

This Works!

A Technology Education Project

The Story

1. Message in a bottle – an invite to the project

It's morning. Tuka, Maco, Waba and Soca have woken up, keen to start the day. They're going to meet by the lake. What's going to happen today? They're looking forward to finding out.

Tuka arrives at the lake first. She runs very fast and jumps over large rocks. Maco is the next one to approach the lake. He has brought a buzzing machine that cools the hot air. The third one to arrive is Waaba. She's happy and is dreaming about the future. But where's Soca?

They all search for Soca. Finally, Maco notices that a rock is moving. It's Soca! Everybody laughs. Soca can transform, just like a chameleon.

After Soca has been found, Tuka sees something bright in the water.

"Look, something is floating in the water!"

"It's a message in a bottle," shouts Soca, excitedly.

Tuka is strong. She's going to fetch the message in a bottle. She tries to reach the bottle, but she tumbles into the water. Everyone laughs – even Tuka herself. Tuka's strength won't help. They need some other kind of help. Maco has an idea: Waaba can help them this time. Waaba flies over the lake. She soon comes back with the bottle. Waaba is the only one of the friends who can fly.

They open the bottle together. There's an important message inside.

"Hi!

I need help! Build a mov-ing ma-chine. Work in small teams. Ev-ery team mem-ber is im-por-tant! If you make a mis-take, try a-gain. That is the best way to learn. Ma-chine par-ty for ev-ery-one at the end.

Greet-ings Smeek the LDIZAR



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2. Cleaning – emotions – clean up your old mess before you start a new project

The friends are sitting on rocks by the lake. They're excited about the mission they got from the message in a bottle. But they believe that they can succeed together.

Tuka, Maco, Waaba and Soca go to Maco's house. Maco has a lot of materials. Maco saves everything.

He opens the front door. There's a mess inside. Maco is embarrassed. Waaba is not bothered by the mess. She flies around happily and dreams about the party. Waaba's daydreaming annoys Maco. Tuka is proud to present her own skills. Soca is anxious and stays outside.

Tuka calls Maco a mucky pup. Maco gets upset. He feels sad and cries. Waaba comforts Maco. She suggests that they help Maco. Soca is happy, because he can use his superpower now. He sends a small tornado into Maco's house. Soon all the things are in one big pile. The friends put the things back in their proper place. Tuka carries all the heavy things. She also says sorry to Maco. Waaba cleans the kitchen. Maco makes the bed and organises the shoes.

3. The jar lid – boosting team spirit and collecting materials

Maco's house is clean now. He waits for his friends by the front door. Maco welcomes everyone politely. Then they all form a circle and shout their team salute: "Form a circle, hands together and shout KIP!"

Now the friends start searching for materials to make their machine. Waaba flies towards the others. She's carrying a large stack of objects. Waaba brakes too suddenly. All the things fly around the kitchen. Now it's time for Tuka to use her superpower. She grabs all the objects super fast. Only one thing rolls behind the cabinet.

Tuka tries to move the cabinet, but it's fixed to the wall. Soca is the smallest. He tries to crawl between the cabinet and the wall, but it doesn't work. Now it's Waaba's turn to use her superpower. She moves the object with the power of her mind. A small, round jar lid comes out from behind the cabinet.



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4. Shapes – sorting materials

Tuka is running really fast towards Maco's house. She almost steps on a small, cute snail. The snail looks frightened and blinks its long eyelashes. Luckily, Tuka is able to swerve at the last moment. Tuka carries the snail across the road and puts it next to a mailbox. That was lucky, because soon a hover board zooms past.

Tuka is the last one to arrive at Maco's house. The others are waiting on the living room floor. Maco has collected a lot of materials in big cardboard boxes. The friends sort the materials. The same shapes go into the same stack. Waaba collects all the round shapes. Maco chooses the squares. Tuka wants the rectangles. Soca didn't have time to choose. He's left with triangles.

Tuka is sure that she has collected the tallest stack. Maco disagrees. Waaba suggests that they count the objects. Maco brings some pens and squared paper. Everyone colours in the same number of squares as there are objects in their stack. As he counts his objects, Maco realises that he's made a mistake. He has one rectangle in his stack. The friends think about the difference between a square and a rectangle. Maco laughs. He happily gives the rectangle to Tuka. Tuka is excited. She colours one more square on her paper.

5. An exciting basement – your own design

It's a new day. The friends are at Maco's house again. Maco is showing them the house's exciting basement. He has built a lamp that warns you about spiders and drops of water. Waaba is happy, but also tense. Soca is scared, but the others encourage him. They need Tuka's strength to reach the destination. Maco finds the treasure chest that he was looking for, and the friends go back upstairs.

The chest is full of all sorts of things. Maco looks through it excitedly and throws things all over the floor. Maco has plenty of wonderful treasure: a button, a feather, sticks, stones and lots more.

Tuka wants to start building. Maco reminds her that they have to draw a design first. Everyone gets their own paper and pencil. What does 'a moving machine' mean? They friends think about this together.

Waaba plans a good mood machine. It moves on round wheels. Soca has designed a machine that grows flowers. It has a lid that moves. Maco is designing a problem-solving robot. When you press the button, the robot moves. Tuka draws her design very quickly. She has finished before the others have even started. Her machine moves as fast as a rocket.



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6. Jobs of the future – a shared design

Waaba brings Maco a lot of different fabrics. Soca loves the animal print. Tuka likes the sneaker fabric and Maco wants the checkered pattern. Waaba reminds them that they need to read the instructions before they begin.

They have to build the machine together. That means they need a shared design. Tuka is annoyed, because she was sure that her own design was the best. Finally she understands that it is important to combine everyone's ideas.

They manage to work together very successfully. Waaba brings calm. Maco does all the detailed drawings. Tuka and Soca decide on how the machine will move. They come up with all of the ideas together. Soca writes the team's name on the design: Kip cew. Oops! One letter is missing from the word 'crew'. Which letter?

Next, the friends think about who might own this machine? What sorts of jobs will be needed in the future? Soca suggests a robot that translates the language of flowers. Waaba wants to be an emotional librarian. Tuka would like to test flying sneakers. Maco wants to be an engineer at a problem-solving agency.

Now they can start building!

7 Breaktime workout – the machine is ready

It's a new day. The friends have slept well and are now refreshed. Maco gives his friends detailed instructions. It sounds like he's controlling robots.

Time passes quickly. You need to be alert to build things. Sometimes you start to get tired. Luckily, Tuka has already planned a breaktime workout. "Hand us, hands down, squat and rise! Bottom back, knees together, bounce around in a circle. Do a side stretch, now the other side, and back to your place!"

The friends finish their moving machine. Waaba paints it bright green. Soca goes to get more green paint. He accidentally kicks over the blue paint pot. Paint splashes on Maco. His orange belly is covered with blue spots. Everybody laughs. Luckily, the paint didn't splash onto the machine!

Maco washes his hands with soap. A cup in the sink fills with soap bubbles of different sizes. Maco has an idea. He starts to paint the bubbles in different colours, one at a time. Look how beautiful they are! The others come to admire the colourful bubbles.

The machine is finally finished. It's really great – and it moves. Everybody is happy. Now all they have to do is pack it up and send it. On the lid, they write: Smeeek the Lizard. Machine Party.

Before they leave, Waaba remembers one thing. She fetches a pretty piece of paper and draws a path on it. She draws the message in a bottle at the start of the path and the machine party at the end. She writes their team name at the top and some important information underneath. All the things they have learnt during their journey. All four friends sign their name along the bottom edge: TUKA, MACO, WAABA and SOCA.

At the very end, the friends shout their salute: "Form a circle, hands together and shout KIP!"