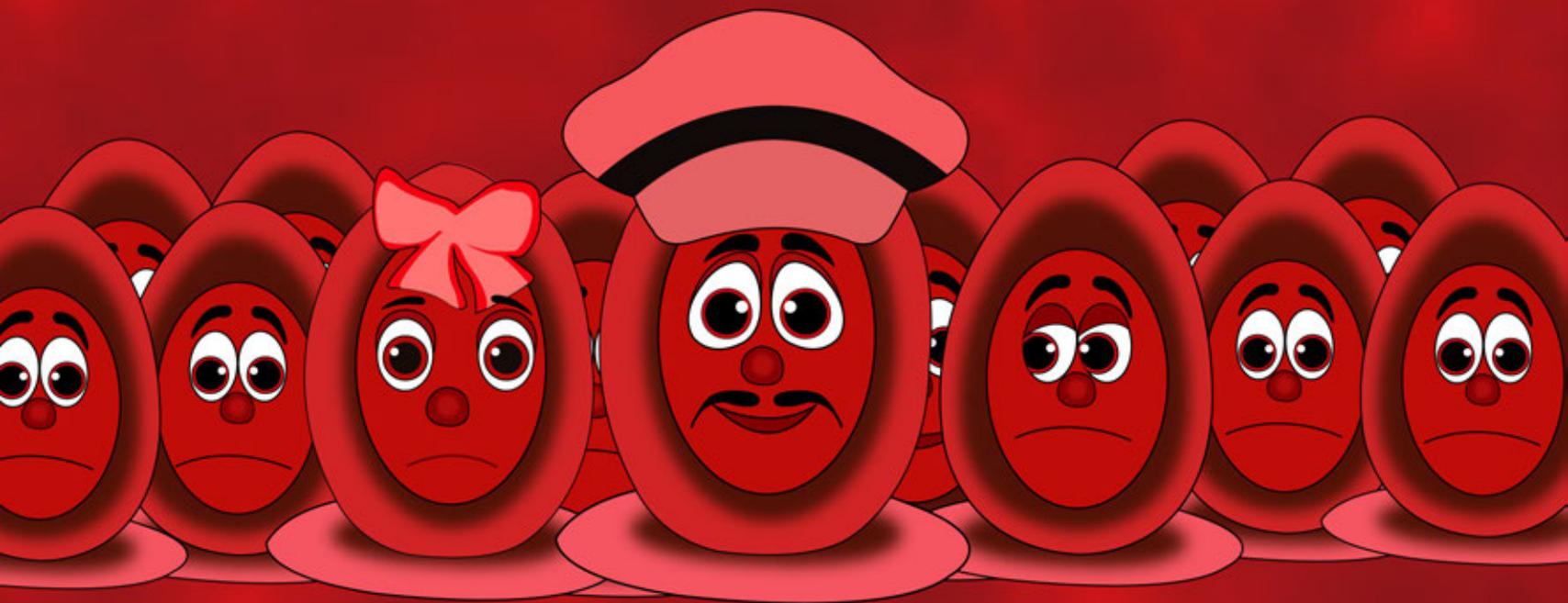
AORTIC VALVE



...towards the aorta.



The commander waits with his troops for Rafiki to return.
“Rafiki should be back by now,” the commander says.



“It only takes a minute for a blood cell to circulate through the entire system.” The other red blood cells agree that Rafiki must be lost.



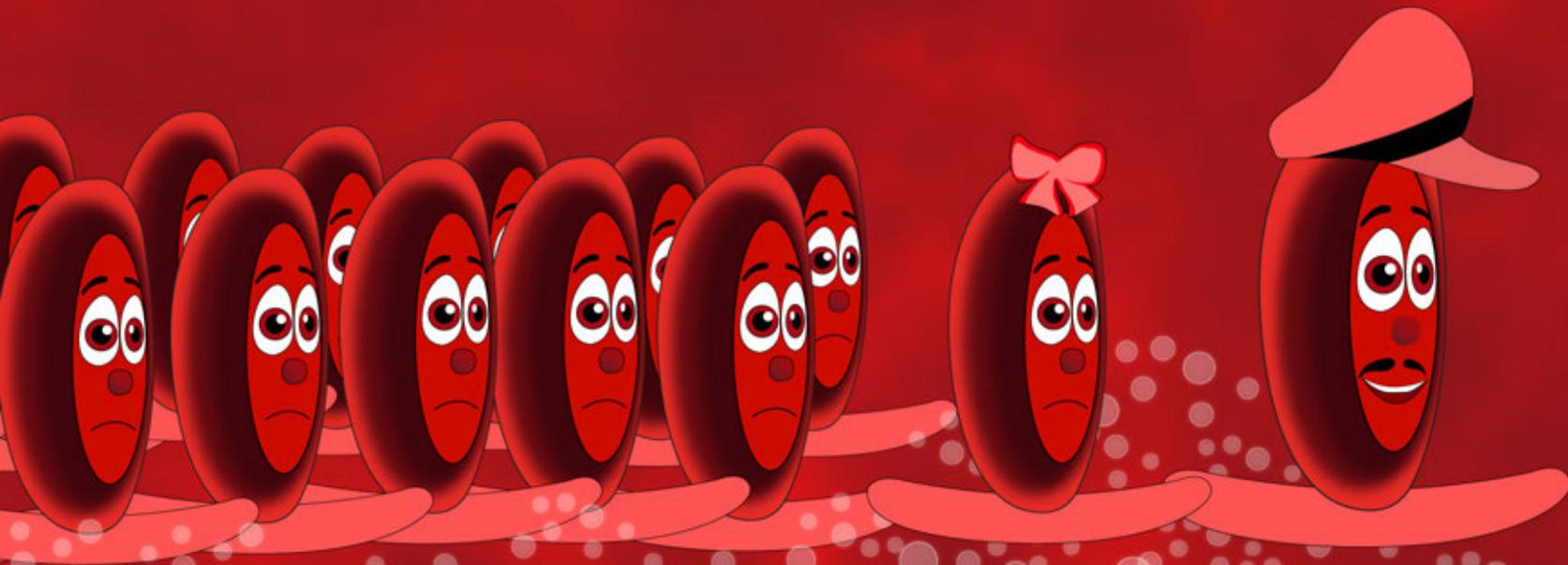
It's true, Rafiki is lost. He is out of breath and panting. Signs point to the arms, head, feet, and stomach, but he doesn't know which way to go. Suddenly an alarm sounds!



On the football pitch,
the match is about to start!



The commander and his troops also hear the alarm.
“It’s game time!” the commander shouts.



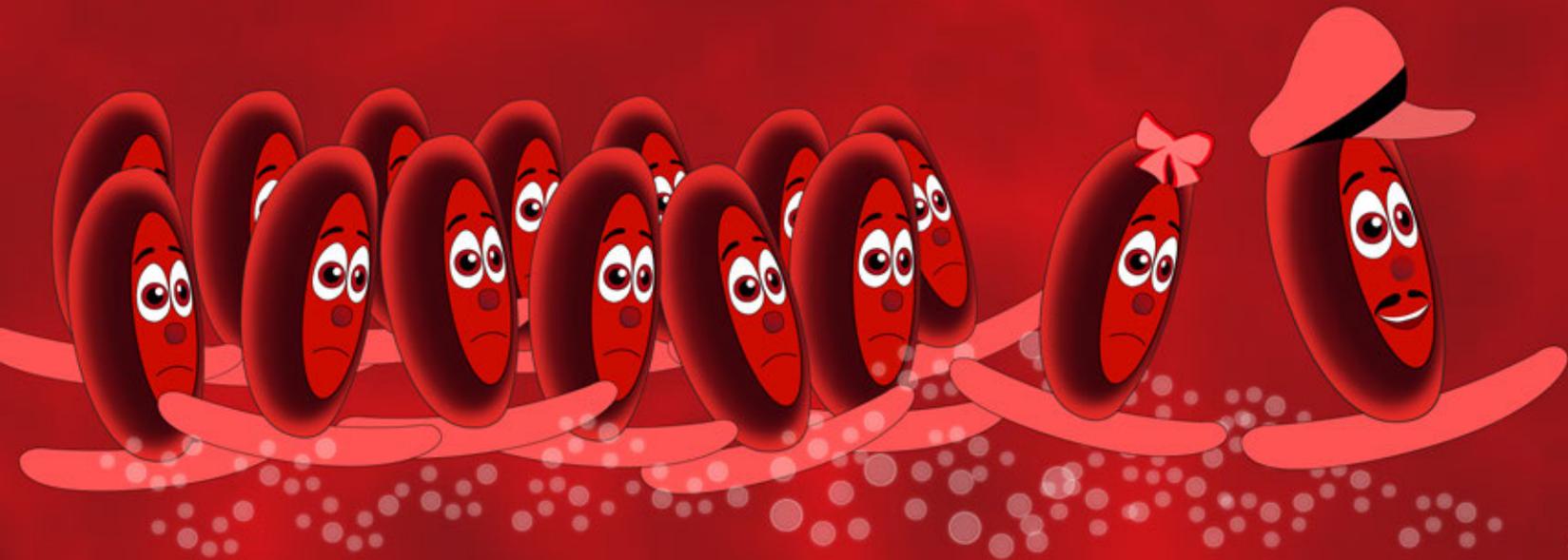
Sure enough, the game is beginning. Baraka attacks the game with a vengeance, but he is so small that the opposition runs by him. Baraka falls face first into the dirt, but the ref doesn't call a foul.



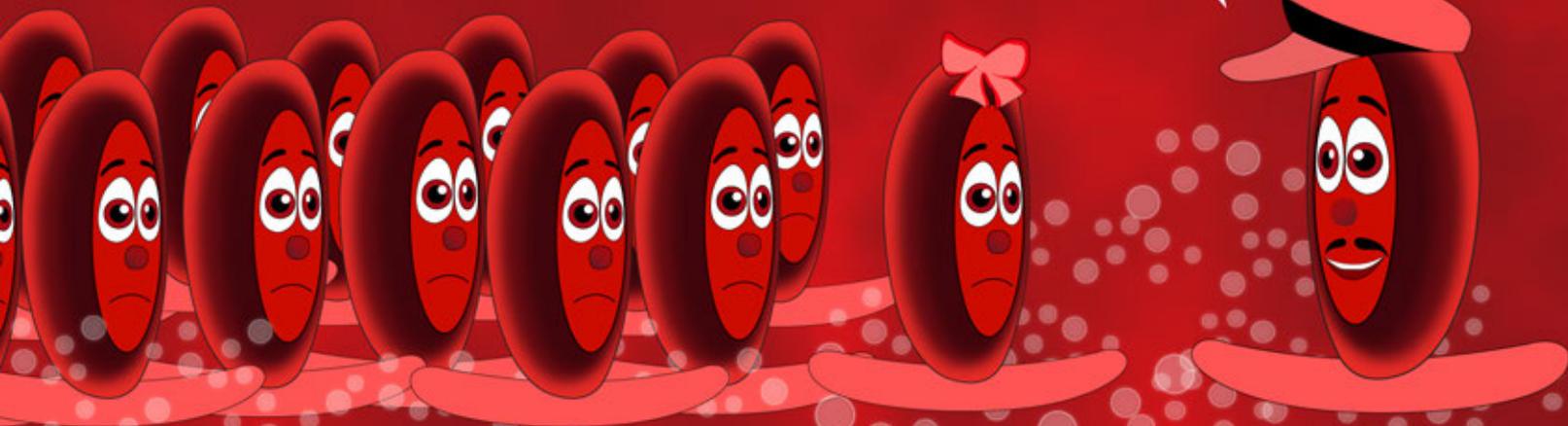
After he is pushed to the ground a second time, Baraka has had enough. “Enough of midfield,” he says. “I am going up front.”



Meanwhile, inside Baraka's body, the commander and his unit surf through the blood vessels and get bounced around all over the place as Baraka plays.



But they haven't found Rafiki!
"He must have gone off
the official track,"
the commander says.

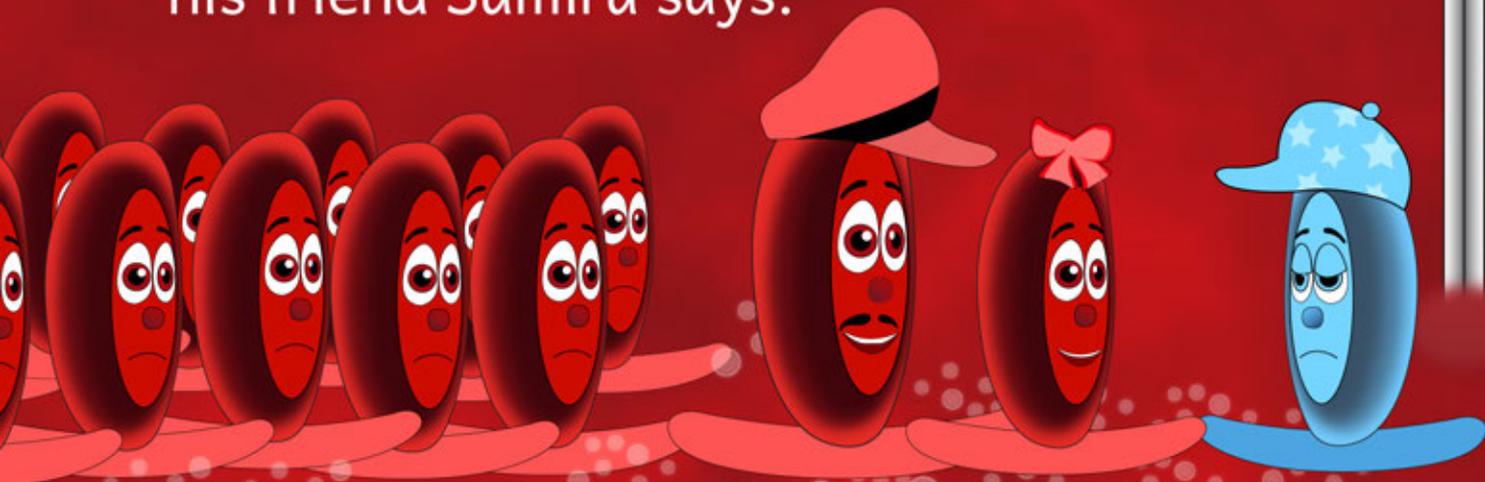


Sure enough, Rafiki is off the track, breathless and turning blue. He has no oxygen left!

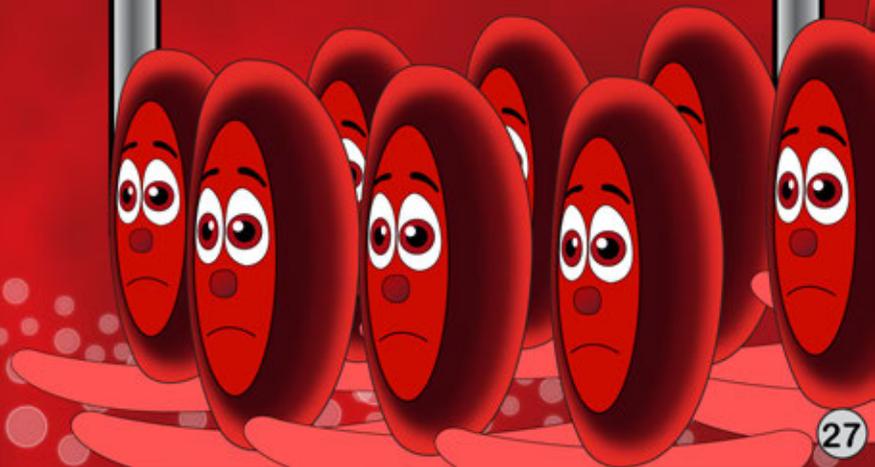
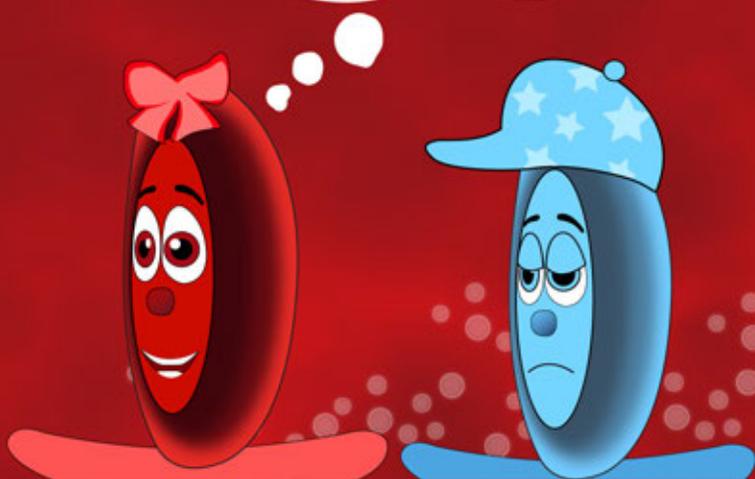


The commander and his unit finds Rafiki just in time.

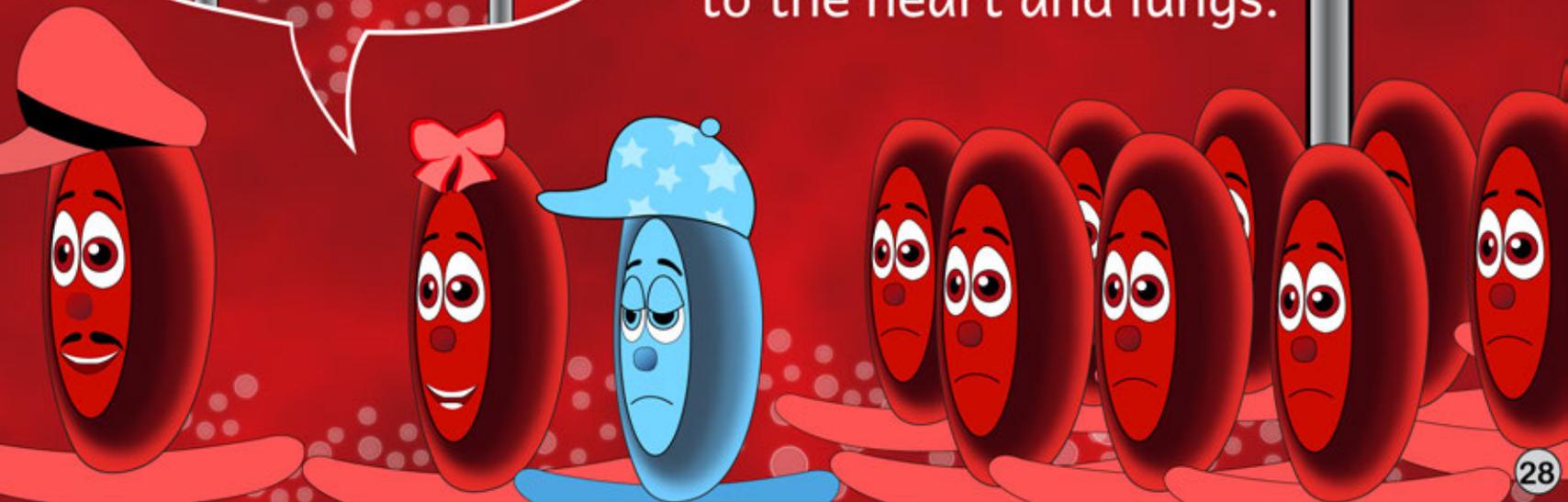
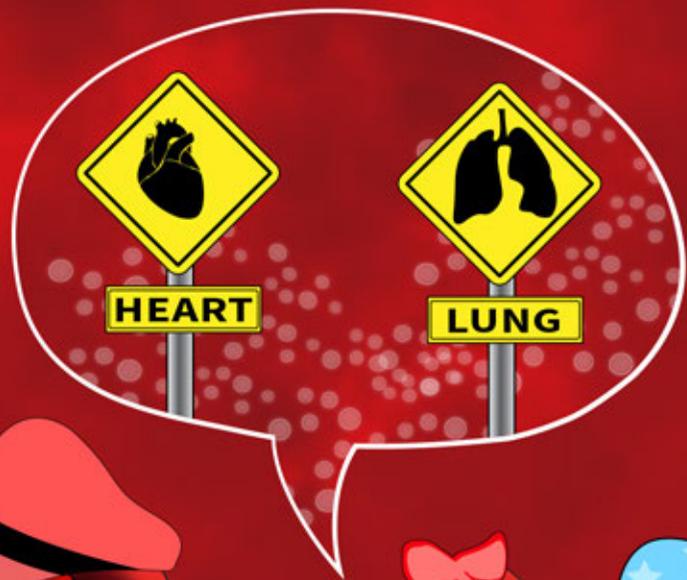
“We need to get you back to the lungs to get you some oxygen,” his friend Samira says.



The blood cells drop their oxygen off to all the major organs and the feet.

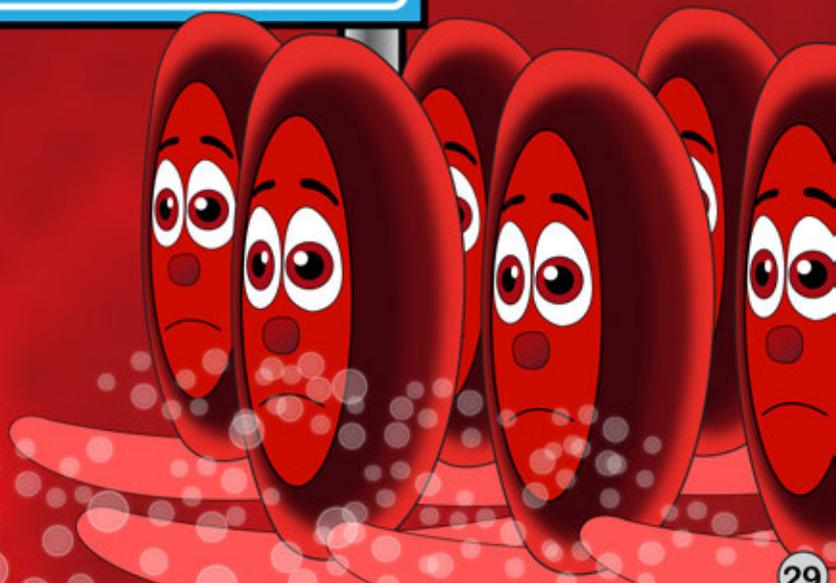


They escort Rafiki back to the lungs, following the signs to the vena cava, which will take them to the heart and lungs.



Samira and Rafiki head past
the right atrium of the heart...

RIGHT ATRIUM OF HEART





**TRICUSPID
VALVE**

...and stop at the tricuspid valve.
“From here we head out of the right
ventricle of the heart, and up to
the lungs,” Samira tells Rafiki.

“A single cell can’t carry oxygen around the whole body by itself,” the commander tells his troops.

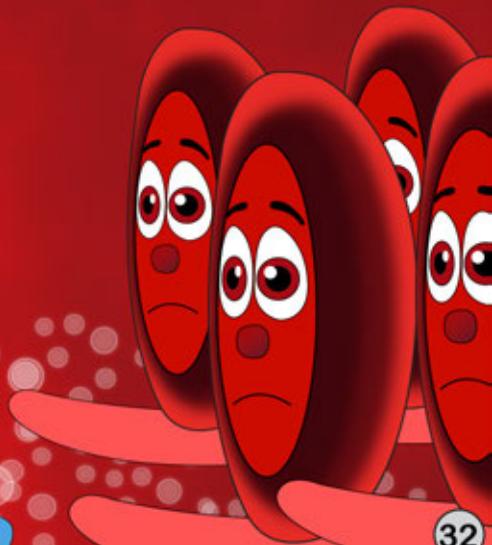




LUNGS

“Each red blood cell is part of a team, and we all need to work together.”

The red blood cells agree and head off to deliver more oxygen.



Meanwhile, the game continues on the football pitch. Team Matimbwa has the ball, and the Kokatoa players try to defend.



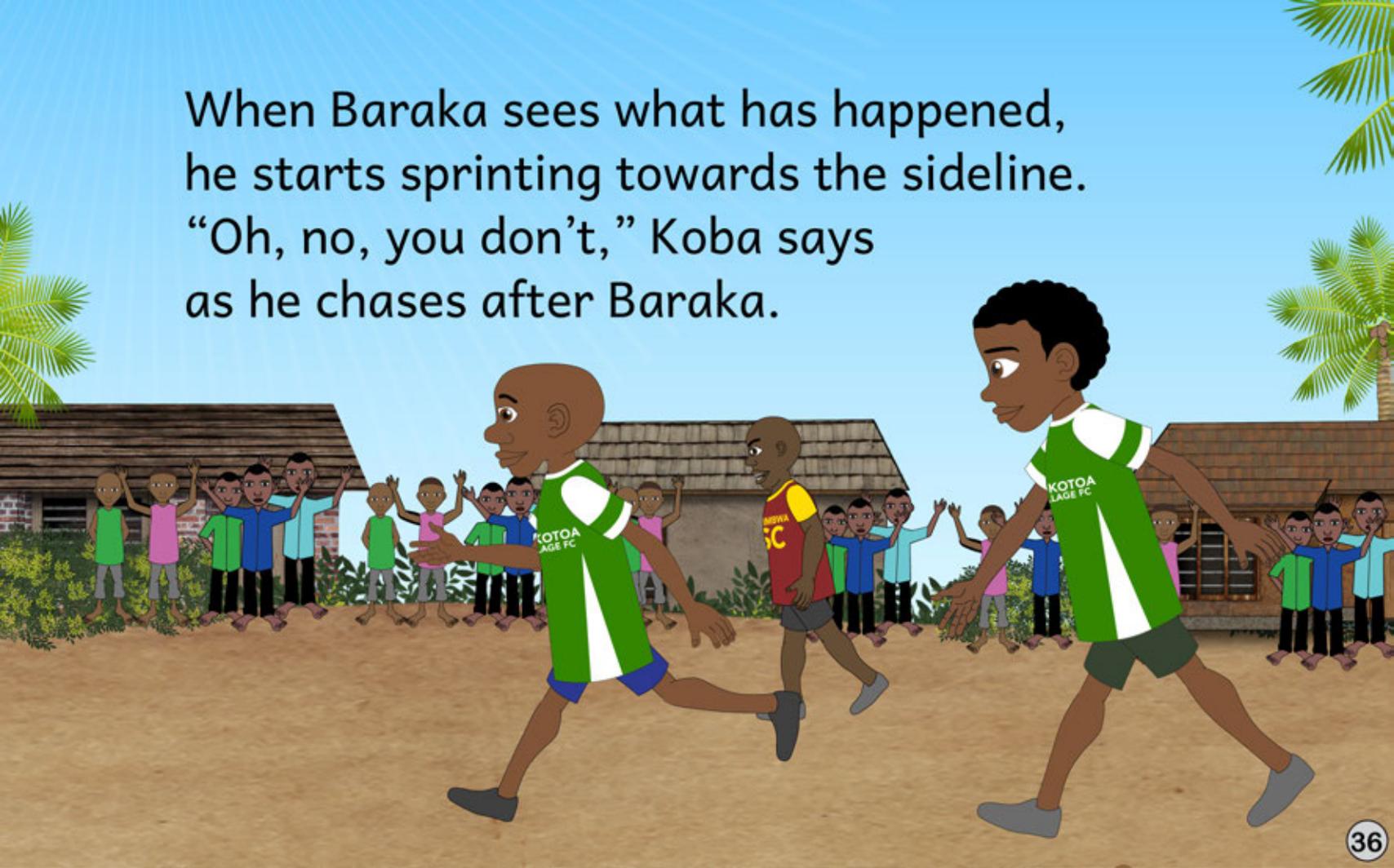
While his teammates try to stop the Matimbwa players, Baraka is up front on his own.
“Baraka,” his teammates call.
“We need you back here to help out!”



Baraka doesn't move,
and the Matimbwa team scores a goal!!



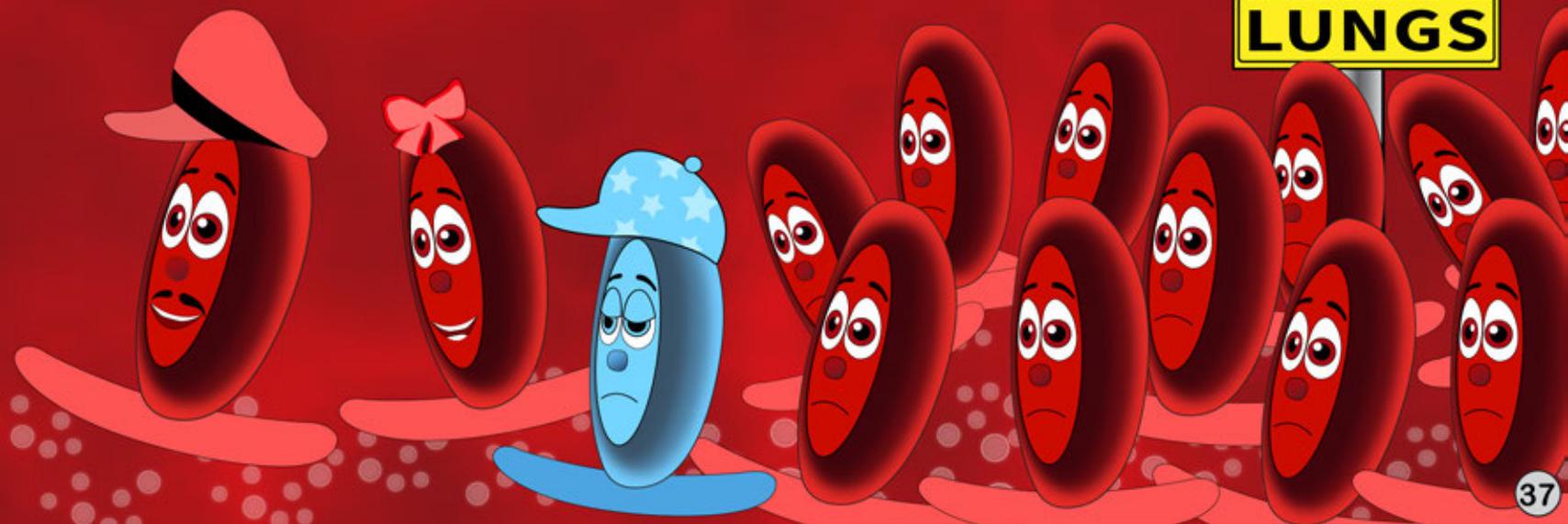
When Baraka sees what has happened, he starts sprinting towards the sideline. “Oh, no, you don’t,” Koba says as he chases after Baraka.



Inside his body, the red blood cells realize Baraka is at full sprint, and respond by moving faster and faster through the blood vessels to deliver the oxygen around his body.



LUNGS



Koba catches up with his little brother
and grabs him by his shirt.

“You are going to make it up to your team.”



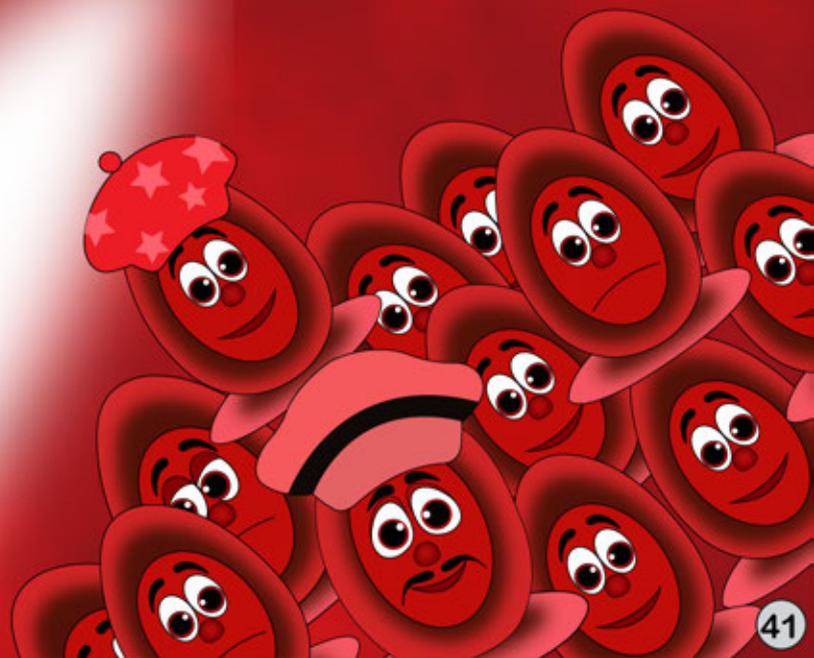
Koba tells Baraka. “You need to play your midfield position!”



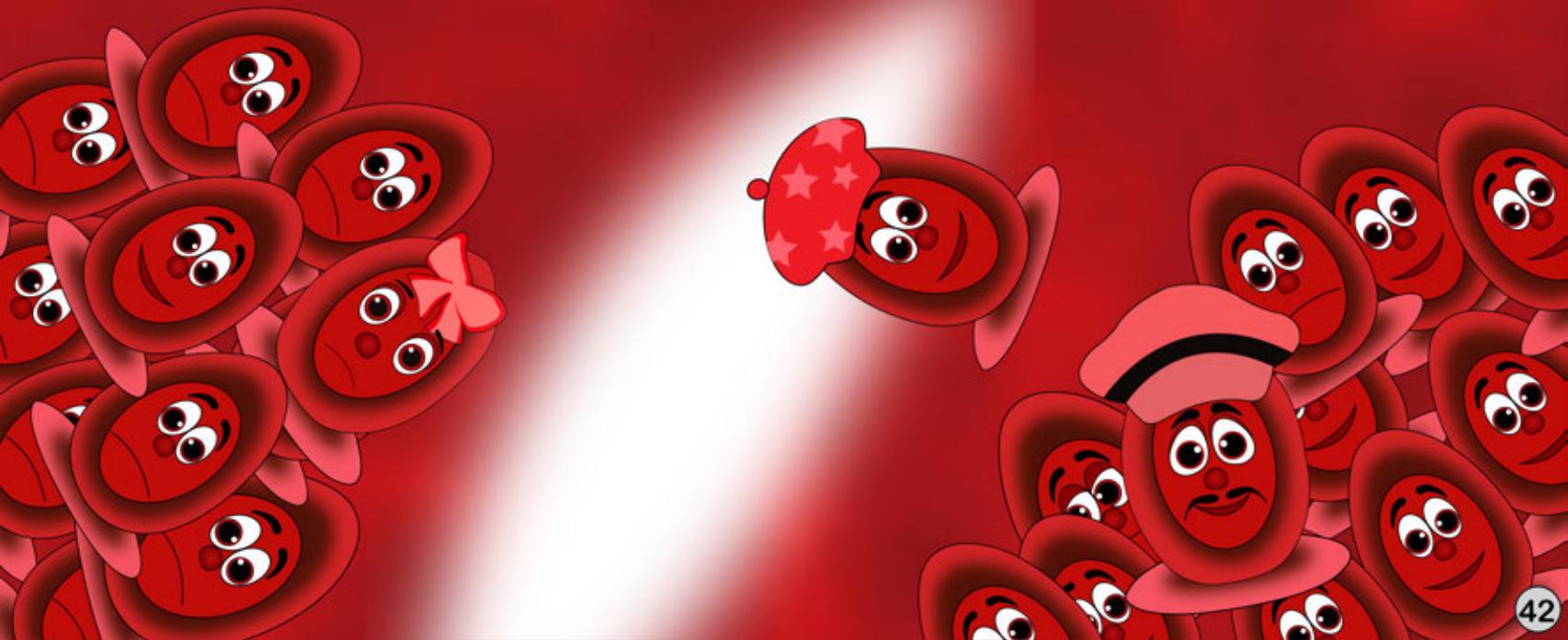
The Kokatoa team kicks off,
and Baraka receives the ball.
Just as he passes it away,
he is ambushed and
crashes to the, ground
scraping his knee.



The red blood cells inside his body know that something has gone wrong! They can see the sky, and start to be sucked out!



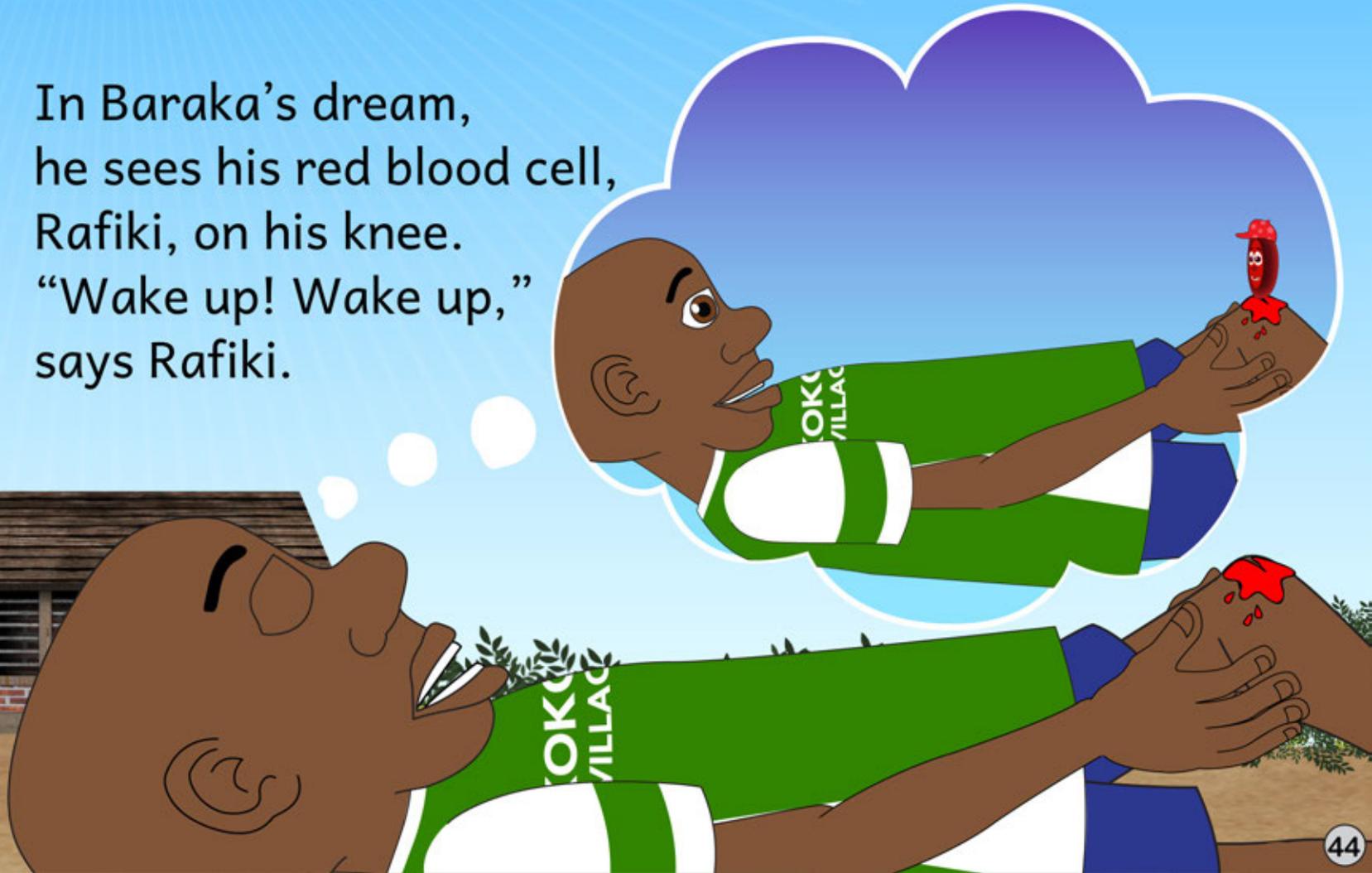
“We have a breach! We have a breach!”
the commander cries. All the red blood
cells hold onto each other...except for Rafiki.



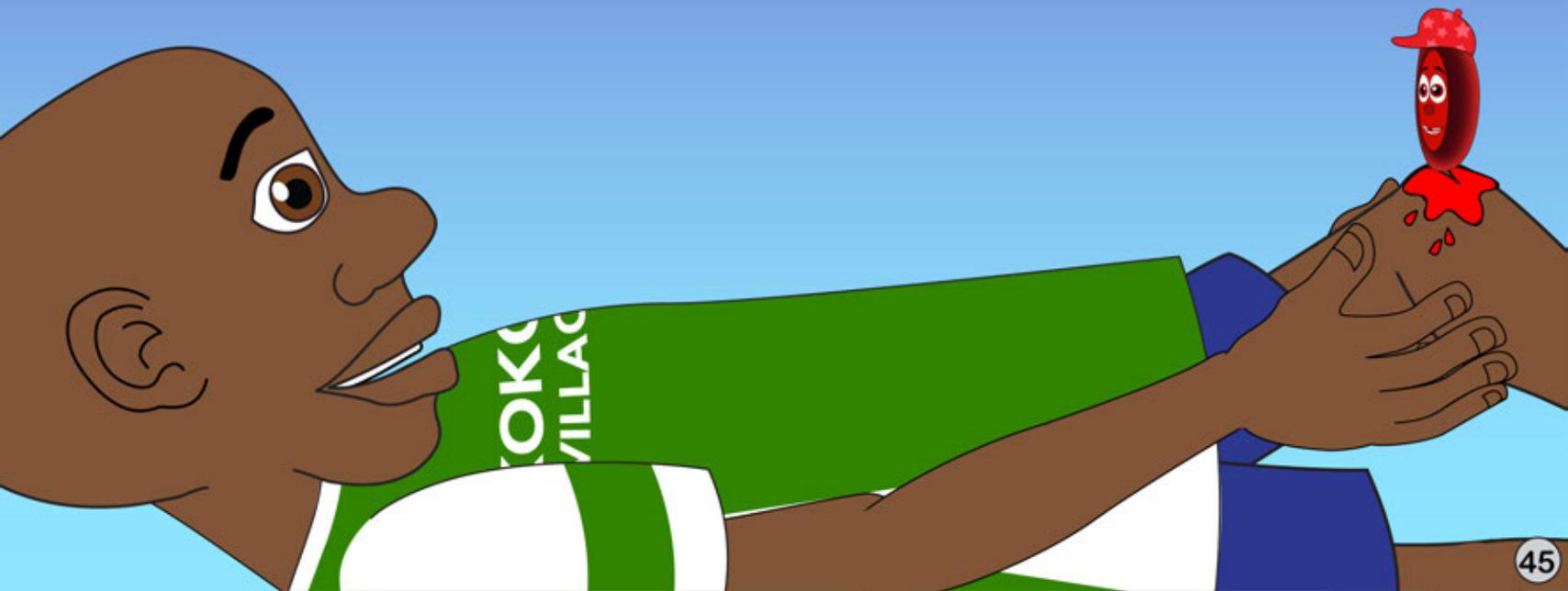
The Kokotoa players gather around Baraka as the ref finally blows his whistle. “He’s bleeding!” cries Kibena, and Baraka passes out.



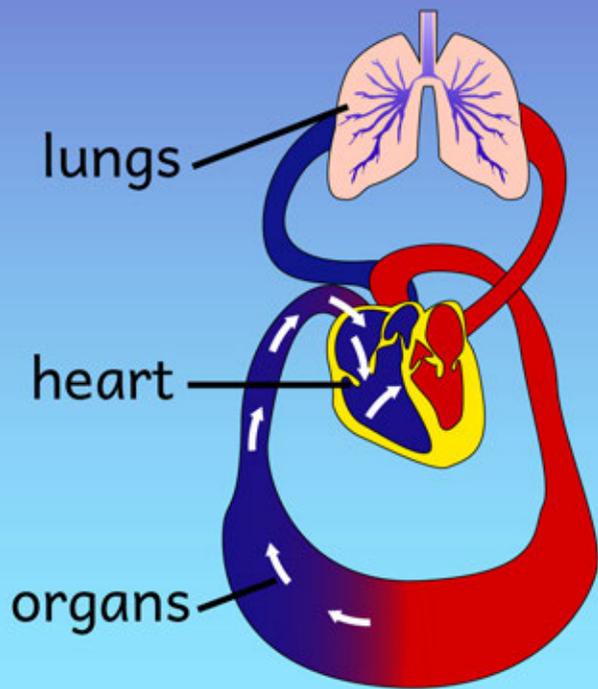
In Baraka's dream,
he sees his red blood cell,
Rafiki, on his knee.
"Wake up! Wake up,"
says Rafiki.



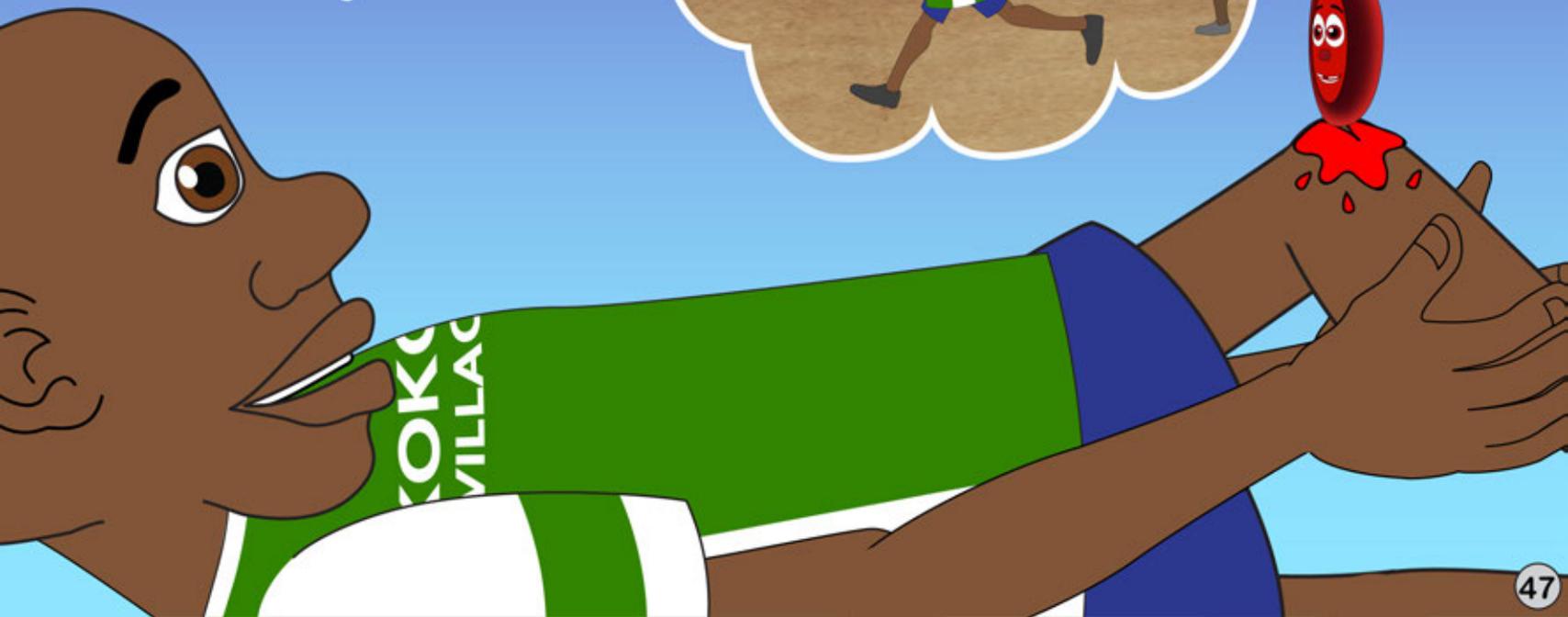
“We need to get you patched up so you can get back in the game. And I need to get back to my team of red blood cells to support you. My team is depending on me,” Rafiki tells Baraka.



Rafiki explains to Baraka what his red blood cells do.
“We carry oxygen around your body, from your lungs to your heart, and then to all your other organs.



When you are playing sports, we have to work doubly hard!”





“So you are part of a team?”

Baraka asks Rafiki.

Rafiki tells him that the team is the most important thing.

“We have to act as a team or the blood circulation system wouldn't work. Let's get you back in the game now,” Rafiki says.



“Your teammates are depending on you,
and you can depend on them.
That’s what being on a team means.”



With his dream over, Baraka comes to and rejoins his teammates. “Get me some water and a plaster, and I am good to go!” he tells them. Baraka takes a deep breath...



...and Rafiki rejoins his unit,
surfing on an oxygen bubble.
“Yee hah!” he shouts.



“I met HIM! And I told HIM that his team depends on him, and he needed to get back in the game. We need to be ready when the game restarts,” Rafiki tells his commander and fellow troops.



Baraka returns to the game with a plaster on his knee. His play is amazing! He uses his small size to avoid the elbows and knees of the opposing players.



He draws the goalkeeper out of the net,
and at the last minute, passes to Kibena.



She scores!!



A one-one draw! Baraka didn't score, but he has learned what it means to be part of a team, both inside and out.

<u>Kokotoa</u>	<u>Matimbwa</u>
1	1





The End

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