

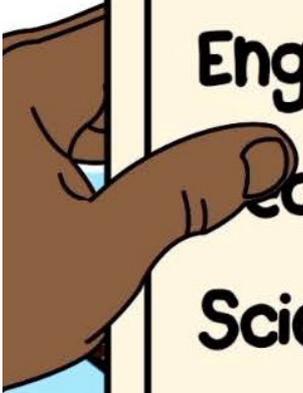
Ebook adapted from the TV series



purpose
the reason why
you do what you do



One day, Amani, Kiduchu, Kibena and Koba were heading to school.



Math 100%

Kiswahili 100%

English 100%

Geography 100%

Science 100%

Civics 100%

Monday

8:00am - math

9:00am - Kiswahili

10:00am - break

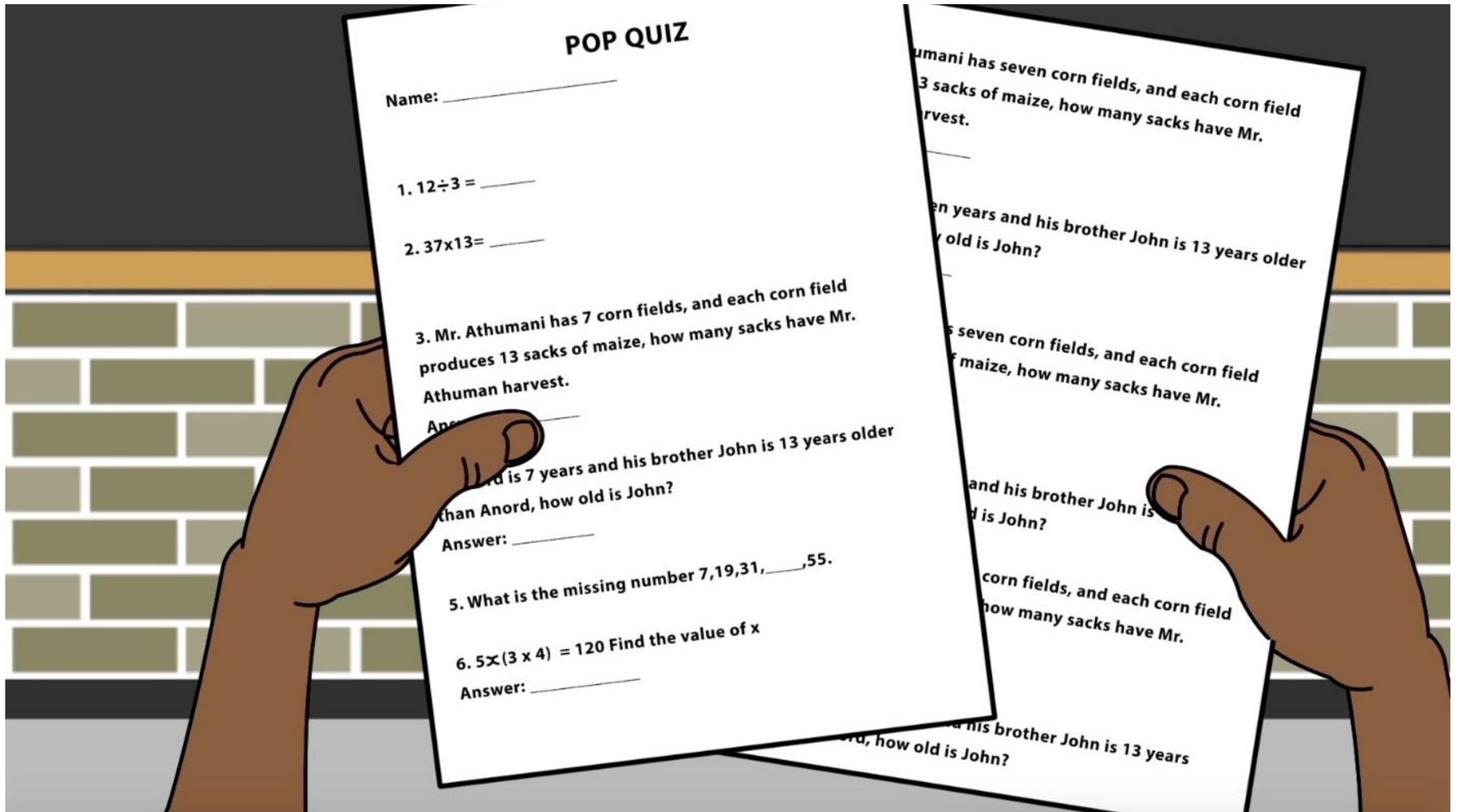
11:00am - Geography

12:00pm - Civics

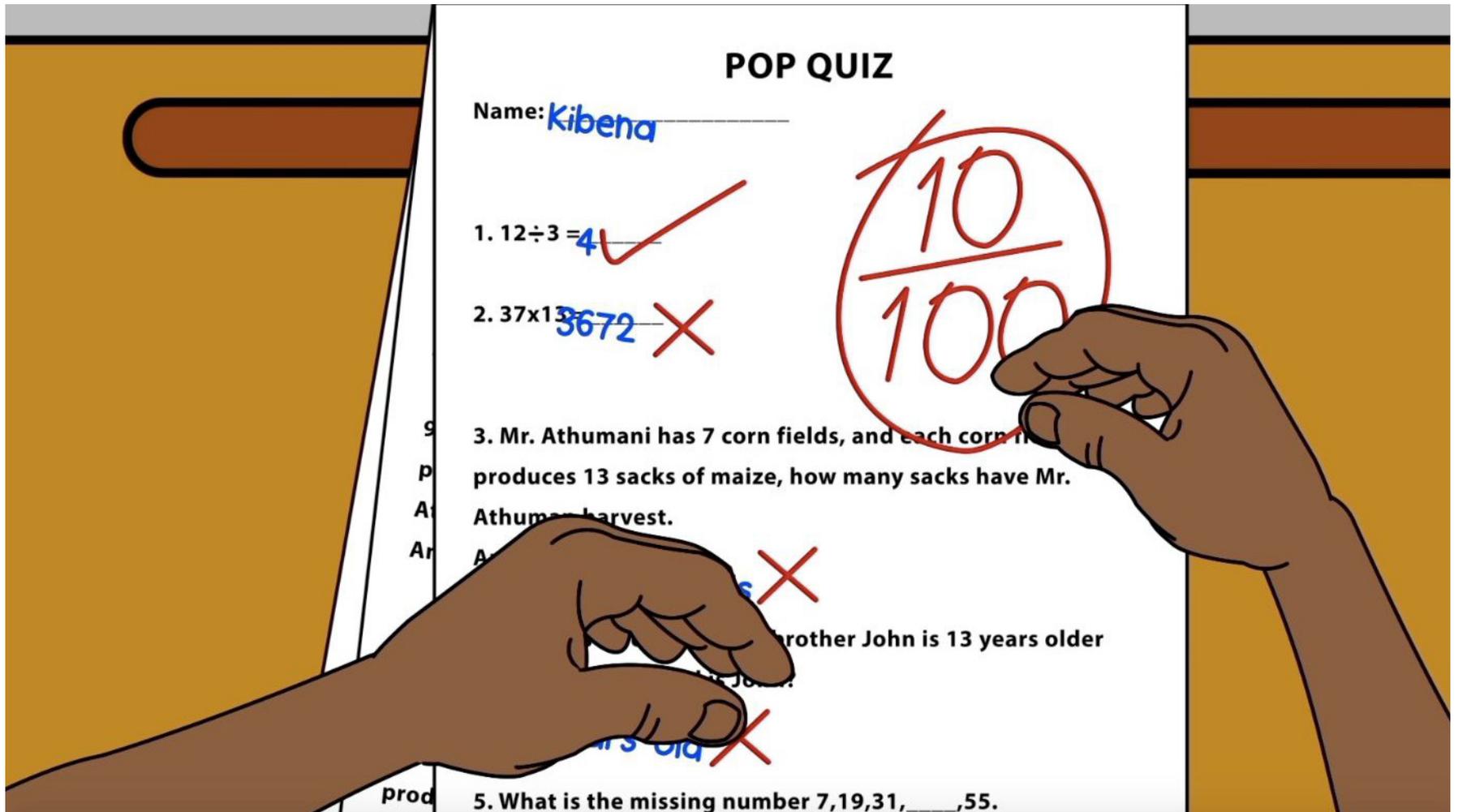
1:00pm - End of classes



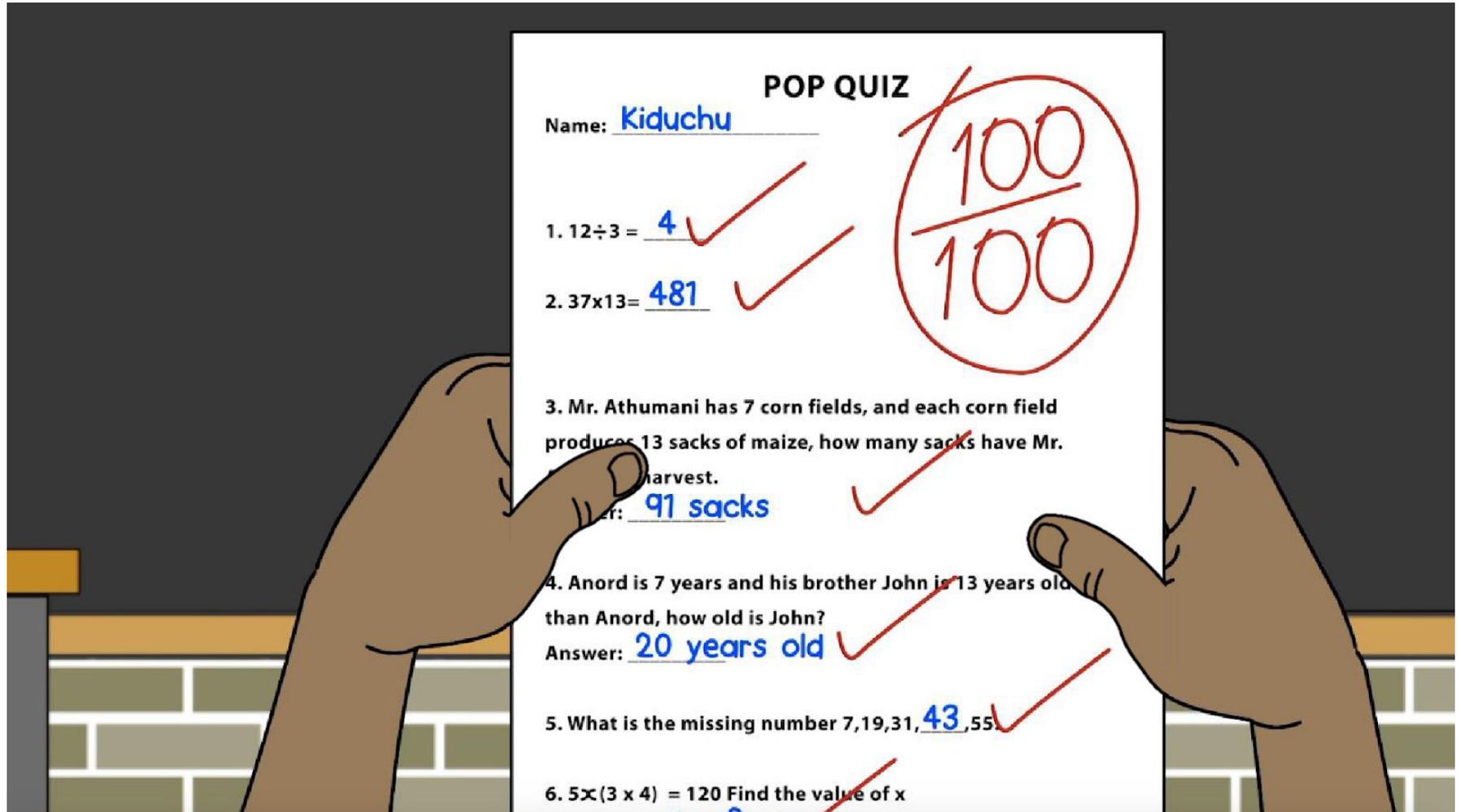
Kibena showed off her study schedule. She was planning to get top marks in every subject.



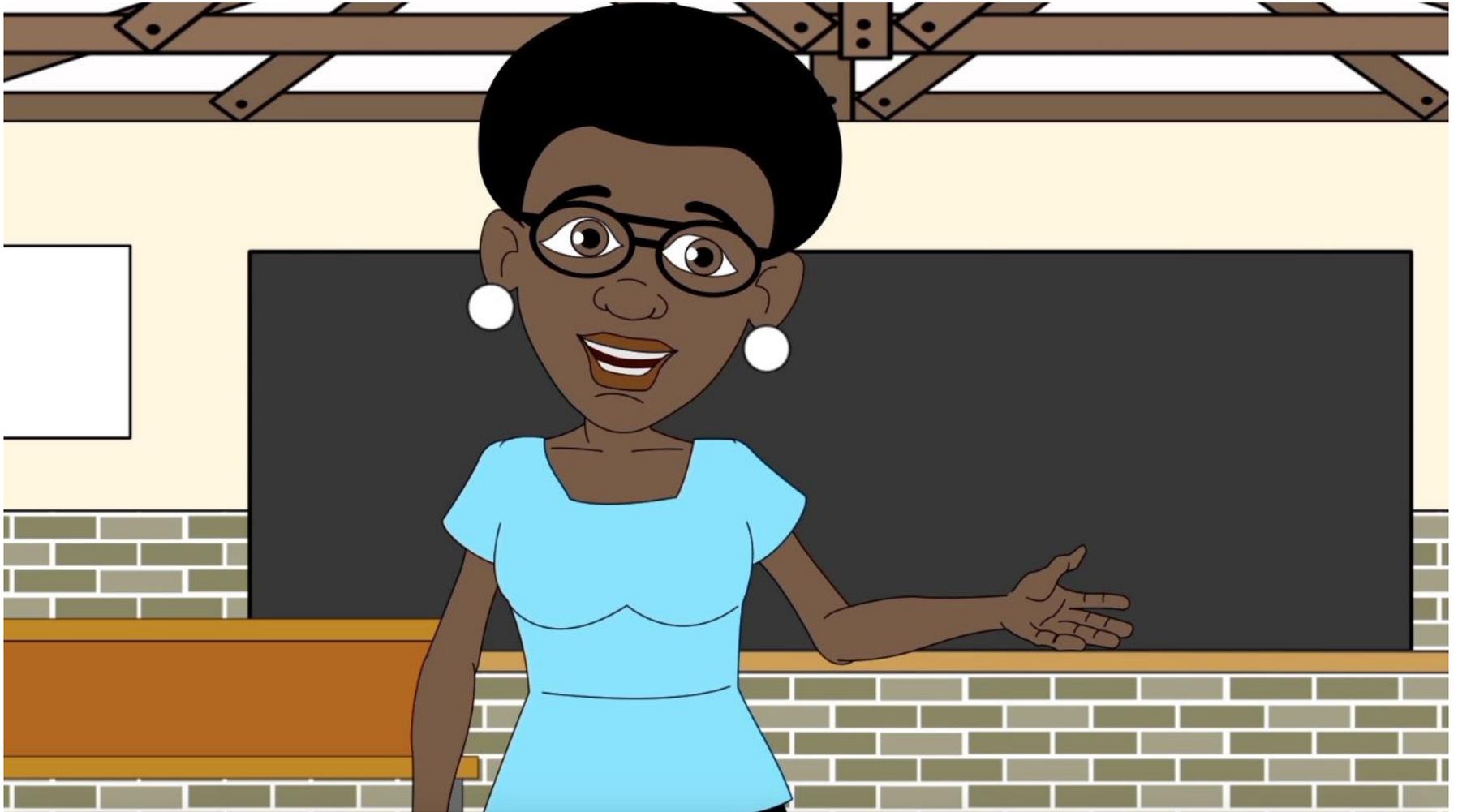
When the children got to their seats, Ms Molota announced there would be a quiz. Kibena groaned. She hadn't prepared for this! It wasn't in her schedule!



The students completed the quiz and handed in their answer sheets. Ms Molota was not impressed with the scores. Everyone had failed...



Except for Kiduchu! She got 100%!



The students complained that, because they didn't know there would be a test, they had not studied. Ms Molota was surprised to hear her students only study to pass tests. But then she had an idea...



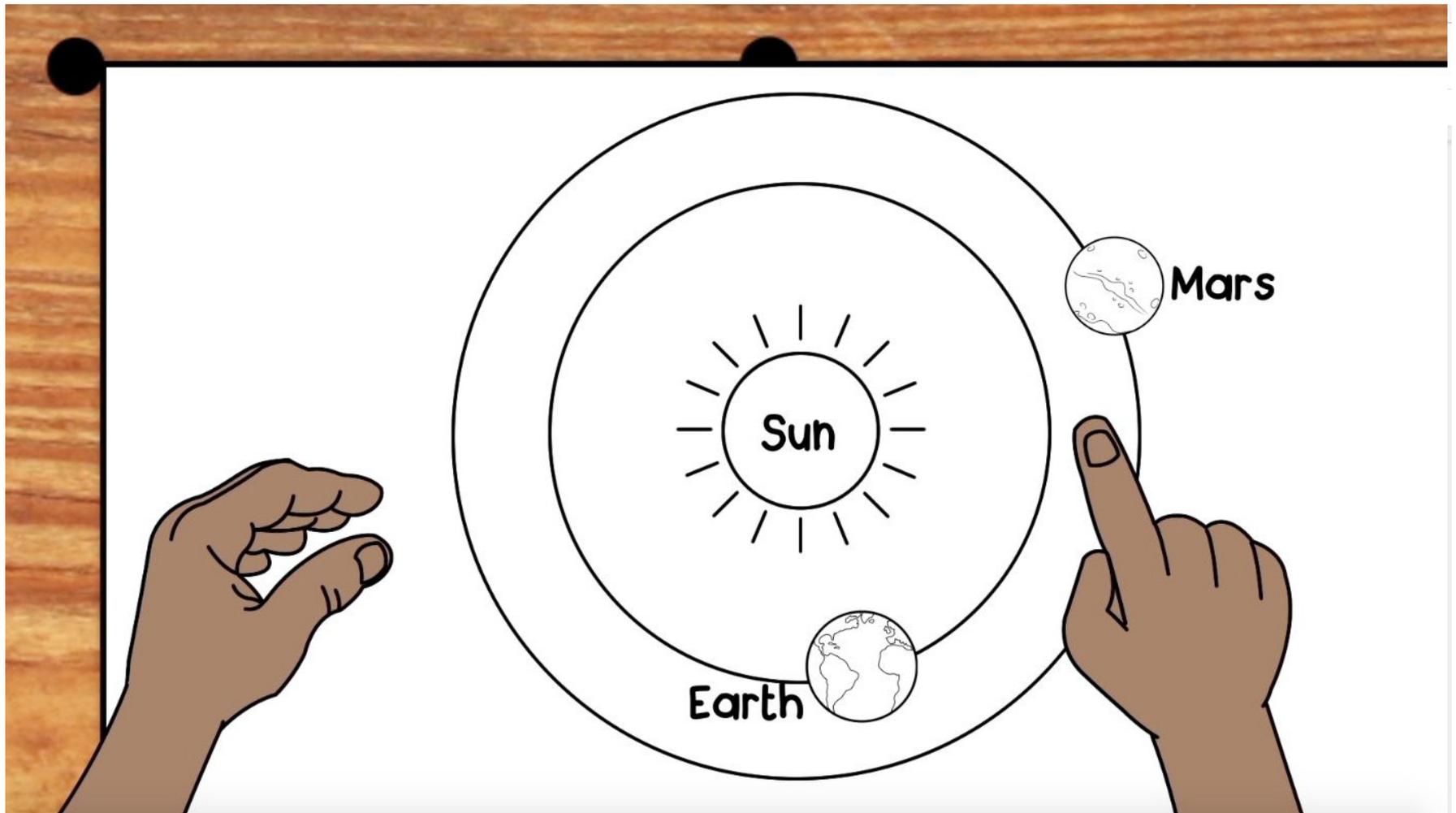
To improve their scores, Ms Molota gave them an assignment for extra credit. Each student would present to the class about their **PURPOSE** for studying math.



Kiduchu wrote frantically and then raised her hand. She was ready to make her presentation already! But Ms Molota said they would all present on Friday.



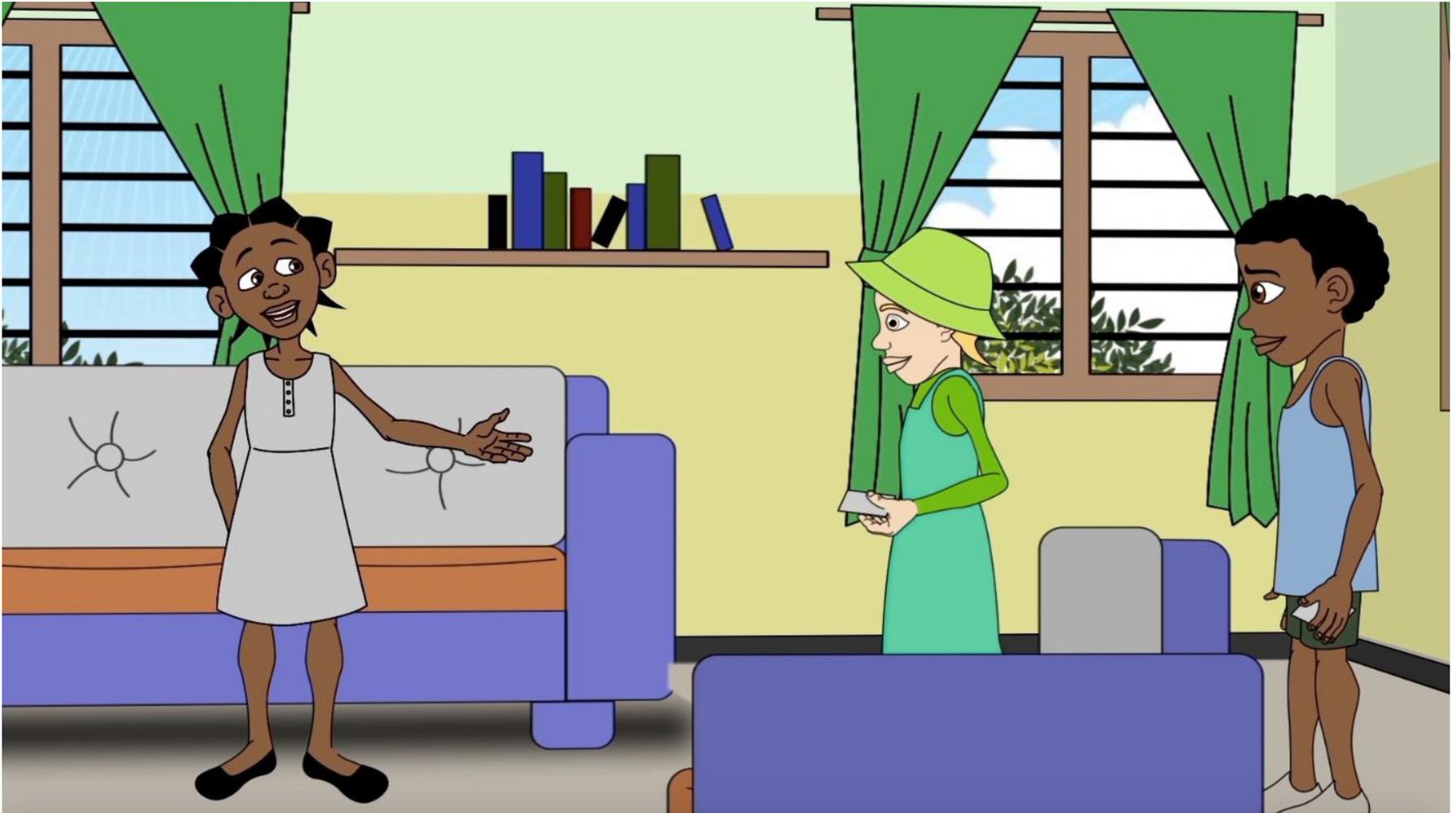
That evening, Kibena, Amani and Koba found Kiduchu at her house, writing in her notebook.



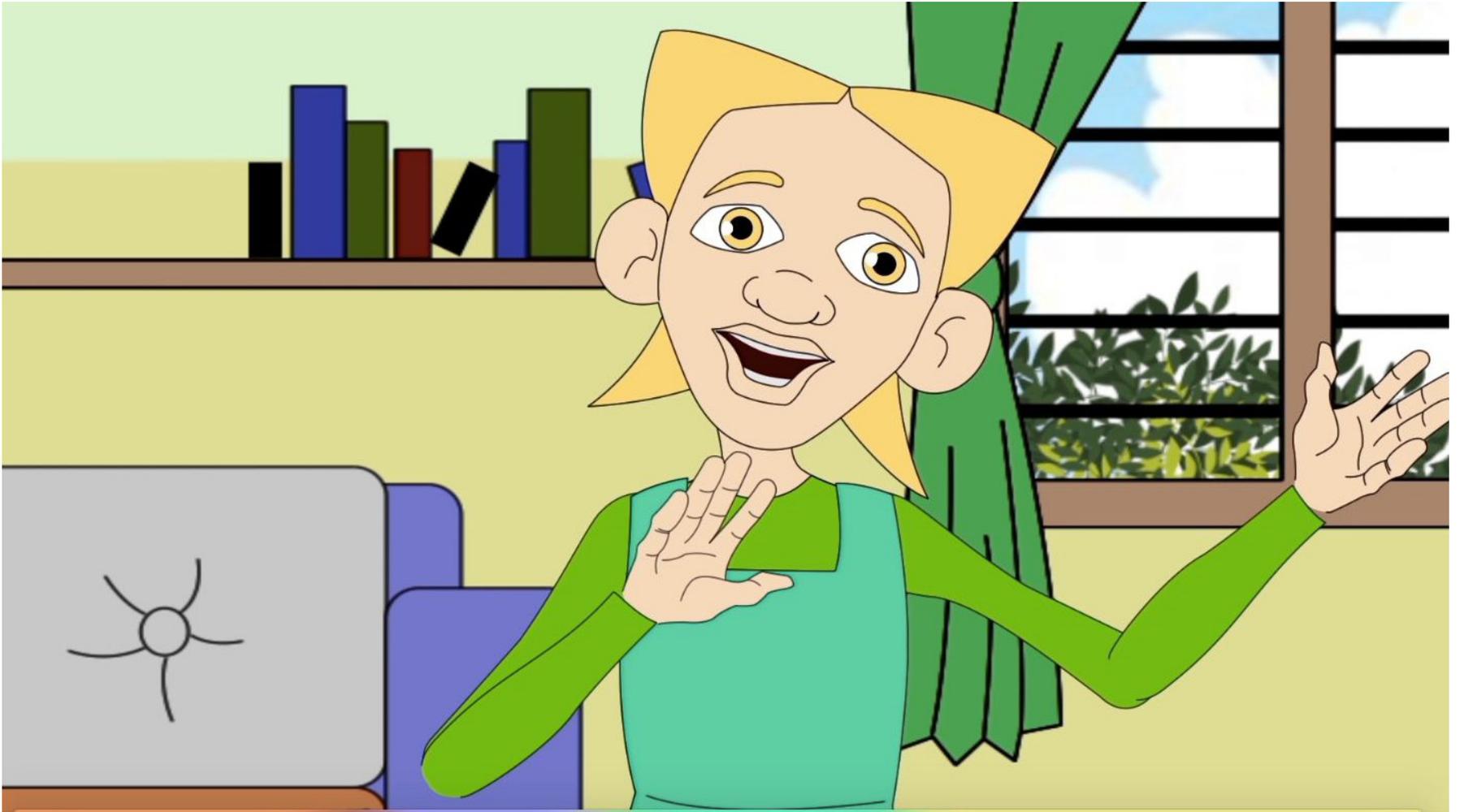
Kiduchu explained that she was calculating the ideal time to send a rocket to Mars. She told them her purpose in life was to discover a new planet, so she needed to study math to calculate the trajectories of rockets in space.



Amani and Koba decided that as Kiduchu got 100% in the test if they copied her presentation of her purpose for studying math, they were sure to get top marks too. Kibena went along with them reluctantly.



The three kids all practised Kiduchu's speech. Kibena finally gave up and said, "This is silly. None of US wants to be astronauts! Koba wants to be a filmmaker and Amani wants to be a singer!"



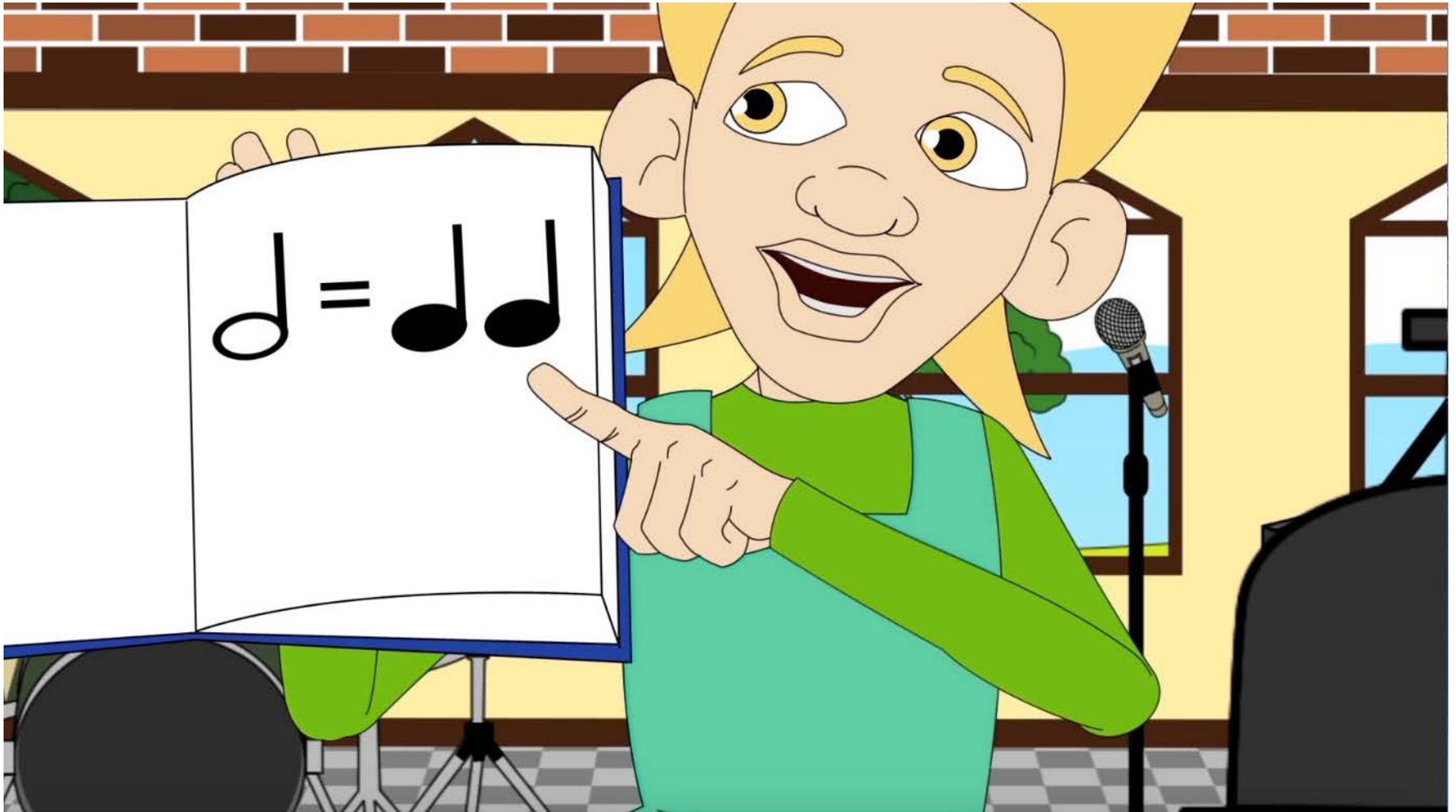
Amani agreed. She wanted to be the most famous musician in Kokotoa. But she didn't see what math had to do with making music.



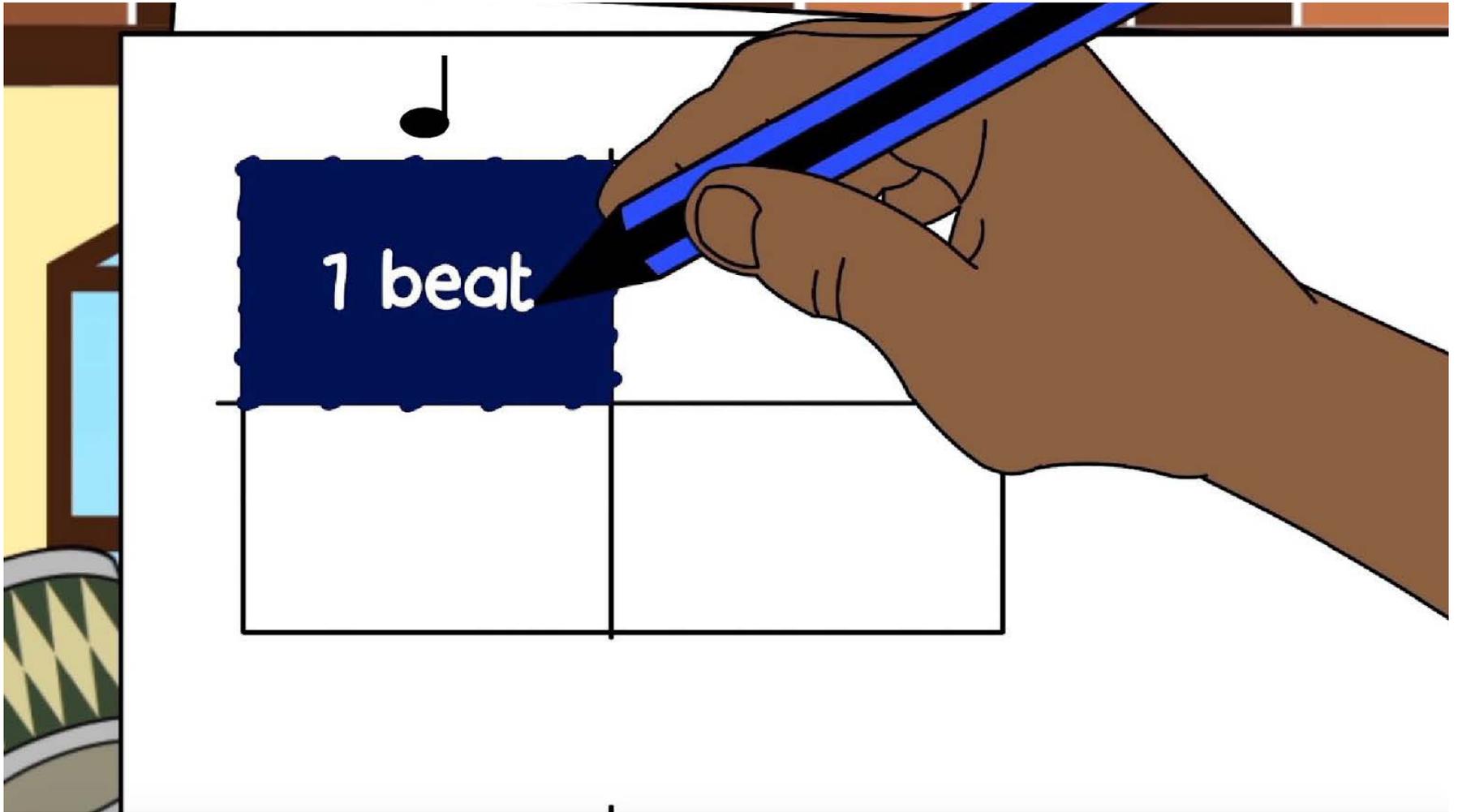
Koba picked up his camera and began filming Kibena and Amani. “I will have more time to spend filming if I just learn Kiduchu’s presentation, rather than write my own,” he said. But Kibena disagreed.



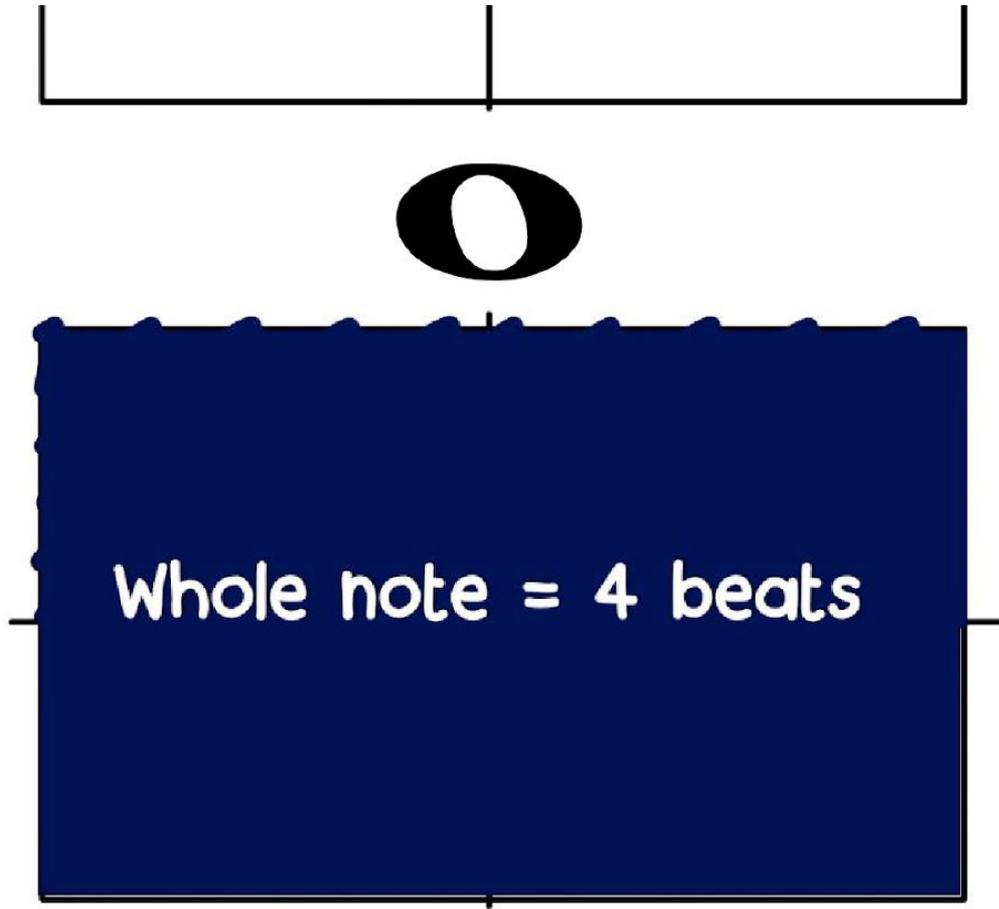
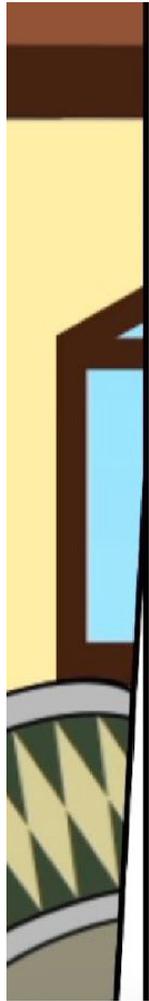
The next morning, Kibena walked by the Music School and heard music being played on a piano. It was Amani, teaching herself how to play! Amani asked Kibena for help reading the music sheet.



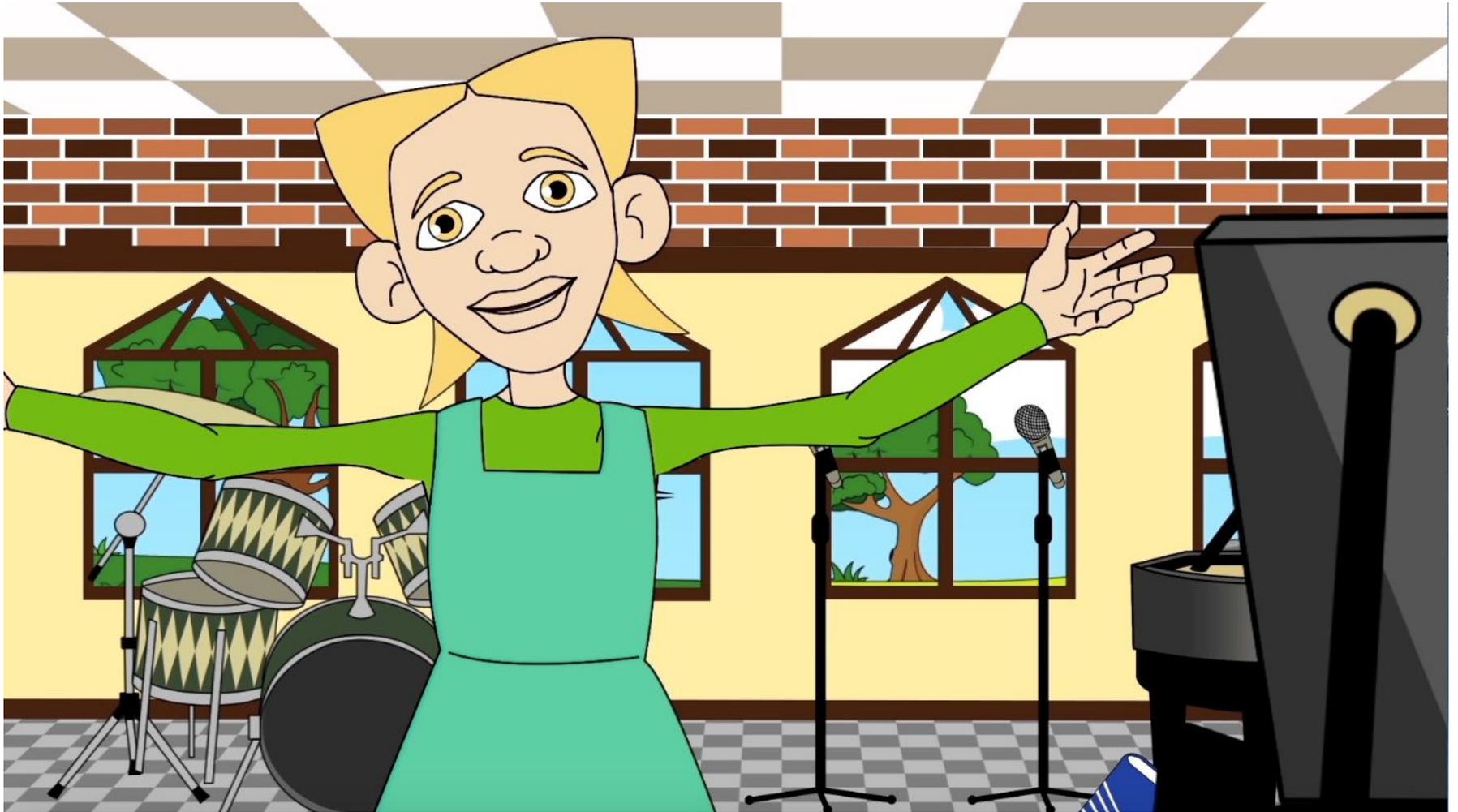
Amani showed Kibena the music book. It had half notes and quarter notes. Amani knew that a quarter note was one beat, but she didn't know how many beats to sing for a half note.



Kibena helped her. Kibena remembered that quarters and halves are parts of a whole. If a quarter note is one beat, then a half note must be two beats,



and a whole note must be four beats.



Amani suddenly realised she DID have a purpose for studying math after all! She studied math so she could count and arrange beats and notes to make powerful music that would bring people together. She didn't need to copy Kiduchu's presentation after all!



Kibena still hadn't figured out her purpose for studying math, and it began to get her down. As she walked sadly along the path, she saw Koba surrounded by a crowd of irritated-looking people.

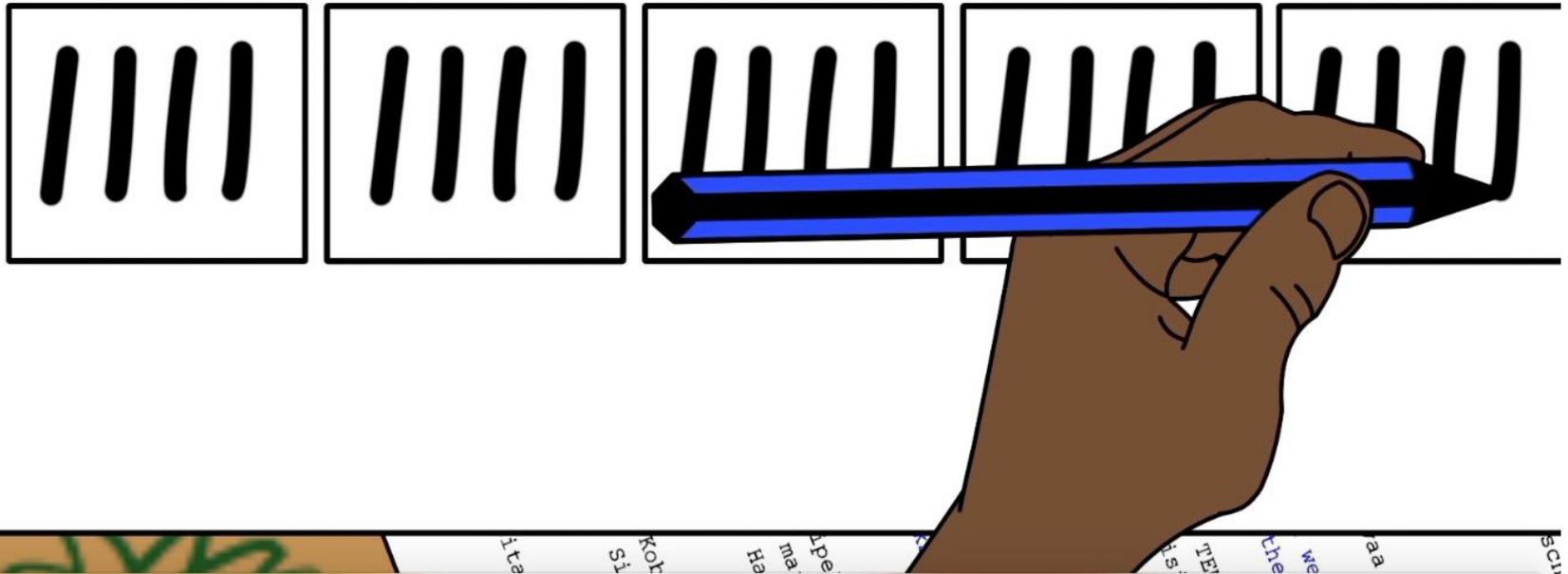


Koba looked stressed as he tried to arrange the people into smaller groups. Sweat dripped from his face, and pages from his script went flying.



Kibena helped him pick up the pages of his script. Koba explained his problem: “I told too many people that I was filming today, and I didn’t expect them all to come! Now I have 20 people, and only five scenes to shoot! What should I do?”

5 scenes
20 Actors



Kibena took charge. “You have 20 actors, and five scenes,” she said. She took Koba’s storyboard and started to write a line for each actor into the five boxes representing the five scenes. Together they assigned actors to each scene.

15 minutes
5 scenes

$$15 \div 5 = 3$$

“You need to use four actors in each scene,” Kibena told Koba. He replied, “You used division to figure that out! Twenty divided by five is four.” They then figured out his next problem: For a 15-minute film with five scenes, each scene should be three minutes.



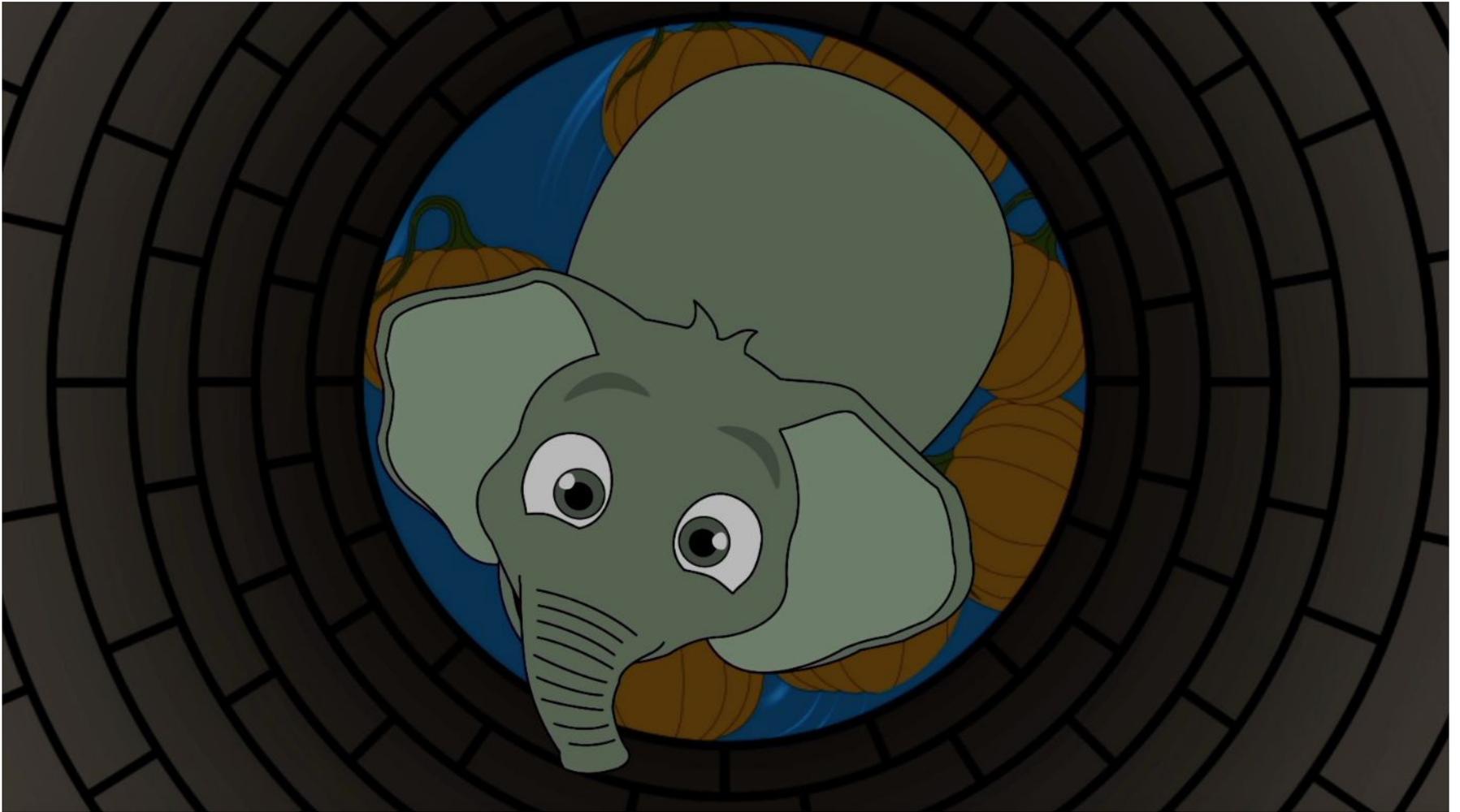
Koba was pleased that he had discovered his purpose for studying math: to calculate the scenes, time and actors he needed to make great films for the children of Africa. But Kibena still did not have a purpose of her own.



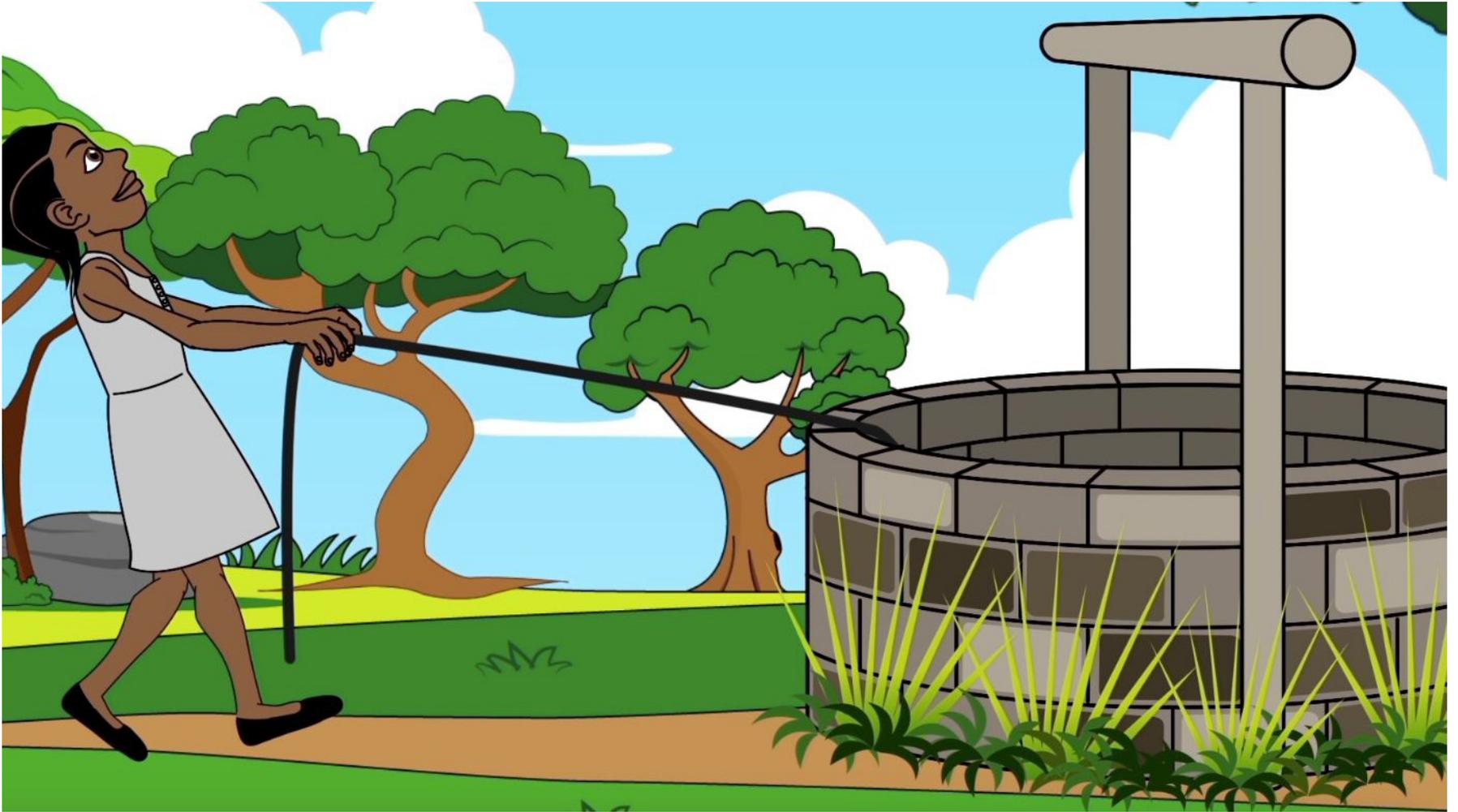
Kibena sat under a tree near the well, deep in thought. “Do I study math only to get good grades?” she asked herself out loud. “Of course you don’t,” a voice replied.



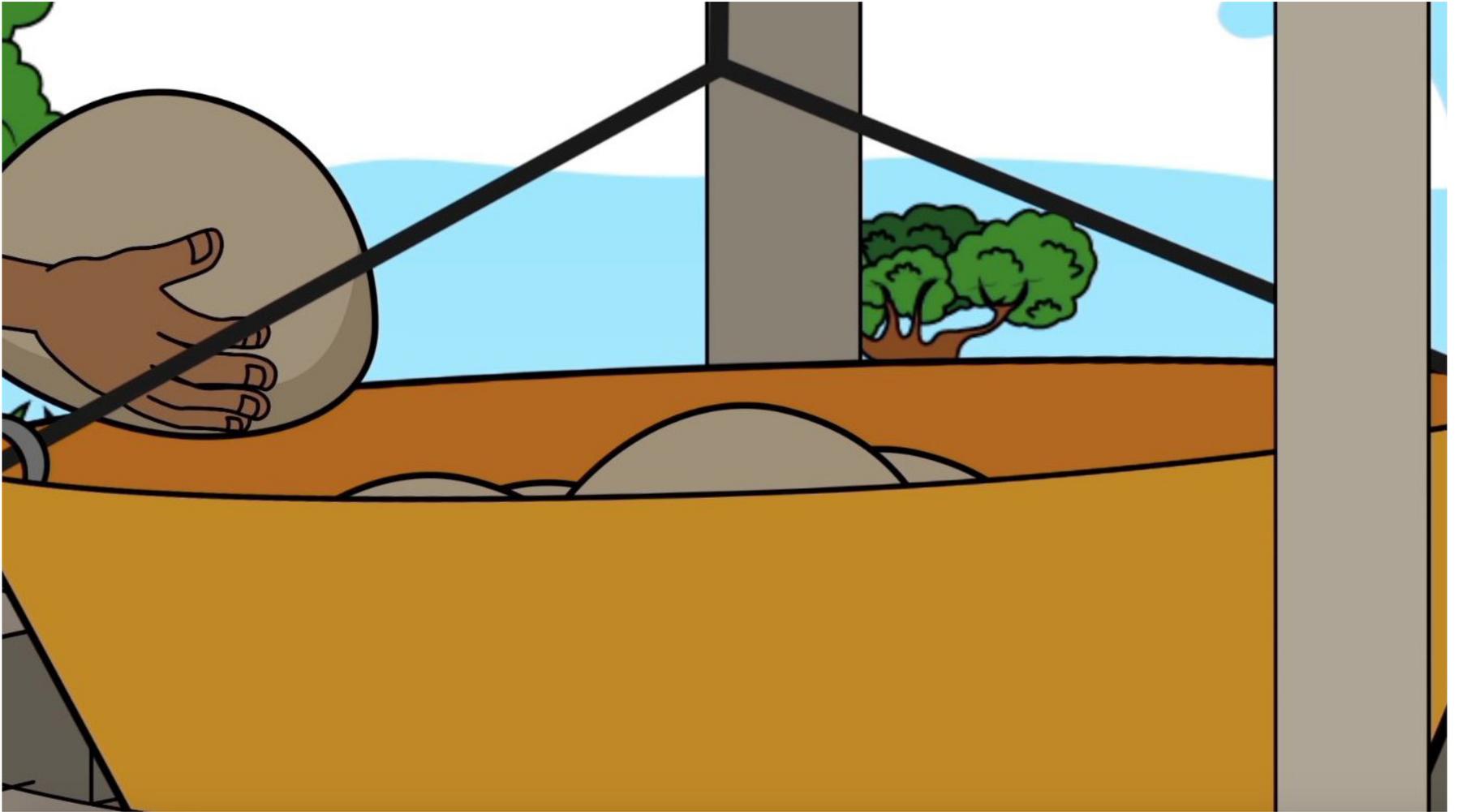
At first, Kibena thought the voice was in her head, but finally, it said, “Help me!!!” Kibena recognised the familiar voice. It was Tiny Tembo! He was stuck down the well!



From the bottom of the well, Tiny Tembo explained. “I was storing pumpkins because I want to open a pumpkin bank,” he said. “But then I fell in... I bet you can help me get out! You’re always using math to solve problems for other people.”



Kibena found a rope, which she threw down the well. Tiny Tembo caught it with his trunk, but he was too heavy for her to pull out. Suddenly, she had an idea and ran off.



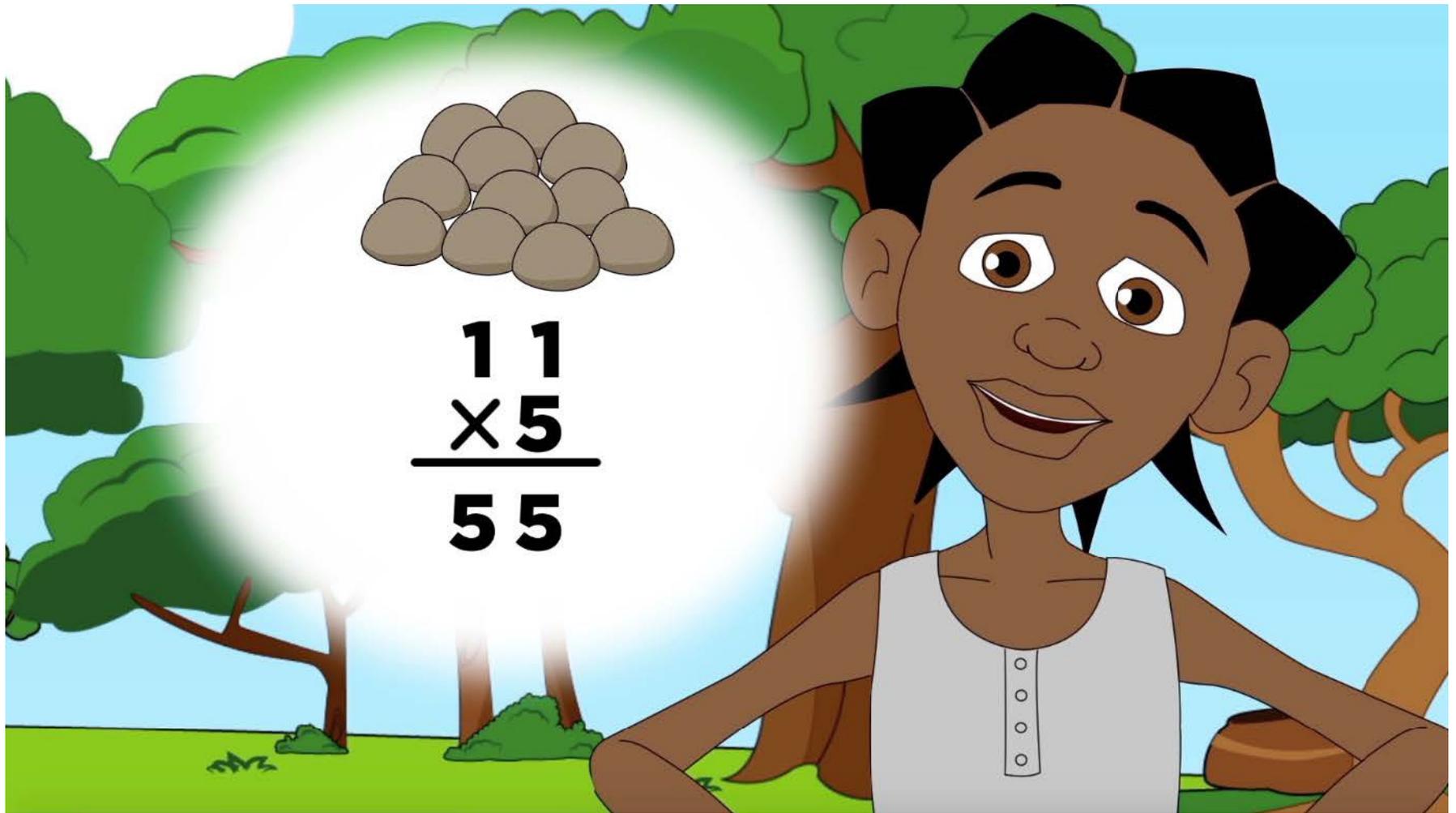
Kibena returned with a bucket. She tied the bucket to the rope and started to fill the bucket with rocks. The bucket lowered a little, but not enough to pull Tiny Tembo up.



Ngedere appeared and asked Kibena what she was doing.



Kibena explained she was trying to get Tiny Tembo out of the well. She knew Tiny Tembo weighed 200 kilograms, so she needed to fill the bucket with more than 200 kg to pull him out.



Ngedere had been practising his weight-lifting. “I can tell you this rock is 5kg,” he said confidently. Kibena counted the rocks in the bucket. “There are eleven rocks,” she said. “If each rock weighs 5kg, we have 55 kg in the bucket.”

$$2 \times 10\text{kg} = 20\text{kg}$$

$$8 \times 11\text{kg} = 88\text{kg}$$

$$7 \times 1\text{kg} = 7\text{kg}$$

$$2 \times 5\text{kg} = 10\text{kg}$$

11Kg 11Kg 11Kg 11Kg

11Kg 11Kg 11Kg 11Kg

Two 5kg weights

She needed at least 145kg more to pull Tiny Tembo out. They gathered whatever they could find: two 10kg bags of rice, eight 11kg bricks, seven 1kg watermelons and Ngedere's weights. They balanced them all in the bucket. Kibena calculated again. "We still need 20kg to reach 200kg," she said.

$$\begin{array}{r} 22 \\ 1 \\ 1 \\ 0.5 \\ + 0.5 \\ \hline 25 \\ + 180 \\ \hline 205 \text{ kg} \end{array}$$

Ngedere, Da Chura, Mama Ndege and her chicks all added themselves to the bucket. The total was 205kg!



The bucket went down, and Tiny Tembo emerged from the well! Kibena smiled. She had found her purpose in studying math!



The next day in class, Kibena made her presentation. “I don’t know what I want to be when I grow up,” she said. “But my purpose for studying math is to use my skills to solve problems and help people.” Ms Molota gave Kibena, and all the others, 100% for their unique presentations.



The End

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